

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: F9LS99BKMI

Date of Certificate: 20 Aug 2018

★ Star rating: 6.1

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 1, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **Brick Cavity**
Roof: **Slab**
Floor: **Slab**
Insulation: Wall: **Polystyrene Extruded R2.0**
Roof: **R2.0**
Floor: **No insulation**
Glazing: **Aluminium**
Single Glazed Clear

Net floor area (m²)

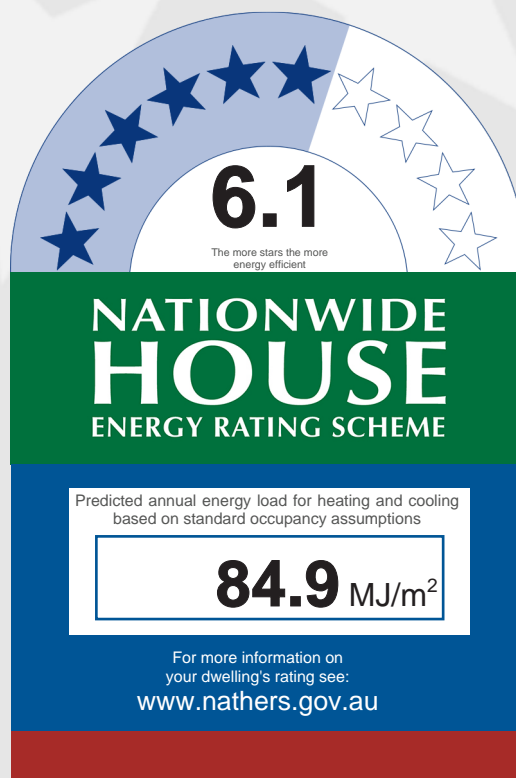
Conditioned: **34.4**
Unconditioned: **6.4**
Garage: **-**
TOTAL: **40.8**

Annual thermal performance loads (MJ/m²)

Heating: **57.4**
Cooling: **27.5**
TOTAL: **84.9**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **15**
Unsealed: **1**
TOTAL:** **16**

Principal downlight type:

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.

Compact fluorescent

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If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W11	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	SD11	2700	3000	SSW	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity		No
2 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	10.4	WNW	Kitchen/Living	No	No
2 : FR5 - Brick Cavity	12.2	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	1.8	WNW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	5.1	NNE	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	5.2	WNW	TOILET	Yes	Yes
2 : FR5 - Brick Cavity	5.1	ESE	TOILET	No	No
2 : FR5 - Brick Cavity	3.4	NNE	TOILET	Yes	No
1 : FR5 - Brick Cavity	5.7	NNE	TOILET	Yes	Yes
1 : FR5 - Brick Cavity	6	WNW	Bedroom	No	No
2 : FR5 - Brick Cavity	14.3	SSW	Bedroom	Yes	Yes
2 : FR5 - Brick Cavity	6	ESE	Bedroom	No	No

Internal wall type

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Building Features

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	23.4	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	22.6	Enclosed	3.0	Tiles
TOILET	SuspSlab : 200mm: 200mm concrete slab	6.4	Enclosed	3.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	11.7	Enclosed	3.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	9	Downlights	100	100	Sealed
TOILET	1	Exhaust Fans	200	200	Unsealed
Bedroom	5	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

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Additional information

Explanatory notes

About this report

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General Information

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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

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3FUXXHO4DN

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★ Star rating: 6.6



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Overview

Dwelling details

Address: **Unit 2, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED R2.0**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED CLEAR**

Net floor area (m²)

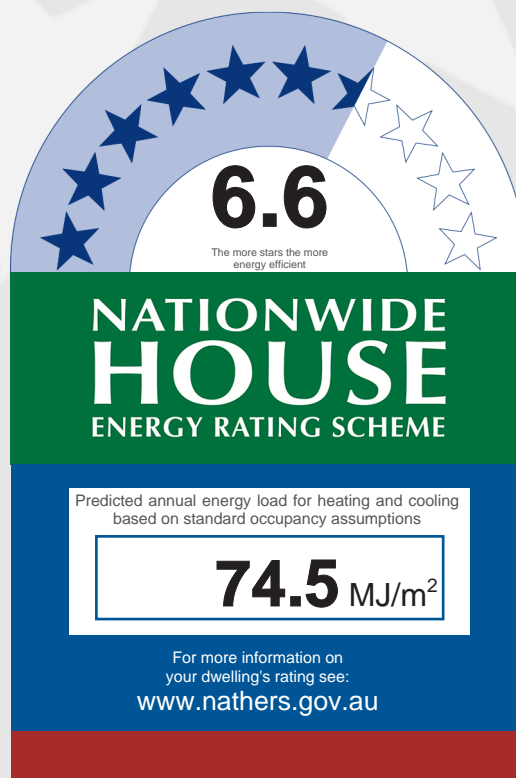
Conditioned: **69**
Unconditioned: **4.4**
Garage: **-**
TOTAL: **73.4**

Annual thermal performance loads (MJ/m²)

Heating: **59.2**
Cooling: **15.3**
TOTAL: **74.5**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **28**
Unsealed: **1**
TOTAL:** **29**

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

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Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD21	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W22	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W21	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W23	1200	1800	WNW	Bedroom 1	Yes
ALM-002-01 A	W24	900	900	WNW	Toilet	No
ALM-002-01 A	W25	1200	1800	WNW	Bedroom 2	Yes

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	12.4	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	2.5	SSW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	6.8	ESE	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	8.7	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	9.8	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	4.4	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	1.3	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	8.1	WNW	Bedroom 1	No	No
1 : FR5 - Brick Cavity	4.6	WNW	Toilet	No	No

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Building Features

1 : FR5 - Brick Cavity	8.3	ESE	Bedroom 2	Yes	Yes
1 : FR5 - Brick Cavity	6.6	NNE	Bedroom 2	Yes	Yes
1 : FR5 - Brick Cavity	3.7	NNE	Bedroom 2	Yes	No
1 : FR5 - Brick Cavity	10.6	WNW	Bedroom 2	No	No
1 : FR5 - Brick Cavity	8.6	ESE	Entry	No	No
1 : FR5 - Brick Cavity	7	ESE	Entry	Yes	Yes
1 : FR5 - Brick Cavity	4.2	NNE	Entry	Yes	Yes

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	50.3	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	31.7	Enclosed	3.0	Tiles
Bedroom 1	SuspSlab : 200mm: 200mm concrete slab	12.5	Enclosed	3.0	Tiles
Toilet	SuspSlab : 200mm: 200mm concrete slab	4.4	Enclosed	3.0	Tiles
Bedroom 2	SuspSlab : 200mm: 200mm concrete slab	15	Enclosed	3.0	Tiles
Entry	SuspSlab : 200mm: 200mm concrete slab	9.9	Enclosed	3.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	12	Downlights	100	100	Sealed
Bedroom 1	5	Downlights	100	100	Sealed
Toilet	1	Exhaust Fans	200	200	Unsealed
Bedroom 2	6	Downlights	100	100	Sealed
Entry	4	Downlights	100	100	Sealed

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Building Features

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

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Assessor details

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Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

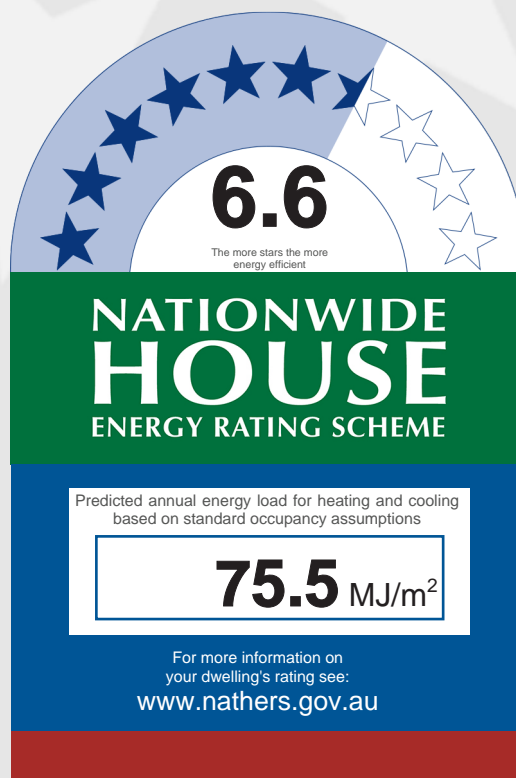
Conditioned: **55.2**
Unconditioned: **6.3**
Garage: **-**
TOTAL: **61.5**

Annual thermal performance loads (MJ/m²)

Heating: **56.8**
Cooling: **18.7**
TOTAL: **75.5**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **23**
Unsealed: **1**
TOTAL:** **24**

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

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Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD31	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W33	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	W32	1200	1800	ESE	Bedroom	No
ALM-002-01 A	W31	900	900	ESE	TOILET	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No
2 : FR5 - Brick Cavity		No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	14.2	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	15.6	ESE	Kitchen/Living	No	No
2 : FR5 - Brick Cavity	15.6	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	9.7	ESE	Bedroom	No	No
1 : FR5 - Brick Cavity	6.5	ESE	TOILET	No	No
2 : FR5 - Brick Cavity	7	NNE	TOILET	No	No
2 : FR5 - Brick Cavity	5.5	NNE	ENTRY	No	No
1 : FR5 - Brick Cavity	1.3	NNE	ENTRY	Yes	Yes
1 : FR5 - Brick Cavity	5.1	WNW	ENTRY	Yes	Yes
2 : FR5 - Brick Cavity	11.5	WNW	ENTRY	No	No

