Certificate number: 0004273835 Certificate Date: 15 Oct 2019 ★ Star rating: 6.4





#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

Lot/DP

#### **Dwelling details**

Street: Unit U201, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

climate zone: 28

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-002-04 A Aluminium B SG Low

Solar Gain Low-E

#### Net floor area (m²)

Conditioned: 73.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 73.0

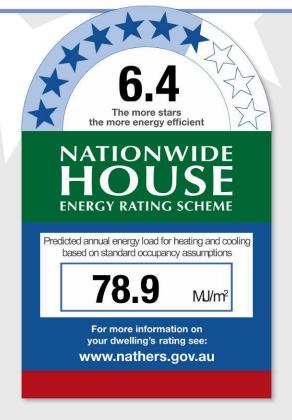
# Annual thermal performance loads (MJ/m²)

Heating: 20.6
Cooling: 58.3
TOTAL: 78.9

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:\*\* 30 \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: LED

# Window selection - default windows only

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

ALM-002-04 A

ALM-001-04 A

ALM-001-04 A

ALM-002-04 A

ALM-002-04 A

n/a

n/a

n/a

n/a

n/a

Certificate number: 0004273835 Certificate Date: 15 Oct 2019 ★ Star rating: 6.4



No Shading

No Shading

No Shading

No Shading

No Shading

# **Building features**

Bedroom 2

Kitchen/Living

Kitchen/Living

Kitchen/Living

Kitchen/Living

Window type	and performand	e value				
Window ID	Window type				U-value	SHGC
ALM-002-04 A	ALM-002-04 A	Aluminium B SG I	_ow Solar Gain L	.ow-E	5.6	0.41
ALM-001-04 A	ALM-001-04 A	Aluminium A SG I	ow Solar Gain L	ow-E	5.6	0.36
Window sche	dule Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-04 A	n/a	2800	330	W	No Shading
Bedroom 1	ALM-001-04 A	n/a	2800	750	W	No Shading
Bedroom 1	ALM-002-04 A	n/a	2800	1350	W	No Shading
Bedroom 2	ALM-001-04 A	n/a	2000	750	W	No Shading

2800

2000

2100

2143

2800

750

750

940

2600

900

W

W

N

W

N

ID	Window	type			U-value	SHGC
None Presen		турс			O value	01100
None Plesen	t .					
Roof windo	w and skyligh	t schodula				
Roof windo	w and skyligh	it schedule				
	w and skyligh ID	t schedule Roof	Area (m²)	Orientation C	Outdoor shade	Indoor
Roof windo Location		TOTAL TOTAL CONTROL OF THE CONTROL O	Area (m²)	Orientation C	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		W	all wrap or foil
EW-1	AAC Cavity Pa	anel Direct Fix	Foil, Anti-glare	e one side + Bulk	Insulation R2 Ye	es
EW-2	Fibro Cavity P	anel Direct Fix	Bulk Insulation	n R2	N	0
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1295	2800	S	No	0
Bedroom 1	EW-1	600	2800	W	No	0
Bedroom 1	EW-1	3900	2800	S	No	0
Bedroom 1	EW-1	3095	2800	W	No	0
Bedroom 2	EW-1	3090	2800	W	No	0
Kitchen/Living	EW-1	2495	2800	W	No	0
Kitchen/Living	EW-1	2400	2800	N	No	4100
Kitchen/Living	EW-1	4100	2800	W	No	2400
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	2000	2800	E	No	5200
Kitchen/Living	EW-2	2400	2800	E	No	0
Kitchen/Living	EW-1	2095	2800	S	No	0

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

Certificate number: **0004273835** Certificate Date:

15 Oct 2019

★ Star rating:



Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	28.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	29.6	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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Certificate number: **0004273835** Certificate Date:

15 Oct 2019

★ Star rating:





Roof type	
Construction	Added Roof colou insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

#### About this report

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

#### **General Information**

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

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

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

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

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

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

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

#### **Accredited Assessors**

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#### **Disclaimer**

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#### Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273868 Certificate Date: 15 Oct 2019 ★ Star rating: 9.0

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U202, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard

Concrete Slab, Unit Below Insulation:

No wall insulation No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 75.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 75.0

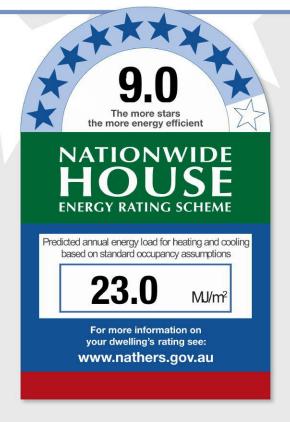
# Annual thermal performance loads (MJ/m²)

Heating: 7.5
Cooling: 15.4
TOTAL: 23.0

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 28
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

28

# 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.

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004273868 Certificate Date: 15 Oct 2019 ★ Star rating: 9.0



# **Building features**

Window type and perfor	mance value
------------------------	-------------

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

Externa	l wall	type
---------	--------	------

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Cavity Brick	No insulation	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4100	2800	N	No	2000
Kitchen/Living	EW-1	600	2800	Е	No	4700
Kitchen/Living	EW-2	2800	2800	S	No	2700
Bedroom 1	EW-1	2600	2800	W	No	5600
Bedroom 1	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	1490	2800	N	No	2600

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No			
IW-2 - Shaft liner party wall with plaster	71.0	Bulk Insulation both sides of shaft liner R2	No			

#### **Floors**

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Certificate number: 0004273868 Certificate Date: 15 Oct 2019 ★ Star rating:





Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.0	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans	•		
Location	Number	Diameter (mm)	
None Presen	nt	•	

Roof type		
Construction	Added insulation	Roof colour

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Certificate number: 0004273868 Certificate Date:

15 Oct 2019

★ Star rating:

9.0

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	1011			dalla		I a f - f a
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None Present

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273892 Certificate Date: 15 Oct 2019 ★ Star rating: 7.9

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U203, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 73.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 73.0

# Annual thermal performance loads (MJ/m²)

 Heating:
 23.6

 Cooling:
 24.2

 TOTAL:
 47.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 47.8 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:\*\* 30 \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: LED

# Window selection - default windows only

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

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

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004273892 Certificate Date: 15 Oct 2019 ★ Star rating:



7.9

# **Building features**

window type	vindow type and performance value					
Window ID	Window type	U-value	SHGC			
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57			
ALM-002-01 A	Al M-002-01 A Aluminium B SG Clear	6.7	0.70			

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	1200	N	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2800	925	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	Е	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	nedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

E	External	wall type	
1			

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2595	2800	Е	No	0
Bedroom 1	EW-2	600	2800	Е	No	0
Bedroom 1	EW-2	3495	2800	S	No	2000
Ensuite	EW-2	1895	2800	S	No	2000
Ensuite	EW-2	700	2800	W	No	1200
Bedroom 2	EW-1	3090	2800	E	No	0
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	3600	2800	Е	No	2600
Kitchen/Living	EW-1	2600	2800	N	No	3600
Kitchen/Living	EW-1	2995	2800	Е	No	0
Kitchen/Living	EW-2	1195	2800	S	No	2700

#### Internal wall type

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Certificate number: 0004273892 Certificate Date: 15 Oct 2019 ★ Star rating:



7.9

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	34.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	31.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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

Certificate number: **0004273892** Certificate Date:

15 Oct 2019

★ Star rating:



Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof color insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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For more details see www.nathers.gov.au Document Set ID: 8893676

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

## **Overview**

#### **Dwelling details**

Street: Unit U206, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 70.0
Unconditioned: 4.0
Garage: 0.0
TOTAL: 74.0

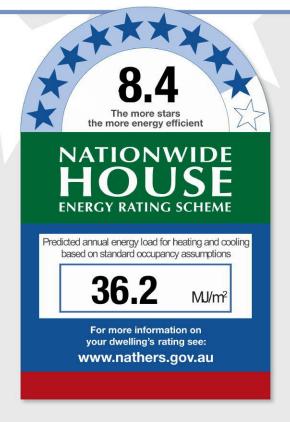
# Annual thermal performance loads (MJ/m²)

Heating: 8.7
Cooling: 27.6
TOTAL: 36.2

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:\*\* 27

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

Principle downlight type: LED

# Window selection - default windows only

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

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

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004273983 Certificate Date: 15 Oct 2019 ★ Star rating:



# **Building features**

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

#### Window schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
ALM-002-01 A	n/a	2143	2600	N	No Shading
ALM-001-01 A	n/a	2000	750	E	No Shading
ALM-001-01 A	n/a	2000	750	Е	No Shading
ALM-001-01 A	n/a	2000	750	Е	No Shading
ALM-001-01 A	n/a	2000	750	N	No Shading
ALM-001-01 A	n/a	2000	750	E	No Shading
	ALM-002-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A	ALM-002-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a	ALM-002-01 A n/a 2143 ALM-001-01 A n/a 2000	ALM-002-01 A       n/a       2143       2600         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750	ALM-002-01 A       n/a       2143       2600       N         ALM-001-01 A       n/a       2000       750       E         ALM-001-01 A       n/a       2000       750       E         ALM-001-01 A       n/a       2000       750       E         ALM-001-01 A       n/a       2000       750       N

Roof windo	w and skylig	ht type and performanc	e value			
ID	Windov	v type			U-value	SHGC
None Preser	nt					
Roof windo	w and skylig	ht schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

None Present

Fx	terna	wall	tv	ne
	LGIIIA	AACII	LY	

ID	Wall type Insulation		Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2800	N	No	2400
Kitchen/Living	EW-2	900	2800	W	No	1300
Kitchen/Living	EW-2	1300	2800	S	No	2000
Bedroom 1	EW-1	3795	2800	E	No	0
Ensuite	EW-1	2090	2800	E	No	0
Bath	EW-1	1990	2800	E	No	0
Bedroom 2	EW-1	2400	2800	W	No	4300
Bedroom 2	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	3695	2800	E	No	0

Internal	wall	type
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Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	52.0	No insulation	No

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Certificate number: 0004273983 Certificate Date: 15 Oct 2019 ★ Star rating:



# **Building features continued**

IW-2 - Shaft liner party wall with 41.0 Bulk Insulation both sides of shaft liner R2 No

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	13	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

umber	Diameter (mm)
ı	umber

#### Roof type

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

Certificate number: **0004273983** Certificate Date:

15 Oct 2019

★ Star rating:



Construction	Added insulation	Roof colour
None Present		

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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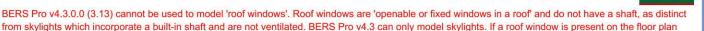
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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274015 Certificate Date: 15 Oct 2019 ★ Star rating: 7.1



then this certificate is not valid



Accreditation

20920 number:

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: 0414 265292

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

**ABSA** AAO:

#### Overview

#### **Dwelling details**

Street: Unit U207, 38-40 Orth St

Suburb: Kingswood

State: Postcode: 2747 NSW NCC Class: **New Dwelling** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

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

Conditioned: 74.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 74.0

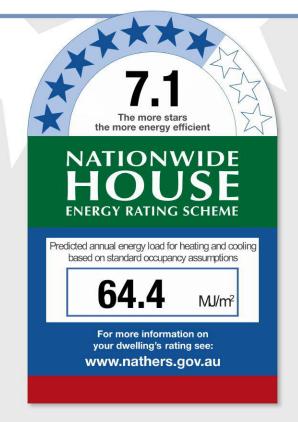
### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 38.8 Cooling: 25.6 TOTAL: 64.4

#### Plan documents

Plan ref/date: 1714

Prepared by: **AC PROJECT GROUP** 



#### Ceiling penetrations

(see following pages for details)

Sealed: 26 Unsealed: 0 TOTAL:\*\*

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

Principle downlight type: LED

26

## 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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Version: 1, Version Date: 18/10/2019

Certificate number: 0004274015 Certificate Date: 15 Oct 2019 ★ Star rating: 7.1



# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	S	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	Е	No Shading
Bedroom 2	ALM-002-01 A	n/a	2143	1800	Е	No Shading

Roof window and	skylight type and	performance value
Roof willdow allu	Skyllulli type allu	periorilance value

ID	Window type	U-value	SHGC	
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None Present

#### Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
----------	----	--------------------------------	-----------	---------------------------	--------------------------

None Present

#### **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3195	2800	N	No	0
Kitchen/Living	EW-2	4095	2800	Е	No	0
Kitchen/Living	EW-2	3995	2800	S	No	2500
Kitchen/Living	EW-1	5295	2800	W	No	2000
Bedroom 1	EW-2	3095	2800	E	No	0
Bath	EW-1	1200	2800	W	No	0
Bedroom 2	EW-2	2500	2800	E	No	4000
Ensuite	EW-1	995	2800	W	No	2000

#### Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	52.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	38.0	Bulk Insulation both sides of shaft liner R2	No

