

# Nationwide House Energy Rating Scheme\* Certificate

Certificate Number: ABA0G9G8AW

Date of Certificate: 8 Nov 2016

★ Star rating: 4.3



## Assessor details

Accreditation number: **101102**  
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Declaration of interest: **No potential conflicts of interest to declare**  
Software: **FirstRate5: 5.2.3b (3.13)**  
AAO: **ABSA**

## Overview

### Dwelling details

Address: **148-150 West Wilchard Road**  
Suburb: **Castlereagh**  
State: **NSW** Postcode: **2749**  
Type: **New Home** NCC Class: **Class 1a**  
Lot/DP number: **3/1181666** NatHERS climate zone: **28**  
Exposure: **open**

### Key construction and insulation materials

(see following pages for details)

Construction: Wall: **Brick**  
Roof: **Colourbond**  
Floor:  
Insulation: Wall: **R2.5**  
Roof: **R3.0 + R1.3**  
Floor: **N/A**  
Glazing:

### Net floor area (m<sup>2</sup>)

Conditioned: **332.7**  
Unconditioned: **30.7**  
Garage: **57**  
TOTAL: **420.4**

### Annual thermal performance loads (MJ/m<sup>2</sup>)

Heating: **73.9**  
Cooling: **60**  
TOTAL: **133.9**

### Plan documents

Plan ref/date: **1945-16Cd/20/09/2016**  
Prepared by: **Adan Design**



### Ceiling penetrations

(see following pages for details)

Sealed: **5**  
Unsealed: **0**  
TOTAL:\*\* **5**

Principal downlight type: **Compact fluorescent**

\*\*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.

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**If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.**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



<https://www.fr5.com.au/QRCodeLanding?PublicId=ABA0G9G8AW>

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## Building Features

### Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-04 A	Aluminium B SG Low Solar Gain Low-E	5.6	0.41
ALM-001-04 A	Aluminium A SG Low Solar Gain Low-E	5.6	0.36
ALM-004-04 A	Aluminium B DG Air Fill Low Solar Gain low-E -Clear	4.9	0.33
ALM-004-03 A	Aluminium B DG Air Fill High Solar Gain low-E -Clear	4.3	0.53

### Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-04 A	I	2060	2650	WNW	guest	No
ALM-001-04 A	H	600	1210	SSW	powder room	No
ALM-001-04 A	F	1370	1210	SSW	laundry	No
ALM-001-04 A	G	2400	970	SSW	hallway	No
ALM-002-04 A	E	900	2410	SSW	garage	No
ALM-002-04 A	C	2400	610	ESE	study	No
ALM-002-04 A	D	2400	610	ESE	study	No
ALM-002-04 A	C	2400	610	ESE	study	No
ALM-002-04 A	B	2400	1210	NNE	study	No
ALM-001-04 A	A	2700	1570	ESE	foyer	No
ALM-002-04 A	S	2400	1570	NNE	foyer	No
ALM-002-04 A	S	2400	1570	NNE	foyer	No
ALM-001-04 A	V	1370	610	ESE	theater	No
ALM-001-04 A	V	1370	610	ESE	theater	No
ALM-001-04 A	V	1370	610	ESE	theater	No
ALM-004-04 A	P	600	1810	NNE	theater	No
ALM-002-04 A	Q	2400	2050	ESE	kit/liv/din	No
ALM-002-04 A	R	1400	2050	ESE	kit/liv/din	No
ALM-002-04 A	N	2400	1810	NNE	kit/liv/din	No
ALM-004-04 A	P	600	1810	NNE	kit/liv/din	No
ALM-004-03 A	O	1400	1810	NNE	kit/liv/din	No
ALM-002-04 A	L	2400	1810	WNW	kit/liv/din	No
ALM-004-03 A	M	1400	1810	WNW	kit/liv/din	No
ALM-002-04 A	FF	2400	3970	WNW	kit/liv/din	No
ALM-002-04 A	K	2400	850	N	kit/liv/din	No
ALM-001-04 A	J	2400	4930	WNW	kit/liv/din	No
ALM-002-04 A	Y	1900	1570	SSW	master	No