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Building Features

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	41	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	30.5	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	2.6	Elevated	2.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	12.3	Enclosed	0.0	Tiles
TOILET	SuspSlab : 200mm: 200mm concrete slab	6.3	Elevated	2.0	Tiles
ENTRY	SuspSlab : 200mm: 200mm concrete slab	9.2	Elevated	2.0	Tiles
ENTRY	SuspSlab : 200mm: 200mm concrete slab	0.6	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	12	Downlights	100	100	Sealed
Bedroom	6	Downlights	100	100	Sealed
TOILET	1	Exhaust Fans	200	200	Unsealed
ENTRY	4	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
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Building Features

Ceil: Ceiling

0.0

medium

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Contact

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: S1EOOGLTX4

Date of Certificate: 20 Aug 2018

★ Star rating: 6.7

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: -
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 4, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

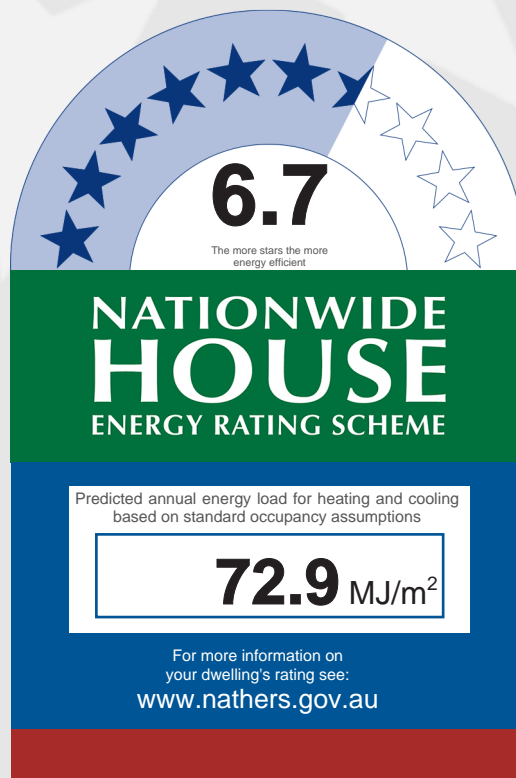
Conditioned: **78.9**
Unconditioned: **5.2**
Garage: **-**
TOTAL: **84.1**

Annual thermal performance loads (MJ/m²)

Heating: **55.3**
Cooling: **17.6**
TOTAL: **72.9**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **31**
Unsealed: **2**
TOTAL:** **33**

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

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: S1EOOGLTX4

Date of Certificate: 20 Aug 2018

★ Star rating: 6.7



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD41	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W43	600	1800	WNW	Kitchen/Living	Yes
ALM-002-01 A	W41	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W42	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W44	1200	1800	WNW	Bedroom 1	Yes
ALM-002-01 A	W45	900	900	WNW	ENS	No
ALM-002-01 A	W46	900	900	WNW	TOILET	No
ALM-002-01 A	W47	1200	1800	WNW	Bedroom 2	Yes

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
----	---------------------------	------------------------	-------------	-----------	---------------	-----------------------

External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	12.6	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	2.2	SSW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	6.8	ESE	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	11.9	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	2.4	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	15	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	1.4	WNW	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **S1EOOGLTX4**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.7**



Building Features

1 : FR5 - Brick Cavity	1.2	WNW	Bedroom 1	Yes	No
1 : FR5 - Brick Cavity	6.9	WNW	Bedroom 1	Yes	No
1 : FR5 - Brick Cavity	1.3	SSW	ENS	Yes	No
1 : FR5 - Brick Cavity	3.8	WNW	ENS	No	No
1 : FR5 - Brick Cavity	1.3	NNE	TOILET	Yes	No
1 : FR5 - Brick Cavity	5.4	WNW	TOILET	No	No
1 : FR5 - Brick Cavity	8.4	ESE	Bedroom 2	Yes	Yes
1 : FR5 - Brick Cavity	10.1	NNE	Bedroom 2	Yes	No
1 : FR5 - Brick Cavity	1.2	WNW	Bedroom 2	No	No
1 : FR5 - Brick Cavity	7.2	WNW	Bedroom 2	Yes	No
1 : FR5 - Brick Cavity	15.3	ESE	ENTRY	No	No
1 : FR5 - Brick Cavity	4.7	NNE	ENTRY	Yes	Yes
1 : FR5 - Brick Cavity	2.7	ESE	ENTRY	Yes	Yes

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	63.4	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	37.9	Enclosed	0.0	none
Bedroom 1	SuspSlab : 200mm: 200mm concrete slab	13.3	Enclosed	0.0	none
ENS	SuspSlab : 200mm: 200mm concrete slab	3.6	Enclosed	0.0	none
TOILET	SuspSlab : 200mm: 200mm concrete slab	5.2	Enclosed	0.0	none
Bedroom 2	SuspSlab : 200mm: 200mm concrete slab	7.1	Elevated	2.0	none
Bedroom 2	SuspSlab : 200mm: 200mm concrete slab	4.5	Enclosed	0.0	none
ENTRY	SuspSlab : 200mm: 200mm concrete slab	1.4	Elevated	0.0	none
ENTRY	SuspSlab : 200mm: 200mm concrete slab	11.1	Enclosed	0.0	none

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: S1EOOGLTX4

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★ Star rating: 6.7



Building Features

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	15	Downlights	100	100	Sealed
Bedroom 1	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
Bedroom 2	5	Downlights	100	100	Sealed
ENTRY	5	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: S1EOOGLTX4

Date of Certificate: 20 Aug 2018

★ Star rating: 6.7



Additional information

Explanatory notes

About this report

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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.

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: RREN2WCQB

Date of Certificate: 20 Aug 2018

★ Star rating: 8.6

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: -
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 5, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

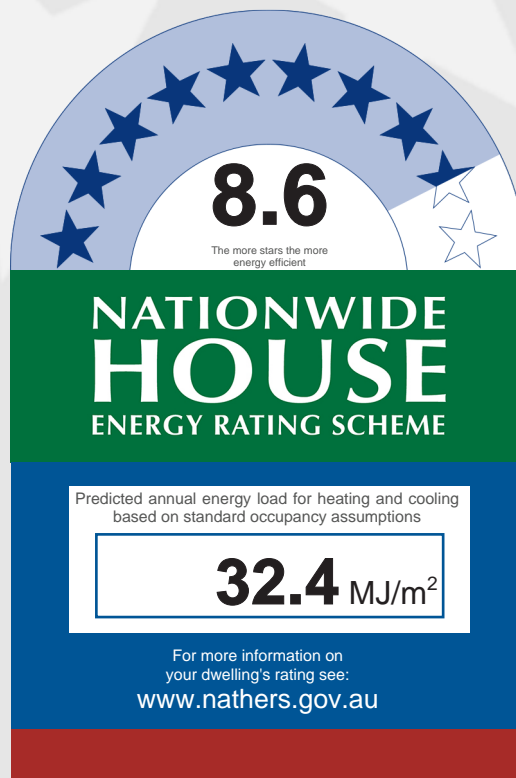
Conditioned: **103.7**
Unconditioned: **4.6**
Garage: -
TOTAL: **108.3**

Annual thermal performance loads (MJ/m²)

Heating: **14.3**
Cooling: **18.1**
TOTAL: **32.4**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **40**
Unsealed: **3**
TOTAL:** **43**

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.

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Certificate Number: RREN2WCQB

Date of Certificate: 20 Aug 2018

★ Star rating: 8.6

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W51	1200	1200	WNW	STUDY	No
ALM-002-01 A	SD51	2700	3000	NNE	Kitchen/Living	No
ALM-002-01 A	W53	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W54	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W52	600	1800	WNW	Kitchen/Living	Yes
ALM-002-01 A	W58	1200	1800	NNE	Bedroom 1	No
ALM-002-01 A	W57	1200	1800	WNW	Bedroom 2	Yes
ALM-002-01 A	W56	1200	900	WNW	TOILET 2	No
ALM-002-01 A	W55	1200	1800	WNW	Bedroom 3	Yes

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No
2 : FR5 - Brick Cavity		No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	10	SSW	STUDY	No	No
1 : FR5 - Brick Cavity	9.4	ESE	STUDY	Yes	Yes
1 : FR5 - Brick Cavity	4.9	WNW	STUDY	No	No
1 : FR5 - Brick Cavity	4.2	WNW	TOILET 1	No	No
1 : FR5 - Brick Cavity	5.1	SSW	Kitchen/Living	Yes	Yes