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Certificate number: **0004274015** Certificate Date:

15 Oct 2019

★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	42.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	3.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Construction	Added	Roof colour
	insulation	

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

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For more details see www.nathers.gov.au Document Set ID: 8893676

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Certificate number: 0004274064 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U208, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 70.0
Unconditioned: 4.0
Garage: 0.0
TOTAL: 73.0

# Annual thermal performance loads (MJ/m²)

Heating: 30.2 Cooling: 23.4 TOTAL: 53.6

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# 7.6 The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 53.6 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

27

# Window selection - default windows only

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

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

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004274064 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6



# **Building features**

Window type and perfo	rmance val	ue
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Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	E	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	S	No Shading
Ensuite	ALM-001-01 A	n/a	2000	750	S	No Shading
Bath	ALM-001-01 A	n/a	2000	750	S	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	S	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall type						
ID	Wall type	Insulation	Wall wrap or foil			
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No			
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No			

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1800	2800	N	No	0
Kitchen/Living	EW-2	1300	2800	N	No	0
Kitchen/Living	EW-2	4095	2800	E	No	2400
Bedroom 1	EW-2	2400	2800	N	No	4100
Bedroom 1	EW-2	3000	2800	E	No	0
Bedroom 1	EW-2	3495	2800	S	No	0
Ensuite	EW-2	2090	2800	S	No	0
Bath	EW-2	1990	2800	S	No	0
Bedroom 2	EW-2	3695	2800	S	No	0
Bedroom 2	EW-2	2300	2800	W	No	0

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
	42.0	Bulk Insulation both sides of shaft liner R2	No

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

Certificate number: 0004274064 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6



# **Building features continued**

IW-1 - Shaft liner party wall with plaster

IW-2 - Cavity wall, direct fix plasterboard, single gap 59.0 No insulation No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 150mm	1.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Hall	1	Downlights - LED	150	Sealed

## **Ceiling fans**

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

Certificate number: **0004274064** Certificate Date:

15 Oct 2019

★ Star rating:



7.6

Location	Number	Diameter (mm)	
None Present			
(0)			

Roof type		
Construction	Added insulation	Roof colour
None Present		

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

#### About this report

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

#### **General Information**

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

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

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

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

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

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

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

#### **Accredited Assessors**

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

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

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

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

#### **Disclaimer**

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

#### Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.





#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U209, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 69.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 69.0

# Annual thermal performance loads (MJ/m²)

Heating: 37.5 Cooling: 29.9 TOTAL: 67.3

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

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

#### Ceiling penetrations

(see following pages for details)

Sealed: 25 Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

25

# Window selection - default windows only

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

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

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

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

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: **0004274098** Certificate Date:

15 Oct 2019

★ Star rating:



# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2100	2600	S	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading

Roof window and	skylight	type and	nerformance	value
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ID Window type	U-value	SHGC	
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None Present

#### Roof window and skylight schedule

None Present

## **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2800	2800	S	No	0
Bedroom 1	EW-1	4295	2800	W	No	0
Ensuite	EW-2	3500	2800	N	No	2300
Ensuite	EW-2	1600	2800	E	No	5600
Ensuite	EW-2	2695	2800	W	No	0
Kitchen/Living	EW-2	795	2800	E	No	1900
Kitchen/Living	EW-1	4400	2800	S	No	1300
Kitchen/Living	EW-1	5295	2800	W	No	0
Entry and hall	EW-2	1895	2800	N	No	1600
Entry and hall	EW-2	1600	2800	W	No	5400
Entry and hall	EW-2	1800	2800	N	No	2300
Entry and hall	EW-2	4105	2800	E	No	1900

#### Internal wall type

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

Certificate number: **0004274098** Certificate Date:

15 Oct 2019

★ Star rating:



Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	37.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	21.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	9.2	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Ceramic Tiles 8mm
Entry and hall	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry and hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry and hall	4	Downlights - LED	150	Sealed
Entry and hall	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present	A		

Roof type		
Construction	Added insulation	Roof colour

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

Certificate number: **0004274098** Certificate Date:

15 Oct 2019

★ Star rating:

6.9 NATIONWIDE HOUSE INTERCY RATING SCHEME

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

#### About this report

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

#### **General Information**

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

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

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

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

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

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

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

#### **Accredited Assessors**

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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

For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274122 Certificate Date: 15 Oct 2019 ★ Star rating: 5.9

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U301, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

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

Conditioned: 73.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 73.0

# Annual thermal performance loads (MJ/m²)

Heating: 23.6 Cooling: 63.6 TOTAL: 87.2

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# 5.9 The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 87.2 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: **30** Unsealed: **0** TOTAL:\*\* **30** 

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

Principle downlight type: LED

# Window selection - default windows only

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

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

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004274122 Certificate Date:

15 Oct 2019





5.9

# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2800	330	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	750	W	No Shading
Bedroom 1	ALM-002-01 A	n/a	2800	1350	W	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2100	940	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	900	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External	wal	type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1295	2800	S	No	0
Bedroom 1	EW-1	600	2800	W	No	0
Bedroom 1	EW-1	3900	2800	S	No	0
Bedroom 1	EW-1	3095	2800	W	No	0
Bedroom 2	EW-1	3090	2800	W	No	0
Kitchen/Living	EW-1	2495	2800	W	No	0
Kitchen/Living	EW-1	2400	2800	N	No	4100
Kitchen/Living	EW-1	4100	2800	W	No	2400
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	2000	2800	E	No	5200
Kitchen/Living	EW-2	2400	2800	E	No	0
Kitchen/Living	EW-1	2095	2800	S	No	0

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

Certificate number: 0004274122

Certificate Date:

15 Oct 2019

★ Star rating:



5.9

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	28.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	29.6	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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

Certificate number: **0004274122** Certificate Date:

15 Oct 2019

★ Star rating:



Ceiling fans					
Location N	Number	Diameter (mm)			
None Present					

Roof type	
Construction	Added Roof colou insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

# About this report

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# Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274148 Certificate Date: 15 Oct 2019 ★ Star rating: 9.0

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U302, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: No wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 75.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 75.0

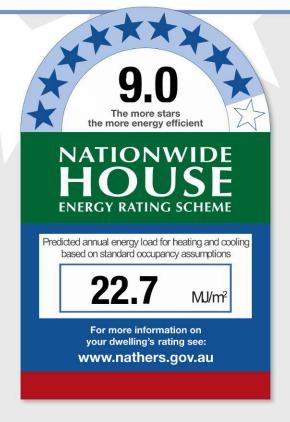
# Annual thermal performance loads (MJ/m²)

Heating: 9.0 Cooling: 13.8 TOTAL: 22.7

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

28

# 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.

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004274148 Certificate Date: 15 Oct 2019 ★ Star rating:



# **Building features**

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

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

ID	VAC in all and the control				Hambus	CLICC
ID	Window type	9			U-value	SHGC
None Present	A)					
Roof window	v and skylight so	hedule				
Roof window	w and skylight so	hedule				
Roof window Location	w and skylight so	chedule Roof	Area (m²)	Orientation	Outdoor shade	Indoor
			Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External	wal	l type
-		

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Cavity Brick	No insulation	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4100	2800	N	No	2000
Kitchen/Living	EW-1	600	2800	Е	No	4700
Kitchen/Living	EW-2	2800	2800	S	No	2700
Bedroom 1	EW-1	2600	2800	W	No	5600
Bedroom 1	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	1490	2800	N	No	2600

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No		
IW-2 - Shaft liner party wall with plaster	71.0	Bulk Insulation both sides of shaft liner R2	No		

### **Floors**

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Certificate number: 0004274148

Certificate Date:

15 Oct 2019

★ Star rating:

9.0



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.0	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans	•		
Location	Number	Diameter (mm)	
None Presen	nt	•	

Roof type	
Construction	Added Roof colour insulation

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Certificate number: **0004274148** Certificate Date:

15 Oct 2019

★ Star rating:



9.0

# **Building features continued**

None Present

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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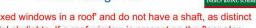
# Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274155 Certificate Date: 15 Oct 2019 ★ Star rating: 7.9



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

#### Assessor details

Accreditation

20920 number:

Name: **Terry Chapman** 

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: 0414 265292

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

**ABSA** AAO:

# Overview

# **Dwelling details**

Street: Unit U303, 38-40 Orth St

Suburb: Kingswood

State: Postcode: 2747 NSW NCC Class: **New Dwelling** Type:

**NatHERS** climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

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

Conditioned: 73.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 73.0

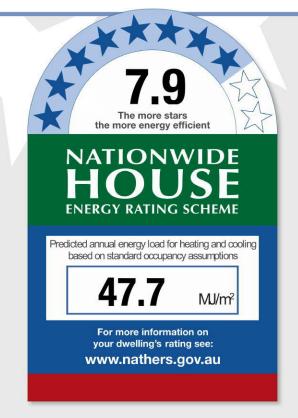
# **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 25.1 Cooling: 22.6 TOTAL: 47.7

#### Plan documents

Plan ref/date: 1714

Prepared by: **AC PROJECT GROUP** 



#### Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:\*\* 30 \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: LED

# Window selection default windows only

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Version: 1, Version Date: 18/10/2019

Certificate number: 0004274155 Certificate Date: 15 Oct 2019





7.9

# **Building features**

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

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	1200	N	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2800	925	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	Е	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading

ID	Window ty	уре			U-value	SHGC
None Present						
Roof window	and skylight	schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External	wall type	
20		

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2595	2800	Е	No	0
Bedroom 1	EW-2	600	2800	Е	No	0
Bedroom 1	EW-2	3495	2800	S	No	2000
Ensuite	EW-2	1895	2800	S	No	2000
Ensuite	EW-2	700	2800	W	No	1200
Bedroom 2	EW-1	3090	2800	E	No	0
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	3600	2800	Е	No	2600
Kitchen/Living	EW-1	2600	2800	N	No	3600
Kitchen/Living	EW-1	2995	2800	Е	No	0
Kitchen/Living	EW-2	1195	2800	S	No	2700

# Internal wall type

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Certificate number: 0004274155

Certificate Date: 15 Oct 2019







Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	34.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	31.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
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Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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Certificate number: **0004274155** Certificate Date:

15 Oct 2019

★ Star rating:



Ceiling fans		
Location N	Number	Diameter (mm)
None Present		

Roof type	
Construction	Added Roof colou insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274171 Certificate Date: 15 Oct 2019 ★ Star rating: 8.2

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U304, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 74.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 74.0

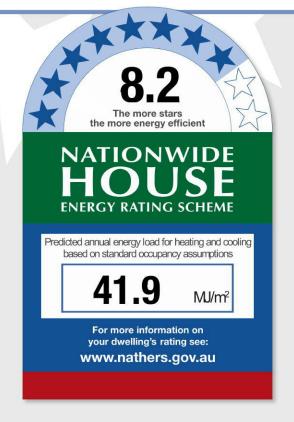
# Annual thermal performance loads (MJ/m²)

Heating: 25.6 Cooling: 16.3 TOTAL: 41.9

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:\*\* 30 \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: LED

# Window selection - default windows only

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

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

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Version: 1, Version Date: 18/10/2019

Certificate number: 0004274171 Certificate Date: 15 Oct 2019 ★ Star rating: 8.2



# **Building features**

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

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	750	N	No Shading

Roof window and	ekyliaht	type and	norformance	value
Roof window and	SKVIIGHT	type and	periormance	value

ID	Window type	U-value	SHGC

None Present

# Roof window and skylight schedule

Location ID	Roof window/skylight no.	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
-------------	--------------------------------	-----------	---------------------------	--------------------------

None Present

Ext	terna	l wal	l tv	pe

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3795	2800	S	No	1800
Bedroom 1	EW-2	3195	2800	W	No	0
Ensuite	EW-1	2090	2800	S	No	1800
Bedroom 2	EW-2	3090	2800	W	No	0
Kitchen/Living	EW-2	2595	2800	W	No	0
Kitchen/Living	EW-2	3100	2800	N	No	3400
Kitchen/Living	EW-2	3400	2800	W	No	3100
Kitchen/Living	EW-2	4000	2800	N	No	0
Entry hall	EW-1	1195	2800	S	No	1800

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	77.0	No insulation	No		
IW-2 - Shaft liner party wall with	34.0	Bulk Insulation both sides of shaft liner R2	No		

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Certificate number: **0004274171** Certificate Date:

15 Oct 2019

★ Star rating:



8.2

# **Building features continued**

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.3	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	30.7	None	No Insulation	Ceramic Tiles 8mm
Entry hall	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry hall	4	Downlights - LED	150	Sealed
Entry hall	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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Certificate number: **0004274171** Certificate Date:

15 Oct 2019

★ Star rating:



8.2

Roof type		
Construction	Added insulation	Roof colour
None Present		

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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# Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273850 Certificate Date: 15 Oct 2019 ★ Star rating: 8.8