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ALM-004-03 A	Y	1900	1570	NNE	master	No
ALM-004-03 A	AA	1900	1570	NNE	master	No
ALM-004-04 A	Z	1900	1570	WNW	master	No
ALM-004-04 A	Y	1900	1570	WNW	master	No
ALM-004-04 A	AA	1900	1570	WNW	master	No
ALM-001-04 A	X	1800	1810	WNW	ensuite	No
ALM-001-04 A	V	1370	610	SSW	es 3	No
ALM-001-04 A	U	1370	2650	ESE	bed 3	No
ALM-002-04 A	T	2100	1354	ESE	void	No
ALM-002-04 A	DD	2400	1570	NNE	void	No
ALM-002-04 A	DD	2400	1570	NNE	void	No
ALM-002-04 A	CC	500	1810	NNE	void	No
ALM-002-04 A	C	2400	610	ESE	bed 4	No
ALM-002-04 A	D	2400	610	ESE	bed 4	No
ALM-002-04 A	C	2400	610	ESE	bed 4	No
ALM-004-03 A	CC	500	1810	NNE	games	No
ALM-004-03 A	CC	500	1810	NNE	games	No
ALM-004-03 A	BB	1900	3010	WNW	games	No
ALM-001-04 A	W	1500	610	ESE	bed 2	No
ALM-001-04 A	W	1500	610	ESE	bed 2	No
ALM-001-04 A	W	1500	610	ESE	bed 2	No

### Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-001a	SC: Single Clear	-	-

### Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m <sup>2</sup> )	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
GEN-04-001a	Element 3	0.3	N	es 2	None	No
GEN-04-001a	Element 1	0.1	N	es 4	None	No
GEN-04-001a	Element 2	0.2	N	hall	None	No

### External wall type

Type	Insulation	Wall wrap

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1 : 3000 - Brick Veneer Foil + R2.5      Glass fibre batt: R2.5 (R2.5)      Yes

### External wall schedule

Wall type	Area (m <sup>2</sup> )	Orientation	Zone name	Fixed shade	Eaves
1 : 3000 - Brick Veneer Foil + R2.5	12.2	SSW	guest	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	8.2	NNE	guest	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	11.3	WNW	guest	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	4	SSW	powder room	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	2.9	ESE	powder room	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	6.4	SSW	laundry	No	No
1 : 3000 - Brick Veneer Foil + R2.5	4.2	WNW	laundry	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	3.7	SSW	hallway	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	16.7	SSW	garage	No	No
1 : 3000 - Brick Veneer Foil + R2.5	9.4	ESE	garage	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	1.5	SSW	garage	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	15.6	ESE	garage	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	4.3	SSW	study	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	11.5	ESE	study	No	No
1 : 3000 - Brick Veneer Foil + R2.5	5.7	NNE	study	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	5.4	ESE	foyer	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	12.4	NNE	foyer	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	8.1	SSW	theater	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	11.7	ESE	theater	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	15	NNE	theater	No	No
1 : 3000 - Brick Veneer Foil + R2.5	11.9	WNW	theater	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	3.4	NNE	theater	No	No
1 : 3000 - Brick Veneer Foil + R2.5	9.2	ESE	kit/liv/din	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	19.7	NNE	kit/liv/din	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	9.3	WNW	kit/liv/din	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	13.4	WNW	kit/liv/din	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	3.8	N	kit/liv/din	Yes	No
1 : 3000 - Brick Veneer Foil + R2.5	16.1	WNW	kit/liv/din	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	3.4	NNE	kit/liv/din	No	No
1 : 3000 - Brick Veneer Foil + R2.5	15	SSW	master	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	14.7	NNE	master	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	16.6	WNW	master	No	Yes

\* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see [www.nathers.gov.au](http://www.nathers.gov.au)



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1 : 3000 - Brick Veneer Foil + R2.5	6.3	S	ensuite	No	Yes
1 : 3000 - Brick Veneer Foil + R2.5	7.9	WNW	ensuite	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	3.6	SSW	es 3	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	10.4	SSW	bed 3	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	11.8	ESE	bed 3	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	6.1	ESE	void	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	18	NNE	void	No	Yes
1 : 3000 - Brick Veneer Foil + R2.5	7.2	SSW	bed 4	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	11.1	ESE	bed 4	No	Yes
1 : 3000 - Brick Veneer Foil + R2.5	5.4	NNE	bed 4	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	14.2	NNE	games	No	Yes
1 : 3000 - Brick Veneer Foil + R2.5	12.1	WNW	games	Yes	Yes
1 : 3000 - Brick Veneer Foil + R2.5	9.5	SSW	bed 2	No	Yes
1 : 3000 - Brick Veneer Foil + R2.5	8.4	ESE	bed 2	Yes	Yes

### Internal wall type

Type	Area (m <sup>2</sup> )	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	652.6	
2 : FR5 - Internal Plasterboard Stud Wall	83.4	Glass fibre batt: R2.5 (R2.5)

### Floors

Location	Construction	Area (m <sup>2</sup> )	Sub floor ventilation	Added insulation	Covering
guest	CSOG: Slab on Ground	18.4	Enclosed	0.0	Carpet
powder room	CSOG: Slab on Ground	2.9	Enclosed	0.0	Tiles
powder room	CSOG: Slab on Ground	1.4	Enclosed	0.0	Tiles
laundry	CSOG: Slab on Ground	6.6	Enclosed	0.0	Tiles
laundry	CSOG: Slab on Ground	3.3	Enclosed	0.0	Tiles
hallway	CSOG: Slab on Ground	6.6	Enclosed	0.0	Tiles
garage	CSOG: Slab on Ground	29	Enclosed	0.0	none
garage	CSOG: Slab on Ground	24.8	Enclosed	0.0	none
study	CSOG: Slab on Ground	18.2	Enclosed	0.0	Carpet
foyer	CSOG: Slab on Ground	16.5	Enclosed	0.0	Tiles
theater	CSOG: Slab on Ground	24.3	Enclosed	0.0	Tiles
stairs	CSOG: Slab on Ground	5.2	Enclosed	0.0	Tiles

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butlers	CSOG: Slab on Ground	9.2	Enclosed	0.0	Tiles
kit/liv/din	CSOG: Slab on Ground	69.2	Enclosed	0.0	Tiles
kit/liv/din	CSOG: Slab on Ground	16.3	Enclosed	0.0	Tiles
master	Timber	34.4	Enclosed	0.0	Carpet
ensuite	Timber	9	Enclosed	0.0	Tiles
wir	Timber	10.9	Enclosed	0.0	Carpet
es 2	Timber	3.6	Enclosed	0.0	Tiles
wir 2	Timber	2.9	Enclosed	0.0	Carpet
es 3	Timber	3.8	Enclosed	0.0	Tiles
wir 3	Timber	3.7	Enclosed	0.0	Carpet
bed 3	Timber	16.3	Enclosed	0.0	Carpet
es 4	Timber	4.1	Enclosed	0.0	Tiles
stairs	Timber	5.4	Enclosed	0.0	Tiles
void	Timber	15.8	Enclosed	0.0	none
bed 4	Timber	18.2	Enclosed	0.0	Carpet
games	Timber	22.4	Enclosed	0.0	Tiles
bed 2	Timber	16.8	Enclosed	0.0	Carpet
hall	Timber	10.8	Enclosed	0.0	Tiles

## Ceiling type

Location	Material	Added insulation	Roof space above
guest	Plasterboard	0.0	No
guest	Plasterboard	0.0	No
guest	Plasterboard	3.0	Yes
powder room	Plasterboard	0.0	No
powder room	Plasterboard	3.0	Yes
laundry	Plasterboard	0.0	No
laundry	Plasterboard	3.0	Yes
hallway	Plasterboard	0.0	No
hallway	Plasterboard	0.0	No
garage	Plasterboard	0.0	No
garage	Plasterboard	0.0	No
garage	Plasterboard	0.0	No
garage	Plasterboard	0.0	No
garage	Plasterboard	0.0	No

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## Building Features

stairs	Plasterboard	3.0	Yes
void	Plasterboard	3.0	Yes
bed 4	Plasterboard	3.0	Yes
games	Plasterboard	3.0	Yes
bed 2	Plasterboard	3.0	Yes
hall	Plasterboard	3.0	Yes

### Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
kit/liv/din	1	Chimneys	10	10	Sealed
ensuite	1	Exhaust Fans	10	10	Sealed
es 2	1	Exhaust Fans	30	30	Sealed
es 3	1	Exhaust Fans	30	30	Sealed
es 4	1	Exhaust Fans	30	30	Sealed

### Ceiling fans

Location	Number	Diameter (mm)
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### Roof type

Material	Added insulation	Roof colour
Cont:Attic-Continuous	1.3	light
Ceil: Ceiling	0.0	medium



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## Additional information

Insulation

Wall R2.5 External

Roof - R1.3 Anticon Blanket

Roof/Ceiling - R3.0

## 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 this 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 an 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](http://www.nathers.gov.au)

For more information on energy efficient design and insulation visit [www.yourhome.gov.au](http://www.yourhome.gov.au)