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: RRENB2WCQB

Date of Certificate: 20 Aug 2018

★ Star rating: 8.6

Building Features

2 : FR5 - Brick Cavity	1.2	SSW	Kitchen/Living	No	No
2 : FR5 - Brick Cavity	19.8	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	16.3	NNE	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	1.2	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	4.6	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	14.2	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	10	NNE	Bedroom 1	No	Yes
1 : FR5 - Brick Cavity	8	WNW	Bedroom 1	No	No
2 : FR5 - Brick Cavity	5.2	ESE	ENS	No	No
1 : FR5 - Brick Cavity	5.9	NNE	ENS	Yes	No
1 : FR5 - Brick Cavity	1.6	ESE	HALL	Yes	Yes
1 : FR5 - Brick Cavity	5.1	SSW	HALL	Yes	Yes
2 : FR5 - Brick Cavity	1.2	SSW	HALL	No	No
2 : FR5 - Brick Cavity	14.4	ESE	HALL	No	No
1 : FR5 - Brick Cavity	8	WNW	Bedroom 2	No	No
1 : FR5 - Brick Cavity	4.8	WNW	TOILET 2	No	No
1 : FR5 - Brick Cavity	10	SSW	Bedroom 3	No	No
1 : FR5 - Brick Cavity	8.1	ESE	Bedroom 3	Yes	Yes
1 : FR5 - Brick Cavity	8.1	WNW	Bedroom 3	No	No

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	75.4	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
STUDY	SuspSlab : 200mm: 200mm concrete slab	9.8	Enclosed	0.0	Tiles
TOILET 1	SuspSlab : 200mm: 200mm concrete slab	2.8	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	44.5	Enclosed	0.0	Tiles
Bedroom 1	SuspSlab : 200mm: 200mm concrete slab	11	Enclosed	0.0	Tiles
ENS	SuspSlab : 200mm: 200mm concrete slab	4.2	Enclosed	0.0	Tiles

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: RREN2WCQB

Date of Certificate: 20 Aug 2018

★ Star rating: 8.6



Building Features

HALL	SuspSlab : 200mm: 200mm concrete slab	13.7	Enclosed	0.0	Tiles
Bedroom 2	SuspSlab : 200mm: 200mm concrete slab	11	Enclosed	0.0	Tiles
TOILET 2	SuspSlab : 200mm: 200mm concrete slab	4.6	Enclosed	0.0	Tiles
Bedroom 3	SuspSlab : 200mm: 200mm concrete slab	11.2	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
STUDY	Plasterboard	0.0	No
STUDY	Plasterboard	0.0	No
STUDY	Plasterboard	0.0	No
TOILET 1	Plasterboard	0.0	No
TOILET 1	Plasterboard	0.0	No
Kitchen/Living	Plasterboard	0.0	No
Kitchen/Living	Plasterboard	0.0	No
Kitchen/Living	Plasterboard	0.0	No
Kitchen/Living	Plasterboard	0.0	No
Kitchen/Living	Plasterboard	0.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
STUDY	4	Downlights	100	100	Sealed
TOILET 1	1	Exhaust Fans	200	200	Unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	16	Downlights	100	100	Sealed
Bedroom 1	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
HALL	5	Downlights	100	100	Sealed
Bedroom 2	4	Downlights	100	100	Sealed
TOILET 2	1	Exhaust Fans	200	200	Unsealed
Bedroom 3	5	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: RREN2WCQB

Date of Certificate: 20 Aug 2018

★ Star rating: 8.6

Building Features

Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: RREN2WCQB

Date of Certificate: 20 Aug 2018

★ Star rating: 8.6



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3GJ29YOVCU

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2



Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 6, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

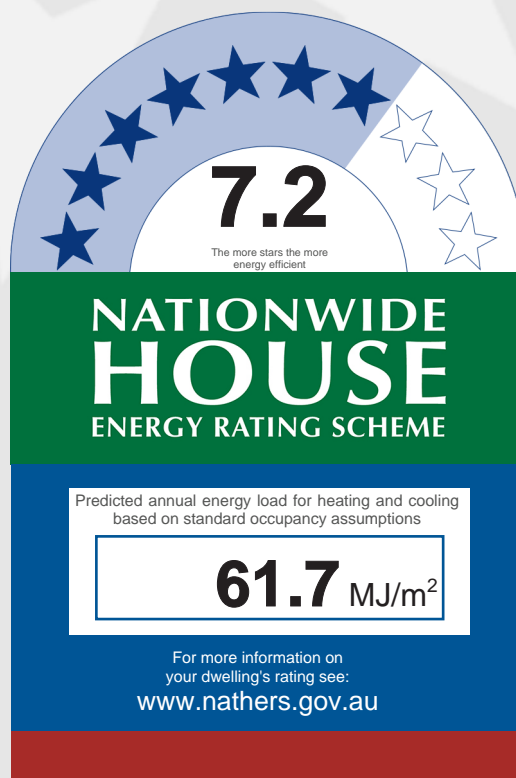
Conditioned: **54.3**
Unconditioned: **4.6**
Garage: **-**
TOTAL: **58.9**

Annual thermal performance loads (MJ/m²)

Heating: **38.8**
Cooling: **22.9**
TOTAL: **61.7**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **23**
Unsealed: **1**
TOTAL:** **24**

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

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3GJ29YOVCU

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W93	900	900	ESE	TOILET	No
ALM-002-01 A	W92	1200	1800	ESE	Bedroom	No
ALM-002-01 A	W91	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	SD91	2700	3000	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity		No
2 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	4.9	SSW	TOILET	No	No
2 : FR5 - Brick Cavity	6.8	ESE	TOILET	No	No
2 : FR5 - Brick Cavity	4.5	SSW	HALL	No	No
2 : FR5 - Brick Cavity	1.9	WNW	HALL	No	No
2 : FR5 - Brick Cavity	3.2	SSW	HALL	Yes	Yes
1 : FR5 - Brick Cavity	1.2	SSW	HALL	No	No
1 : FR5 - Brick Cavity	9.1	WNW	HALL	No	No
1 : FR5 - Brick Cavity	1.2	NNE	HALL	No	No
2 : FR5 - Brick Cavity	5.9	WNW	HALL	Yes	Yes
2 : FR5 - Brick Cavity	9.7	ESE	Bedroom	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3GJ29YOVCU

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2



Building Features

2 : FR5 - Brick Cavity	17.1	ESE	Kitchen/Living	No	No
2 : FR5 - Brick Cavity	12.9	NNE	Kitchen/Living	Yes	Yes
2 : FR5 - Brick Cavity	5.3	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	11.7	WNW	Kitchen/Living	No	No

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	38.6	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
TOILET	SuspSlab : 200mm: 200mm concrete slab	4.6	Enclosed	0.0	Tiles
HALL	SuspSlab : 200mm: 200mm concrete slab	11.5	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	12.8	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	30.1	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
HALL	5	Downlights	100	100	Sealed
Bedroom	5	Downlights	100	100	Sealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	12	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3GJ29YOVCU

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2



Building Features

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3GJ29YOVCU

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: VTGV9L7YCI

Date of Certificate: 20 Aug 2018

★ Star rating: 6.9

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: -
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 7, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

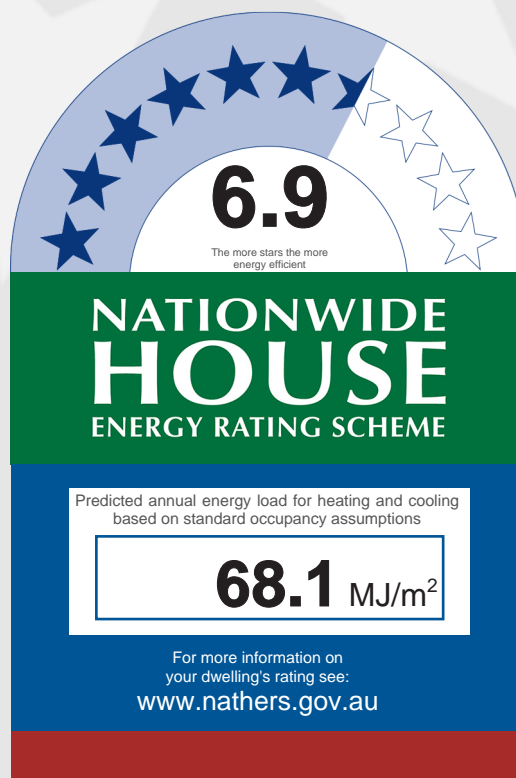
Conditioned: **55.2**
Unconditioned: **6.3**
Garage: **-**
TOTAL: **61.5**

Annual thermal performance loads (MJ/m²)

Heating: **49.5**
Cooling: **18.6**
TOTAL: **68.1**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **23**
Unsealed: **1**
TOTAL:** **24**

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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: VTGV9L7YCI

Date of Certificate: 20 Aug 2018

★ Star rating: 6.9



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD31	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W33	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	W32	1200	1800	ESE	Bedroom	No
ALM-002-01 A	W31	900	900	ESE	TOILET	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No
2 : FR5 - Brick Cavity		No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	14.2	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	15.6	ESE	Kitchen/Living	No	No
2 : FR5 - Brick Cavity	15.6	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	9.7	ESE	Bedroom	No	No
1 : FR5 - Brick Cavity	6.5	ESE	TOILET	No	No
2 : FR5 - Brick Cavity	7	NNE	TOILET	No	No
2 : FR5 - Brick Cavity	5.5	NNE	ENTRY	No	No
1 : FR5 - Brick Cavity	1.3	NNE	ENTRY	Yes	Yes
1 : FR5 - Brick Cavity	5.1	WNW	ENTRY	Yes	Yes
2 : FR5 - Brick Cavity	11.5	WNW	ENTRY	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: VTGV9L7YCI