#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U305, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: No wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 76.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 76.0

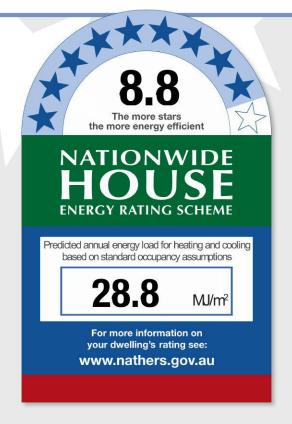
# Annual thermal performance loads (MJ/m²)

Heating: 9.1 Cooling: 19.7 TOTAL: 28.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 28
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

28

# 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.

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004273850 Certificate Date: 15 Oct 2019 ★ Star rating: 8.8



# **Building features**

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

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	1200	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

Roof windov	v and skylight typ	e and performanc	e value			
None Present	Window type				U-value	SHGC
Roof windov	v and skylight sch	edule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present	s. 9					

ID	Wall type		Insulation	Insulation		Wall wrap or foi	
EW-1	Fibro Cavity P	anel Direct Fix	Bulk Insulation	n R2	No	No	
EW-2	Cavity Brick		No insulation	No insulation		No	
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Kitchen/Living	EW-1	4100	2800	S	No	2700	
Kitchen/Living	EW-2	600	2800	W	No	4700	
Kitchen/Living	EW-2	4100	2800	N	No	2000	
Bedroom 1	EW-2	3200	2800	N	No	0	
Bedroom 1	EW-2	2600	2800	E	No	5600	
Bedroom 2	EW-2	1490	2800	N	No	2600	

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Shaft liner party wall with plaster	67.0	Bulk Insulation both sides of shaft liner R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No		

### **Floors**

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Certificate number: 0004273850

Certificate Date:

15 Oct 2019

★ Star rating:





Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present	t		

Roof type		
Construction	Added	Roof colour

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Certificate number: **0004273850** Certificate Date:

15 Oct 2019

★ Star rating:

NATIONWIDE HOUSE ENERGY RATING SCHEME

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	insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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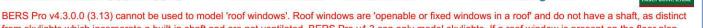
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Certificate number: 0004273876 Certificate Date: 15 Oct 2019 ★ Star rating: 8.5



from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U306, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 70.0
Unconditioned: 4.0
Garage: 0.0
TOTAL: 74.0

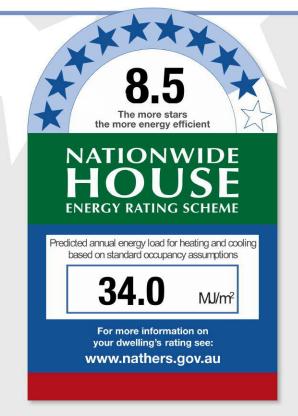
# Annual thermal performance loads (MJ/m²)

Heating: 10.4
Cooling: 23.6
TOTAL: 34.0

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:\*\*

maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.

\*\*NOTE: This total is the

Principle downlight type: LED

27

# 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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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

Certificate number: 0004273876 Certificate Date: 15 Oct 2019





# **Building features**

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

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	E	No Shading
Ensuite	ALM-001-01 A	n/a	2000	750	E	No Shading
Bath	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	E	No Shading

Roof window and	skylight type	and performance value
-----------------	---------------	-----------------------

ID	Window type	U-value	SHGC

None Present

# Roof window and skylight schedule

Location	ID	Roof window/skylight	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
		no.			

None Present

# **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2800	N	No	2400
Kitchen/Living	EW-2	900	2800	W	No	1300
Kitchen/Living	EW-2	1300	2800	S	No	2000
Bedroom 1	EW-1	3795	2800	E	No	0
Ensuite	EW-1	2090	2800	E	No	0
Bath	EW-1	1990	2800	E	No	0
Bedroom 2	EW-1	2400	2800	W	No	4300
Bedroom 2	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	3695	2800	Е	No	0

# Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	52.0	No insulation	No

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Certificate number: 0004273876 Certificate number: 0004273876

Certificate Date: 15 Oct 2019

★ Star rating:



8.5

# **Building features continued**

IW-2 - Shaft liner party wall with 41.0 Bulk Insulation both sides of shaft liner R2 No

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	13	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

umber	Diameter (mm)
ı	umber

# Roof type

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

Certificate number: **0004273876** Certificate Date:

15 Oct 2019

★ Star rating:

8.5 NATIONWID HOUS

Construction	Added Roof colour insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273900 Certificate Date: 15 Oct 2019 ★ Star rating: 7.1

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

### **Dwelling details**

Street: Unit U307, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP climate zone. 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 74.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 74.0

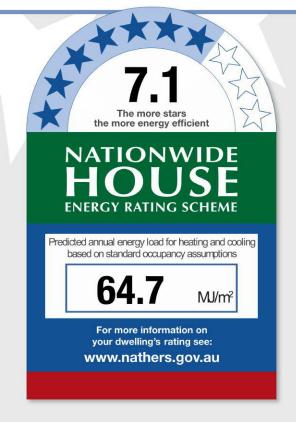
# Annual thermal performance loads (MJ/m²)

Heating: 41.4 Cooling: 23.3 TOTAL: 64.7

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

Sealed: 26
Unsealed: 0
TOTAL:\*\* 26

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

Principle downlight type: LED

# Window selection - default windows only

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004273900 Certificate Date: 15 Oct 2019 ★ Star rating: 7.1



# **Building features**

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

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	S	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	Е	No Shading
Bedroom 2	ALM-002-01 A	n/a	2143	1800	Е	No Shading

Roof window and	ekyliaht	type and	nerformance	value
Roof window and	SKVIIGHT	type and	periormance	value

ID	Window type	U-value	SHGC	
20%-20mV	WEST NO.			

None Present

# Roof window and skylight schedule

Location ID	Roof window/skylight no.	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
-------------	--------------------------------	-----------	---------------------------	--------------------------

None Present

# **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3195	2800	N	No	0
Kitchen/Living	EW-2	4095	2800	Е	No	0
Kitchen/Living	EW-2	3995	2800	S	No	2500
Kitchen/Living	EW-1	5295	2800	W	No	2000
Bedroom 1	EW-2	3095	2800	E	No	0
Bath	EW-1	1200	2800	W	No	0
Bedroom 2	EW-2	2500	2800	E	No	4000
Ensuite	EW-1	995	2800	W	No	2000

# Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	52.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	38.0	Bulk Insulation both sides of shaft liner R2	No

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Certificate number: **0004273900** Certificate Date:

15 Oct 2019





Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	42.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	3.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
None Present		

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

# About this report

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For more details see www.nathers.gov.au Document Set ID: 8893676

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Certificate number: 0004273926 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6





#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U308, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 70.0
Unconditioned: 4.0
Garage: 0.0
TOTAL: 73.0

# Annual thermal performance loads (MJ/m²)

Heating: **32.7**Cooling: **21.4**TOTAL: **54.0** 

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 54.0 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### **Ceiling penetrations**

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

27

# Window selection - default windows only

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Certificate number: 0004273926 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6



# **Building features**

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

### Window schedule

	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
ALM-002-01 A	n/a	2143	2600	E	No Shading
ALM-001-01 A	n/a	2000	750	E	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
	ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A	ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a	ALM-001-01 A n/a 2000 ALM-001-01 A n/a 2000 ALM-001-01 A n/a 2000 ALM-001-01 A n/a 2000	ALM-001-01 A n/a 2000 750	ALM-001-01 A n/a 2000 750 E ALM-001-01 A n/a 2000 750 S

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall type
--------------------

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No

### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1800	2800	N	No	0
Kitchen/Living	EW-2	1300	2800	N	No	0
Kitchen/Living	EW-2	4095	2800	E	No	2400
Bedroom 1	EW-2	2400	2800	N	No	4100
Bedroom 1	EW-2	3000	2800	E	No	0
Bedroom 1	EW-2	3495	2800	S	No	0
Ensuite	EW-2	2090	2800	S	No	0
Bath	EW-2	1990	2800	S	No	0
Bedroom 2	EW-2	3695	2800	S	No	0
Bedroom 2	EW-2	2300	2800	W	No	0

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
	42.0	Bulk Insulation both sides of shaft liner R2	No

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Certificate number: 0004273926 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6



# **Building features continued**

IW-1 - Shaft liner party wall with plaster

IW-2 - Cavity wall, direct fix plasterboard, single gap 59.0 No insulation No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 150mm	1.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Hall	1	Downlights - LED	150	Sealed

# **Ceiling fans**

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Certificate number: **0004273926** Certificate Date:

15 Oct 2019

★ Star rating:



7.6

Location	Number	Diameter (mm)	
None Present			
0			

Roof type	
Construction	Added Roof color insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

## **Explanatory notes**

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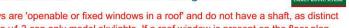
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Certificate number: 0004273959 Certificate Date: 15 Oct 2019 ★ Star rating: 6.9



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#### Assessor details

Accreditation

20920 number:

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: 0414 265292

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

**ABSA** AAO:

#### Overview

#### **Dwelling details**

Street: Unit U309, 38-40 Orth St

Suburb: Kingswood

State: Postcode: 2747 NSW NCC Class: **New Dwelling** Type:

**NatHERS** climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

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

Conditioned: 69.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 69.0

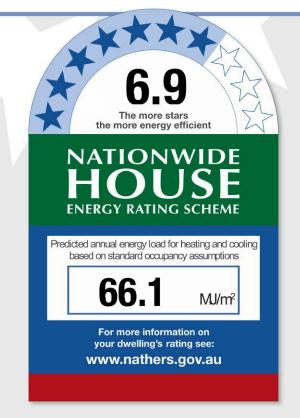
### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 39.8 Cooling: 26.2 TOTAL: 66.1

#### Plan documents

Plan ref/date: 1714

Prepared by: **AC PROJECT GROUP** 



#### Ceiling penetrations

(see following pages for details)

Sealed: 25 Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

25

## Window selection default windows only

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Version: 1, Version Date: 18/10/2019

Certificate number: **0004273959** Certificate Date:

15 Oct 2019

★ Star rating:



6.9

## **Building features**

Window	type	and	performance value
8			

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2100	2600	S	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading

Roof window and	skylight	type and	nerformance	value
Roof William alla	SKVIIUIIL	type and	periorinance	value

ID Window type	U-value	SHGC	
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None Present

## Roof window and skylight schedule

None Present

## **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2800	2800	S	No	0
Bedroom 1	EW-1	4295	2800	W	No	0
Ensuite	EW-2	3500	2800	N	No	2300
Ensuite	EW-2	1600	2800	E	No	5600
Ensuite	EW-2	2695	2800	W	No	0
Kitchen/Living	EW-2	795	2800	E	No	1900
Kitchen/Living	EW-1	4400	2800	S	No	1300
Kitchen/Living	EW-1	5295	2800	W	No	0
Entry and hall	EW-2	1895	2800	N	No	1600
Entry and hall	EW-2	1600	2800	W	No	5400
Entry and hall	EW-2	1800	2800	N	No	2300
Entry and hall	EW-2	4105	2800	Е	No	1900

#### Internal wall type

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



15 Oct 2019

★ Star rating:



6.9

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	37.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	21.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	9.2	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Ceramic Tiles 8mm
Entry and hall	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry and hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry and hall	4	Downlights - LED	150	Sealed
Entry and hall	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present	i		

Roof type		
Construction	Added insulation	Roof colour

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

Certificate number: **0004273959** Certificate Date:

15 Oct 2019

★ Star rating:

6.9 NATIONWIDE HOUSE INTERCY RATING SCHEME

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on				

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

## **Explanatory notes**

#### About this report

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Certificate number: 0004273934 Certificate Date: 15 Oct 2019 ★ Star rating: 8.3

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U204, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 74.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 74.0

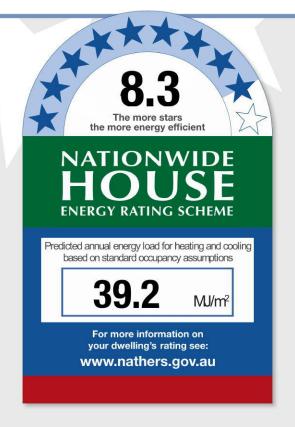
# Annual thermal performance loads (MJ/m²)

Heating: 19.1 Cooling: 20.2 TOTAL: 39.2

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 30
Unsealed: 0
TOTAL:\*\* 30

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

Principle downlight type: LED

## Window selection - default windows only

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

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004273934 Certificate Date: 15 Oct 2019 ★ Star rating:



## **Building features**

Trillaott type alla periorillarioe talac	Window	type and	performance	value
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Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	750	N	No Shading

Roof window at	nd skylight	type and	nerformance	value
NOUI WIIIUUW ai	IU SKVIIUIIL	LVUE allu	Dellolliance	value

