



NatHERS - THERMAL COMFORT SUMMARY



Address: Lot 2 Lorikeet Grove Warriewood		Date: 02/12/2019
Software: BERS Pro v4.3.0.2f (3.13)	Certificate No.: 0004408985	Star rating: 5.2
Building Elements	Material	Detail
External walls	Brick Veneer– Dark Colour Solar Absorptance > 0.70	R2.2 bulk insulation (<i>excluding garage</i>)
	Light Weight Cladding - Medium	
Internal walls	Plasterboard on studs	R1.5 bulk insulation to walls adjacent to garage
Ceiling	Plasterboard	R4.0 bulk insulation to ceilings with roof above (<i>excluding garage</i>)
Floors	Concrete – ground floor	Waffle Pod
	Timber – first floor	-
Roof	Roof Tiles – Dark Colour Solar Absorptance > 0.70	-
Doors/Windows	<u>Awning windows & Bi-fold windows:</u> Aluminium frame, single glazed clear	U value 6.70 or less and SHGC 0.57 +/- 10%
	<u>Sliding windows/doors & fixed windows:</u> Aluminium frame, single glazed clear	U value 6.70 or less and SHGC 0.70 +/- 10%
Lighting: This dwelling has been rated with non-ventilated LED downlights as per NatHERS Certificate.		
Note: Insulation specified must be installed in accordance with Part 3.12.1.1 of the BCA.		
Note: In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.		
Note: Self-closing damper to all exhaust fans.		



Certificate no.: 0004408985
Assessor Name: Thomas Ruck
Accreditation no.: VIC/BDAV/12/1456
Certificate date: 02 Dec 2019
Dwelling Address: Lorikeet Grove
Warriewood, NSW
2102

www.nathers.gov.au



Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004408985**

Certificate Date: **02 Dec 2019**

★ Star rating: **5.2**

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

Assessor details

Accreditation number: **VIC/BDAV/12/1456**
Name: **Thomas Ruck**
Organisation: **Building and Energy Consultants Australia**
Email: **thomas@beca.net.au**
Phone: **(02) 9533 2388**
Declaration of interest: **None**
Software: **BERS Pro v4.3.0.2f (3.13)**
AAO: **BDAV**

Overview

Dwelling details

Street: **Lorikeet Grove**
Suburb: **Warriewood**
State: **NSW** Postcode: **2102**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **2/-** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Brick Veneer**
Roof Tiles
Waffle pod slab 175 mm
Insulation: **R2.2 wall insulation**
R4.0 ceiling insulation
No floor insulation
Glazing: **ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

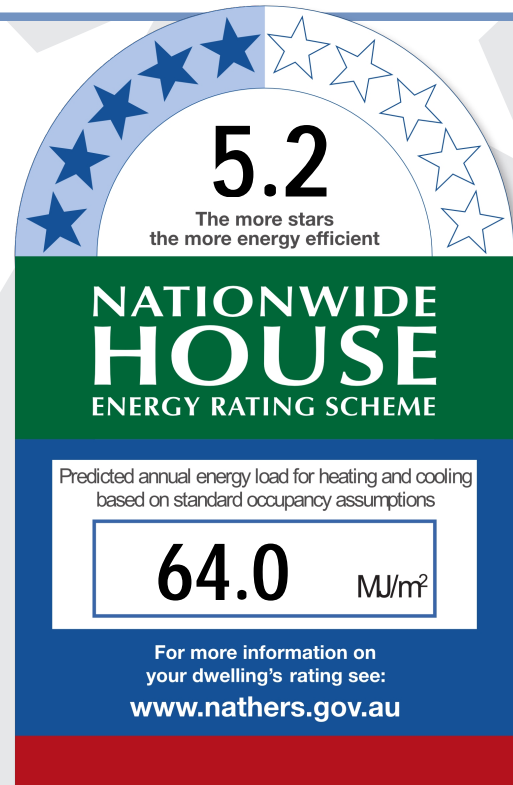
Conditioned: **163.0**
Unconditioned: **29.0**
Garage: **16.0**
TOTAL: **193.0**

Annual thermal performance loads (MJ/m²)