Date of Certificate: 20 Aug 2018

★ Star rating: 6.9



Building Features

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	41	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	30.5	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	14.9	Enclosed	0.0	Tiles
TOILET	SuspSlab : 200mm: 200mm concrete slab	6.3	Enclosed	0.0	Tiles
ENTRY	SuspSlab : 200mm: 200mm concrete slab	9.8	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	12	Downlights	100	100	Sealed
Bedroom	6	Downlights	100	100	Sealed
TOILET	1	Exhaust Fans	200	200	Unsealed
ENTRY	4	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: VTGV9L7YCI

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: 6JI30OPXUH

Date of Certificate: 20 Aug 2018

★ Star rating: 7.6

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: -
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 8, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

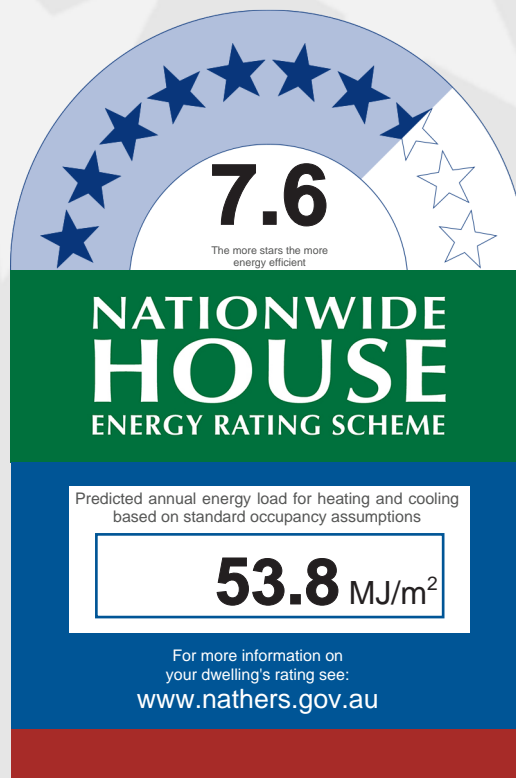
Conditioned: **78.9**
Unconditioned: **5.2**
Garage: **-**
TOTAL: **84.1**

Annual thermal performance loads (MJ/m²)

Heating: **33.8**
Cooling: **20**
TOTAL: **53.8**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **31**
Unsealed: **2**
TOTAL:** **33**

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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 6JI30OPXUH

Date of Certificate: 20 Aug 2018

★ Star rating: 7.6



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD41	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W43	600	1800	WNW	Kitchen/Living	Yes
ALM-002-01 A	W41	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W42	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W44	1200	1800	WNW	Bedroom 1	Yes
ALM-002-01 A	W45	900	900	WNW	ENS	No
ALM-002-01 A	W46	900	900	WNW	TOILET	No
ALM-002-01 A	W47	1200	1800	WNW	Bedroom 2	Yes

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	12.6	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	2.2	SSW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	6.8	ESE	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	11.9	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	2.4	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	15	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	1.4	WNW	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 6JI30OPXUH

Date of Certificate: 20 Aug 2018

★ Star rating: 7.6



Building Features

1 : FR5 - Brick Cavity	1.2	WNW	Bedroom 1	Yes	No
1 : FR5 - Brick Cavity	6.9	WNW	Bedroom 1	Yes	No
1 : FR5 - Brick Cavity	1.3	SSW	ENS	Yes	No
1 : FR5 - Brick Cavity	3.8	WNW	ENS	No	No
1 : FR5 - Brick Cavity	1.3	NNE	TOILET	Yes	No
1 : FR5 - Brick Cavity	5.4	WNW	TOILET	No	No
1 : FR5 - Brick Cavity	8.4	ESE	Bedroom 2	Yes	Yes
1 : FR5 - Brick Cavity	10.1	NNE	Bedroom 2	Yes	No
1 : FR5 - Brick Cavity	1.2	WNW	Bedroom 2	No	No
1 : FR5 - Brick Cavity	7.2	WNW	Bedroom 2	Yes	No
1 : FR5 - Brick Cavity	15.3	ESE	ENTRY	No	No
1 : FR5 - Brick Cavity	4.7	NNE	ENTRY	Yes	Yes
1 : FR5 - Brick Cavity	2.7	ESE	ENTRY	Yes	Yes

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	63.4	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	37.9	Enclosed	0.0	none
Bedroom 1	SuspSlab : 200mm: 200mm concrete slab	13.3	Enclosed	0.0	none
ENS	SuspSlab : 200mm: 200mm concrete slab	3.6	Enclosed	0.0	none
TOILET	SuspSlab : 200mm: 200mm concrete slab	5.2	Enclosed	0.0	none
Bedroom 2	SuspSlab : 200mm: 200mm concrete slab	11.6	Enclosed	0.0	none
ENTRY	SuspSlab : 200mm: 200mm concrete slab	12.5	Enclosed	0.0	none

Ceiling type

Location	Material	Added insulation	Roof space above
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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 6JI30OPXUH

Date of Certificate: 20 Aug 2018

★ Star rating: 7.6



Building Features

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	15	Downlights	100	100	Sealed
Bedroom 1	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
Bedroom 2	5	Downlights	100	100	Sealed
ENTRY	5	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 6JI30PXUH

Date of Certificate: 20 Aug 2018

★ Star rating: 7.6



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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 24ICQLRMOZ

Date of Certificate: 20 Aug 2018

★ Star rating: 7.1



Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

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Address: **Unit 9, 1 Station Lane**
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Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
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Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

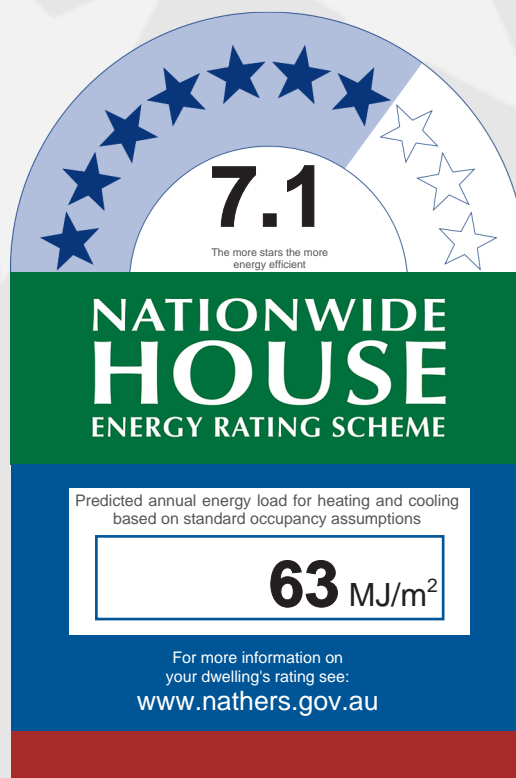
Conditioned: **54.3**
Unconditioned: **4.6**
Garage: **-**
TOTAL: **58.9**

Annual thermal performance loads (MJ/m²)

Heating: **40.4**
Cooling: **22.6**
TOTAL: **63**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **23**
Unsealed: **1**
TOTAL:** **24**

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=24ICQLRMOZ>

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 24ICQLRMOZ

Date of Certificate: 20 Aug 2018

★ Star rating: 7.1



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W93	900	900	ESE	TOILET	No
ALM-002-01 A	W92	1200	1800	ESE	Bedroom	No
ALM-002-01 A	W91	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	SD91	2700	3000	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	4.9	SSW	TOILET	No	No
1 : FR5 - Brick Cavity	6.8	ESE	TOILET	No	No
1 : FR5 - Brick Cavity	4.5	SSW	HALL	No	No
1 : FR5 - Brick Cavity	1.9	WNW	HALL	No	No
1 : FR5 - Brick Cavity	3.2	SSW	HALL	Yes	Yes
1 : FR5 - Brick Cavity	1.2	SSW	HALL	No	No
1 : FR5 - Brick Cavity	9.1	WNW	HALL	No	No
1 : FR5 - Brick Cavity	1.2	NNE	HALL	No	No
1 : FR5 - Brick Cavity	5.9	WNW	HALL	Yes	Yes
1 : FR5 - Brick Cavity	9.7	ESE	Bedroom	No	No
1 : FR5 - Brick Cavity	17.1	ESE	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 24ICQLRMOZ

Date of Certificate: 20 Aug 2018

★ Star rating: 7.1



Building Features

1 : FR5 - Brick Cavity	12.9	NNE	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	5.3	WNW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	11.7	WNW	Kitchen/Living	No	No

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	38.6	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
TOILET	SuspSlab : 200mm: 200mm concrete slab	4.6	Enclosed	0.0	Tiles
HALL	SuspSlab : 200mm: 200mm concrete slab	11.5	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	12.8	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	30.1	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
HALL	5	Downlights	100	100	Sealed
Bedroom	5	Downlights	100	100	Sealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	12	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
----------	--------	---------------

Roof type

Material	Added insulation	Roof colour
----------	------------------	-------------

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 24ICQLRMOZ

Date of Certificate: 20 Aug 2018

★ Star rating: 7.1



Building Features

Ceil: Ceiling

0.0

medium

Nationwide House Energy Rating Scheme* Certificate

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Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: 2ZQDI8LTN0