ID	Window type	U-value	SHGC

None Present

## Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
----------	----	--------------------------------	-----------	---------------------------	--------------------------

None Present

Ext	terna	l wal	l tv	pe

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3795	2800	S	No	1800
Bedroom 1	EW-2	3195	2800	W	No	0
Ensuite	EW-1	2090	2800	S	No	1800
Bedroom 2	EW-2	3090	2800	W	No	0
Kitchen/Living	EW-2	2595	2800	W	No	0
Kitchen/Living	EW-2	3100	2800	N	No	3400
Kitchen/Living	EW-2	3400	2800	W	No	3100
Kitchen/Living	EW-2	4000	2800	N	No	0
Entry hall	EW-1	1195	2800	S	No	1800

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	77.0	No insulation	No
IW-2 - Shaft liner party wall with	34.0	Bulk Insulation both sides of shaft liner R2	No

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Certificate number: 0004273934

Certificate Date:

15 Oct 2019

★ Star rating:



## **Building features continued**

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.3	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	30.7	None	No Insulation	Ceramic Tiles 8mm
Entry hall	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry hall	4	Downlights - LED	150	Sealed
Entry hall	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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Certificate number: **0004273934** Certificate Date:

15 Oct 2019

★ Star rating:

8.3



Roof type	
Construction	Added Roof colour insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

## **Explanatory notes**

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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273975 Certificate Date: 15 Oct 2019 ★ Star rating: 8.8



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#### Assessor details

Accreditation

20920 number:

Name: **Terry Chapman** 

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: 0414 265292

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

**ABSA** AAO:

#### Overview

#### **Dwelling details**

Street: Unit U205, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747 NCC Class: **New Dwelling** Type:

**NatHERS** 

climate zone: 28 Lot/DP

number: 62/36728 Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: No wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

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

Conditioned: 76.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 76.0

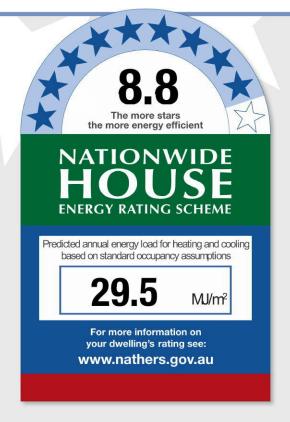
### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 7.6 Cooling: 21.9 TOTAL: 29.5

#### Plan documents

Plan ref/date: 1714

Prepared by: **AC PROJECT GROUP** 



#### Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0

TOTAL:\*\*

maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.

\*\*NOTE: This total is the

Principle downlight type: LED

28

## 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.

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Version: 1, Version Date: 18/10/2019

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004273975 Certificate Date: 15 Oct 2019 ★ Star rating:



8.8

## **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	1200	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

ID	Window	type		U-value	SHGC
None Present	07 12				
Roof window	w and skyligh	it schedule			
<b>8</b>					

ID	Wall type		Insulation		Wall wrap or foil	
EW-1	Fibro Cavity Panel Direct Fix		Bulk Insulation R2		No	
EW-2	Cavity Brick		No insulation		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4100	2800	S	No	2700
Kitchen/Living	EW-2	600	2800	W	No	4700
Kitchen/Living	EW-2	4100	2800	N	No	2000
Bedroom 1	EW-2	3200	2800	N	No	0
Bedroom 1	EW-2	2600	2800	Е	No	5600
Bedroom 2	EW-2	1490	2800	N	No	2600

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Shaft liner party wall with plaster	67.0	Bulk Insulation both sides of shaft liner R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No		

## **Floors**

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Certificate number: **0004273975** Certificate Date:

Date: 15 Oct 2019

★ Star rating:



8.8

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans	3		
Location	Number	Diameter (mm)	
None Presen	t		

Roof type		
Construction	Added	Roof colour

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Certificate number: **0004273975** Certificate Date:

15 Oct 2019

★ Star rating:



8.8

	insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

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#### **Disclaimer**

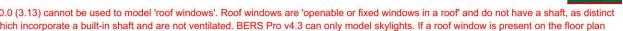
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#### Contact

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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274189 Certificate Date: 15 Oct 2019 ★ Star rating: 6.7



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

#### Assessor details

Accreditation

20920 number:

Name: **Terry Chapman** 

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: 0414 265292

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

**ABSA** AAO:

#### Overview

#### **Dwelling details**

Street: Unit U407, 38-40 Orth St

Suburb: Kingswood

State: Postcode: 2747 NSW NCC Class: **New Dwelling** Type:

**NatHERS** climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

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

Conditioned: 52.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 52.0

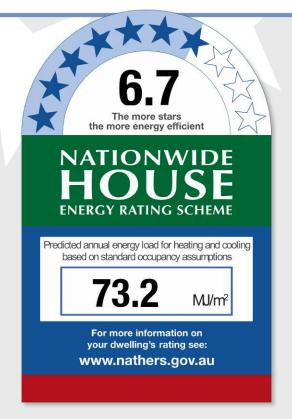
### **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 43.9 Cooling: 29.3 TOTAL: 73.2

#### Plan documents

Plan ref/date: 1714

Prepared by: **AC PROJECT GROUP** 



#### Ceiling penetrations

(see following pages for details)

Sealed: 20 Unsealed: 0 TOTAL:\*\* 20 \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: LED

## Window selection default windows only

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

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

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

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

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



Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004274189 Certificate Date: 15 Oct 2019 ★ Star rating:



## **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	S	No Shading
Bedroom 2	ALM-002-01 A	n/a	2143	1800	Е	No Shading

Roof window and sky	light type and	performance value
---------------------	----------------	-------------------

ID Window type U-value SHGC
-----------------------------

None Present

#### Roof window and skylight schedule

Location	ID	Roof	Area (m²)	Orientation Outdoor shade	
		window/skylight			shade/diffuser
		no.			

None Present

#### **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1700	2800	N	No	0
Kitchen/Living	EW-2	3900	2800	Е	No	0
Kitchen/Living	EW-2	3995	2800	S	No	2500
Kitchen/Living	EW-1	4395	2800	W	No	2000
Bedroom 2	EW-2	2500	2800	E	No	4000
Ensuite	EW-1	995	2800	W	No	2000

## Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Shaft liner party wall with plaster	46.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	24.0	No insulation	No

#### **Floors**

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Certificate number: 0004274189

Certificate Date:

15 Oct 2019

★ Star rating:

6.7



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	36.1	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Kitchen/Living	Concrete, Plasterboard	No insulation	No	
Bedroom 2	Concrete, Plasterboard	No insulation	No	
Ensuite	Concrete, Plasterboard	No insulation	No	

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans	3		
Location	Number	Diameter (mm)	
None Present	t		

Roof type	
Construction	Added Roof colour insulation
None Present	

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

## **Explanatory notes**

#### About this report

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

#### **General Information**

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

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

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

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

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

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

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

#### **Accredited Assessors**

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

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

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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273843 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6





#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

Lot/DP

#### **Dwelling details**

Street: Unit U408, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 70.0 Unconditioned: 4.0 Garage: 0.0 TOTAL: 73.0

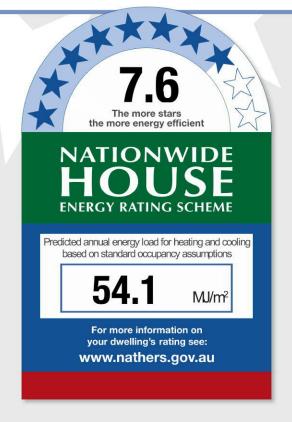
# Annual thermal performance loads (MJ/m²)

Heating: 33.1 Cooling: 21.0 TOTAL: 54.1

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

27

## Window selection - default windows only

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

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

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

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

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Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004273843 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6



## **Building features**

Window type and perfo	rmance val	ue
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Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

#### Window schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
ALM-002-01 A	n/a	2143	2600	E	No Shading
ALM-001-01 A	n/a	2000	750	E	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
	ALM-002-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A	ALM-002-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a	ALM-002-01 A n/a 2143 ALM-001-01 A n/a 2000	ALM-002-01 A       n/a       2143       2600         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750	ALM-002-01 A       n/a       2143       2600       E         ALM-001-01 A       n/a       2000       750       E         ALM-001-01 A       n/a       2000       750       S         ALM-001-01 A       n/a       2000       750       S         ALM-001-01 A       n/a       2000       750       S

ID	Window	type		U-value	SHGC
None Presen	t				
Roof windo	w and skyligl	nt schedule			
				Outdoor shade	

<b>External wall type</b>	Exte	rnal	wall	ty	pe
---------------------------	------	------	------	----	----

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1800	2800	N	No	0
Kitchen/Living	EW-2	1300	2800	N	No	0
Kitchen/Living	EW-2	4095	2800	E	No	2400
Bedroom 1	EW-2	2400	2800	N	No	4100
Bedroom 1	EW-2	3000	2800	E	No	0
Bedroom 1	EW-2	3495	2800	S	No	0
Ensuite	EW-2	2090	2800	S	No	0
Bath	EW-2	1990	2800	S	No	0
Bedroom 2	EW-2	3695	2800	S	No	0
Bedroom 2	EW-2	2300	2800	W	No	0

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
	42.0	Bulk Insulation both sides of shaft liner R2	No

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Certificate number: 0004273843 Certificate Date: 15 Oct 2019 ★ Star rating:



7.6

## **Building features continued**

IW-1 - Shaft liner party wall with plaster

IW-2 - Cavity wall, direct fix plasterboard, single gap 59.0 No insulation No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 150mm	1.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Hall	1	Downlights - LED	150	Sealed

## **Ceiling fans**

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

Certificate number: **0004273843** Certificate Date:

15 Oct 2019

★ Star rating:



Location	Number	Number Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

## **Explanatory notes**

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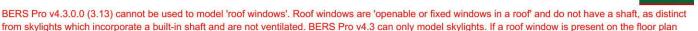
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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273884 Certificate Date: 15 Oct 2019 ★ Star rating: 6.9





Assessor details

then this certificate is not valid

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U409, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 69.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 69.0

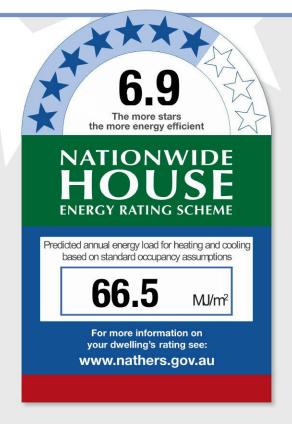
# Annual thermal performance loads (MJ/m²)

Heating: 40.3 Cooling: 26.2 TOTAL: 66.5

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 25
Unsealed: 0
TOTAL:\*\* 25

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

Principle downlight type: LED

## Window selection - default windows only

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004273884

Certificate Date: 15 Oct 2019

★ Star rating:



6.9

## **Building features**

Window type	and	performance	value

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2100	2600	S	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading

ID	Window type	U-value	SHGC

None Present

## Roof window and skylight schedule

None Present

## **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2800	2800	S	No	0
Bedroom 1	EW-1	4295	2800	W	No	0
Ensuite	EW-2	3500	2800	N	No	2300
Ensuite	EW-2	1600	2800	E	No	5600
Ensuite	EW-2	2695	2800	W	No	0
Kitchen/Living	EW-2	795	2800	E	No	1900
Kitchen/Living	EW-1	4400	2800	S	No	1300
Kitchen/Living	EW-1	5295	2800	W	No	0
Entry and hall	EW-2	1895	2800	N	No	1600
Entry and hall	EW-2	1600	2800	W	No	5400
Entry and hall	EW-2	1800	2800	N	No	2300
Entry and hall	EW-2	4105	2800	E	No	1900

#### Internal wall type

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Certificate number: **0004273884** Certificate Date:

15 Oct 2019

★ Star rating:



6.9

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	37.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	21.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	9.2	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Ceramic Tiles 8mm
Entry and hall	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry and hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry and hall	4	Downlights - LED	150	Sealed
Entry and hall	1	Exhaust Fans	300	Sealed

Ceiling fans	Ceiling fans				
Location	Number	Diameter (mm)			
None Present	t				

Roof type		
Construction	Added insulation	Roof colour

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

Certificate number: **0004273884** Certificate Date:

15 Oct 2019

★ Star rating:

6.9 NATIONWIDE HOUSE INTERGY RATING SCHEME

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

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.

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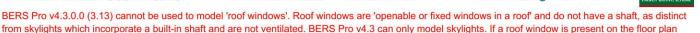
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

#### Contact

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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273918 Certificate Date: 15 Oct 2019 ★ Star rating: 5.9



then this certificate is not valid.