Heating: **40.0**
Cooling: **24.0**
TOTAL: **64.0**

Plan documents

Plan ref/date: **Job No 4115N**
Prepared by: **Champion Homes**



Ceiling penetrations

(see following pages for details)

Sealed: **55**
Unsealed: **0**
TOTAL:** **55**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Window selection - default windows only

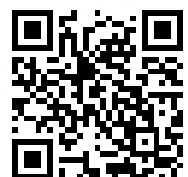
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this
certificate online and
confirm this is valid.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004408985**

Certificate Date:

02 Dec 2019

★ Star rating:

5.2



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Media/Guest	ALM-002-01 A	n/a	1030	2150	NW	No Shading
Living	ALM-001-01 A	n/a	2030	1210	SW	No Shading
PDR	ALM-001-01 A	n/a	600	600	SE	No Shading
WIP	ALM-002-01 A	n/a	1030	600	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	350	1800	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1030	1810	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2100	2210	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	1800	2400	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	1800	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2100	3200	SW	No Shading
ENS	ALM-001-01 A	n/a	1030	1210	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	600	2170	NW	No Shading
Bath	ALM-001-01 A	n/a	1030	600	NW	No Shading
Bedroom 3	ALM-002-01 A	n/a	900	1800	NE	No Shading
Bedroom 4	ALM-002-01 A	n/a	900	1800	NE	No Shading
Rumpus	ALM-002-01 A	n/a	600	2170	SE	No Shading
Rumpus	ALM-002-01 A	n/a	600	2170	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	No insulation	No
EW-2	Single Skin Brick	No insulation	No
EW-3	Brick Veneer	Bulk Insulation R2.2	No
EW-4	Weatherboard Cavity Panel Direct Fix	Bulk Insulation R2.2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5495	2945	NW	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004408985**

Certificate Date:

02 Dec 2019

★ Star rating:

5.2



Building features continued

Garage	EW-2	2995	2945	SW	No	1600
Media/Guest	EW-3	3590	2600	NW	No	100
Entry/Stairs	EW-3	2790	2600	SE	No	1100
Entry/Stairs	EW-3	1390	2600	SW	No	1600
Living	EW-3	500	2600	NE	No	14600
Living	EW-3	3900	2600	SE	No	600
Living	EW-3	2700	2600	SW	No	0
Living	EW-3	1100	2600	NW	No	4500
PDR	EW-3	1495	2600	SE	No	600
PDR	EW-3	500	2600	SW	No	6700
Ldry	EW-3	1790	2600	SE	No	600
WIP	EW-3	1490	2600	NW	No	100
Kitchen/Living	EW-3	3095	2600	NW	No	100
Kitchen/Living	EW-3	3100	2600	NE	No	3000
Kitchen/Living	EW-3	3100	2600	NW	No	3100
Kitchen/Living	EW-3	4000	2600	NE	No	600
Kitchen/Living	EW-3	7895	2600	SE	No	600
Bedroom 1	EW-3	3895	2435	NW	No	600
Bedroom 1	EW-3	4395	2435	SW	No	2300
ENS	EW-3	1100	2435	NW	No	5000
ENS	EW-4	2395	2435	SE	No	750
ENS	EW-3	1600	1000	SW	No	0
ENS	EW-4	1600	1435	SW	No	750
ENS	EW-3	600	2436	SW	No	1200
WIR	EW-4	1590	2435	SE	No	750
Bedroom 2	EW-3	3090	2435	NW	No	600
Bath	EW-3	3190	2435	NW	No	600
Bedroom 3	EW-3	3495	2435	NW	No	600
Bedroom 3	EW-4	3295	2435	NE	No	750
Bedroom 4	EW-4	3295	2435	NE	No	750
Bedroom 4	EW-4	4095	2435	SE	No	750
Rumpus	EW-4	6690	2435	SE	No	750

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	22.0	Bulk Insulation, No Air Gap R1.5	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	156.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 175 mm 100mm	16.1	None	Waffle Pod 175mm	Bare
Media/Guest	Waffle pod slab 175 mm 100mm	10.4	None	Waffle Pod	Carpet 10mm

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004408985**

Certificate Date:

02 Dec 2019

★ Star rating:

5.2



Building features continued

Entry/Stairs	Waffle pod slab 175 mm 100mm	19.2	None	175mm	Waffle Pod 175mm	60/40 Ceramic/Cork
Living	Waffle pod slab 175 mm 100mm	10.3	None	Waffle Pod 175mm	Waffle Pod 175mm	Carpet 10mm
PDR	Waffle pod slab 175 mm 100mm	3.9	None	Waffle Pod 175mm	Waffle Pod 175mm	Ceramic Tiles 8mm
Ldry	Waffle pod slab 175 mm 100mm	2.8	None	Waffle Pod 175mm	Waffle Pod 175mm	Ceramic Tiles 8mm
WIP	Waffle pod slab 175 mm 100mm	4.2	None	Waffle Pod 175mm	Waffle Pod 175mm	Ceramic Tiles 8mm
Kitchen/Living	Waffle pod slab 175 mm 100mm	41.0	None	Waffle Pod 175mm	Waffle Pod 175mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	11.4		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1/Entry/Stairs	Timber Above Plasterboard 19mm	5.3		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
ENS/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	No Insulation	Ceramic Tiles 8mm
WIR/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2/Garage	Timber Above Plasterboard 19mm	4.6		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2/Media/Guest	Timber Above Plasterboard 19mm	5.3		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2/Entry/Stairs	Timber Above Plasterboard 19mm	1.1		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Bath/Media/Guest	Timber Above Plasterboard 19mm	4.0		No Insulation	No Insulation	Ceramic Tiles 8mm
Bath/WIP	Timber Above Plasterboard 19mm	2.4		No Insulation	No Insulation	Ceramic Tiles 8mm
Bedroom 3/WIP	Timber Above Plasterboard 19mm	1.6		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	10.2		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	13.2		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Rumpus/Media/Guest	Timber Above Plasterboard 19mm	1.0		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Rumpus/Entry/Stairs	Timber Above Plasterboard 19mm	13.1		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Rumpus/PDR	Timber Above Plasterboard 19mm	3.3		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Rumpus/Ldry	Timber Above Plasterboard 19mm	2.1		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm
Rumpus/Kitchen/Living	Timber Above Plasterboard 19mm	2.4		No Insulation	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	No Insulation	No
Media/Guest	Timber Above Plasterboard	No Insulation	No

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004408985**

Certificate Date:

02 Dec 2019

★ Star rating:

5.2



Building features continued

Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Living	Plasterboard	Bulk Insulation R4	Yes
Living	Timber Above Plasterboard	No Insulation	No
PDR	Plasterboard	Bulk Insulation R4	Yes
PDR	Timber Above Plasterboard	No Insulation	No
Ldry	Plasterboard	Bulk Insulation R4	Yes
Ldry	Timber Above Plasterboard	No Insulation	No
WIP	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R4	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R4	Yes
ENS	Plasterboard	Bulk Insulation R4	Yes
WIR	Plasterboard	Bulk Insulation R4	Yes
Bedroom 2	Plasterboard	Bulk Insulation R4	Yes
Bath	Plasterboard	Bulk Insulation R4	Yes
Bedroom 3	Plasterboard	Bulk Insulation R4	Yes
Bedroom 4	Plasterboard	Bulk Insulation R4	Yes
Rumpus	Plasterboard	Bulk Insulation R4	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Media/Guest	4	Downlights - LED	100	Sealed
Entry/Stairs	8	Downlights - LED	100	Sealed
Living	4	Downlights - LED	100	Sealed
PDR	1	Downlights - LED	100	Sealed
Ldry	1	Downlights - LED	100	Sealed
WIP	1	Downlights - LED	100	Sealed
Bedroom 1	7	Downlights - LED	100	Sealed
ENS	2	Downlights - LED	100	Sealed
ENS	1	Exhaust Fans	300	Sealed
WIR	1	Downlights - LED	100	Sealed
Bedroom 2	4	Downlights - LED	100	Sealed
Bath	2	Downlights - LED	100	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	100	Sealed
Bedroom 4	5	Downlights - LED	100	Sealed
Rumpus	9	Downlights - LED	100	Sealed

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004408985**

Certificate Date:

02 Dec 2019

★ Star rating:

5.2



Building features continued

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Roof Tiles	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004408985

Certificate Date: 02 Dec 2019

★ Star rating: 5.2



Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au