Date of Certificate: 20 Aug 2018

★ Star rating: 6.8

Assessor details

Accreditation number: 101399
Name: Nermein Loka
Organisation: Loka Consulting Engineers
Email: civil5@lceng.com.au
Phone: 80659689
Declaration of interest: -
Software: FirstRate5: 5.2.9 (3.13)
AAO: ABSA

Overview

Dwelling details

Address: Unit 10, 1 Station Lane
Suburb: Penrith
State: NSW Postcode: 2750
Type: New Home NCC Class: Class 2
Lot/DP number: B2/DP161921 NatHERS climate zone: 28
Exposure: suburban

Key construction and insulation materials

(see following pages for details)

Construction: Wall: BRICK CAVITY
Roof: SUSPENDED SLAB
Floor: SUSPENDED SLAB
Insulation: Wall: POLYSTYRENE EXTRUDED
Roof: AS PER NATHERS REPORT
Floor: AS PER NATHERS REPORT
Glazing: ALUMINIUM SINGLE GLAZED

Net floor area (m²)

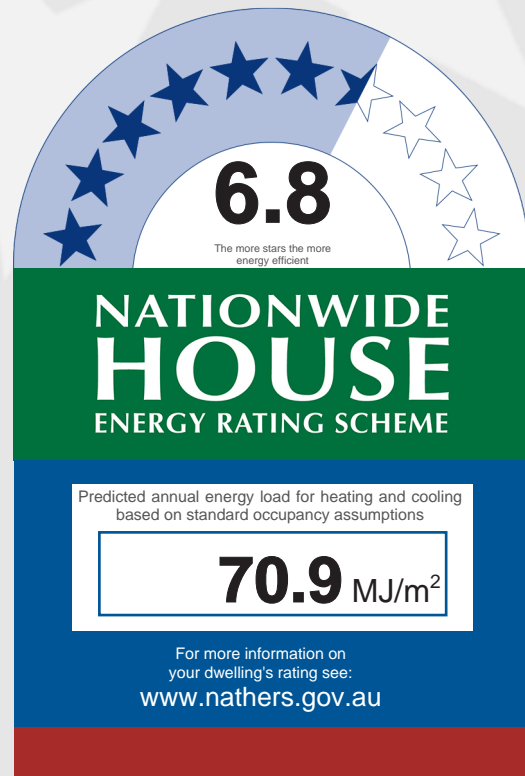
Conditioned: 55.2
Unconditioned: 6.3
Garage: -
TOTAL: 61.5

Annual thermal performance loads (MJ/m²)

Heating: 48.1
Cooling: 22.8
TOTAL: 70.9

Plan documents

Plan ref/date: A/20-02-18
Prepared by: Antoine J.Saouma



Ceiling penetrations

(see following pages for details)

Sealed: 23
Unsealed: 1
TOTAL:** 24

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

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Certificate Number: 2ZQDI8LTN0

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Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD31	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W33	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	W32	1200	1800	ESE	Bedroom	No
ALM-002-01 A	W31	900	900	ESE	TOILET	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No
2 : FR5 - Brick Cavity		No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	14.2	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	15.6	ESE	Kitchen/Living	No	No
2 : FR5 - Brick Cavity	15.6	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	9.7	ESE	Bedroom	No	No
1 : FR5 - Brick Cavity	6.5	ESE	TOILET	No	No
2 : FR5 - Brick Cavity	7	NNE	TOILET	No	No
2 : FR5 - Brick Cavity	5.5	NNE	ENTRY	No	No
1 : FR5 - Brick Cavity	1.3	NNE	ENTRY	Yes	Yes
1 : FR5 - Brick Cavity	5.1	WNW	ENTRY	Yes	Yes
2 : FR5 - Brick Cavity	11.5	WNW	ENTRY	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 2ZQDI8LTN0

Date of Certificate: 20 Aug 2018

★ Star rating: 6.8



Building Features

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	41	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	28.8	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	1.7	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	14.9	Enclosed	0.0	Tiles
TOILET	SuspSlab : 200mm: 200mm concrete slab	6.3	Enclosed	0.0	Tiles
ENTRY	SuspSlab : 200mm: 200mm concrete slab	9.8	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Kitchen/Living	Plasterboard	0.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	12	Downlights	100	100	Sealed
Bedroom	6	Downlights	100	100	Sealed
TOILET	1	Exhaust Fans	200	200	Unsealed
ENTRY	4	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: **2ZQDI8LTN0**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.8**

Building Features

Slab: Slab - Suspended Slab : 200mm: 200mm Suspended Slab 0.0 medium

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: 2ZQDI8LTN0

Date of Certificate: 20 Aug 2018

★ Star rating: 6.8

Additional information

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: 57AIET8PCV

Date of Certificate: 20 Aug 2018

★ Star rating: 7

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: -
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 11, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **open**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

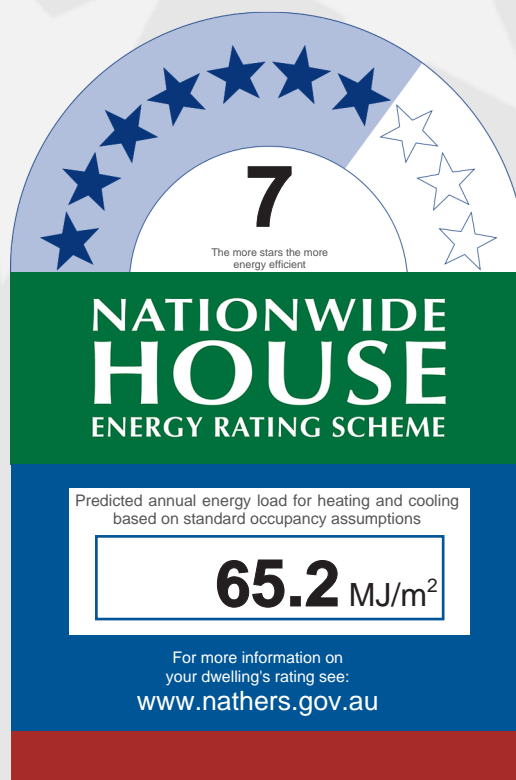
Conditioned: **79**
Unconditioned: **5.2**
Garage: **-**
TOTAL: **84.2**

Annual thermal performance loads (MJ/m²)

Heating: **42.7**
Cooling: **22.5**
TOTAL: **65.2**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **31**
Unsealed: **2**
TOTAL:** **33**

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

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 57A1ET8PCV

Date of Certificate: 20 Aug 2018

★ Star rating: 7



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD111	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W113	600	1800	WNW	Kitchen/Living	Yes
ALM-002-01 A	W111	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W112	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W114	1200	1800	WNW	Bedroom 1	Yes
ALM-002-01 A	W115	900	900	WNW	ENS	No
ALM-002-01 A	W116	900	900	WNW	TOILET	No
ALM-002-01 A	W117	1200	1800	WNW	Bedroom 2	Yes

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	12.6	SSW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	2.2	SSW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	6.8	ESE	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	11.9	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	2.4	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	15	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	1.4	WNW	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: 57A1ET8PCV

Date of Certificate: 20 Aug 2018

★ Star rating: 7

Building Features

1 : FR5 - Brick Cavity	1.2	WNW	Bedroom 1	Yes	No
1 : FR5 - Brick Cavity	6.9	WNW	Bedroom 1	Yes	No
1 : FR5 - Brick Cavity	1.3	SSW	ENS	Yes	No
1 : FR5 - Brick Cavity	3.8	WNW	ENS	No	No
1 : FR5 - Brick Cavity	1.3	NNE	TOILET	Yes	No
1 : FR5 - Brick Cavity	5.4	WNW	TOILET	No	No
1 : FR5 - Brick Cavity	8.4	ESE	Bedroom 2	Yes	Yes
1 : FR5 - Brick Cavity	10.1	NNE	Bedroom 2	Yes	No
1 : FR5 - Brick Cavity	1.2	WNW	Bedroom 2	No	No
1 : FR5 - Brick Cavity	7.2	WNW	Bedroom 2	Yes	No
1 : FR5 - Brick Cavity	15.3	ESE	ENTRY	No	No
1 : FR5 - Brick Cavity	4.7	NNE	ENTRY	Yes	Yes
1 : FR5 - Brick Cavity	2.7	ESE	ENTRY	Yes	Yes

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	63.4	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	8.8	Enclosed	0.0	none
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	29.1	Enclosed	0.0	none
Bedroom 1	SuspSlab : 200mm: 200mm concrete slab	4.4	Enclosed	0.0	none
Bedroom 1	SuspSlab : 200mm: 200mm concrete slab	9	Enclosed	0.0	none
ENS	SuspSlab : 200mm: 200mm concrete slab	3.6	Enclosed	0.0	none
TOILET	SuspSlab : 200mm: 200mm concrete slab	5.2	Enclosed	0.0	none
Bedroom 2	SuspSlab : 200mm: 200mm concrete slab	3	Enclosed	0.0	none
Bedroom 2	SuspSlab : 200mm: 200mm concrete slab	8.6	Enclosed	0.0	none
ENTRY	SuspSlab : 200mm: 200mm concrete slab	1.1	Enclosed	0.0	none

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 57AIET8PCV

Date of Certificate: 20 Aug 2018

★ Star rating: 7



Building Features

ENTRY	SuspSlab : 200mm: 200mm concrete slab	11.4	Enclosed	0.0	none
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Ceiling type

Location	Material	Added insulation	Roof space above
Kitchen/Living	Plasterboard	2.0	No
Bedroom 1	Plasterboard	2.0	No
ENS	Plasterboard	2.0	No
TOILET	Plasterboard	2.0	No
Bedroom 2	Plasterboard	2.0	No
ENTRY	Plasterboard	2.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	15	Downlights	100	100	Sealed
Bedroom 1	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
Bedroom 2	5	Downlights	100	100	Sealed
ENTRY	5	Downlights	1000	1000	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: J1B510LDEY

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 12, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

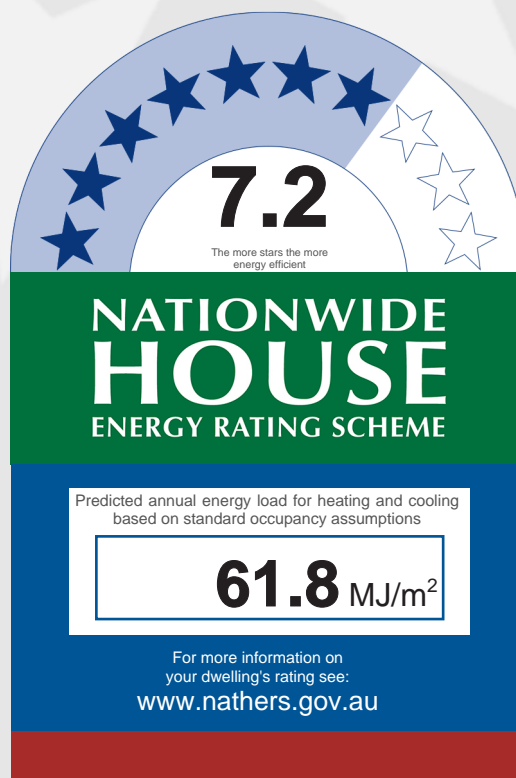
Conditioned: **54.3**
Unconditioned: **4.6**
Garage: **-**
TOTAL: **58.9**

Annual thermal performance loads (MJ/m²)

Heating: **29.7**
Cooling: **32.1**
TOTAL: **61.8**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **23**
Unsealed: **1**
TOTAL:** **24**

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.

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: J1B510LDEY

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W93	900	900	ESE	TOILET	No
ALM-002-01 A	W92	1200	1800	ESE	Bedroom	No
ALM-002-01 A	W91	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	SD91	2700	3000	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	4.9	SSW	TOILET	No	No
1 : FR5 - Brick Cavity	6.8	ESE	TOILET	No	No
1 : FR5 - Brick Cavity	4.5	SSW	HALL	No	No
1 : FR5 - Brick Cavity	1.9	WNW	HALL	No	No
1 : FR5 - Brick Cavity	3.2	SSW	HALL	Yes	Yes
1 : FR5 - Brick Cavity	1.2	SSW	HALL	No	No
1 : FR5 - Brick Cavity	9.1	WNW	HALL	No	No
1 : FR5 - Brick Cavity	1.2	NNE	HALL	No	No
1 : FR5 - Brick Cavity	5.9	WNW	HALL	Yes	Yes
1 : FR5 - Brick Cavity	9.7	ESE	Bedroom	No	No
1 : FR5 - Brick Cavity	17.1	ESE	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: J1B510LDEY

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2

Building Features

1 : FR5 - Brick Cavity	12.9	NNE	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	5.3	WNW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	11.7	WNW	Kitchen/Living	No	No

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	38.6	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
TOILET	SuspSlab : 200mm: 200mm concrete slab	4.6	Enclosed	0.0	Tiles
HALL	SuspSlab : 200mm: 200mm concrete slab	11.5	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	12.8	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	9.5	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	20.6	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Kitchen/Living	Plasterboard	0.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
HALL	5	Downlights	100	100	Sealed
Bedroom	5	Downlights	100	100	Sealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	12	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: J1B510LDEY

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2



Building Features

Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: J1B510LDEY

Date of Certificate: 20 Aug 2018

★ Star rating: 7.2

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3VKMPH3FU2

Date of Certificate: 20 Aug 2018

★ Star rating: 6.4



Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 13, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **suburban**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

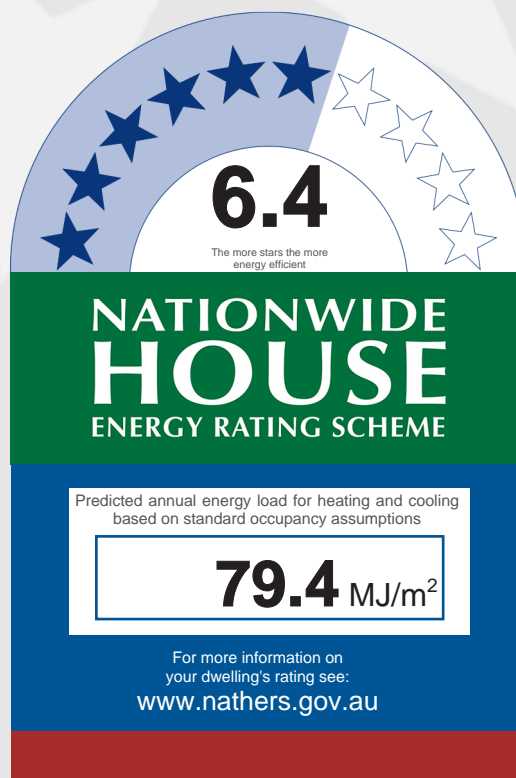
Conditioned: **53.4**
Unconditioned: **4.5**
Garage: **-**
TOTAL: **57.9**

Annual thermal performance loads (MJ/m²)

Heating: **34.4**
Cooling: **45**
TOTAL: **79.4**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **21**
Unsealed: **1**
TOTAL:** **22**

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

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Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W131	1200	1800	WNW	Bedroom	Yes
ALM-002-01 A	W132	900	900	WNW	TOILET	No
ALM-002-01 A	SD131	2700	3000	NNE	Kitchen/Living	No
ALM-002-01 A	W134	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W135	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W133	1200	1800	WNW	Kitchen/Living	Yes

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	10.1	SSW	Bedroom	No	No
1 : FR5 - Brick Cavity	8.1	ESE	Bedroom	Yes	Yes
1 : FR5 - Brick Cavity	1.2	WNW	Bedroom	No	No
1 : FR5 - Brick Cavity	6.9	WNW	Bedroom	Yes	No
1 : FR5 - Brick Cavity	4.6	WNW	TOILET	No	No
1 : FR5 - Brick Cavity	1.5	ESE	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	5	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	1.4	SSW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	20	ESE	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: 3VKMPH3FU2

Date of Certificate: 20 Aug 2018

★ Star rating: 6.4



Building Features

1 : FR5 - Brick Cavity	16.4	NNE	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	1.5	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	4.4	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	4	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	6.7	WNW	Kitchen/Living	Yes	No

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	21.6	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Bedroom	SuspSlab : 200mm: 200mm concrete slab	3.3	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	8	Enclosed	0.0	Tiles
TOILET	SuspSlab : 200mm: 200mm concrete slab	4.5	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	26	Enclosed	0.0	Tiles
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	16.1	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom	Plasterboard	0.0	No
TOILET	Plasterboard	0.0	No
Kitchen/Living	Plasterboard	0.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Bedroom	5	Downlights	100	100	Sealed
TOILET	1	Exhaust Fans	200	200	Unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	15	Downlights	100	100	Sealed

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Certificate Number: 3VKMPH3FU2

Date of Certificate: 20 Aug 2018

★ Star rating: 6.4



Building Features

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Ceil: Ceiling	0.0	medium
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

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Date of Certificate: 20 Aug 2018

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Nationwide House Energy Rating Scheme* Certificate



Certificate Number: **D6J4M44987**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.9**

Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 14, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **open**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

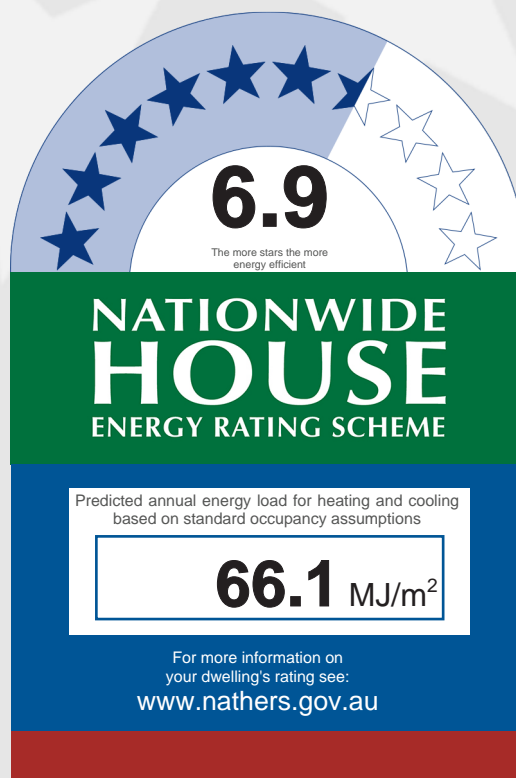
Conditioned: **81.8**
Unconditioned: **1.2**
Garage: **-**
TOTAL: **83**

Annual thermal performance loads (MJ/m²)

Heating: **45.2**
Cooling: **20.9**
TOTAL: **66.1**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **31**
Unsealed: **2**
TOTAL:** **33**

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

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Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W145	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W165	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W141	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	SD141	2700	3000	NNE	Kitchen/Living	No
ALM-002-01 A	SD142	2700	3000	NNE	Kitchen/Living	No
ALM-002-01 A	W142	1200	1800	ESE	Bedroom	No
ALM-002-01 A	W144	1200	1800	WNW	Bedroom	Yes
ALM-002-01 A	W143	900	900	ESE	ENS	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	2.1	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	4.4	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	6.9	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	11.9	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	21.7	NNE	Kitchen/Living	No	Yes
1 : FR5 - Brick Cavity	9.8	ESE	Bedroom	No	No
1 : FR5 - Brick Cavity	9.7	WNW	Bedroom	No	No

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: **D6J4M44987**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.9**

Building Features

1 : FR5 - Brick Cavity	2.9	SSW	ENS	No	No
1 : FR5 - Brick Cavity	6.8	ESE	ENS	No	No
1 : FR5 - Brick Cavity	3.3	SSW	TOILET	Yes	Yes
1 : FR5 - Brick Cavity	3	SSW	TOILET	No	No
1 : FR5 - Brick Cavity	1.9	WNW	TOILET	No	No
1 : FR5 - Brick Cavity	3.6	ESE	HALL	No	No
1 : FR5 - Brick Cavity	5.1	SSW	HALL	No	No
1 : FR5 - Brick Cavity	6.8	WNW	HALL	No	No
1 : FR5 - Brick Cavity	3.5	SSW	HALL	Yes	Yes
1 : FR5 - Brick Cavity	3.2	SSW	HALL	No	Yes

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	75.9	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	37.9	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	12.1	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	11.3	Enclosed	0.0	Tiles
ENS	SuspSlab : 200mm: 200mm concrete slab	2.7	Enclosed	0.0	Tiles
TOILET	SuspSlab : 200mm: 200mm concrete slab	5.2	Enclosed	0.0	Tiles
LDRY	SuspSlab : 200mm: 200mm concrete slab	1.2	Enclosed	0.0	Tiles
HALL	SuspSlab : 200mm: 200mm concrete slab	12.6	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: **D6J4M44987**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.9**

Building Features

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	15	Downlights	100	100	Sealed
Bedroom	5	Downlights	100	100	Sealed
Bedroom	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
HALL	5	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
----------	--------	---------------

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate



Certificate Number: **D6J4M44987**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.9**

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: NBJ3QBYVLR

Date of Certificate: 20 Aug 2018

★ Star rating: 6.9



Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: -
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 15, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **open**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

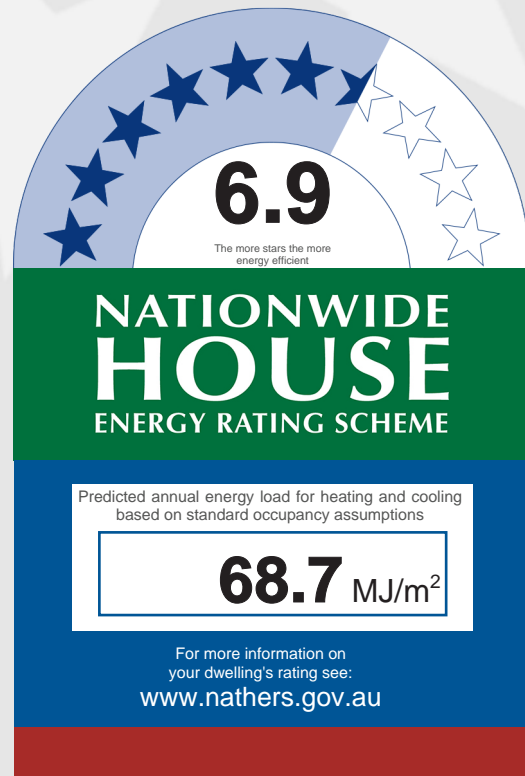
Conditioned: **88.8**
Unconditioned: **1.3**
Garage: **-**
TOTAL: **90.1**

Annual thermal performance loads (MJ/m²)

Heating: **51.1**
Cooling: **17.6**
TOTAL: **68.7**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **36**
Unsealed: **2**
TOTAL:** **38**

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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NBJ3QBYVLR**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.9**



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD151	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W154	1200	1800	SSW	Kitchen/Living	No
ALM-002-01 A	W156	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	W156	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W155	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W157	1200	1800	WNW	Master Bed	Yes
ALM-002-01 A	W152	1200	1800	ESE	Bed	No
ALM-002-01 A	W151	900	900	ESE	Entry / Toilet	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	12.1	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	3.7	WNW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	9.6	SSW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	15.2	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	7.3	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	4.3	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	8.7	WNW	Master Bed	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NBJ3QBYVLR**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.9**



Building Features

1 : FR5 - Brick Cavity	4.2	WNW	ENS	No	No
1 : FR5 - Brick Cavity	9.7	ESE	Bed	No	No
1 : FR5 - Brick Cavity	7	ESE	Entry / Toilet	No	No
1 : FR5 - Brick Cavity	13.3	NNE	Entry / Toilet	No	No
1 : FR5 - Brick Cavity	5.1	NNE	Entry / Toilet	Yes	Yes
1 : FR5 - Brick Cavity	6	ESE	Entry / Toilet	Yes	Yes
1 : FR5 - Brick Cavity	3.4	NNE	Entry / Toilet	Yes	No
1 : FR5 - Brick Cavity	9.4	WNW	Entry / Toilet	No	No

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	75	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	39.3	Enclosed	0.0	Tiles
Master Bed	SuspSlab : 200mm: 200mm concrete slab	11.6	Enclosed	0.0	Tiles
ENS	SuspSlab : 200mm: 200mm concrete slab	4.1	Enclosed	0.0	Tiles
Ldry	SuspSlab : 200mm: 200mm concrete slab	1.3	Enclosed	0.0	Tiles
Bed	SuspSlab : 200mm: 200mm concrete slab	11.2	Enclosed	0.0	Tiles
Entry / Toilet	SuspSlab : 200mm: 200mm concrete slab	5.1	Enclosed	0.0	Tiles
Entry / Toilet	SuspSlab : 200mm: 200mm concrete slab	17.5	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
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Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NBJ3QBYVLR**

Date of Certificate: **20 Aug 2018**

★ Star rating: **6.9**



Building Features

Kitchen/Living	16	Downlights	100	100	Sealed
Master Bed	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
Bed	5	Downlights	100	100	Sealed
Entry / Toilet	1	Exhaust Fans	200	200	Unsealed
Entry / Toilet	9	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NBJ3QBYVLR**

Date of Certificate: **20 Aug 2018**

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Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: WHOZ7JXY27

Date of Certificate: 20 Aug 2018

★ Star rating: 6.4



Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **No potential conflicts of interest to declare**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 16, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **open**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

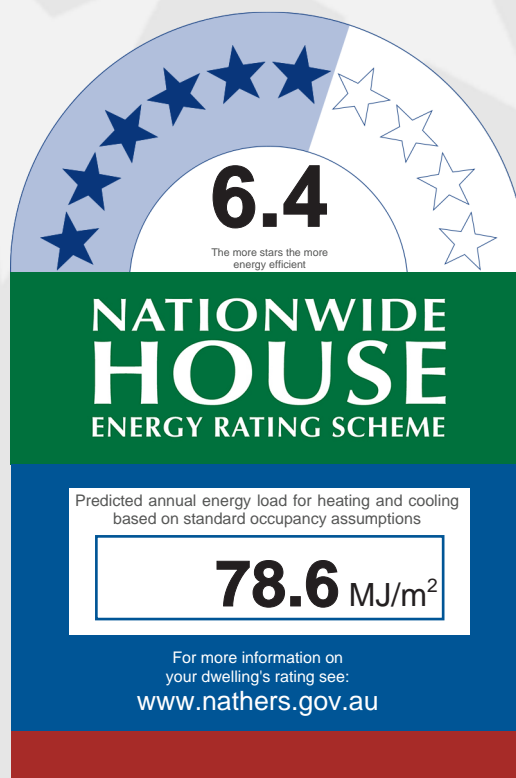
Conditioned: **81.8**
Unconditioned: **1.2**
Garage: **-**
TOTAL: **83**

Annual thermal performance loads (MJ/m²)

Heating: **51.5**
Cooling: **27.1**
TOTAL: **78.6**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **31**
Unsealed: **2**
TOTAL:** **33**

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.

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Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	W165	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W165	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W161	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	SD161	2700	3000	NNE	Kitchen/Living	No
ALM-002-01 A	SD162	2700	3000	NNE	Kitchen/Living	No
ALM-002-01 A	W162	1200	1200	ESE	Bedroom	No
ALM-002-01 A	W164	1200	1800	WNW	Bedroom	Yes
ALM-002-01 A	W163	900	900	ESE	ENS	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
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Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
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External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	2.1	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	4.4	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	6.9	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	11.9	ESE	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	21.7	NNE	Kitchen/Living	No	Yes
1 : FR5 - Brick Cavity	9.8	ESE	Bedroom	No	No
1 : FR5 - Brick Cavity	9.7	WNW	Bedroom	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: WHOZ7JXY27

Date of Certificate: 20 Aug 2018

★ Star rating: 6.4



Building Features

1 : FR5 - Brick Cavity	2.9	SSW	ENS	No	No
1 : FR5 - Brick Cavity	6.8	ESE	ENS	No	No
1 : FR5 - Brick Cavity	3.3	SSW	TOILET	Yes	Yes
1 : FR5 - Brick Cavity	3	SSW	TOILET	No	No
1 : FR5 - Brick Cavity	1.9	WNW	TOILET	No	No
1 : FR5 - Brick Cavity	3.6	ESE	HALL	No	No
1 : FR5 - Brick Cavity	5.1	SSW	HALL	No	No
1 : FR5 - Brick Cavity	6.8	WNW	HALL	No	No
1 : FR5 - Brick Cavity	3.5	SSW	HALL	Yes	Yes
1 : FR5 - Brick Cavity	3.2	SSW	HALL	No	Yes

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	75.9	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	37.9	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	12.1	Enclosed	0.0	Tiles
Bedroom	SuspSlab : 200mm: 200mm concrete slab	11.3	Enclosed	0.0	Tiles
ENS	SuspSlab : 200mm: 200mm concrete slab	2.7	Enclosed	0.0	Tiles
TOILET	SuspSlab : 200mm: 200mm concrete slab	5.2	Enclosed	0.0	Tiles
LDRY	SuspSlab : 200mm: 200mm concrete slab	1.2	Enclosed	0.0	Tiles
HALL	SuspSlab : 200mm: 200mm concrete slab	12.6	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Kitchen/Living	Plasterboard	2.0	No
Bedroom	Plasterboard	2.0	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: WHOZ7JXY27

Date of Certificate: 20 Aug 2018

★ Star rating: 6.4



Building Features

Bedroom	Plasterboard	2.0	No
ENS	Plasterboard	2.0	No
TOILET	Plasterboard	2.0	No
LDRY	Plasterboard	2.0	No
HALL	Plasterboard	2.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	15	Downlights	100	100	Sealed
Bedroom	5	Downlights	100	100	Sealed
Bedroom	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
TOILET	1	Exhaust Fans	200	200	Unsealed
HALL	5	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: WHOZ7JXY27

Date of Certificate: 20 Aug 2018

★ Star rating: 6.4



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Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **Z25KSNSGS7**

Date of Certificate: **20 Aug 2018**

★ Star rating: **5.9**



Assessor details

Accreditation number: **101399**
Name: **Nermein Loka**
Organisation: **Loka Consulting Engineers**
Email: **civil5@lceng.com.au**
Phone: **80659689**
Declaration of interest: **-**
Software: **FirstRate5: 5.2.9 (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Address: **Unit 17, 1 Station Lane**
Suburb: **Penrith**
State: **NSW** Postcode: **2750**
Type: **New Home** NCC Class: **Class 2**
Lot/DP number: **B2/DP161921** NatHERS climate zone: **28**
Exposure: **open**

Key construction and insulation materials

(see following pages for details)

Construction: Wall: **BRICK CAVITY**
Roof: **SUSPENDED SLAB**
Floor: **SUSPENDED SLAB**
Insulation: Wall: **POLYSTYRENE EXTRUDED**
Roof: **AS PER NATHERS REPORT**
Floor: **AS PER NATHERS REPORT**
Glazing: **ALUMINIUM SINGLE GLAZED**

Net floor area (m²)

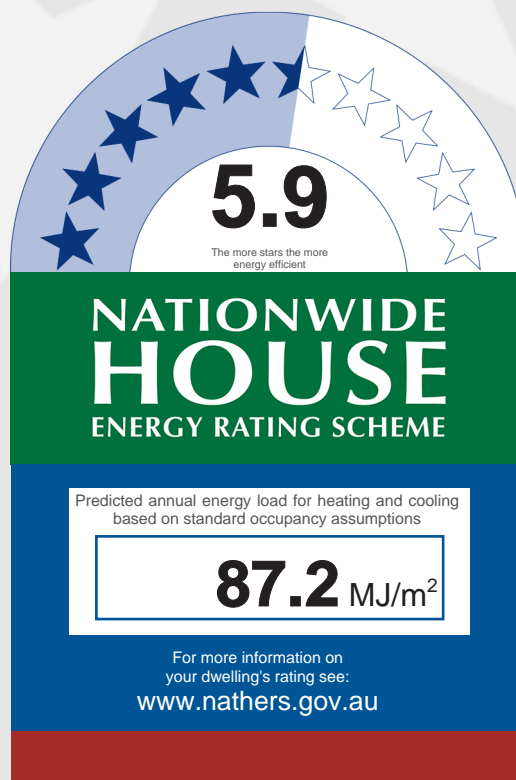
Conditioned: **88.8**
Unconditioned: **1.3**
Garage: **-**
TOTAL: **90.1**

Annual thermal performance loads (MJ/m²)

Heating: **62.3**
Cooling: **24.9**
TOTAL: **87.2**

Plan documents

Plan ref/date: **A/20-02-18**
Prepared by: **Antoine J.Saouma**



Ceiling penetrations

(see following pages for details)

Sealed: **36**
Unsealed: **2**
TOTAL:** **38**

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=Z25KSNSGS7>

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **Z25KSNSGS7**

Date of Certificate: **20 Aug 2018**

★ Star rating: **5.9**



Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	SD171	2700	3000	SSW	Kitchen/Living	No
ALM-002-01 A	W174	1200	1800	SSW	Kitchen/Living	No
ALM-002-01 A	W173	600	1800	ESE	Kitchen/Living	No
ALM-002-01 A	W176	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W175	2700	600	WNW	Kitchen/Living	No
ALM-002-01 A	W177	1200	1800	WNW	Master Bed	Yes
ALM-002-01 A	W172	1200	1800	ESE	Bed	No
ALM-002-01 A	W171	900	900	ESE	Entry / Toilet	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
DEFAULTS:SG-Generic-01 A	Clear Al SG DEFAULT ROOF WINDOW System 01	7.3	0.79

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m ²)	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
DEFAULTS:SG-Generic-01 A	Element 1	1.2	N	Kitchen/Living	80%	None

External wall type

Type	Insulation	Wall wrap
1 : FR5 - Brick Cavity	Polystyrene extruded: R2.0 (R2.0)	No

External wall schedule

Wall type	Area (m ²)	Orientation	Zone name	Fixed shade	Eaves
1 : FR5 - Brick Cavity	12.1	SSW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	3.7	WNW	Kitchen/Living	Yes	Yes
1 : FR5 - Brick Cavity	9.6	SSW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	15.2	ESE	Kitchen/Living	No	No

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Building Features

1 : FR5 - Brick Cavity	7.3	WNW	Kitchen/Living	No	No
1 : FR5 - Brick Cavity	4.3	WNW	Kitchen/Living	Yes	No
1 : FR5 - Brick Cavity	8.7	WNW	Master Bed	No	No
1 : FR5 - Brick Cavity	4.2	WNW	ENS	No	No
1 : FR5 - Brick Cavity	9.7	ESE	Bed	No	No
1 : FR5 - Brick Cavity	7	ESE	Entry / Toilet	No	No
1 : FR5 - Brick Cavity	13.3	NNE	Entry / Toilet	No	No
1 : FR5 - Brick Cavity	5.1	NNE	Entry / Toilet	Yes	Yes
1 : FR5 - Brick Cavity	6	ESE	Entry / Toilet	Yes	Yes
1 : FR5 - Brick Cavity	3.4	NNE	Entry / Toilet	Yes	No
1 : FR5 - Brick Cavity	9.4	WNW	Entry / Toilet	No	No

Internal wall type

Type	Area (m ²)	Insulation
1 : FR5 - Single Brick	75	

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	SuspSlab : 200mm: 200mm concrete slab	39.3	Enclosed	0.0	Tiles
Master Bed	SuspSlab : 200mm: 200mm concrete slab	11.6	Enclosed	0.0	Tiles
ENS	SuspSlab : 200mm: 200mm concrete slab	4.1	Enclosed	0.0	Tiles
Ldry	SuspSlab : 200mm: 200mm concrete slab	1.3	Enclosed	0.0	Tiles
Bed	SuspSlab : 200mm: 200mm concrete slab	11.2	Enclosed	0.0	Tiles
Entry / Toilet	SuspSlab : 200mm: 200mm concrete slab	5.1	Enclosed	0.0	Tiles
Entry / Toilet	SuspSlab : 200mm: 200mm concrete slab	17.5	Enclosed	0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Kitchen/Living	Plasterboard	2.5	No

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Building Features

Master Bed	Plasterboard	2.5	No
ENS	Plasterboard	2.5	No
Ldry	Plasterboard	2.5	No
Bed	Plasterboard	2.5	No
Entry / Toilet	Plasterboard	2.5	No
Entry / Toilet	Plasterboard	2.5	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living	1	Exhaust Fans	200	200	Sealed
Kitchen/Living	16	Downlights	100	100	Sealed
Master Bed	5	Downlights	100	100	Sealed
ENS	1	Exhaust Fans	200	200	Unsealed
Bed	5	Downlights	100	100	Sealed
Entry / Toilet	1	Exhaust Fans	200	200	Unsealed
Entry / Toilet	9	Downlights	100	100	Sealed

Ceiling fans

Location	Number	Diameter (mm)
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Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

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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 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

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