#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U501, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R2.5 ceiling insulation No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

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

Conditioned: 73.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 73.0

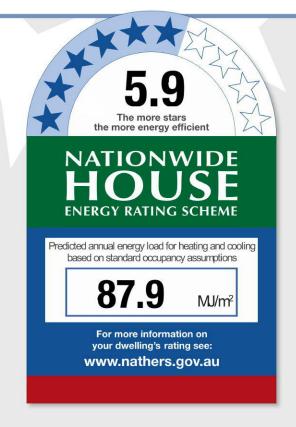
# Annual thermal performance loads (MJ/m²)

Heating: 30.2 Cooling: 57.6 TOTAL: 87.9

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: **30** Unsealed: **0** TOTAL:\*\* **30** 

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

Principle downlight type: LED

## Window selection - default windows only

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

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

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

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

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



\* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

Certificate number: **0004273918** Certificate Date:

15 Oct 2019

★ Star rating:



5.9

## **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2800	330	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	750	W	No Shading
Bedroom 1	ALM-002-01 A	n/a	2800	1350	W	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2100	940	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	900	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External	wall type	
ID	Wall type	Insulation

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1295	2800	S	No	0
Bedroom 1	EW-1	600	2800	W	No	0
Bedroom 1	EW-1	3900	2800	S	No	0
Bedroom 1	EW-1	3095	2800	W	No	0
Bedroom 2	EW-1	3090	2800	W	No	0
Kitchen/Living	EW-1	2495	2800	W	No	0
Kitchen/Living	EW-1	2400	2800	N	No	4100
Kitchen/Living	EW-1	4100	2800	W	No	2400
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	2000	2800	E	No	5200
Kitchen/Living	EW-2	2400	2800	E	No	0
Kitchen/Living	EW-1	2095	2800	S	No	0

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Certificate number: 0004273918

Certificate Date:

15 Oct 2019

★ Star rating:



5.9

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	28.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	29.6	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Bulk Insulation R2.5	Yes
Ensuite	Concrete, Plasterboard	Bulk Insulation R2.5	Yes
Bedroom 2	Concrete, Plasterboard	Bulk Insulation R2.5	Yes
Bath	Concrete, Plasterboard	Bulk Insulation R2.5	Yes
Kitchen/Living	Concrete, Plasterboard	Bulk Insulation R2.5	Yes
Kitchen/Living	Concrete, Plasterboard	Bulk Insulation R2.5	Yes

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed

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15 Oct 2019





5.9

Kitchen/Living	1	Exhaust Fans	300	Sealed
Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Cei	ling	fans
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Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
Waterproofing Membrane	No Added Medium Insulation, No air Gap

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

## **Explanatory notes**

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Certificate number: 0004273942 Certificate Date: 15 Oct 2019 ★ Star rating: 8.9

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U502, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard

Concrete Slab, Unit Below

No wall insulation No ceiling insulation

No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Insulation:

Conditioned: 75.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 75.0

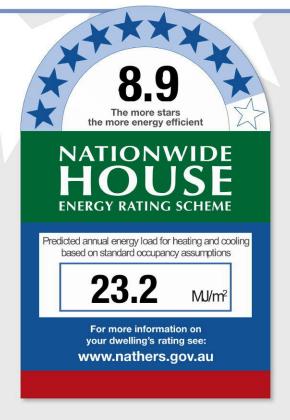
# Annual thermal performance loads (MJ/m²)

Heating: 9.4
Cooling: 13.8
TOTAL: 23.2

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

Sealed: 28
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

28

## 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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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: **0004273942** Certificate Date:

15 Oct 2019

★ Star rating:



8.9

# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

ID	Window type			U-value	SHGC
None Present					
Roof window	and skylight sch	edule			

External wall type
--------------------

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Cavity Brick	No insulation	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4100	2800	N	No	2000
Kitchen/Living	EW-1	600	2800	Е	No	4700
Kitchen/Living	EW-2	2800	2800	S	No	2700
Bedroom 1	EW-1	2600	2800	W	No	5600
Bedroom 1	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	1490	2800	N	No	2600

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No	
IW-2 - Shaft liner party wall with plaster	71.0	Bulk Insulation both sides of shaft liner R2	No	

#### **Floors**

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Certificate number: 0004273942

Certificate Date:

15 Oct 2019

★ Star rating:

8.9



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.0	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans	3		
Location	Number	Diameter (mm)	
None Presen	t		

Roof type		
Construction	Added insulation	Roof colour

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Certificate number: **0004273942** Certificate Date:

15 Oct 2019

★ Star rating:



8.9

# **Building features continued**

None Present

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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#### Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273967 Certificate Date: 15 Oct 2019 ★ Star rating: 7.9

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U503, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Open

Lot/DP number: 62/36728 Exposure: On

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 73.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 73.0

# Annual thermal performance loads (MJ/m²)

Heating: 25.1 Cooling: 22.7 TOTAL: 47.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 47.8 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: **30**Unsealed: **0**TOTAL:\*\*

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

Principle downlight type: LED

# Window selection - default windows only

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

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004273967 Certificate Date: 15 Oct 2019 ★ Star rating:



7.9

# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	1200	N	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2800	925	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	Е	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight scl	nedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall ty	pe
------------------	----

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2595	2800	E	No	0
Bedroom 1	EW-2	600	2800	Е	No	0
Bedroom 1	EW-2	3495	2800	S	No	2000
Ensuite	EW-2	1895	2800	S	No	2000
Ensuite	EW-2	700	2800	W	No	1200
Bedroom 2	EW-1	3090	2800	E	No	0
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	3600	2800	Е	No	2600
Kitchen/Living	EW-1	2600	2800	N	No	3600
Kitchen/Living	EW-1	2995	2800	Е	No	0
Kitchen/Living	EW-2	1195	2800	S	No	2700

#### Internal wall type

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Certificate number: **0004273967** Certificate Date:

15 Oct 2019

★ Star rating:



7.9

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	34.0	Bulk Insulation both sides of shaft liner R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	31.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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Certificate number: **0004273967** Certificate Date:

15 Oct 2019

★ Star rating:

7.9



Ceiling fans			
Location	Number	Diameter (mm)	
None Present	W 20		
	×C		

Roof type	
Construction	Added Roof colou insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

#### About this report

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

#### **General Information**

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

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

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

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

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

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

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

#### **Accredited Assessors**

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

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

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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

For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274007 Certificate Date: 15 Oct 2019 ★ Star rating: 8.2

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U504, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 74.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 74.0

# Annual thermal performance loads (MJ/m²)

Heating: 25.4 Cooling: 16.4 TOTAL: 41.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# 8.2 The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 41.8 Mu/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:\*\* 30 \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: LED

# Window selection - default windows only

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004274007 Certificate Date: 15 Oct 2019 ★ Star rating: 8.2



# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	750	N	No Shading

Roof window and	skylight type and	performance value
Roof willdow allu	Skyllulli type allu	periorilance value

ID	Window type	U-value	SHGC

None Present

## Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
----------	----	--------------------------------	-----------	---------------------------	--------------------------

None Present

## **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3795	2800	S	No	1800
Bedroom 1	EW-2	3195	2800	W	No	0
Ensuite	EW-1	2090	2800	S	No	1800
Bedroom 2	EW-2	3090	2800	W	No	0
Kitchen/Living	EW-2	2595	2800	W	No	0
Kitchen/Living	EW-2	3100	2800	N	No	3400
Kitchen/Living	EW-2	3400	2800	W	No	3100
Kitchen/Living	EW-2	4000	2800	N	No	0
Entry hall	EW-1	1195	2800	S	No	1800

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - Cavity wall, direct fix plasterboard, single gap	77.0	No insulation	No			
IW-2 - Shaft liner party wall with	34.0	Bulk Insulation both sides of shaft liner R2	No			

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Certificate number: **0004274007** Certificate Date:

15 Oct 2019

★ Star rating:



8.2

# **Building features continued**

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.3	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	30.7	None	No Insulation	Ceramic Tiles 8mm
Entry hall	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry hall	4	Downlights - LED	150	Sealed
Entry hall	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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Certificate number: **0004274007** Certificate Date:

15 Oct 2019

★ Star rating:





Roof type	
Construction	Added Roof colour insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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#### Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274031 Certificate Date: 15 Oct 2019 ★ Star rating: 8.8





#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U505, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: No wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 76.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 76.0

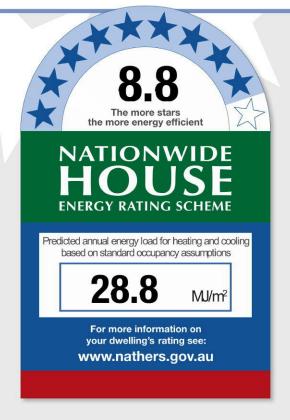
# Annual thermal performance loads (MJ/m²)

Heating: 9.5
Cooling: 19.3
TOTAL: 28.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

28

# 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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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004274031 Certificate Date: 15 Oct 2019 ★ Star ra

★ Star rating: 8.8



# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	1200	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

Roof window and skylight type and performance v	value	rmance v	perforn	and	type	skylight	and	window	Roof
---	-------	----------	---------	-----	------	----------	-----	--------	------

ID Window type U-value SHGC	3C
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None Present

#### Roof window and skylight schedule

Location	ID	Roof window/skylight	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
		no.			

None Present

#### **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Cavity Brick	No insulation	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4100	2800	S	No	2700
Kitchen/Living	EW-2	600	2800	W	No	4700
Kitchen/Living	EW-2	4100	2800	N	No	2000
Bedroom 1	EW-2	3200	2800	N	No	0
Bedroom 1	EW-2	2600	2800	E	No	5600
Bedroom 2	EW-2	1490	2800	N	No	2600

# Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Shaft liner party wall with plaster	67.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No

#### **Floors**

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Certificate number: 0004274031

Certificate Date:

15 Oct 2019

★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans	3		
Location	Number	Diameter (mm)	
None Presen	t		

Roof type		
Construction	Added	Roof colour

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Certificate number: **0004274031** Certificate Date:

15 Oct 2019

★ Star rating:

NATIONWIDE HOUSE ENERGY RATING SCHEME

8.8

	insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

#### About this report

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274049 Certificate Date: 15 Oct 2019 ★ Star rating: 8.4

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

star rating: 8.4

#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U506, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 96.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 96.0

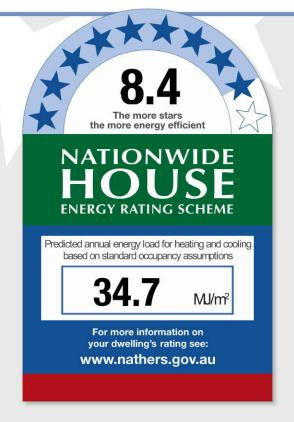
# Annual thermal performance loads (MJ/m²)

Heating: 9.9
Cooling: 24.8
TOTAL: 34.7

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 34
Unsealed: 0
TOTAL:\*\* 34

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

Principle downlight type: LED

# Window selection - default windows only

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

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

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

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

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004274049 Certificate Date: 15 Oct 2019 ★ Star rating:



# **Building features**

Window type and performance value	Window	w type and	performance va	lue
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Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 3	ALM-001-01 A	n/a	2000	750	E	No Shading
Ensuite	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	Е	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	Е	No Shading

Roof wind	dow and s	kylight type	and per	formance value

ID	Window type	U-value	SHGC

None Present

## Roof window and skylight schedule

Location ID Roof Area (m²) Orientation Outdoor shade Indoo window/skylight shad no.	or e/diffuser
---	------------------

None Present

## **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2800	N	No	2400
Bedroom 3	EW-1	3990	2800	E	No	0
Ensuite	EW-1	3090	2800	E	No	0
Bedroom 2	EW-1	2400	2800	W	No	4300
Bedroom 2	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	4495	2800	E	No	0
Bedroom 1	EW-1	3195	2800	E	No	0
Kitchen/Living	EW-2	2595	2800	W	No	3200

#### Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	90.0	No insulation	No

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

Certificate number: 0004274049 Certificate Date: 15 O

15 Oct 2019





# **Building features continued**

IW-2 - Shaft liner party wall with 48.0 Bulk Insulation both sides of shaft liner R2 No

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	39.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Small bath	Concrete Slab, Unit Below 150mm	3.6	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	16.9	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Small bath	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	13	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Small bath	1	Downlights - LED	150	Sealed
Small bath	1	Exhaust Fans	300	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	2	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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Certificate number: **0004274049** Certificate Date:

15 Oct 2019

★ Star rating:



Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof color insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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Certificate number: 0004274080 Certificate Date: 15 Oct 2019 ★ Star rating: 6.7





#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U507, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

Lot/DP

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 52.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 52.0

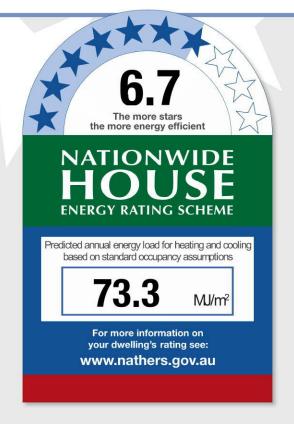
# Annual thermal performance loads (MJ/m²)

Heating: 44.3 Cooling: 29.1 TOTAL: 73.3

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

 Sealed:
 20

 Unsealed:
 0

 TOTAL:\*\*
 20

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Principle downlight type: LED

# Window selection - default windows only

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Certificate number: 0004274080 Certificate Date: 15 Oct 2019 ★ Star rating: 6.7



# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	S	No Shading
Bedroom 2	ALM-002-01 A	n/a	2143	1800	Е	No Shading

Roof window and skylight type and performance va	value	ormance	d perf	and	type	vliaht	sky	and	window	Roof
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ID	Window type	U-value	SHGC	

None Present

#### Roof window and skylight schedule

Location ID Roof window/skylight no.	Area (m²) Orientation	Outdoor shade Indoor shade/diffuser
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None Present

EX	terna	wal	l ty	pe
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1700	2800	N	No	0
Kitchen/Living	EW-2	3900	2800	Е	No	0
Kitchen/Living	EW-2	3995	2800	S	No	2500
Kitchen/Living	EW-1	4395	2800	W	No	2000
Bedroom 2	EW-2	2500	2800	E	No	4000
Ensuite	EW-1	995	2800	W	No	2000

# Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Shaft liner party wall with plaster	46.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	24.0	No insulation	No

#### **Floors**

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Certificate number: 0004274080

Certificate Date:

15 Oct 2019

★ Star rating:

6.7



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	36.1	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present	t		

Roof type		
Construction	Added insulation	Roof colour
None Present		

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

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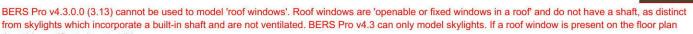
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For more details see www.nathers.gov.au Document Set ID: 8893676

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Certificate number: 0004274114 Certificate Date: 15 Oct 2019 ★ Star rating: 7.6



then this certificate is not valid.

#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

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Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 70.0
Unconditioned: 4.0
Garage: 0.0
TOTAL: 73.0

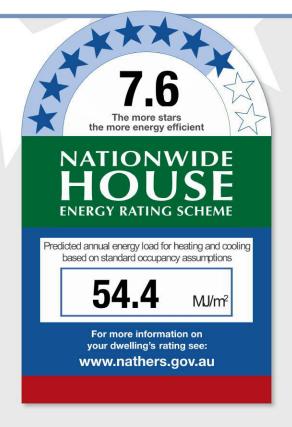
# Annual thermal performance loads (MJ/m²)

Heating: 33.4
Cooling: 21.0
TOTAL: 54.4

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

27

# Window selection - default windows only

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

Certificate number: 0004274114 Certificate Date: 15 Oct 2019 ★ Star rating:



7.6

# **Building features**

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

#### Window schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
ALM-002-01 A	n/a	2143	2600	E	No Shading
ALM-001-01 A	n/a	2000	750	E	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
ALM-001-01 A	n/a	2000	750	S	No Shading
	ALM-002-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A	ALM-002-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a ALM-001-01 A n/a	ALM-002-01 A       n/a       2143         ALM-001-01 A       n/a       2000         ALM-001-01 A       n/a       2000         ALM-001-01 A       n/a       2000         ALM-001-01 A       n/a       2000	ALM-002-01 A       n/a       2143       2600         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750         ALM-001-01 A       n/a       2000       750	ALM-002-01 A       n/a       2143       2600       E         ALM-001-01 A       n/a       2000       750       E         ALM-001-01 A       n/a       2000       750       S         ALM-001-01 A       n/a       2000       750       S         ALM-001-01 A       n/a       2000       750       S

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External	wall	type		
70				

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1800	2800	N	No	0
Kitchen/Living	EW-2	1300	2800	N	No	0
Kitchen/Living	EW-2	4095	2800	E	No	2400
Bedroom 1	EW-2	2400	2800	N	No	4100
Bedroom 1	EW-2	3000	2800	E	No	0
Bedroom 1	EW-2	3495	2800	S	No	0
Ensuite	EW-2	2090	2800	S	No	0
Bath	EW-2	1990	2800	S	No	0
Bedroom 2	EW-2	3695	2800	S	No	0
Bedroom 2	EW-2	2300	2800	W	No	0

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
	42.0	Bulk Insulation both sides of shaft liner R2	No

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

Certificate number: 0004274114 Certificate Date:

15 Oct 2019

★ Star rating:



7.6

## **Building features continued**

IW-1 - Shaft liner party wall with plaster

IW-2 - Cavity wall, direct fix plasterboard, single gap 59.0 No insulation No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 150mm	1.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Hall	1	Downlights - LED	150	Sealed

## **Ceiling fans**

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Certificate number: **0004274114** Certificate Date:

15 Oct 2019

★ Star rating:



Location	Number	Diameter (mm)	
None Present			
0			

Roof type		
Construction	Added insulation	Roof colour
None Present		

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

#### About this report

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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.

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#### Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274130 Certificate Date: 15 Oct 2019 ★ Star rating: 6.9



then this certificate is not valid.



Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

Lot/DP

#### **Dwelling details**

Street: Unit U509, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 69.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 69.0

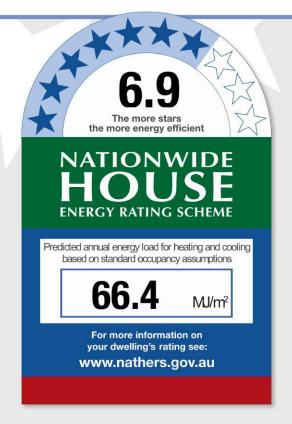
# Annual thermal performance loads (MJ/m²)

Heating: 40.6 Cooling: 25.9 TOTAL: 66.4

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 25
Unsealed: 0

TOTAL:\*\*

maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.

\*\*NOTE: This total is the

Principle downlight type: LED

25

# 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.

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



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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

Certificate number: **0004274130** Certificate Date:

15 Oct 2019

★ Star rating:



SHGC

# **Building features**

Window type and performance value				
Window ID	Window type			

ALM-001-01 A Aluminium A SG Clear

ALM-002-01 A ALM-002-01 A Aluminium B SG Clear

6.7 0.57 6.7 0.70

**U-value** 

#### Window schedule

ALM-001-01 A

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2100	2600	S	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading

Roof window and	skylight type a	and performance value

ID Window type U-value SHGC

None Present

Roof window and skylight schedule

Location	ID	Roof window/skylight	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser

None Present

Ext	terna	wal	type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2800	2800	S	No	0
Bedroom 1	EW-1	4295	2800	W	No	0
Ensuite	EW-2	3500	2800	N	No	2300
Ensuite	EW-2	1600	2800	E	No	5600
Ensuite	EW-2	2695	2800	W	No	0
Kitchen/Living	EW-2	795	2800	E	No	1900
Kitchen/Living	EW-1	4400	2800	S	No	1300
Kitchen/Living	EW-1	5295	2800	W	No	0
Entry and hall	EW-2	1895	2800	N	No	1600
Entry and hall	EW-2	1600	2800	W	No	5400
Entry and hall	EW-2	1800	2800	N	No	2300
Entry and hall	EW-2	4105	2800	E	No	1900

#### Internal wall type

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Certificate number: **0004274130** Certificate Date:

15 Oct 2019

★ Star rating:



Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	37.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	21.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	9.2	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Ceramic Tiles 8mm
Entry and hall	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry and hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry and hall	4	Downlights - LED	150	Sealed
Entry and hall	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present	1 3		

Roof type		
Construction	Added insulation	Roof colour

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

Certificate number: **0004274130** Certificate Date:

15 Oct 2019

★ Star rating:



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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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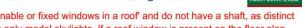
## Contact

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004273991 Certificate Date: 15 Oct 2019 ★ Star rating: 5.9



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

#### Assessor details

Accreditation

20920 number:

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: 0414 265292

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

**ABSA** AAO:

# Overview

## **Dwelling details**

Street: Unit U401, 38-40 Orth St

Suburb: Kingswood

State: Postcode: 2747 NSW NCC Class: **New Dwelling** Type:

**NatHERS** climate zone: 28

Lot/DP number: 62/36728 Exposure:

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

> No ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

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

Conditioned: 73.0 Unconditioned: 0.0 Garage: 0.0 TOTAL: 73.0

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

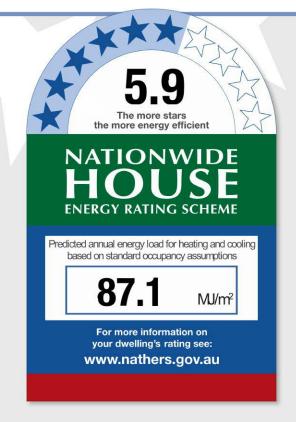
Open

Heating: 23.7 Cooling: 63.3 TOTAL: 87.1

#### Plan documents

Plan ref/date: 1714

Prepared by: **AC PROJECT GROUP** 



#### Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:\*\* 30 \*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: LED

# Window selection default windows only

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

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

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

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



Version: 1, Version Date: 18/10/2019

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: **0004273991** Certificate Date:

15 Oct 2019

★ Star rating:



5.9

# **Building features**

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

## Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2800	330	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	750	W	No Shading
Bedroom 1	ALM-002-01 A	n/a	2800	1350	W	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2100	940	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	900	N	No Shading

ID	Window	type		U-value	SHGC
None Presen	t				
Poof windo	w and skyligh	t schedule			
Roof willdo	w and skyngn	t soricutio			

External wall type	Ex	terna	wal	tv	pe
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1295	2800	S	No	0
Bedroom 1	EW-1	600	2800	W	No	0
Bedroom 1	EW-1	3900	2800	S	No	0
Bedroom 1	EW-1	3095	2800	W	No	0
Bedroom 2	EW-1	3090	2800	W	No	0
Kitchen/Living	EW-1	2495	2800	W	No	0
Kitchen/Living	EW-1	2400	2800	N	No	4100
Kitchen/Living	EW-1	4100	2800	W	No	2400
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	2000	2800	E	No	5200
Kitchen/Living	EW-2	2400	2800	E	No	0
Kitchen/Living	EW-1	2095	2800	S	No	0

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Certificate number: 0004273991

Certificate Date:

15 Oct 2019

★ Star rating:



Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No		
IW-2 - Shaft liner party wall with plaster	28.0	Bulk Insulation both sides of shaft liner R2	No		

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	29.6	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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Certificate number: **0004273991** Certificate Date:

15 Oct 2019

★ Star rating:



Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
None Present		

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274023 Certificate Date: 15 Oct 2019 ★ Star rating: 9.0

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

## **Dwelling details**

Street: Unit U402, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: No wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 75.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 75.0

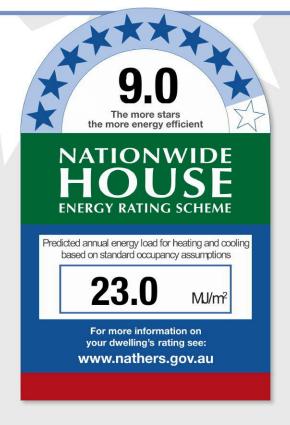
# Annual thermal performance loads (MJ/m²)

Heating: 9.2 Cooling: 13.8 TOTAL: 23.0

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 28
Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

28

# Window selection - default windows only

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

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004274023 Certificate Date: 15 Oct 2019 ★ Star rating: 9.0



# **Building features**

Window type and performance value	Window	w type and	performance va	lue
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Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

## Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall type	Exte	rnal	wal	I type
--------------------	------	------	-----	--------

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Cavity Brick	No insulation	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4100	2800	N	No	2000
Kitchen/Living	EW-1	600	2800	Е	No	4700
Kitchen/Living	EW-2	2800	2800	S	No	2700
Bedroom 1	EW-1	2600	2800	W	No	5600
Bedroom 1	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	1490	2800	N	No	2600

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No		
IW-2 - Shaft liner party wall with plaster	71.0	Bulk Insulation both sides of shaft liner R2	No		

## **Floors**

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Certificate number: 0004274023 Certificate Date: 15 Oct 2019 ★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.0	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans	3		
Location	Number	Diameter (mm)	
None Presen	t		

Roof type		
Construction	Added insulation	Roof colour

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Certificate number: 0004274023 Certificate Date: 15 Oct 2019

9 ★ Star rating:



9.0

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None Present

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

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.

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Certificate number: 0004274056 Certificate Date: 15 Oct 2019 ★ Star rating: 7.9

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U403, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 73.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 73.0

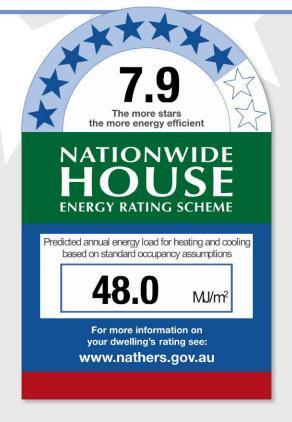
# Annual thermal performance loads (MJ/m²)

Heating: 25.2 Cooling: 22.8 TOTAL: 48.0

## Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

 Sealed:
 30

 Unsealed:
 0

 TOTAL:\*\*
 30

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Principle downlight type: LED

# Window selection - default windows only

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Certificate number: 0004274056 Certificate Date: 15 Oct 2019 ★ Star rating: 7.9



# **Building features**

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

## Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	1200	N	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2800	925	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	Е	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight scl	nedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External v	vall type		
ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes

EW-1 AAC Cavity Panel Direct Fix Foil, Anti-glare one side + Bulk Insulation R2 Yes
EW-2 Fibro Cavity Panel Direct Fix Bulk Insulation R2 No

## External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2595	2800	Е	No	0
Bedroom 1	EW-2	600	2800	Е	No	0
Bedroom 1	EW-2	3495	2800	S	No	2000
Ensuite	EW-2	1895	2800	S	No	2000
Ensuite	EW-2	700	2800	W	No	1200
Bedroom 2	EW-1	3090	2800	E	No	0
Kitchen/Living	EW-1	4000	2800	N	No	0
Kitchen/Living	EW-1	3600	2800	Е	No	2600
Kitchen/Living	EW-1	2600	2800	N	No	3600
Kitchen/Living	EW-1	2995	2800	Е	No	0
Kitchen/Living	EW-2	1195	2800	S	No	2700

# Internal wall type

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Certificate number: 0004274056 Certificate Date: 15 Oct 2019

★ Star rating:



7.9

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	34.0	Bulk Insulation both sides of shaft liner R2	No

Floors						
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering	
Bedroom 1	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet+Rubber Underlay 18mm	
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm	
Bedroom 2	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet+Rubber Underlay 18mm	
Bath	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm	
Kitchen/Living	Concrete Slab, Unit Below 150mm	31.5	None	No Insulation	Ceramic Tiles 8mm	
Kitchen/Living	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Ceramic Tiles 8mm	

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Kitchen/Living	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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Certificate number: **0004274056** Certificate Date:

15 Oct 2019

★ Star rating:



7.9

Ceiling fans			
Location	Number	Diameter (mm)	
None Present	W 20		
	×C		

Roof type	
Construction	Added Roof colou insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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Certificate number: 0004274072 Certificate Date: 15 Oct 2019 ★ Star rating: 8.2

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

## **Dwelling details**

Street: Unit U404, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 74.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 74.0

# Annual thermal performance loads (MJ/m²)

Heating: 25.6 Cooling: 16.2 TOTAL: 41.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# RATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 41.8 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: **30** Unsealed: **0** TOTAL:\*\* **30** 

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

Principle downlight type: LED

# Window selection - default windows only

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

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

Certificate number: 0004274072 Certificate Date: 15 Oct 2019 ★ Star rating: 8.2



# **Building features**

Window type and performa	ince v	/aiue
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Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70

## Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2000	750	W	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	940	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	W	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	750	N	No Shading

Roof window and	ekylight	type and	nerformance	value
Roof window and	SKVIIGHT	type and	periormance	value

ID	Window type	U-value	SHGC	

None Present

# Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
----------	----	--------------------------------	-----------	---------------------------	--------------------------

None Present

Ext	terna	l wal	<b>type</b>

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	AAC Cavity Panel Direct Fix	Foil, Anti-glare one side + Bulk Insulation R2	Yes

# **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3795	2800	S	No	1800
Bedroom 1	EW-2	3195	2800	W	No	0
Ensuite	EW-1	2090	2800	S	No	1800
Bedroom 2	EW-2	3090	2800	W	No	0
Kitchen/Living	EW-2	2595	2800	W	No	0
Kitchen/Living	EW-2	3100	2800	N	No	3400
Kitchen/Living	EW-2	3400	2800	W	No	3100
Kitchen/Living	EW-2	4000	2800	N	No	0
Entry hall	EW-1	1195	2800	S	No	1800

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	77.0	No insulation	No		
IW-2 - Shaft liner party wall with	34.0	Bulk Insulation both sides of shaft liner R2	No		

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Certificate number: **0004274072** Certificate Date:

15 Oct 2019





8.2

# **Building features continued**

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.7	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.3	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	30.7	None	No Insulation	Ceramic Tiles 8mm
Entry hall	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Entry hall	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry hall	4	Downlights - LED	150	Sealed
Entry hall	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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Certificate number: **0004274072** Certificate Date:

15 Oct 2019

★ Star rating:



8.2

Roof type		
Construction	Added insulation	Roof colour
None Present		

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274106 Certificate Date: 15 Oct 2019 ★ Star rating: 8.8

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U405, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: Cavity Brick

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: No wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 76.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 76.0

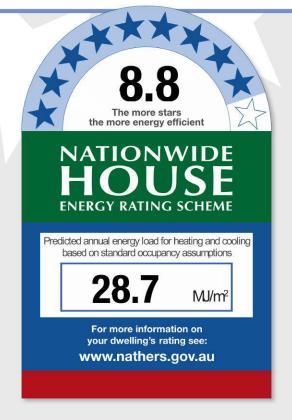
# Annual thermal performance loads (MJ/m²)

Heating: 9.3
Cooling: 19.4
TOTAL: 28.7

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

28

# Window selection - default windows only

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004274106 Certificate Date: 15 Oct 2019 ★ Star rating: 8.8



# **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	950	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	2800	1200	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	1200	750	N	No Shading

Roof window a	and skylight	type and	performance	value
8				

ID	Window type	U-value	SHGC	

None Present

# Roof window and skylight schedule

Location	ID	Roof window/skylight	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
		no.			

None Present

Externa	wall	ty	pe
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ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Cavity Brick	No insulation	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4100	2800	S	No	2700
Kitchen/Living	EW-2	600	2800	W	No	4700
Kitchen/Living	EW-2	4100	2800	N	No	2000
Bedroom 1	EW-2	3200	2800	N	No	0
Bedroom 1	EW-2	2600	2800	E	No	5600
Bedroom 2	EW-2	1490	2800	N	No	2600

# Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Shaft liner party wall with plaster	67.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No

## **Floors**

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Certificate number: **0004274106** Certificate Date:

15 Oct 2019

★ Star rating:



8.8

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Kitchen/Living	1	Downlights - LED	150	Sealed

Ceiling fans	3		
Location	Number	Diameter (mm)	
None Presen	nt		

Roof type		
Construction	Added	Roof colour

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Certificate number: **0004274106** Certificate Date:

15 Oct 2019

★ Star rating:

8.8 NATIONWIDE HOUSE ENERGY RATING SCHEME

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Building	Teat	IIITAC	con	TIP	NIIAC
	ı ıcaı	UICO	COL		IUCU

	insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U406, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 96.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 96.0

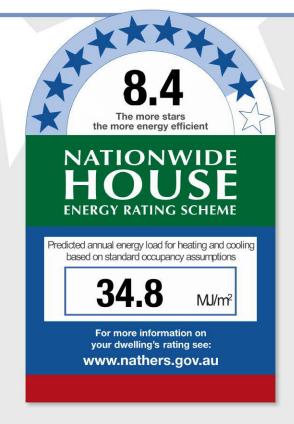
# Annual thermal performance loads (MJ/m²)

Heating: 9.7
Cooling: 25.2
TOTAL: 34.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: **34**Unsealed: **0**TOTAL:\*\*

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

Principle downlight type: LED

# Window selection - default windows only

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

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# **Building features**

Window	type and	performance va	ue

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

## Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2143	2600	N	No Shading
Bedroom 3	ALM-001-01 A	n/a	2000	750	E	No Shading
Ensuite	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	N	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	Е	No Shading
Bedroom 2	ALM-001-01 A	n/a	2000	750	E	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	750	E	No Shading

Roof wind	dow and s	kylight type	and per	formance value

ID	Window type	U-value	SHGC	
	Timaon type	O value	01100	

None Present

# Roof window and skylight schedule

Location	ID	Roof window/skylight	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
		no.			

None Present

# **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

## **External wall schedule**

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2800	N	No	2400
Bedroom 3	EW-1	3990	2800	E	No	0
Ensuite	EW-1	3090	2800	E	No	0
Bedroom 2	EW-1	2400	2800	W	No	4300
Bedroom 2	EW-1	3200	2800	N	No	0
Bedroom 2	EW-1	4495	2800	E	No	0
Bedroom 1	EW-1	3195	2800	E	No	0
Kitchen/Living	EW-2	2595	2800	W	No	3200

# Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	90.0	No insulation	No

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Certificate number: **0004274163** Certificate Date: **15 Oct 2019** 

★ Star rating:



# **Building features continued**

IW-2 - Shaft liner party wall with 48.0 Bulk Insulation both sides of shaft liner R2 No

plaster

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	39.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Small bath	Concrete Slab, Unit Below 150mm	3.6	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	16.9	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Small bath	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	13	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Small bath	1	Downlights - LED	150	Sealed
Small bath	1	Exhaust Fans	300	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	2	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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Page 3 of 5

Certificate number: **0004274163** Certificate Date:

15 Oct 2019

★ Star rating:



Ceiling fans		
Location Nu	ımber	Diameter (mm)
None Present		

Roof type	
Construction	Added Roof colou insulation
None Present	

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

# **Explanatory notes**

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For more details see www.nathers.gov.au Document Set ID: 8893676

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274270 Certificate Date: 15 Oct 2019 ★ Star rating: 7.4

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

# Overview

# **Dwelling details**

Street: Unit U602, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

**Corrugated Iron** 

Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

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

Conditioned: 86.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 86.0

# Annual thermal performance loads (MJ/m²)

Heating: 19.3 Cooling: 38.9 TOTAL: 58.1

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# 7.4 The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 58.1 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: 30
Unsealed: 0
TOTAL:\*\*

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

Principle downlight type: LED

# Window selection - default windows only

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

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

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

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

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au Document Set ID: 8893676

Certificate number: 0004274270 Certificate Date: 15 Oct 2019 ★ Star rating: 7.4



# **Building features**

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

## Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	1800	750	W	No Shading
Bedroom 1	ALM-002-01 A	n/a	2400	1600	N	No Shading
Ensuite	ALM-001-01 A	n/a	1800	750	W	No Shading
Bedroom 3	ALM-001-01 A	n/a	1800	750	W	No Shading

Roof window and skylight type and performance value							
ID	Windov	v type			U-value	SHGC	
None Preser	nt	-					
Roof windo	w and skylig	ht schedule					
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser	

None Present

External		4.	-
LALGITIA	AACII	LV	

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

## External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	2195	2700	S	No	2000
Kitchen/Living	EW-1	6095	2700	N	No	500
Bedroom 1	EW-1	3695	2700	W	No	500
Bedroom 1	EW-1	3095	2700	N	No	500
Ensuite	EW-1	2690	2700	W	No	500
Bedroom 3	EW-2	3095	2700	S	No	2000
Bedroom 3	EW-1	3595	2700	W	No	500
Bath	EW-1	1990	2700	S	No	2000

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Shaft liner party wall with plaster	21.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Concrete Panel/Blocks filled	, 11.0	No Insulation	No

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Certificate number: 0004274270

Certificate Date:

15 Oct 2019

★ Star rating:

4 NATIONW HOU ENERGY RATING S

plasterboard			
IW-3 - Cavity wall, direct fix plasterboard, single gap	61.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	53.1	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	13.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.0	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	16	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed

Ceiling fans	<b>S</b>		-
Location	Number	Diameter (mm)	

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

Certificate number: 0004274270 Certificate Date: 15 Oct 2019

★ Star rating:



# **Building features continued**

None Present

Roof type			
Construction	Added Roof colour insulation		
Corrugated Iron	Bulk, Reflective Medium Side Down, No Air Gap Above R1.3		

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

#### **Explanatory notes**

#### About this report

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

#### **General Information**

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

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

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

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

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

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

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

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#### **Assessor details**

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

Lot/DP

#### **Dwelling details**

Street: Unit U603, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

**Corrugated Iron** 

Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

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

Conditioned: 89.0
Unconditioned: 4.0
Garage: 0.0
TOTAL: 93.0

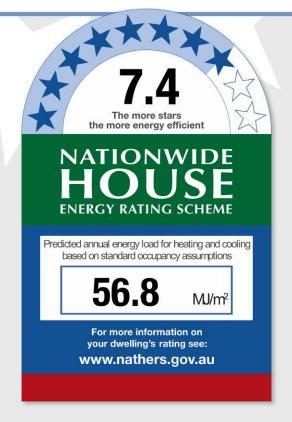
# Annual thermal performance loads (MJ/m²)

Heating: 30.0 Cooling: 26.7 TOTAL: 56.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### **Ceiling penetrations**

(see following pages for details)

Sealed: 37 Unsealed: 0

TOTAL:\*\* 37

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

Principle downlight type: LED

## Window selection - default windows only

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

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

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004274528 Certificate Date: 15 C

15 Oct 2019





#### **Building features**

Window type and performan	ce value
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Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2400	4000	N	No Shading
Bedroom 1	ALM-002-01 A	n/a	2400	1580	N	No Shading
Bedroom 1	ALM-002-01 A	n/a	600	2400	E	No Shading
Bath	ALM-002-01 A	n/a	600	1500	E	No Shading
Bedroom 2	ALM-002-01 A	n/a	2400	1580	N	No Shading
Bedroom 3	ALM-002-01 A	n/a	600	2400	Е	No Shading

Roof window and	ekyliaht	type and	nerformance	value
ROOI WIIIUUW allu	SKVIIGIIL	type and	periormance	value

ID Window type	U-value	SHGC
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None Present

#### Roof window and skylight schedule

Location	ID	Roof window/skylight	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
		no.			

None Present

#### **External wall type**

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	5390	2700	N	No	2400
Kitchen/Living	EW-2	3100	2700	S	No	1800
Kitchen/Living	EW-2	600	2700	W	No	0
Kitchen/Living	EW-2	500	2700	S	No	0
Kitchen/Living	EW-2	1095	2700	W	No	0
Bedroom 1	EW-1	3000	2700	N	No	1400
Bedroom 1	EW-1	3600	2700	E	No	500
Bedroom 1	EW-1	600	2700	S	No	5700
Bedroom 1	EW-1	1000	2700	W	No	8500
Bath	EW-1	1990	2700	E	No	1100
Bedroom 2	EW-1	1000	2700	E	No	8900
Bedroom 2	EW-1	3100	2700	N	No	1400
Bedroom 3	EW-1	3700	2700	Е	No	500
Bedroom 3	EW-1	600	2700	N	No	7000
Ensuite	EW-2	1595	2700	S	No	0
Ldry	EW-1	1095	2700	S	No	0

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Certificate number: **0004274528** Certificate Date:

15 Oct 2019

★ Star rating:



Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	72.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	35.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	10.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	15.1	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Ldry	Concrete Slab, Unit Below 150mm	2.0	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite	Plasterboard	Bulk Insulation R3.5	Yes
Ldry	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	16	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

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Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Ldry	1	Downlights - LED	150	Sealed
Ldry	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Medium Side Down, No Air Gap Above R1.3

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

#### **Explanatory notes**

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Certificate number: 0004274262 Certificate Date: 15 Oct 2019 ★ Star rating: 5.9

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

Lot/DP

#### **Dwelling details**

Street: Unit U604, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

**Corrugated Iron** 

Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

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

Conditioned: 81.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 81.0

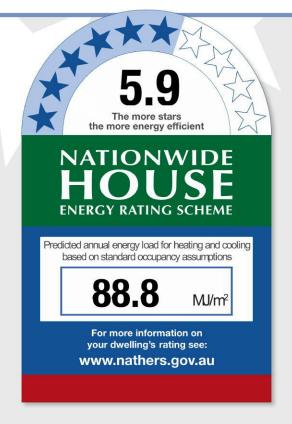
# Annual thermal performance loads (MJ/m²)

Heating: 37.7 Cooling: 51.0 TOTAL: 88.8

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 31 Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

31

## 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.

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: **0004274262** Certificate Date:

15 Oct 2019

★ Star rating:



5.9

#### **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	E	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	E	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	1600	E	No Shading
Bedroom 2	ALM-002-01 A	n/a	2400	2600	S	No Shading
Bedroom 2	ALM-001-01 A	n/a	2100	750	Е	No Shading

ID	Window	type			U-value	SHGC
None Presen	t					
Roof windo	w and skyligh	it schedule				
		Roof	. ( 0)	0 1 4 41	Outdoor shade	

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	AAC Cavity P	anel Direct Fix	Bulk Insulation	n R2	No	i
External wall s	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6495	2700	E	No	500
Kitchen/Living	EW-1	600	2700	N	No	2500
Kitchen/Living	EW-1	2500	2700	W	No	1900
Bedroom 1	EW-1	3090	2700	Е	No	500
Bedroom 2	EW-1	4600	2700	S	No	500
Bedroom 2	EW-1	2995	2700	E	No	500
Ensuite	EW-1	1690	2700	E	No	500

Wall type Area (m²) Insulation Wall wrap				
			and the same and t	
IW-1 - Shaft liner party wall with plaster	56.0	Bulk Insulation both sides of shaft liner R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	55.0	No insulation	No	

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

Certificate number: 0004274262

Certificate Date: 15 Oct 2019

★ Star rating:



5.9

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.5	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	10.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2	Concrete Slab, Unit Below 150mm	17.3	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	5.6	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite	Plasterboard	Bulk Insulation R3.5	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	16	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bath	2	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans				
Location	Number	Diameter (mm)		
None Present	t			

Roof type		
Construction	Added	Roof colour

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**15 Oct 2019** ★ Star rating:



5.9

	insulation
Corrugated Iron	Bulk, Reflective Medium Side Down, No Air Gap Above R1.3

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

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 the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

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

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

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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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#### Contact

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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.

Certificate number: 0004274288 Certificate Date: 15 Oct 2019 ★ Star rating: 5.8

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



#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U605, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

**Corrugated Iron** 

Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

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

Conditioned: 84.0
Unconditioned: 0.0
Garage: 0.0
TOTAL: 84.0

# Annual thermal performance loads (MJ/m²)

Heating: 56.8
Cooling: 35.6
TOTAL: 92.4

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP

# 5.8 The more stars the more energy efficient NATIONWIDE HOUSE ENERGY RATING SCHEME Predicted annual energy load for heating and cooling based on standard occupancy assumptions 92.4 MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: 26 Unsealed: 0

TOTAL:\*\*

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

Principle downlight type: LED

26

## 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.

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



Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004274288 Certificate Date: 15 Oct 2019 ★ Star rating: 5.8



#### **Building features**

Window type	and performance value	
	140	

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	S	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	S	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1800	750	W	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1800	750	W	No Shading
Bedroom 1	ALM-001-01 A	n/a	1800	750	W	No Shading
Ensuite	ALM-001-01 A	n/a	1800	750	S	No Shading
Bedroom 2	ALM-001-01 A	n/a	1800	750	W	No Shading

Roof window and skylight typ	e and performance value
------------------------------	-------------------------

ID	Window type	U-value	SHGC	
----	-------------	---------	------	--

None Present

#### Roof window and skylight schedule

Location	ID	Roof	Area (m²)	Orientation Outdoor shade	Indoor
		window/skylight			shade/diffuser
		no.			

None Present

Ext	erna	ı wai	l ty	pe
-----	------	-------	------	----

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

#### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1195	2700	N	No	2000
Kitchen/Living	EW-1	6900	2700	S	No	500
Kitchen/Living	EW-1	3512	2700	W	No	554
Bedroom 1	EW-1	2998	2700	W	No	607
Ensuite	EW-1	1395	2700	S	No	500
Ensuite	EW-2	2100	2700	W	No	0
Ensuite	EW-2	3500	2700	N	No	2000
Ensuite	EW-2	900	2700	Е	No	5000
Ensuite	EW-2	395	2700	N	No	2900
Bath	EW-2	1395	2700	N	No	2900
Bath	EW-2	900	2700	W	No	5300
Bath	EW-2	1995	2700	N	No	2000
Bedroom 2	EW-1	3218	2700	W	No	591

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Certificate number: **0004274288** Certificate Date:

15 Oct 2019





5.8

#### **Building features continued**

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	61.0	No insulation	No
IW-2 - Shaft liner party wall with plaster	38.0	Bulk Insulation both sides of shaft liner R2	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	46.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab, Unit Below 150mm	7.2	None	No Insulation	Ceramic Tiles 8mm
Bath	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.1	None	No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

#### **Ceiling fans**

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Certificate number: **0004274288** Certificate Date:

15 Oct 2019

★ Star rating:



5.8

Location	Number	Diameter (mm)	
None Present			
(0)			

Roof type	
Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Medium Side Down, No Air Gap Above R1.3

NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

#### **Explanatory notes**

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Certificate number: 0004274254 Certificate Date: 15 Oct 2019 ★ Star rating: 6.8

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#### Assessor details

Accreditation

number: 20920

Name: Terry Chapman

Organisation: Chapman Environmental Services Pty Ltd Email: terry@basixcertificates.com.au

Phone: **0414 265292** 

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit U601, 38-40 Orth St

Suburb: Kingswood

State: NSW Postcode: 2747
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: 28

number: 62/36728 Exposure: Open

#### Key construction and insulation materials

(see following pages for details)

Construction: AAC Cavity Panel Direct Fix

**Corrugated Iron** 

Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

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

Conditioned: 91.0
Unconditioned: 9.0
Garage: 0.0
TOTAL: 101.0

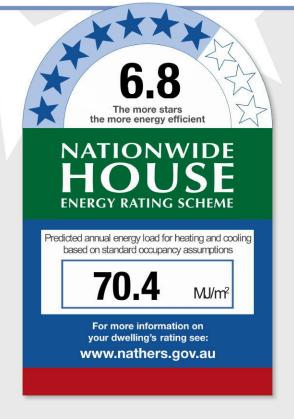
# Annual thermal performance loads (MJ/m²)

Heating: **35.5**Cooling: **34.9**TOTAL: **70.4** 

#### Plan documents

Plan ref/date: 1714

Prepared by: AC PROJECT GROUP



#### Ceiling penetrations

(see following pages for details)

Sealed: 38
Unsealed: 0
TOTAL:\*\* 38

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

Principle downlight type: LED

## Window selection - default windows only

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Document Set ID: 8893676 Version: 1, Version Date: 18/10/2019

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Certificate number: 0004274254 Certificate Date: 15 Oct 2019 ★ Star rating: 6.8



#### **Building features**

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

#### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	N	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2400	2600	N	No Shading
Bedroom 1	ALM-002-01 A	n/a	2400	1600	N	No Shading
Bedroom 1	ALM-001-01 A	n/a	1800	750	E	No Shading
Laundry	ALM-002-01 A	n/a	600	1500	S	No Shading
Bedroom 2	ALM-002-01 A	n/a	600	2400	W	No Shading
Bedroom 2	ALM-002-01 A	n/a	2400	1600	N	No Shading
Bedroom 3	ALM-001-01 A	n/a	1800	750	E	No Shading
Bath	ALM-002-01 A	n/a	600	1800	S	No Shading
Ensuite	ALM-002-01 A	n/a	600	1500	W	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation (	Outdoor shade	Indoor shade/diffuser

ID	Wall type	Insulation	Wall wrap or foi
EW-1	AAC Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2	No

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6890	2700	N	No	1500
Kitchen/Living	EW-2	3300	2700	S	No	0
Kitchen/Living	EW-2	2200	2700	W	No	0
Bedroom 1	EW-1	1000	2700	W	No	10500
Bedroom 1	EW-1	3000	2700	N	No	500
Bedroom 1	EW-1	3395	2700	Е	No	500
Laundry	EW-1	1690	2700	S	No	0
Bedroom 2	EW-2	1090	2700	S	No	0
Bedroom 2	EW-1	3695	2700	W	No	500
Bedroom 2	EW-1	3100	2700	N	No	500
Bedroom 2	EW-1	1000	2700	Е	No	10400

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Certificate number: 0004274254 Certificate Date: 15 Oct 2019 ★ Star rating:



6.8

Bedroom 3	EW-2	3990	2700	E	No	500
Bath	EW-1	3695	2700	S	No	0
Bath	EW-2	2395	2700	W	No	0
Ensuite	EW-1	1995	2700	S	No	0
Ensuite	EW-1	1895	2700	W	No	500
Kitchen/Living	EW-1	995	2700	Е	No	500
Kitchen/Living	EW-1	1800	2700	E	No	2400
Kitchen/Living	EW-1	1195	2700	S	No	0

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	45.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Carpet+Rubber Underlay 18mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath	Concrete Slab, Unit Below 150mm	7.1	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	3.6	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	7.0	None	No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Laundry	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard		Yes

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6.8

		Bulk Insulation R3.5
Ensuite	Plasterboard	Bulk Insulation Yes R3.5
Kitchen/Living	Plasterboard	Bulk Insulation Yes R3.5

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	16	Downlights - LED	150	Sealed
Kitchen/Living	2	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bath	2	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

W			
Location	Number	Diameter (mm)	

Construction	Added Roof colour insulation
Corrugated Iron	Bulk, Reflective Medium Side Down, No Air Gap Above R1.3

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Certificate number: ★ Star rating:

Additional information	

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

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

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

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

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

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

#### **Accredited Assessors**

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

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

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

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

#### **Disclaimer**

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

#### Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments.