Nationwide House Energy Rating Scheme* — Class 2 summary

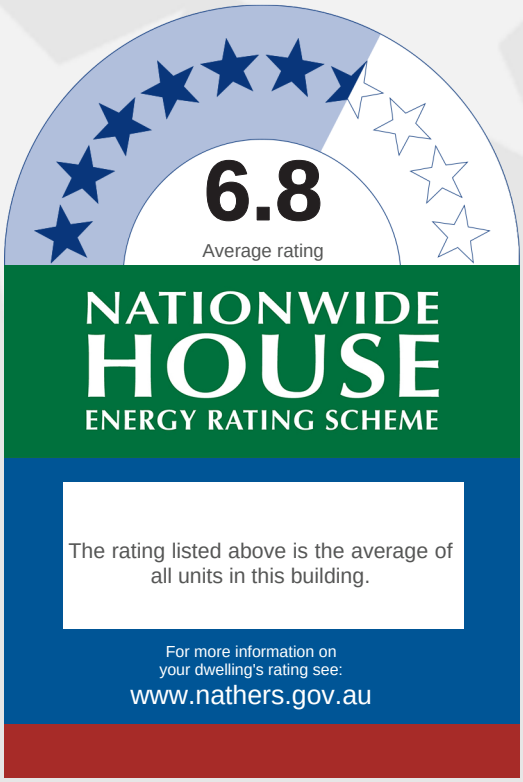
Certificate Number: **WDMBTPK06A** Date of Certificate: **20 Feb 2020** ★ Average star rating: **6.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5 v5.2.11**
AAO:	**BDAV**

Dwelling details

Address:	**2 Delmar Parade**
Suburb:	**DEE WHY**
State:	**NSW**
Postcode:	**2099**



Summary of all dwellings

Certification details

		Annual thermal performance loads (MJ/m2)			
Certificate number	Unit number	Heating load	Cooling load	Total load	Star rating
0IKJZMIU76	1.01	17.4	26.9	44.3	6.6
S0IDT17O7L	1.02	13.1	27.5	40.6	6.9
5F3MCF4ZQT	1.03	18.5	27.5	46	6.4
V46VSEZ9BB	1.04	9.4	15.9	25.3	8.1
37TPP4YH58	1.05	1.9	29.1	31	7.6
UST4RAI2F9	1.06	1.7	12.2	13.9	9
9FIY0CSW48	1.07	0.2	20.9	21.1	8.4
ASFRDVHYD7	1.08	25.9	22.8	48.7	6.2
64L61CKCES	1.09	2.7	25.2	27.9	7.8
673BBMCF1K	1.10	17.1	24.5	41.6	6.8
HP09OBMC15	1.11	13.4	22.2	35.6	7.2
2TYIDF4L6Y	1.12	13.4	22.2	35.6	7.2
1QSLCDZEP0	1.13	13.4	22.2	35.6	7.2
TB630RDLS0	1.14	25.4	21.7	47.1	6.3
ZHN83DA20L	2.01	18.4	25.7	44.1	6.6
V4OBSG4JFK	2.02	27.6	27.8	55.4	5.7

continued

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

Nationwide House Energy Rating Scheme* — Class 2 summary

Certificate Number: **WDMBTPK06A** Date of Certificate: **20 Feb 2020** ★ Average star rating: **6.8**

Summary of all dwellings continued

Certification details continued

		Annual thermal performance loads (MJ/m2)			
Certificate number	Unit number	Heating load	Cooling load	Total load	Star rating
2YHP9FOTZ5	2.03	20.6	28.1	48.7	6.2
NP4MXUY19H	2.04	9.4	15.9	25.3	8.1
6R05ZU8235	2.05	1.9	29.1	31	7.6
M9HT3I05EQ	2.06	2	11.6	13.6	9
5MAHWWLAW0	2.07	0.2	20.9	21.1	8.4
L1AJHCW5RC	2.08	27.5	21.7	49.2	6.1
65ISLELEB1	2.09	3.2	25.5	28.7	7.8
BB2OA64GF3	2.10	17.1	24.5	41.6	6.8
LQZAL4JI65	2.11	13.4	22.2	35.6	7.2
JVYHYXS3ZX	2.12	14.4	22.5	36.9	7.2
XOVS5SCJ5S	2.13	13.4	22.2	35.6	7.2
DZ4ICTBNK5	2.14	25.4	21.7	47.1	6.3
IB7D5KY8SD	3.01	19.1	24.3	43.4	6.6
HWLBTBDAIS	3.02	27.6	27.8	55.4	5.7
5CM9SNTBGI	3.03	22.7	26.2	48.9	6.2
Z5QC90EQCN	3.04	10.6	14.6	25.2	8.1
X7ZQEXZ45Z	3.05	2.6	26.3	28.9	7.8
OD5VSEOD3O	3.06	2	11.6	13.6	9
E0TQEMDQFQ	3.07	0.3	18.1	18.4	8.6
LZ5ICE6211	3.08	27.5	21.7	49.2	6.1
4DXSHV94T5	3.09	3.2	25.5	28.7	7.8
NJ6KEKCG9G	3.10	19.2	22.7	41.9	6.8
0XQ9IVPIFS	3.11	15.3	22.5	37.8	7.1
MMLFX0ZVEI	3.12	14.4	22.5	36.9	7.2
2NA2OJMNKC	3.13	15.3	22.5	37.8	7.1
WBXMXTFM38	3.14	27.5	21.3	48.8	6.2
A6UZE9CBFV	4.01	37.4	19.7	57.1	5.6
ERR4AGFK0T	4.02	41	25	66	5
IVX1DGO21Z	4.03	37.3	20.4	57.7	5.5
Z9RD8ND6KK	4.04	33.4	22	55.4	5.7
ZVHUUALQMG	4.05	19.8	15	34.8	7.3

continued

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

Nationwide House Energy Rating Scheme* — Class 2 summary

Certificate Number: **WDMBTPK06A** Date of Certificate: **20 Feb 2020** ★ Average star rating: **6.8**

Summary of all dwellings continued

Certification details continued

		Annual thermal performance loads (MJ/m2)			
Certificate number	Unit number	Heating load	Cooling load	Total load	Star rating
IBR9HDX15T	4.06	16.9	18.3	35.2	7.3
2HV7WEAO6X	4.07	2.7	20.9	23.6	8.2
CI9Q3WODGD	4.08	11.1	26.4	37.5	7.1
58QURXSS55	4.09	3	19.7	22.7	8.3
0MB1RSAJ8Q	4.10	4.7	22.2	26.9	7.9
YLS8ZHAMXL	5.01	38.2	19.3	57.5	5.5
XA1RV2SIKQ	5.02	41.8	24.6	66.4	4.9
WX2G2TVQYP	5.03	38	19.7	57.7	5.5
5QUHBA32CG	5.04	34.1	20.7	54.8	5.7
NVQ2XE59UY	5.05	20.5	15.3	35.8	7.2
7FRZMLSBRZ	5.06	16.9	18.3	35.2	7.3
2AKIJGQTQV	5.07	22.3	22.1	44.4	6.6
8ZFECAHATX	5.08	21.2	24.2	45.4	6.4
YW5ASZ845Z	5.09	20.6	15	35.6	7.2
R2KNNNLHSQ	5.10	17.8	20.7	38.5	7
I5HN3M0J2A	6.01	41.7	15.9	57.6	5.5
7ZZMG5U9DL	6.02	35.5	17.1	52.6	5.9
B8WRG2BYHP	6.03	29	19	48	6.3
QDEUP508S7	6.04	21.5	16.8	38.3	7
4VU4LH20Q7	6.05	33.7	17.1	50.8	6
GCWF6KI0GB	6.06	36.9	21.3	58.2	5.4
LBCMU4UE7K	6.07	34.1	24.7	58.8	5.4
FWQGQQO2G8	6.08	40.2	17.6	57.8	5.5
9LHJJOQ8YF	6.10	30.9	20	50.9	6
			This building achieves an average star rating of:		**6.8**

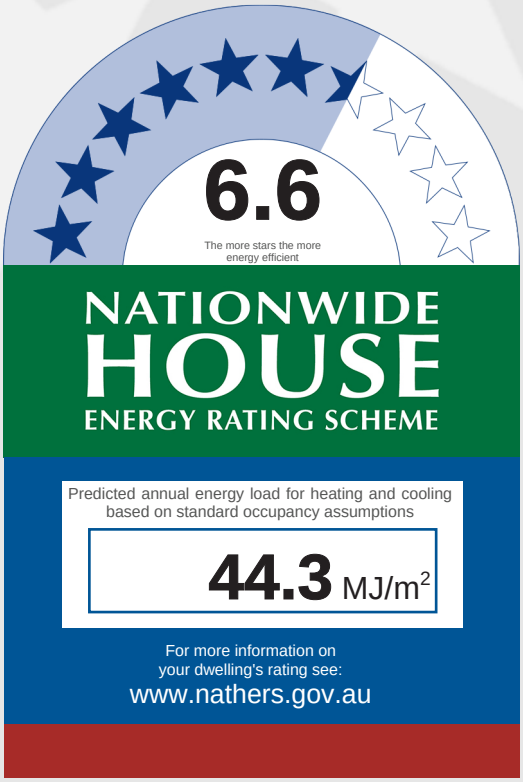
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0IKJZMIU76** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.01, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.7**
Unconditioned:	**4.4**
Garage:	**-**
TOTAL:	**73.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**17.4**
Cooling:	**26.9**
TOTAL:	**44.3**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=0IKJZMIU76

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 134	2400	2800	ESE	Bedroom 18	No
ALM-002-01 A	Opening 135	2400	2800	ESE	Bedroom 19	No
ALM-002-01 A	Opening 137	2400	1600	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 136	2400	1400	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	15.4	NNE	Bedroom 18	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 18	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 19	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	1.6	ESE	Entry Hallway	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.7	NNE	Entry Hallway	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	21	WNW	Entry Hallway	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	7.7	WNW	Bath	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	SSW	Bath	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	4.5	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	70.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 18	FR5 - 300mm concrete slab	13.6	Enclosed	R0.0	Carpet
Bedroom 19	FR5 - 300mm concrete slab	14.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Entry Hallway	FR5 - 300mm concrete slab	11.2	Enclosed	R0.0	Tiles
Bath	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 300mm concrete slab	26	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0IKJZMIU76** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

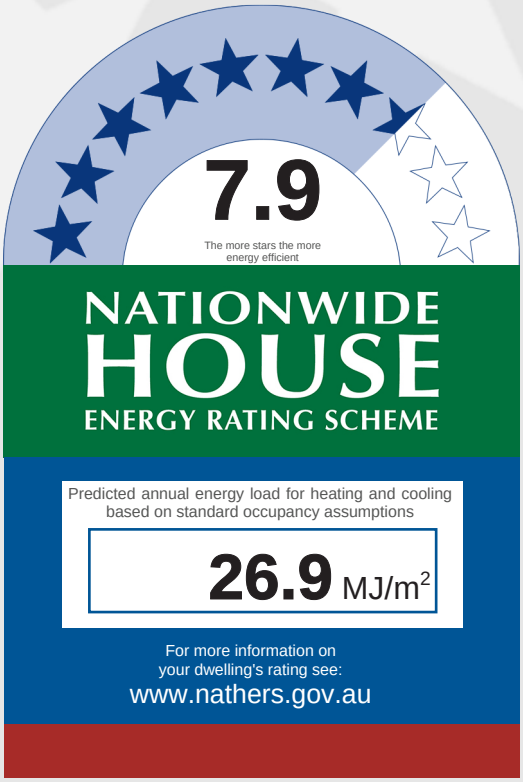
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0MB1RSAJ8Q** Date of Certificate: **20 Jan 2020** ★Star rating: **7.9**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.10, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**87.6**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**91.3**

Annual thermal performance loads (MJ/m^2)

Heating:	**4.7**
Cooling:	**22.2**
TOTAL:	**26.9**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=0MB1RSAJ8Q

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0MB1RSAJ8Q** Date of Certificate: **20 Jan 2020** ★Star rating: **7.9**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 261	2700	2700	NW	Bedroom 1	No
ALM-002-01 A	Opening 260	2700	2700	NW	Kitchen/Living 24	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.9	NW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	13.6	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	SSW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	10.1	SSW	Study	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.7	SSW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.3	SE	Bedroom 2	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	11.3	NNE	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3	SE	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.3	NE	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	3.6	NNE	Kitchen/Living 24	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	8.1	ESE	Kitchen/Living 24	No	No

Building Features

2 : AFS - AFS 200mm (75mm Glasswool)	22.4	NNE	Kitchen/Living 24	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	11.9	NW	Kitchen/Living 24	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	77.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	12.8	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	4.6	Enclosed	R0.0	Tiles
Study	FR5 - 200mm concrete slab Lined	11.1	Enclosed	R0.0	Carpet
Bathroom	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	12.4	Enclosed	R0.0	Carpet
Entry	FR5 - 200mm concrete slab Lined	5.2	Enclosed	R0.0	Tiles
Kitchen/Living 24	FR5 - 200mm concrete slab Lined	41.5	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0MB1RSAJ8Q** Date of Certificate: **20 Jan 2020** ★Star rating: **7.9**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

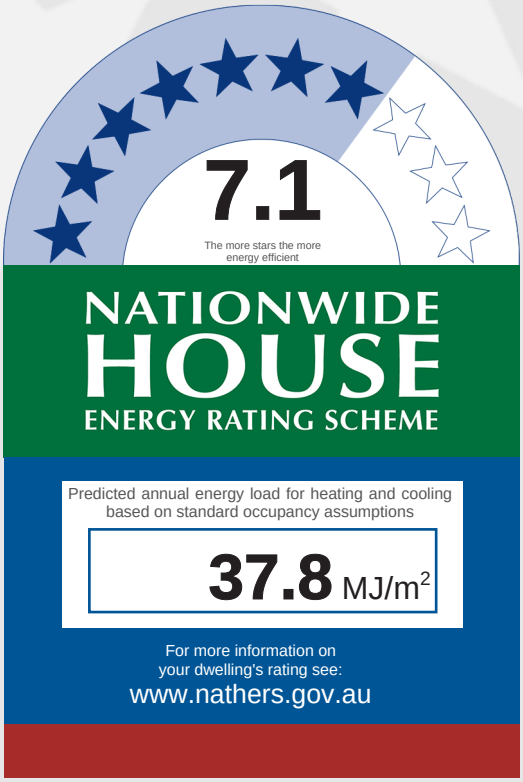
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0XQ9IVPIFS** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.11, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**15.3**
Cooling:	**22.5**
TOTAL:	**37.8**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=0XQ9IVPIFS

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0XQ9IVPIFS** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **0XQ9IVPIFS** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

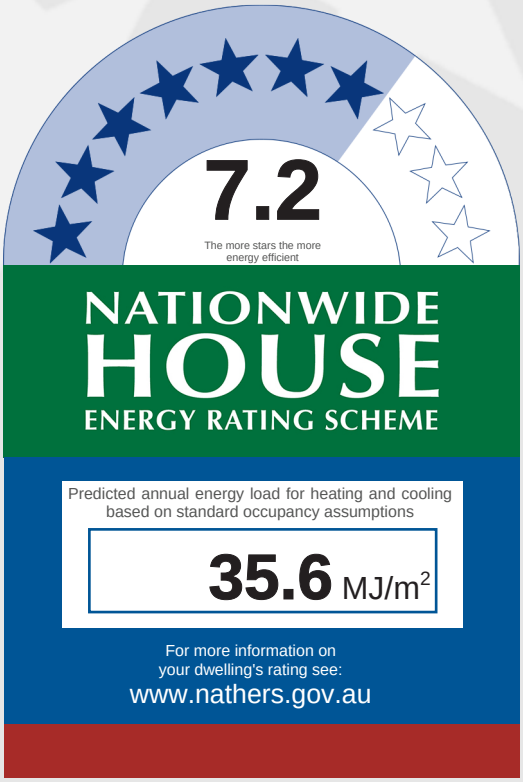
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **1QSLCDZEP0** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.13, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**13.4**
Cooling:	**22.2**
TOTAL:	**35.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=1QSLCDZEP0

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **1QSLCDZEP0** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

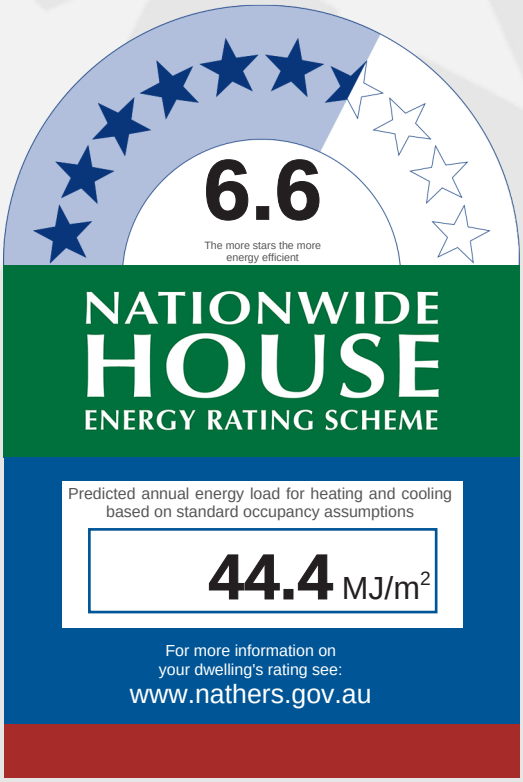
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2AKIJGQTQV** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.07, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.8**
Unconditioned:	**4.6**
Garage:	**-**
TOTAL:	**73.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**22.3**
Cooling:	**22.1**
TOTAL:	**44.4**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=2AKIJGQTQV

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 261	2700	2800	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 262	2700	2700	NW	Kitchen/Living	No
ALM-002-01 A	Opening 260	2700	2400	WNW	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8	SSW	Study	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	8	ESE	Study	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	12.2	NW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Kitchen/Living	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5	ESE	Entry	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	7.3	SSW	Entry	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	6	ESE	Entry	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	10.7	NNE	Entry	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	NNE	Bath	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2AKIJGQTQV** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Building Features

1 : AFS - AFS 200mm (75mm Glasswool)	10.5	NNE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	50.7	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Study	FR5 - 200mm concrete slab Lined	8.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	35.1	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	13.5	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	4.6	Enclosed	R0.0	Tiles
Bedroom	FR5 - 200mm concrete slab Lined	11.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2AKIJGQTQV** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

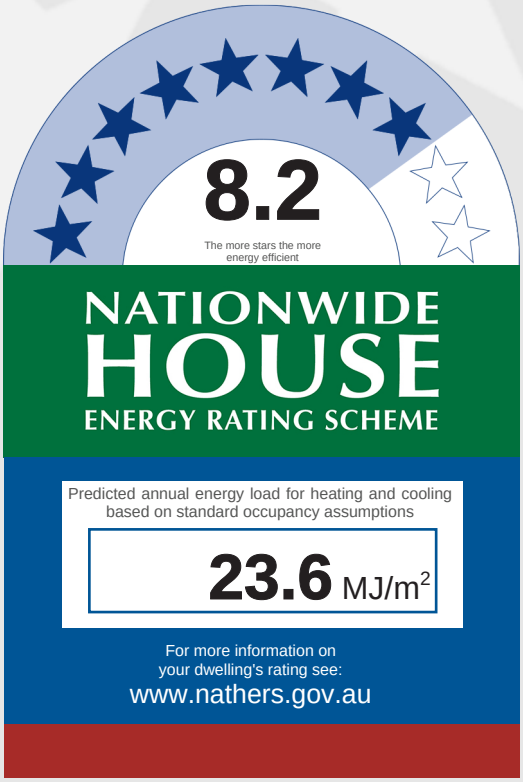
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2HV7WEAO6X** Date of Certificate: **20 Jan 2020** ★Star rating: **8.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.07, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**78.9**
Unconditioned:	**4.5**
Garage:	**-**
TOTAL:	**83.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**2.7**
Cooling:	**20.9**
TOTAL:	**23.6**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=2HV7WEAO6X

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 240	2700	2700	NW	Bedroom 1	No
ALM-002-01 A	Opening 239	2100	2700	NW	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.9	NW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	13.7	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	SSW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.3	SSW	Study	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.7	SSW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5	ESE	Bath	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7	SSW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6	ESE	Entry	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	11.5	NNE	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	21.1	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	12.3	NW	Kitchen/Living	No	No

Internal wall type

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2HV7WEAO6X** Date of Certificate: **20 Jan 2020** ★Star rating: **8.2**

Building Features

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	69.8	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	12.9	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Study	FR5 - 200mm concrete slab Lined	4.4	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	11.2	Enclosed	R0.0	Carpet
Bath	FR5 - 200mm concrete slab Lined	4.5	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	7.5	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	39.2	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2HV7WEAO6X** Date of Certificate: **20 Jan 2020** ★Star rating: **8.2**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

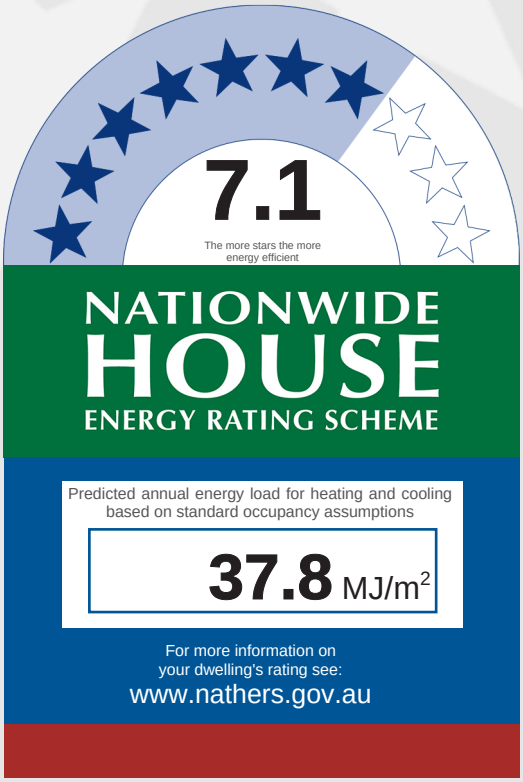
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2NA2OJMNKC** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.13, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials
(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations
(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**15.3**
Cooling:	**22.5**
TOTAL:	**37.8**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=2NA2OJMNKC

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2NA2OJMNKC** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

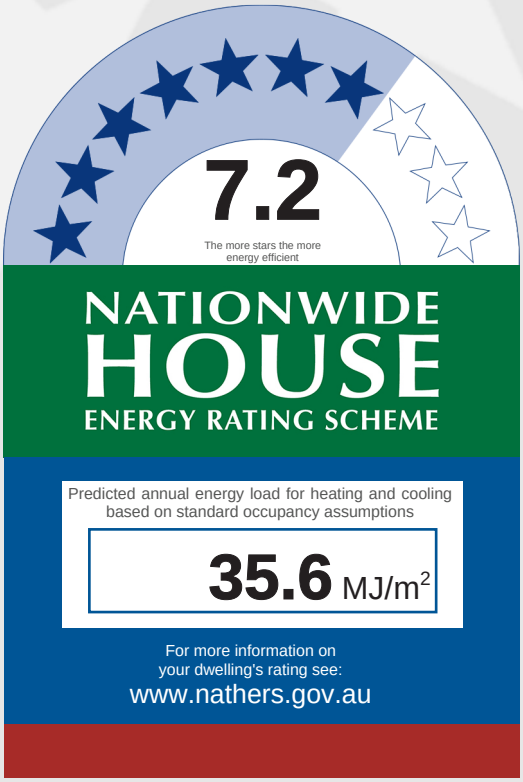
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2TYIDF4L6Y** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.12, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**13.4**
Cooling:	**22.2**
TOTAL:	**35.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=2TYIDF4L6Y

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2TYIDF4L6Y** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2TYIDF4L6Y** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

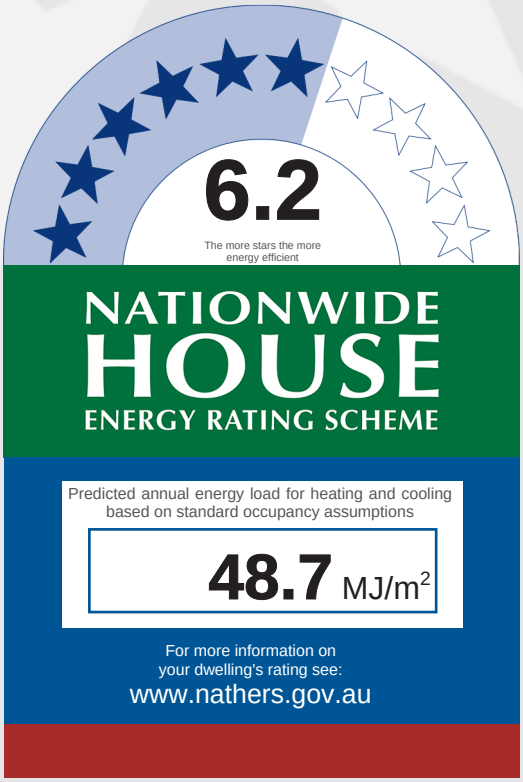
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2YHP9FOTZ5** Date of Certificate: **20 Feb 2020** ★Star rating: **6.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.03, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**72.9**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**76.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**20.6**
Cooling:	**28.1**
TOTAL:	**48.7**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=2YHP9FOTZ5

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 152	2100	2735	ESE	Bedroom 1	No
ALM-002-01 A	Opening 153	2100	2786	ESE	Bedroom 2	No
ALM-002-01 A	Opening 155	2100	3273	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 154	2100	1984	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	4.8	WNW	Day 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Unconditioned 19	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.6	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	NNE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	21.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.6	ESE	Kitchen/Living	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	5.2	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	WNW	Kitchen/Living	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	63.3	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Day 18	FR5 - 300mm concrete slab	8.8	Enclosed	R0.0	Tiles
Unconditioned 19	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.9	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	2.2	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	11.2	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	36.2	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **2YHP9FOTZ5** Date of Certificate: **20 Feb 2020** ★Star rating: **6.2**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

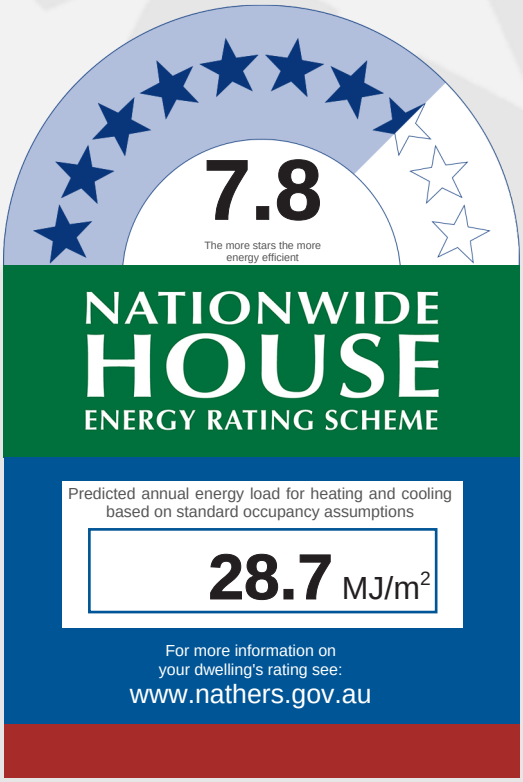
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **4DXSHV94T5** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.09, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**48.6**
Unconditioned:	**6**
Garage:	**-**
TOTAL:	**54.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**3.2**
Cooling:	**25.5**
TOTAL:	**28.7**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=4DXSHV94T5

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 218	2100	3933	WNW	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	20.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	14.9	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	11	WNW	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	16.6	NNE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	36.8	

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **4DXSHV94T5** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Building Features

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	31.1	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	7.1	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **4DXSHV94T5** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

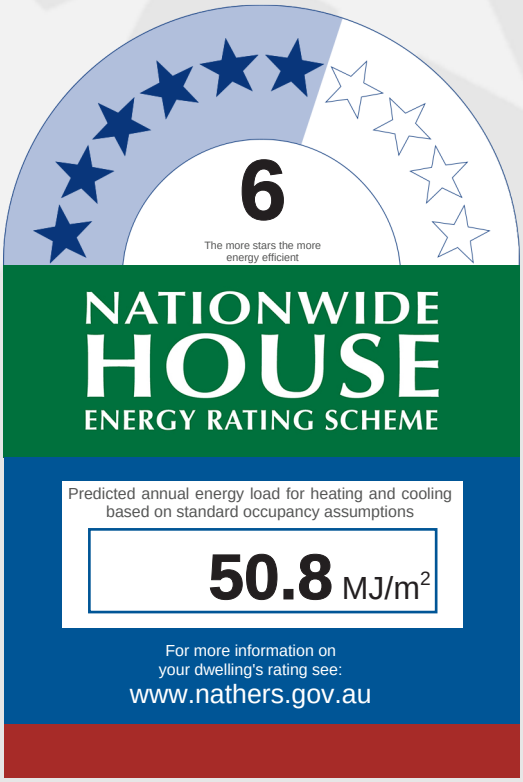
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **4VU4LH20Q7** Date of Certificate: **20 Jan 2020** ★Star rating: **6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.05, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**69.5**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**73.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**33.7**
Cooling:	**17.1**
TOTAL:	**50.8**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=4VU4LH20Q7

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

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 224	2700	1833	NNE	Bedroom 1	No
GJA-013-01 A	Opening 225	2700	2643	NW	Bedroom 1	No
GJA-013-01 A	Opening 223	2700	2548	NNE	Bedroom 2	No
GJA-013-01 A	Opening 221	2700	2526	NNE	Kitchen/Living	No
GJA-013-01 A	Opening 222	2700	2724	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	7.9	NNE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	NW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	12.1	SSW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	SSW	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	0.5	WNW	WIR	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.6	NNE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom 2	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.8	SSW	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	5.7	SSW	Kitchen/Living	Yes	No

Building Features

2 : AFS - AFS 200mm (75mm Glasswool)	17.8	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	15.9	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	SSW	Bath	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	51.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	12.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
WIR	FR5 - 200mm concrete slab Lined	4.1	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	39.1	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom 1	Plasterboard	R3.0	No
Ensuite	Plasterboard	R3.0	No
WIR	Plasterboard	R3.0	No
Bedroom 2	Plasterboard	R3.0	No
Kitchen/Living	Plasterboard	R3.0	No
Bath	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **4VU4LH20Q7** Date of Certificate: **20 Jan 2020** ★Star rating: **6**

Building Features

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **4VU4LH20Q7** Date of Certificate: **20 Jan 2020** ★Star rating: **6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

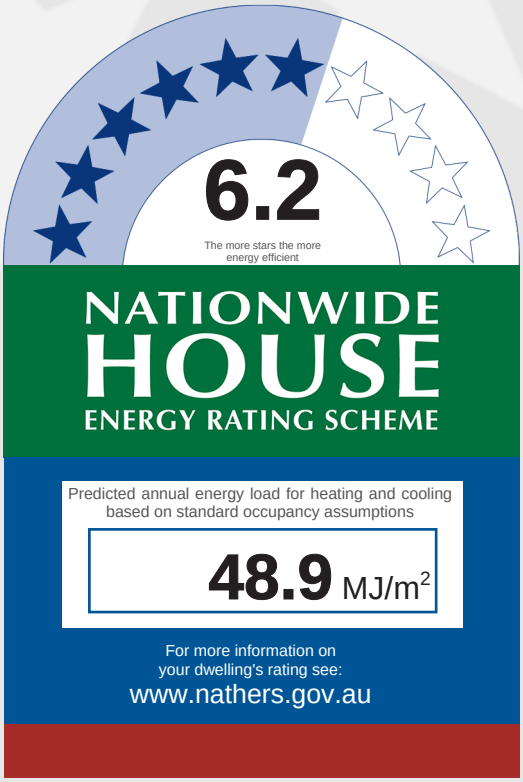
For more information on energy efficient design and insulation visit www.yourhome.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5CM9SNTBGI** Date of Certificate: **20 Feb 2020** ★Star rating: **6.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.03, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**72.9**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**76.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**22.7**
Cooling:	**26.2**
TOTAL:	**48.9**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=5CM9SNTBGI

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 152	2100	2735	ESE	Bedroom 1	No
ALM-002-01 A	Opening 153	2100	2786	ESE	Bedroom 2	No
ALM-002-01 A	Opening 155	2100	3273	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 154	2100	1984	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	4.8	WNW	Day 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Unconditioned 19	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.6	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	NNE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	21.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.6	ESE	Kitchen/Living	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	5.2	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	WNW	Kitchen/Living	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	63.3	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Day 18	FR5 - 300mm concrete slab	8.8	Enclosed	R0.0	Tiles
Unconditioned 19	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.9	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	2.2	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	11.2	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	36.2	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5CM9SNTBGI** Date of Certificate: **20 Feb 2020** ★Star rating: **6.2**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

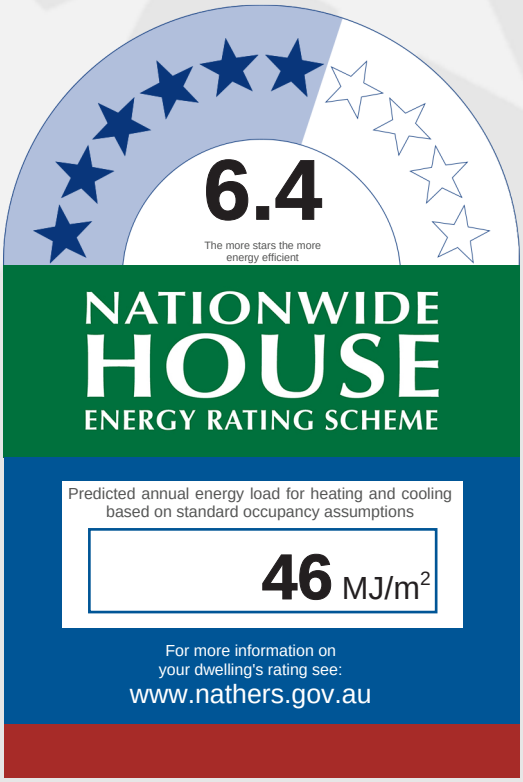
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5F3MCF4ZQT** Date of Certificate: **20 Feb 2020** ★Star rating: **6.4**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.03, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**72.9**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**76.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**18.5**
Cooling:	**27.5**
TOTAL:	**46**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=5F3MCF4ZQT

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5F3MCF4ZQT** Date of Certificate: **20 Feb 2020** ★Star rating: **6.4**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 152	2100	2735	ESE	Bedroom 1	No
ALM-002-01 A	Opening 153	2100	2786	ESE	Bedroom 2	No
ALM-002-01 A	Opening 155	2100	3273	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 154	2100	1984	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	4.8	WNW	Day 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Unconditioned 19	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.6	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	NNE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	21.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.6	ESE	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5F3MCF4ZQT** Date of Certificate: **20 Feb 2020** ★Star rating: **6.4**

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	5.2	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.6	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.2	WNW	Kitchen/Living	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	63.3	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Day 18	FR5 - 300mm concrete slab	8.8	Enclosed	R0.0	Tiles
Unconditioned 19	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.9	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	2.2	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	11.2	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	36.2	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5F3MCF4ZQT** Date of Certificate: **20 Feb 2020** ★Star rating: **6.4**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

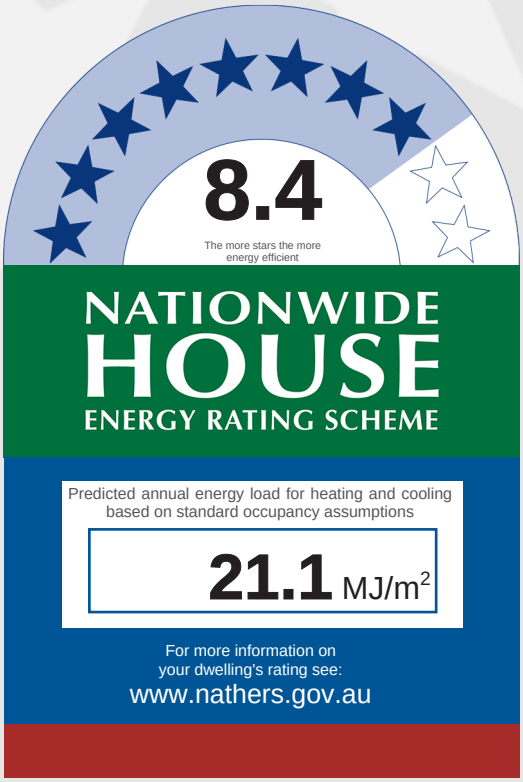
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5MAHWWLAW0** Date of Certificate: **20 Jan 2020** ★Star rating: **8.4**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.07, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**44.9**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**48.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**0.2**
Cooling:	**20.9**
TOTAL:	**21.1**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=5MAHWWLAW0

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 204	2100	1947	NNE	Bedroom	No
ALM-002-01 A	Opening 203	2100	3514	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	1.8	NNE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.9	WNW	Bedroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.7	WNW	Bedroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.4	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.4	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	20.9	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.6	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	WNW	Hall	No	No

Internal wall type

Building Features

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	27.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bathroom	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	32.5	Enclosed	R0.0	Tiles
Hall	FR5 - 300mm concrete slab	1.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5MAHWWLAW0** Date of Certificate: **20 Jan 2020** ★Star rating: **8.4**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

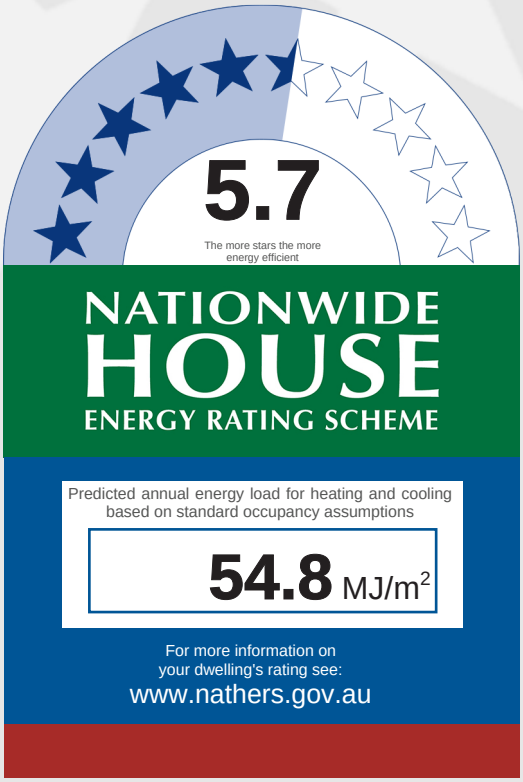
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5QUHBA32CG** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.04, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**66**
Unconditioned:	**4.3**
Garage:	**-**
TOTAL:	**70.3**

Annual thermal performance loads (MJ/m^2)

Heating:	**34.1**
Cooling:	**20.7**
TOTAL:	**54.8**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=5QUHBA32CG

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

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 207	2700	2700	ESE	Bedroom 18	No
GJA-013-01 A	Opening 208	2700	2700	ESE	Bedroom 21	No
GJA-013-01 A	Opening 210	2700	3100	ESE	Kitchen/Living 24	No
GJA-013-01 A	Opening 209	2700	1800	NNE	Kitchen/Living 24	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8.5	NNE	Bedroom 18	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 18	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.5	NNE	Night 19	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 21	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.2	WNW	Day 22	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	14.5	WNW	Day 22	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	2.6	NNE	Day 22	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.5	WNW	Unconditioned 23	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.8	SSW	Unconditioned 23	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	11.5	SSW	Kitchen/Living 24	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5QUHBA32CG** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	7.8	SSW	Kitchen/Living 24	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living 24	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living 24	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	69.7	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 18	FR5 - 200mm concrete slab Lined	9.4	Enclosed	R0.0	Carpet
Night 19	FR5 - 200mm concrete slab Lined	2.6	Enclosed	R0.0	Carpet
Night 20	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Bedroom 21	FR5 - 200mm concrete slab Lined	11.3	Enclosed	R0.0	Carpet
Day 22	FR5 - 200mm concrete slab Lined	10.3	Enclosed	R0.0	Tiles
Unconditioned 23	FR5 - 200mm concrete slab Lined	4.3	Enclosed	R0.0	Tiles
Kitchen/Living 24	FR5 - 200mm concrete slab Lined	28.4	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **5QUHBA32CG** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

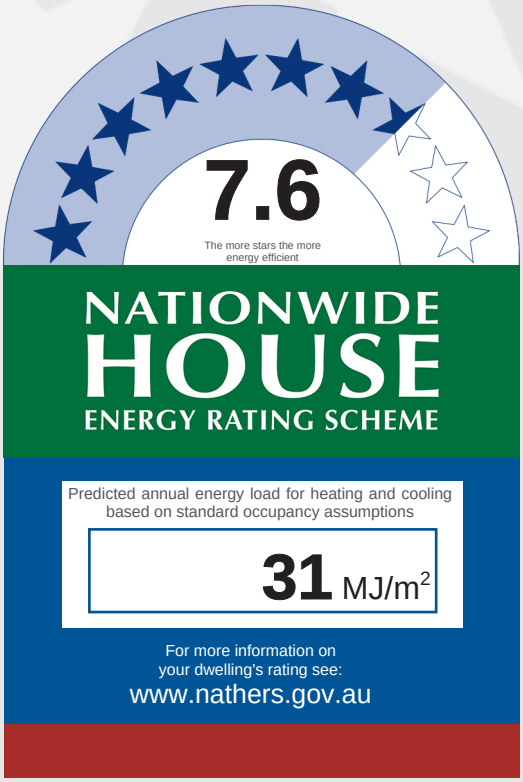
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **6R05ZU8235** Date of Certificate: **20 Jan 2020** ★Star rating: **7.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.05, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**80.2**
Unconditioned:	**3.6**
Garage:	**-**
TOTAL:	**83.8**

Annual thermal performance loads (MJ/m^2)

Heating:	**1.9**
Cooling:	**29.1**
TOTAL:	**31**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=6R05ZU8235

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **6R05ZU8235** Date of Certificate: **20 Jan 2020** ★Star rating: **7.6**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 187	2100	2935	ESE	Bedroom 2	No
ALM-002-01 A	Opening 184	2100	3759	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 185	2100	2935	NNE	Bedroom 1	No
ALM-002-01 A	Opening 186	2100	810	ESE	Ensuite	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	SSW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.5	ESE	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.9	NNE	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	17.3	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.2	WNW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.8	SSW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	SSW	Pantry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	ESE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	ESE	Ensuite	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	1.6	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Bathroom	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	70.5	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	FR5 - 300mm concrete slab	11.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	37.7	Enclosed	R0.0	Tiles
Entry	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Pantry	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	9.4	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	4.6	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **6R05ZU8235** Date of Certificate: **20 Jan 2020** ★Star rating: **7.6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

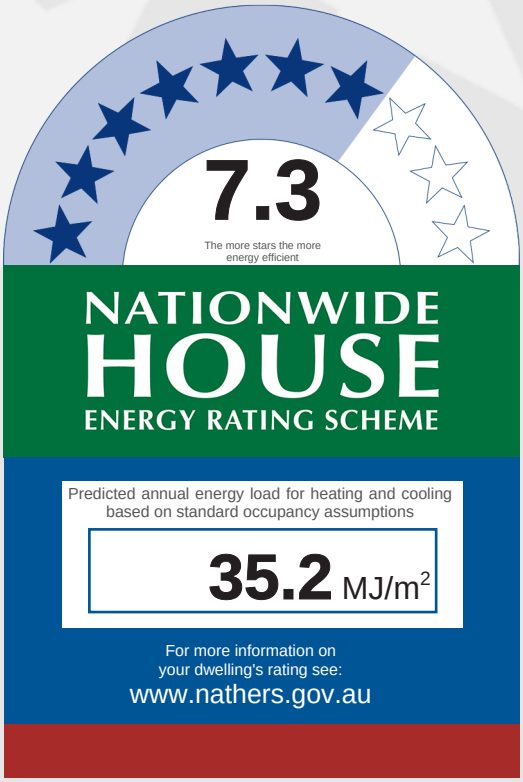
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **7FRZMLSBRZ** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.06, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials
(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations
(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**69.5**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**73.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**16.9**
Cooling:	**18.3**
TOTAL:	**35.2**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=7FRZMLSBRZ

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

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 224	2700	1833	NNE	Bedroom 1	No
GJA-013-01 A	Opening 225	2700	2643	NW	Bedroom 1	No
GJA-013-01 A	Opening 223	2700	2548	NNE	Bedroom 2	No
GJA-013-01 A	Opening 221	2700	2526	NNE	Kitchen/Living	No
GJA-013-01 A	Opening 222	2700	2724	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	7.9	NNE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	NW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	12.1	SSW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	SSW	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	0.5	WNW	WIR	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.6	NNE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom 2	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.8	SSW	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	5.7	SSW	Kitchen/Living	Yes	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **7FRZMLSBRZ** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Building Features

2 : AFS - AFS 200mm (75mm Glasswool)	17.8	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	15.9	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	SSW	Bath	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	51.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	12.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
WIR	FR5 - 200mm concrete slab Lined	4.1	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	39.1	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **7FRZMLSBRZ** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

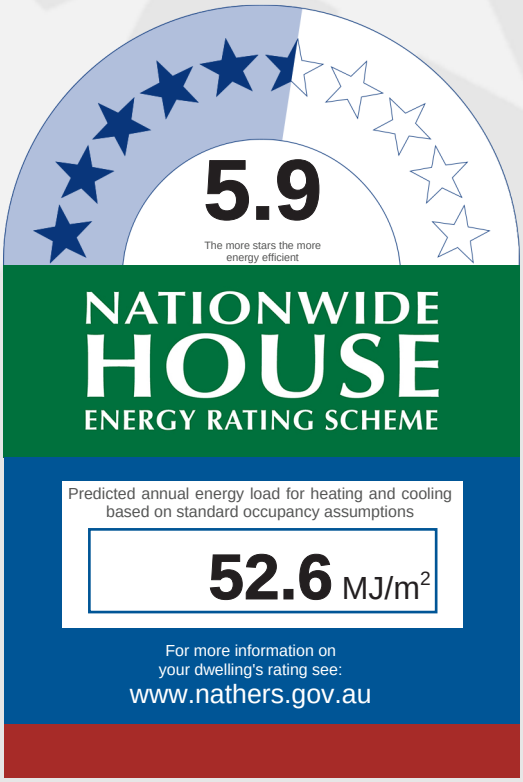
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **7ZZMG5U9DL** Date of Certificate: **20 Jan 2020** ★Star rating: **5.9**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.02, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**73.8**
Unconditioned:	**3.9**
Garage:	**-**
TOTAL:	**77.7**

Annual thermal performance loads (MJ/m^2)

Heating:	**35.5**
Cooling:	**17.1**
TOTAL:	**52.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=7ZZMG5U9DL

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

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-070-04 A	Type 245 Aluminium Sliding Door SG 4Clr	6.27	0.73

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-070-04 A	Opening 301	2700	2400	ESE	Bedroom 1	No
GJA-070-04 A	Opening 300	2700	2400	ESE	Bedroom 2	No
GJA-070-04 A	Opening 299	2700	2100	SSW	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.4	ESE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.2	SSW	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	3	WNW	Bedroom 1	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	10.9	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.5	WNW	Ensuite	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	SSW	Ensuite	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	3.3	WNW	Entry	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	0.5	ESE	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	7.1	NNE	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	WNW	Bath	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	Yes	Yes

Building Features

2 : AFS - AFS 200mm (75mm Glasswool)	24.5	NNE	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	10.2	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	SSW	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	10.8	ESE	Kitchen/Living	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	63.3	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	16.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	7.3	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	35.8	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom 1	Plasterboard	R3.0	No
Ensuite	Plasterboard	R3.0	No
Entry	Plasterboard	R3.0	No
Bath	Plasterboard	R3.0	No
Bedroom 2	Plasterboard	R3.0	No
Kitchen/Living	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Building Features

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **7ZZMG5U9DL** Date of Certificate: **20 Jan 2020** ★Star rating: **5.9**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

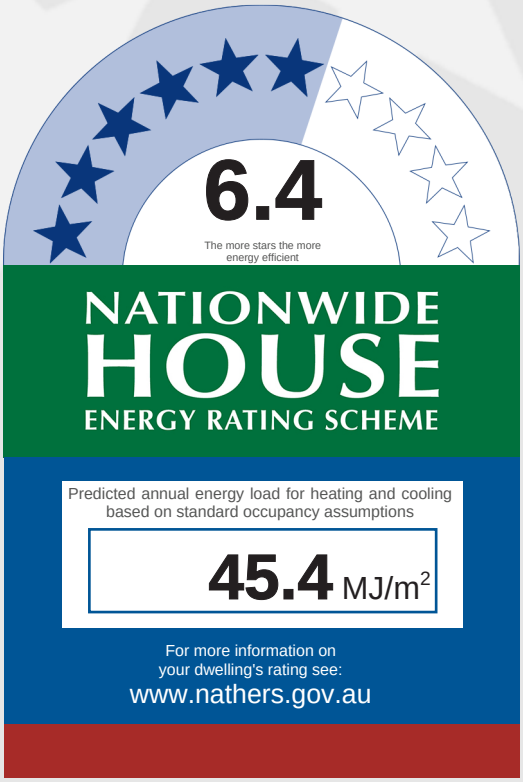
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **8ZFECAHATX** Date of Certificate: **20 Jan 2020** ★Star rating: **6.4**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.08, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**70.4**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**74.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**21.2**
Cooling:	**24.2**
TOTAL:	**45.4**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=8ZFECAHATX

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 268	2700	2400	WNW	Bedroom 1	No
ALM-002-01 A	Opening 269	2700	3000	NNE	Kitchen/Living 2	No
ALM-002-01 A	Opening 270	2700	2650	NW	Kitchen/Living 2	No
ALM-002-01 A	Opening 271	2700	827	ESE	Bedroom 2	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8	NNE	Bedroom 1	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom 1	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.1	NNE	WIR	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	NNE	Ensuite	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	6.4	ESE	Bath	No	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	NNE	Bath	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	3.8	ESE	Entry	No	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	11.7	NNE	Kitchen/Living 2	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	11.9	NW	Kitchen/Living 2	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	SSW	Kitchen/Living 2	No	No

Building Features

1 : AFS - AFS 200mm (75mm Glasswool)	22.4	SSW	Kitchen/Living 2	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	9.9	SSW	Bedroom 2	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	1.7	SSW	Bedroom 2	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	No	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	65.2	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	8.8	Enclosed	R0.0	Carpet
WIR	FR5 - 200mm concrete slab Lined	3.6	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	8	Enclosed	R0.0	Tiles
Kitchen/Living 2	FR5 - 200mm concrete slab Lined	34.6	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	11.7	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **8ZFECAHATX** Date of Certificate: **20 Jan 2020** ★Star rating: **6.4**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

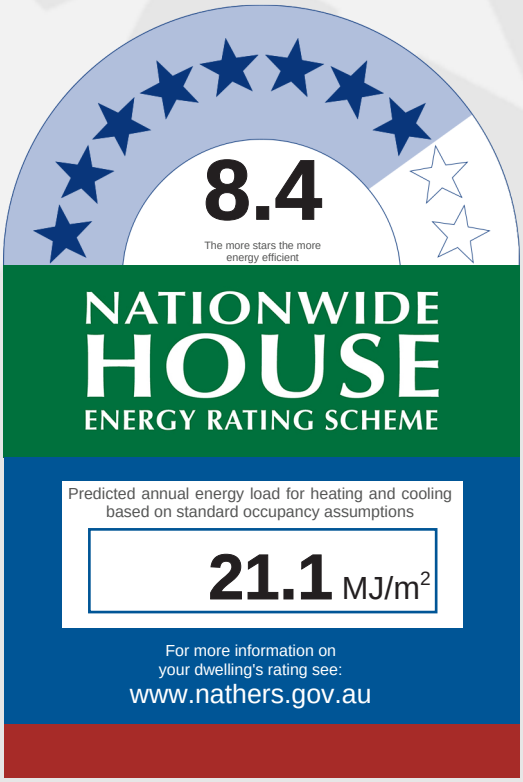
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **9FIY0CSW48** Date of Certificate: **20 Jan 2020** ★Star rating: **8.4**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.07, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**44.9**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**48.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**0.2**
Cooling:	**20.9**
TOTAL:	**21.1**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=9FIY0CSW48

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 204	2100	1947	NNE	Bedroom	No
ALM-002-01 A	Opening 203	2100	3514	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	1.8	NNE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.9	WNW	Bedroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.7	WNW	Bedroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.4	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.4	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	20.9	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.6	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	WNW	Hall	No	No

Internal wall type

Building Features

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	27.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bathroom	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	32.5	Enclosed	R0.0	Tiles
Hall	FR5 - 300mm concrete slab	1.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **9FIY0CSW48** Date of Certificate: **20 Jan 2020** ★Star rating: **8.4**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

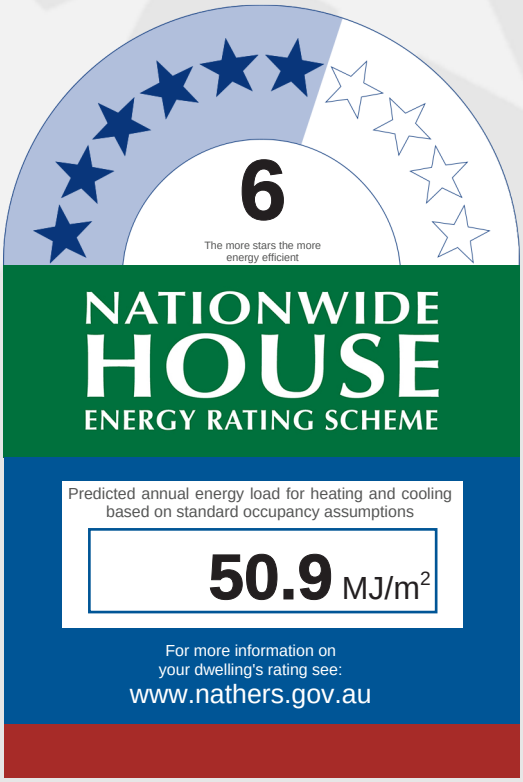
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **9LHJJOQ8YF** Date of Certificate: **20 Jan 2020** ★Star rating: **6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.10, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**72.2**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**75.9**

Annual thermal performance loads (MJ/m^2)

Heating:	**30.9**
Cooling:	**20**
TOTAL:	**50.9**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=9LHJJOQ8YF

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **9LHJJOQ8YF** Date of Certificate: **20 Jan 2020** ★Star rating: **6**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 261	2700	2500	WNW	Bedroom 1	No
ALM-002-01 A	Opening 260	2700	3851	WNW	Kitchen/Living 24	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.3	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	SSW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	SSW	Study	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.7	SSW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.3	SE	Bedroom 2	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	11.3	NNE	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3	SE	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.3	NE	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	3.6	NNE	Kitchen/Living 24	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	8.1	ESE	Kitchen/Living 24	No	No

Building Features

2 : AFS - AFS 200mm (75mm Glasswool)	12	NNE	Kitchen/Living 24	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	9	NNE	Kitchen/Living 24	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living 24	No	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	72.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	10.3	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	4.6	Enclosed	R0.0	Tiles
Study	FR5 - 200mm concrete slab Lined	4.9	Enclosed	R0.0	Carpet
Bathroom	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	12.4	Enclosed	R0.0	Carpet
Entry	FR5 - 200mm concrete slab Lined	5.2	Enclosed	R0.0	Tiles
Kitchen/Living 24	FR5 - 200mm concrete slab Lined	34.9	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom 1	Plasterboard	R3.0	No
Ensuite	Plasterboard	R3.0	No
Study	Plasterboard	R3.0	No
Bathroom	Plasterboard	R3.0	No
Bedroom 2	Plasterboard	R3.0	No
Entry	Plasterboard	R3.0	No
Kitchen/Living 24	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Building Features

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **9LHJJOQ8YF** Date of Certificate: **20 Jan 2020** ★Star rating: **6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

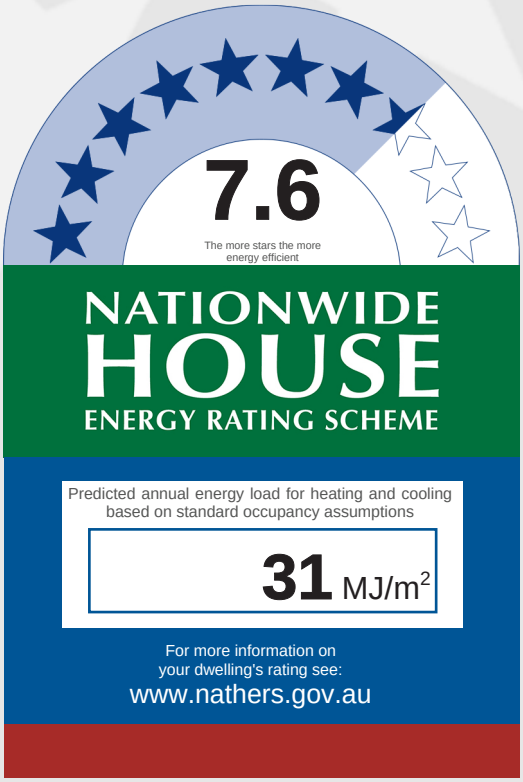
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **37TPP4YH58** Date of Certificate: **20 Jan 2020** ★Star rating: **7.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.05, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**80.2**
Unconditioned:	**3.6**
Garage:	**-**
TOTAL:	**83.8**

Annual thermal performance loads (MJ/m^2)

Heating:	**1.9**
Cooling:	**29.1**
TOTAL:	**31**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=37TPP4YH58

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **37TPP4YH58** Date of Certificate: **20 Jan 2020** ★Star rating: **7.6**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 187	2100	2935	ESE	Bedroom 2	No
ALM-002-01 A	Opening 184	2100	3759	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 185	2100	2935	NNE	Bedroom 1	No
ALM-002-01 A	Opening 186	2100	810	ESE	Ensuite	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	SSW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.5	ESE	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.9	NNE	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	17.3	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.2	WNW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.8	SSW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	SSW	Pantry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	ESE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	ESE	Ensuite	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	1.6	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Bathroom	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	70.5	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	FR5 - 300mm concrete slab	11.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	37.7	Enclosed	R0.0	Tiles
Entry	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Pantry	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	9.4	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	4.6	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **37TPP4YH58** Date of Certificate: **20 Jan 2020** ★Star rating: **7.6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

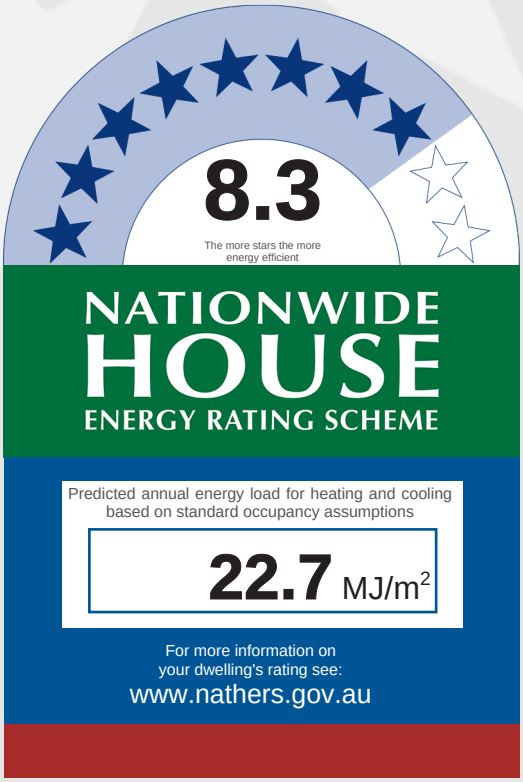
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **58QURXSS55** Date of Certificate: **20 Jan 2020** ★Star rating: **8.3**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.09, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**65.8**
Unconditioned:	**5.3**
Garage:	**-**
TOTAL:	**71.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**3**
Cooling:	**19.7**
TOTAL:	**22.7**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=58QURXSS55

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **58QURXSS55** Date of Certificate: **20 Jan 2020** ★Star rating: **8.3**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 253	2100	750	ESE	Bedroom 2	No
ALM-002-01 A	Opening 252	2700	2700	NW	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	No	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	9.6	NNE	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.9	SSW	Bedroom 2	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	9.6	SSW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	NNE	Bath	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	20.2	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	12.2	NW	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	22.8	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.3	ESE	Day 22	Yes	No
2 : AFS - AFS 200mm (75mm Glasswool)	7.8	WNW	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	4.4	SSW	Ensuite	No	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	52.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Bedroom 1	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Bath	FR5 - 200mm concrete slab Lined	5.3	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	34.5	Enclosed	R0.0	Tiles
Day 22	FR5 - 200mm concrete slab Lined	5.4	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab Lined	4.7	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **58QURXSS55** Date of Certificate: **20 Jan 2020** ★Star rating: **8.3**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

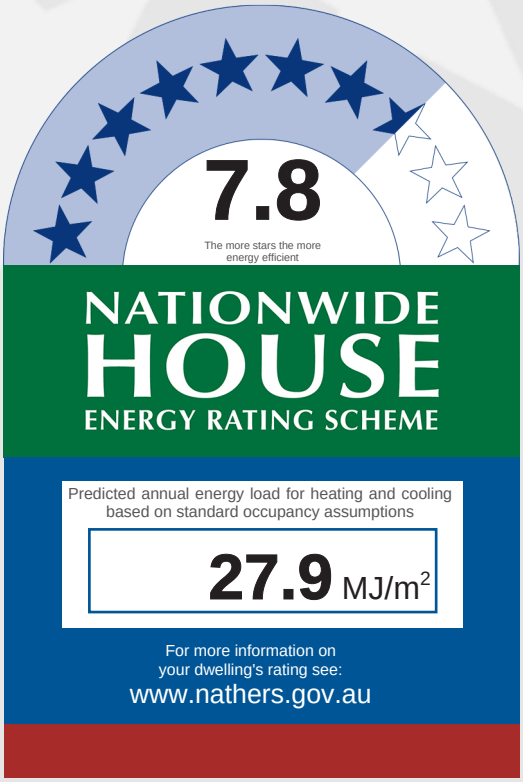
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **64L61CKCES** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.09, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**48.6**
Unconditioned:	**6**
Garage:	**-**
TOTAL:	**54.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**2.7**
Cooling:	**25.2**
TOTAL:	**27.9**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=64L61CKCES

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 218	2100	3933	WNW	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	20.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	14.9	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	11	WNW	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	16.6	NNE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	36.8	

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **64L61CKCES** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Building Features

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	31.1	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	7.1	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **64L61CKCES** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

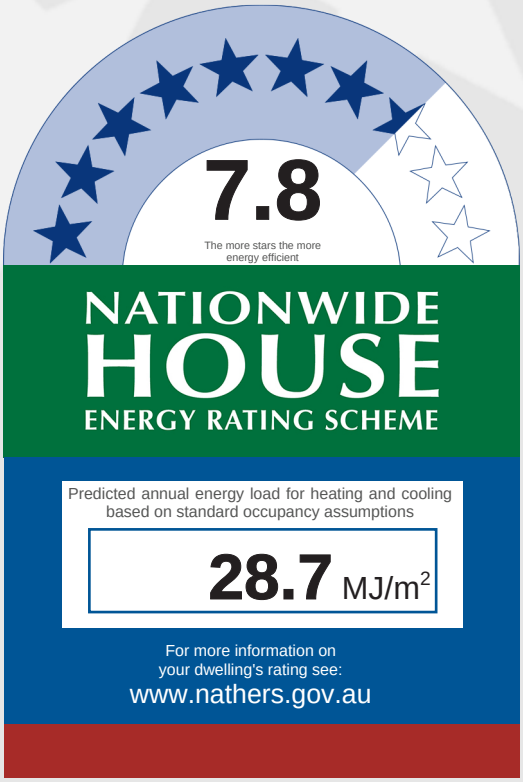
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **65ISLELEB1** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.09, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**48.6**
Unconditioned:	**6**
Garage:	**-**
TOTAL:	**54.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**3.2**
Cooling:	**25.5**
TOTAL:	**28.7**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=65ISLELEB1

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 218	2100	3933	WNW	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	20.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	14.9	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	11	WNW	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	16.6	NNE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	36.8	

Building Features

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	31.1	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	7.1	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **65ISLELEB1** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

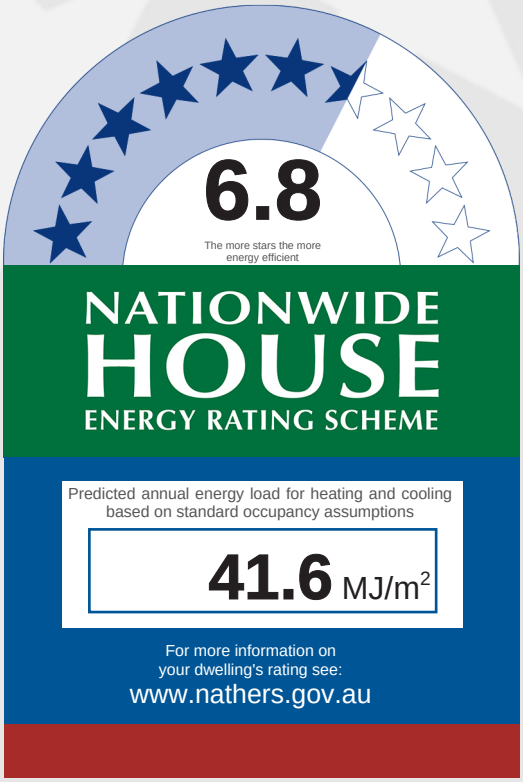
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **673BBMCF1K** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.10, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**47.7**
Unconditioned:	**6**
Garage:	**-**
TOTAL:	**53.7**

Annual thermal performance loads (MJ/m^2)

Heating:	**17.1**
Cooling:	**24.5**
TOTAL:	**41.6**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=673BBMCF1K

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **673BBMCF1K** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 218	2700	3933	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 220	2400	800	SSW	Bedroom 1	No
ALM-002-01 A	Opening 219	2400	800	ESE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	11	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	20.5	SSW	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	15.4	NNE	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	5.1	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	NNE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	11.5	SSW	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.4	SSW	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.7	ESE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	SSW	Bedroom 1	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	9.8	NNE	Bedroom 1	No	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	34.2	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	31.1	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **673BBMCF1K** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

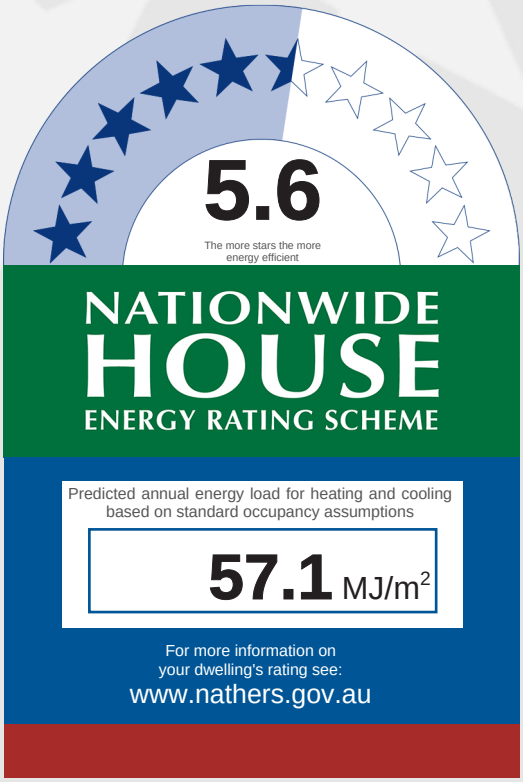
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **A6UZE9CBFV** Date of Certificate: **20 Jan 2020** ★Star rating: **5.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.01, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**76**
Unconditioned:	**3.8**
Garage:	**-**
TOTAL:	**79.8**

Annual thermal performance loads (MJ/m^2)

Heating:	**37.4**
Cooling:	**19.7**
TOTAL:	**57.1**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=A6UZE9CBFV

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 179	2700	1800	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 180	2700	3200	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 177	2700	1800	SSW	Bedroom 1	No
ALM-002-01 A	Opening 178	2700	2753	ESE	Bedroom 2	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	22.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	NNE	Hallway	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	21.2	WNW	Hallway	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.5	NNE	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	10.5	NNE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	SSW	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 1	Yes	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	4.2	ESE	Bathroom	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8.2	ESE	Bedroom 2	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	65.1	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 200mm concrete slab Lined	33.5	Enclosed	R0.0	Tiles
Hallway	FR5 - 200mm concrete slab Lined	13.2	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab Lined	4.3	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 200mm concrete slab Lined	13.4	Enclosed	R0.0	Carpet
Bathroom	FR5 - 200mm concrete slab Lined	3.8	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	11.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **A6UZE9CBFV** Date of Certificate: **20 Jan 2020** ★Star rating: **5.6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

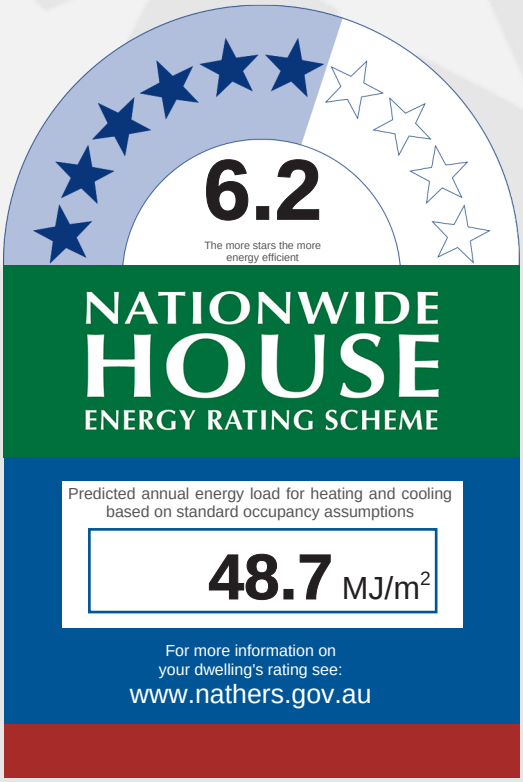
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ASFRDVHYD7** Date of Certificate: **20 Jan 2020** ★Star rating: **6.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.08, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**44**
Unconditioned:	**4.1**
Garage:	**-**
TOTAL:	**48.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**25.9**
Cooling:	**22.8**
TOTAL:	**48.7**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=ASFRDVHYD7

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 212	2100	3897	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 210	2100	2909	NNE	Bedroom 1	No
ALM-002-01 A	Opening 211	2100	3990	WNW	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	10.1	WNW	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	16.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.4	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.1	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.1	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.3	WNW	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6	SSW	Entrance	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	ESE	Entrance	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.1	ESE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Bathroom	No	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	21.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	28	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	11.6	Enclosed	R0.0	Carpet
Entrance	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	4.1	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ASFRDVHYD7** Date of Certificate: **20 Jan 2020** ★Star rating: **6.2**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

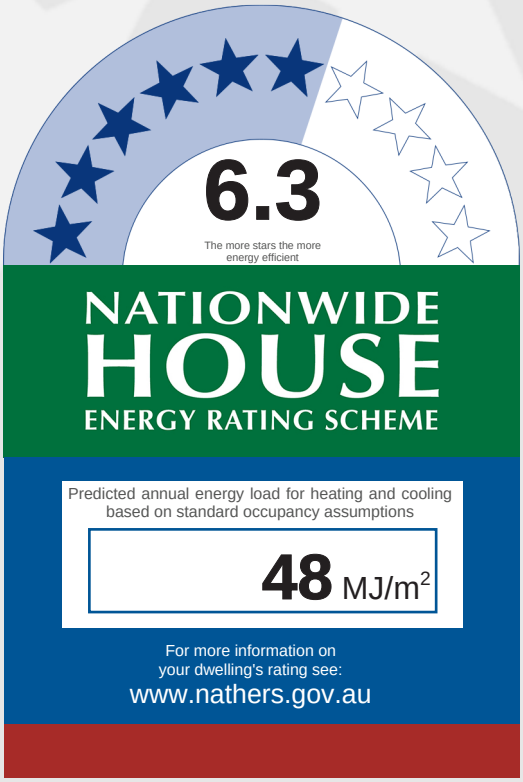
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **B8WRG2BYHP** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.03, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**101.3**
Unconditioned:	**5.1**
Garage:	**-**
TOTAL:	**106.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**29**
Cooling:	**19**
TOTAL:	**48**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=B8WRG2BYHP

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

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-070-04 A	Type 245 Aluminium Sliding Door SG 4Clr	6.27	0.73

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-070-04 A	Opening 302	2700	2500	ESE	Bedroom 18	No
GJA-070-04 A	Opening 303	2700	2500	ESE	Bedroom 21	No
GJA-070-04 A	Opening 304	2700	2500	ESE	Bedroom 23	No
GJA-070-04 A	Opening 305	2700	2100	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	9.6	NNE	Bedroom 18	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 18	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.4	NNE	Night 19	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.1	WNW	Night 19	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.8	WNW	Night 20	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 21	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	4.4	WNW	Unconditioned 22	No	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	7.1	NNE	Unconditioned 22	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 23	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	5.4	WNW	Day 24	No	Yes

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Day 25	No	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	8	SSW	Day 25	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	23.6	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.8	ESE	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.8	WNW	Day 27	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	108	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 18	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Night 19	FR5 - 200mm concrete slab Lined	4.4	Enclosed	R0.0	Tiles
Night 20	FR5 - 200mm concrete slab Lined	4.2	Enclosed	R0.0	Carpet
Bedroom 21	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Unconditioned 22	FR5 - 200mm concrete slab Lined	5.1	Enclosed	R0.0	Tiles
Bedroom 23	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Day 24	FR5 - 200mm concrete slab Lined	6.8	Enclosed	R0.0	Tiles
Day 25	FR5 - 200mm concrete slab Lined	8.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	33.4	Enclosed	R0.0	Tiles
Day 27	FR5 - 200mm concrete slab Lined	11.7	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom 18	Plasterboard	R3.0	No
Night 19	Plasterboard	R3.0	No
Night 20	Plasterboard	R3.0	No
Bedroom 21	Plasterboard	R3.0	No
Unconditioned 22	Plasterboard	R3.0	No
Bedroom 23	Plasterboard	R3.0	No
Day 24	Plasterboard	R3.0	No
Day 25	Plasterboard	R3.0	No

Building Features

Kitchen/Living	Plasterboard	R3.0	No
Day 27	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **B8WRG2BYHP** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

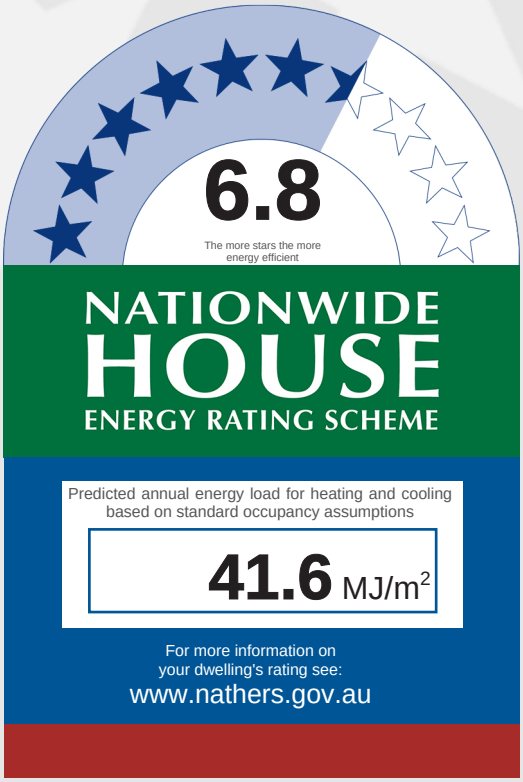
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **BB2OA64GF3** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.10, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**47.7**
Unconditioned:	**6**
Garage:	**-**
TOTAL:	**53.7**

Annual thermal performance loads (MJ/m^2)

Heating:	**17.1**
Cooling:	**24.5**
TOTAL:	**41.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=BB2OA64GF3

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **BB2OA64GF3** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 218	2700	3933	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 220	2400	800	SSW	Bedroom 1	No
ALM-002-01 A	Opening 219	2400	800	ESE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	11	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	20.5	SSW	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	15.4	NNE	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	5.1	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	NNE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	11.5	SSW	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.4	SSW	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.7	ESE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	SSW	Bedroom 1	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	9.8	NNE	Bedroom 1	No	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	34.2	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	31.1	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **BB2OA64GF3** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

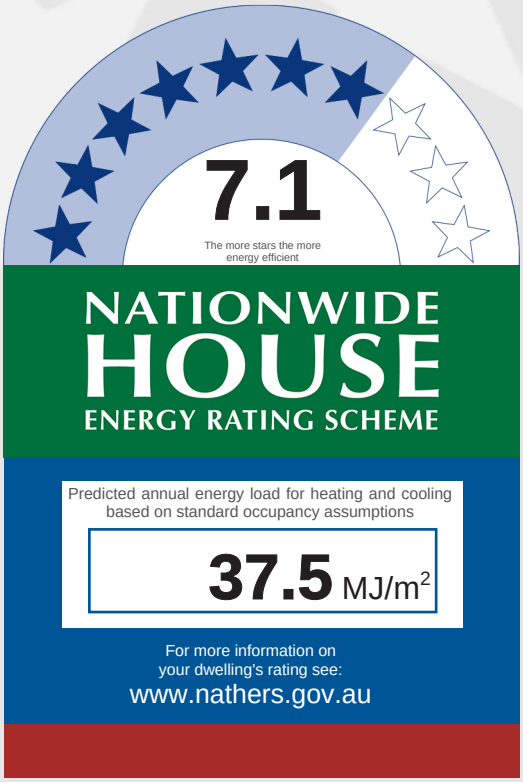
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **CI9Q3WODGD** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.08, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials
(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations
(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**79.7**
Unconditioned:	**4.5**
Garage:	**-**
TOTAL:	**84.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**11.1**
Cooling:	**26.4**
TOTAL:	**37.5**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=CI9Q3WODGD

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **CI9Q3WODGD** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 250	2700	2700	NW	Bedroom 18	No
ALM-002-01 A	Opening 249	2100	800	ESE	Day 20	No
ALM-002-01 A	Opening 251	2700	2700	NW	Kitchen/Living 25	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	9.8	NNE	Bedroom 18	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.9	NW	Bedroom 18	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	9.7	NNE	Bedroom 19	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	8	ESE	Bedroom 19	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	SSW	Day 20	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	1.7	SSW	Day 20	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	7.5	ESE	Day 20	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.4	SSW	Unconditioned 21	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	2.8	ESE	Day 22	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.8	NNE	Day 23	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	NNE	Night 24	No	No

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	11.7	NW	Kitchen/Living 25	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	26.3	SSW	Kitchen/Living 25	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	87.1	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 18	FR5 - 200mm concrete slab Lined	12.9	Enclosed	R0.0	Carpet
Bedroom 19	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Day 20	FR5 - 200mm concrete slab Lined	7.3	Enclosed	R0.0	Tiles
Unconditioned 21	FR5 - 200mm concrete slab Lined	4.5	Enclosed	R0.0	Tiles
Day 22	FR5 - 200mm concrete slab Lined	5.4	Enclosed	R0.0	Tiles
Day 23	FR5 - 200mm concrete slab Lined	5.3	Enclosed	R0.0	Carpet
Night 24	FR5 - 200mm concrete slab Lined	4.6	Enclosed	R0.0	Tiles
Kitchen/Living 25	FR5 - 200mm concrete slab Lined	33.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **CI9Q3WODGD** Date of Certificate: **20 Jan 2020** ★Star rating: **7.1**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

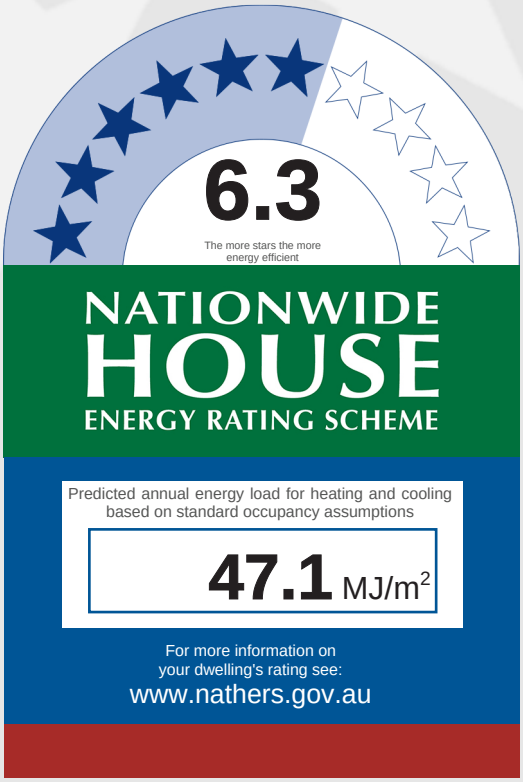
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **DZ4ICTBNK5** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.14, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**25.4**
Cooling:	**21.7**
TOTAL:	**47.1**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=DZ4ICTBNK5

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **DZ4ICTBNK5** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **DZ4ICTBNK5** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

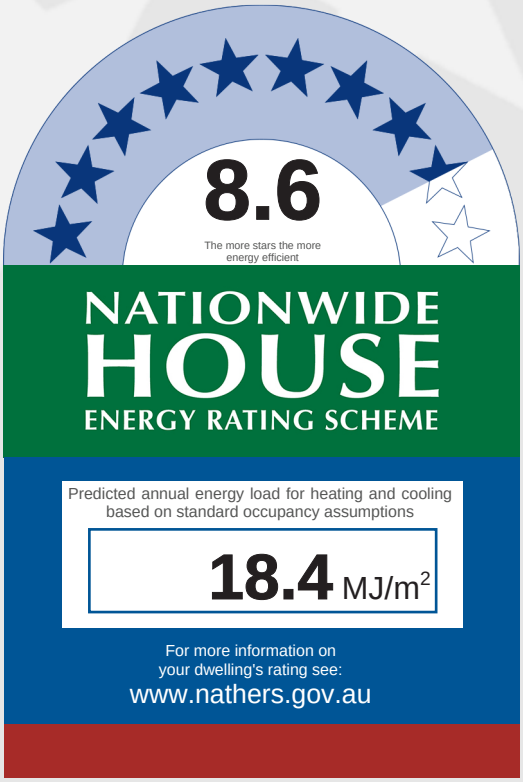
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **E0TQEMDQFQ** Date of Certificate: **20 Jan 2020** ★Star rating: **8.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.07, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**44.9**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**48.6**

Annual thermal performance loads (MJ/m^2)

Heating:	**0.3**
Cooling:	**18.1**
TOTAL:	**18.4**

Window selection - default windows only

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

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

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

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

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=E0TQEMDQFQ

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 204	2100	1947	NNE	Bedroom	No
ALM-002-01 A	Opening 203	2100	3514	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	1.8	NNE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.9	WNW	Bedroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.7	WNW	Bedroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.4	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.4	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	20.9	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.6	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	WNW	Hall	No	No

Internal wall type

Building Features

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	27.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bathroom	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	32.5	Enclosed	R0.0	Tiles
Hall	FR5 - 300mm concrete slab	1.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **E0TQEMDQFQ** Date of Certificate: **20 Jan 2020** ★Star rating: **8.6**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

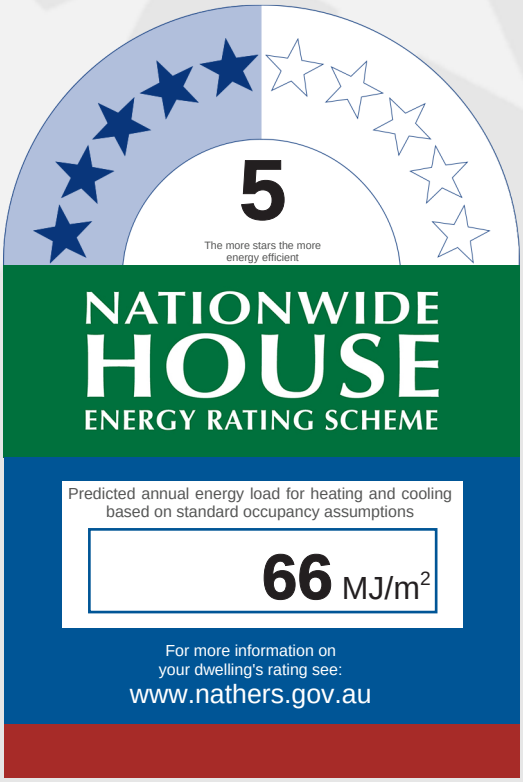
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ERR4AGFK0T** Date of Certificate: **20 Jan 2020** ★Star rating: **5**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.02, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**64.3**
Unconditioned:	**3.5**
Garage:	**-**
TOTAL:	**67.8**

Annual thermal performance loads (MJ/m^2)

Heating:	**41**
Cooling:	**25**
TOTAL:	**66**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

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

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

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

https://www.fr5.com.au/QRCodeLanding?PublicId=ERR4AGFK0T

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

Building Features

Windows type and performance value

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

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 189	2700	1800	NNE	Kitchen/Living 18	No
ALM-002-01 A	Opening 190	2700	3100	ESE	Kitchen/Living 18	No
ALM-002-01 A	Opening 187	2700	2700	ESE	Bedroom 19	No
ALM-002-01 A	Opening 188	2700	1800	ESE	Bedroom 24	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

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

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living 18	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	WNW	Kitchen/Living 18	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	17.4	SSW	Kitchen/Living 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	1.9	SSW	Kitchen/Living 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.7	NNE	Bedroom 19	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 19	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	NNE	Night 20	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.5	WNW	Night 20	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	1.3	NNE	Unconditioned 21	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Day 22	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Day 22	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	SSW	Day 22	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.6	SSW	Day 23	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8.6	WNW	Day 23	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 24	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	64.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living 18	FR5 - 200mm concrete slab Lined	25.9	Enclosed	R0.0	Tiles
Bedroom 19	FR5 - 200mm concrete slab Lined	11.7	Enclosed	R0.0	Carpet
Night 20	FR5 - 200mm concrete slab Lined	4.1	Enclosed	R0.0	Tiles
Unconditioned 21	FR5 - 200mm concrete slab Lined	3.5	Enclosed	R0.0	Tiles
Day 22	FR5 - 200mm concrete slab Lined	6.1	Enclosed	R0.0	Tiles
Day 23	FR5 - 200mm concrete slab Lined	6.9	Enclosed	R0.0	Tiles
Bedroom 24	FR5 - 200mm concrete slab Lined	9.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ERR4AGFK0T** Date of Certificate: **20 Jan 2020** ★Star rating: **5**

Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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

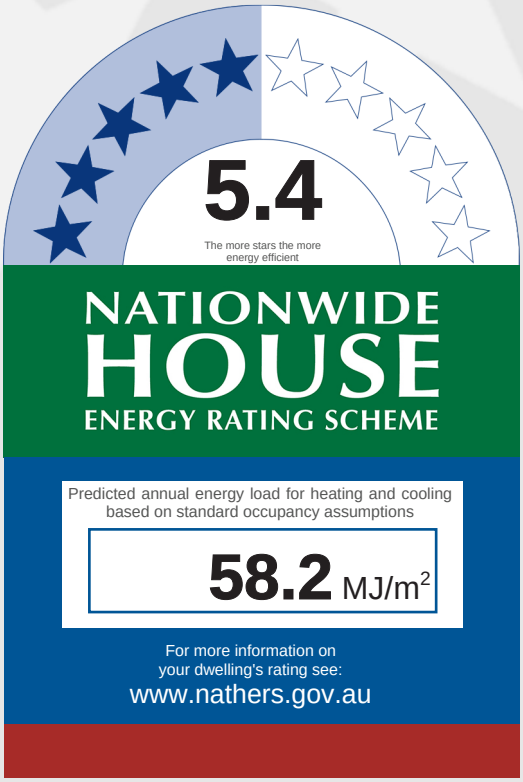
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **GCWF6KI0GB** Date of Certificate: **20 Jan 2020** ★Star rating: **5.4**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.06, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

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

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.8**
Unconditioned:	**4.6**
Garage:	**-**
TOTAL:	**73.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**36.9**
Cooling:	**21.3**
TOTAL:	**58.2**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

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

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

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=GCWF6KI0GB

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 261	2700	2800	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 262	2700	2700	NW	Kitchen/Living	No
ALM-002-01 A	Opening 260	2700	2400	WNW	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8	SSW	Study	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	8	ESE	Study	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	12.2	NW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Kitchen/Living	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5	ESE	Entry	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	7.3	SSW	Entry	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	6	ESE	Entry	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	10.7	NNE	Entry	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	NNE	Bath	No	No

Building Features

1 : AFS - AFS 200mm (75mm Glasswool)	10.5	NNE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	50.7	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Study	FR5 - 200mm concrete slab Lined	8.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	35.1	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	13.5	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	4.6	Enclosed	R0.0	Tiles
Bedroom	FR5 - 200mm concrete slab Lined	11.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above
Study	Plasterboard	R3.0	No
Kitchen/Living	Plasterboard	R3.0	No
Entry	Plasterboard	R3.0	No
Bath	Plasterboard	R3.0	No
Bedroom	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **GCWF6KI0GB** Date of Certificate: **20 Jan 2020** ★Star rating: **5.4**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

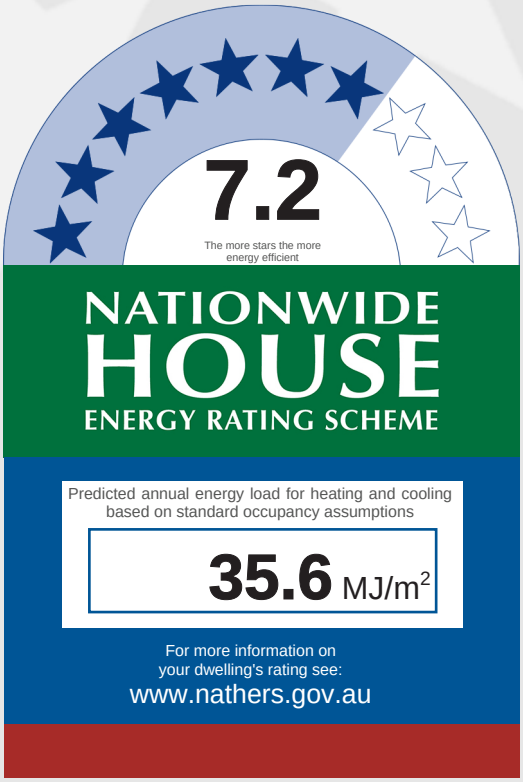
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **HP09OBMC15** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.11, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials
(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations
(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**13.4**
Cooling:	**22.2**
TOTAL:	**35.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=HP09OBMC15

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **HP09OBMC15** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

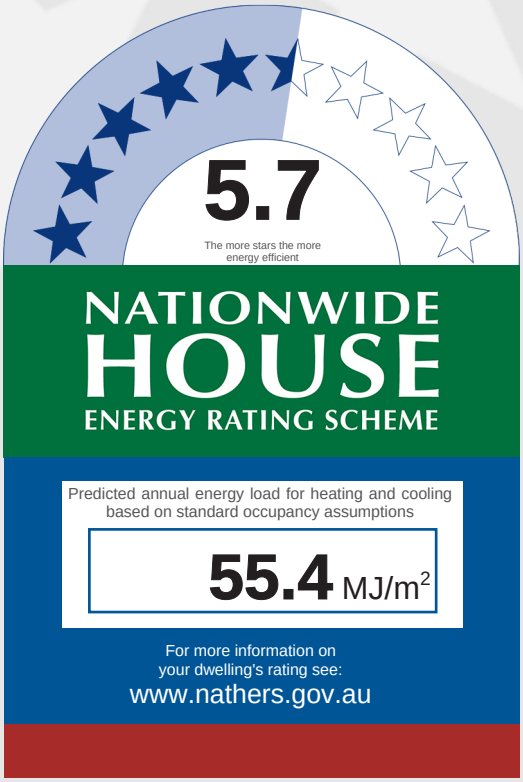
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **HWLBTBDAIS** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.02, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**45.5**
Unconditioned:	**6.9**
Garage:	**-**
TOTAL:	**52.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**27.6**
Cooling:	**27.8**
TOTAL:	**55.4**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=HWLBTBDAIS

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 144	2700	2850	ESE	Bedroom	No
ALM-002-01 A	Opening 146	2400	3200	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 145	2700	1800	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8	NNE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.6	ESE	Bedroom	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	10.2	NNE	Bath	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	3.8	WNW	Bath	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	5.2	SSW	Bath	Yes	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.2	WNW	Bath	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	12.4	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.1	WNW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	16.2	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	3	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	5.8	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	1.2	ESE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	23.3	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom	FR5 - 300mm concrete slab	11.7	Enclosed	R0.0	Carpet
Bath	FR5 - 300mm concrete slab	6.9	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 300mm concrete slab	33.8	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **HWLBTBDAIS** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

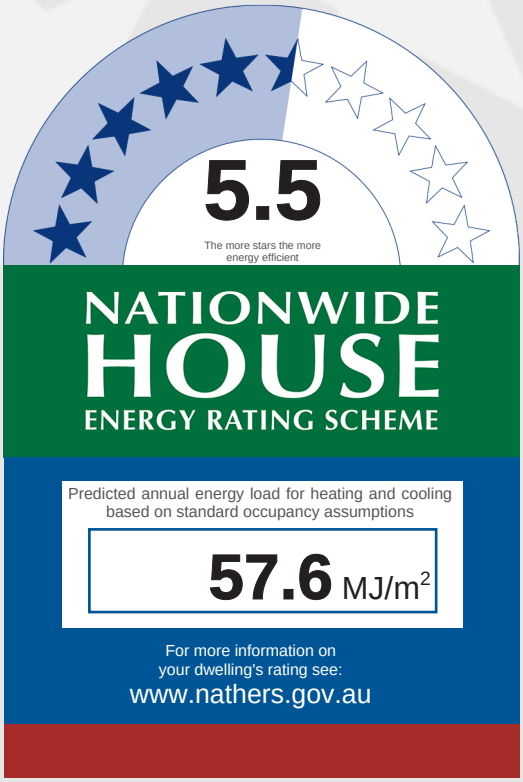
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **I5HN3M0J2A** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.01, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**102.1**
Unconditioned:	**3.9**
Garage:	**-**
TOTAL:	**106**

Annual thermal performance loads (MJ/m^2)

Heating:	**41.7**
Cooling:	**15.9**
TOTAL:	**57.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=I5HN3M0J2A

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-070-04 A	Type 245 Aluminium Sliding Door SG 4Clr	6.27	0.73

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-070-04 A	Opening 279	2700	1800	SSW	Bedroom 1	No
GJA-070-04 A	Opening 280	2700	2400	ESE	Bedroom 3	No
GJA-070-04 A	Opening 281	2700	2400	ESE	Bedroom 2	No
GJA-070-04 A	Opening 282	2700	1600	ESE	Study	No
GJA-070-04 A	Opening 283	2700	1800	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	7.7	NNE	Bedroom 1	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	1.7	NNE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	SSW	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	4.5	NNE	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	4.5	NNE	Bath	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.7	WNW	Bath	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	30.2	WNW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.4	NNE	Entry	Yes	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 3	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5	ESE	Study	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	22.8	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	97.5	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	13.3	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
WIR	FR5 - 200mm concrete slab Lined	3	Enclosed	R0.0	Carpet
Entry	FR5 - 200mm concrete slab Lined	20.9	Enclosed	R0.0	Tiles
Bedroom 3	FR5 - 200mm concrete slab Lined	10.5	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.5	Enclosed	R0.0	Carpet
Study	FR5 - 200mm concrete slab Lined	6.5	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	33.4	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom 1	Plasterboard	R3.0	No
Ensuite	Plasterboard	R3.0	No
Bath	Plasterboard	R3.0	No
WIR	Plasterboard	R3.0	No
Entry	Plasterboard	R3.0	No
Bedroom 3	Plasterboard	R3.0	No
Bedroom 2	Plasterboard	R3.0	No
Study	Plasterboard	R3.0	No

Building Features

Kitchen/Living	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	dark

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **I5HN3M0J2A** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

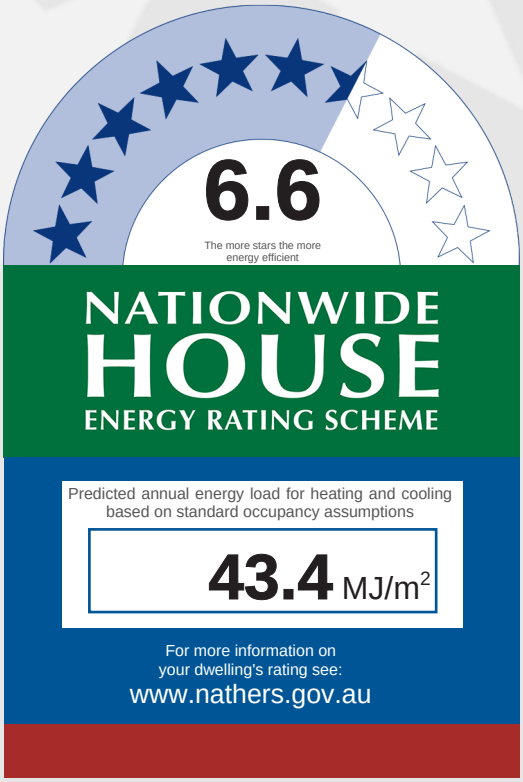
For more information on energy efficient design and insulation visit www.yourhome.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IB7D5KY8SD** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.01, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.7**
Unconditioned:	**4.4**
Garage:	**-**
TOTAL:	**73.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**19.1**
Cooling:	**24.3**
TOTAL:	**43.4**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=IB7D5KY8SD

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 134	2400	2800	ESE	Bedroom 18	No
ALM-002-01 A	Opening 135	2400	2800	ESE	Bedroom 19	No
ALM-002-01 A	Opening 137	2400	1600	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 136	2400	1400	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	15.4	NNE	Bedroom 18	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 18	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 19	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	1.6	ESE	Entry Hallway	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.7	NNE	Entry Hallway	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	21	WNW	Entry Hallway	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	7.7	WNW	Bath	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	SSW	Bath	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IB7D5KY8SD** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	4.5	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	70.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 18	FR5 - 300mm concrete slab	13.6	Enclosed	R0.0	Carpet
Bedroom 19	FR5 - 300mm concrete slab	14.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Entry Hallway	FR5 - 300mm concrete slab	11.2	Enclosed	R0.0	Tiles
Bath	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 300mm concrete slab	26	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IB7D5KY8SD** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

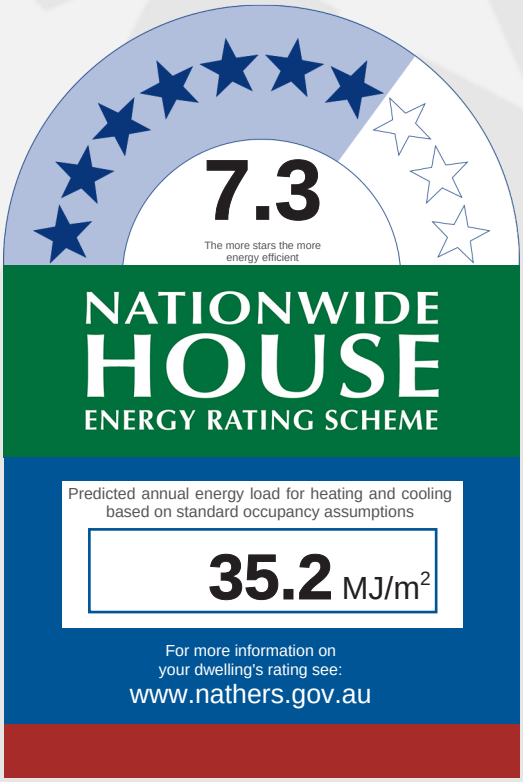
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IBR9HDX15T** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.06, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**69.5**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**73.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**16.9**
Cooling:	**18.3**
TOTAL:	**35.2**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=IBR9HDX15T

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 224	2700	1833	NNE	Bedroom 1	No
GJA-013-01 A	Opening 225	2700	2643	NW	Bedroom 1	No
GJA-013-01 A	Opening 223	2700	2548	NNE	Bedroom 2	No
GJA-013-01 A	Opening 221	2700	2526	NNE	Kitchen/Living	No
GJA-013-01 A	Opening 222	2700	2724	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	7.9	NNE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.8	NW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	12.1	SSW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	SSW	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	0.5	WNW	WIR	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.6	NNE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom 2	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.8	SSW	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	5.7	SSW	Kitchen/Living	Yes	No

Building Features

2 : AFS - AFS 200mm (75mm Glasswool)	17.8	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	15.9	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	SSW	Bath	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	51.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	12.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
WIR	FR5 - 200mm concrete slab Lined	4.1	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 200mm concrete slab Lined	39.1	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IBR9HDX15T** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

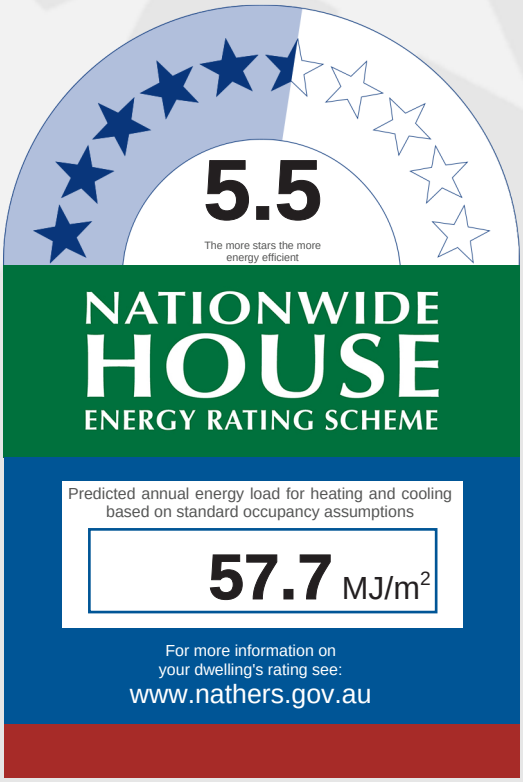
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IVX1DGO21Z** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.03, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**80.6**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**84.3**

Annual thermal performance loads (MJ/m^2)

Heating:	**37.3**
Cooling:	**20.4**
TOTAL:	**57.7**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=IVX1DGO21Z

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-070-04 A	Type 245 Aluminium Sliding Door SG 4Clr	6.27	0.73
GJA-017-01 A	Type 136 Aluminium Double Hung Window SG 3Clr	6.45	0.73
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-070-04 A	Opening 191	2700	2700	ESE	Bedroom 1	No
GJA-070-04 A	Opening 190	2700	2700	ESE	Bedroom 2	No
GJA-017-01 A	Opening 187	2400	800	SSW	Study	No
GJA-013-01 A	Opening 188	2700	3100	ESE	Kitchen/Living	No
GJA-070-04 A	Opening 189	2700	1800	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	9.6	NNE	Bedroom 1	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	NNE	WIR	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.6	NNE	Ensuite	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.3	WNW	Ensuite	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	7.8	WNW	Study	Yes	Yes

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	3.6	SSW	Study	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	3.5	SSW	Entry	Yes	No
2 : AFS - AFS 162mm (75mm Glasswool)	0.5	ESE	Entry	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	3.3	WNW	Entry	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	11.6	WNW	Kitchen/Living	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	24.5	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.8	ESE	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	77.9	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	11.9	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.7	Enclosed	R0.0	Carpet
WIR	FR5 - 200mm concrete slab Lined	4.2	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Study	FR5 - 200mm concrete slab Lined	6.7	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	6.4	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	36.8	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IVX1DGO21Z** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Building Features

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **IVX1DGO21Z** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

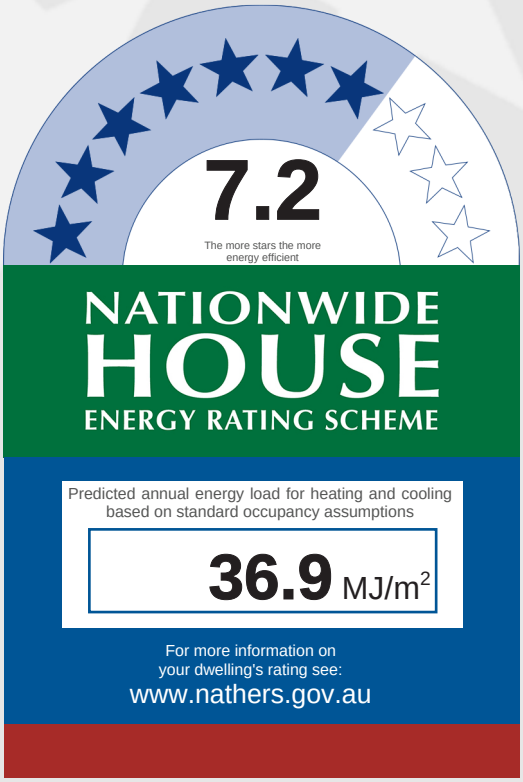
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **JVYHYXS3ZX** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.12, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**14.4**
Cooling:	**22.5**
TOTAL:	**36.9**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=JVYHYXS3ZX

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **JVYHYXS3ZX** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

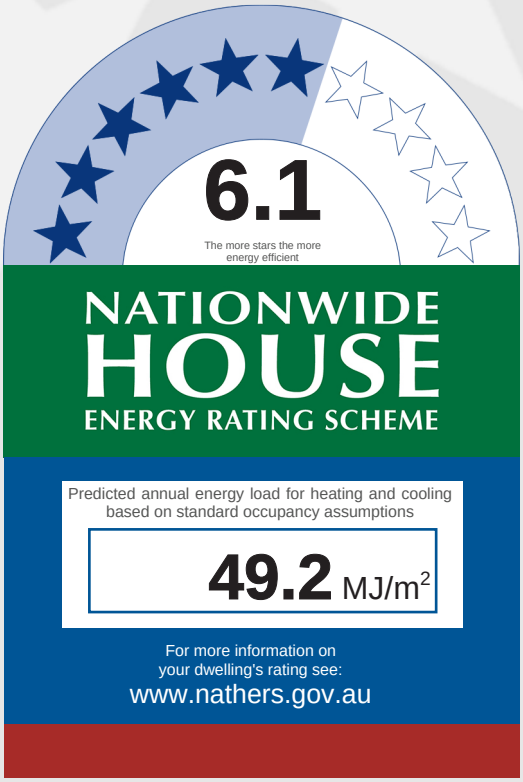
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **L1AJHCW5RC** Date of Certificate: **20 Jan 2020** ★Star rating: **6.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.08, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials
(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations
(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**44**
Unconditioned:	**4.1**
Garage:	**-**
TOTAL:	**48.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**27.5**
Cooling:	**21.7**
TOTAL:	**49.2**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=L1AJHCW5RC

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 212	2100	3897	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 210	2100	2909	NNE	Bedroom 1	No
ALM-002-01 A	Opening 211	2100	3990	WNW	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	10.1	WNW	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	16.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.4	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.1	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.1	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.3	WNW	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6	SSW	Entrance	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	ESE	Entrance	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.1	ESE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Bathroom	No	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	21.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	28	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	11.6	Enclosed	R0.0	Carpet
Entrance	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	4.1	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **L1AJHCW5RC** Date of Certificate: **20 Jan 2020** ★Star rating: **6.1**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

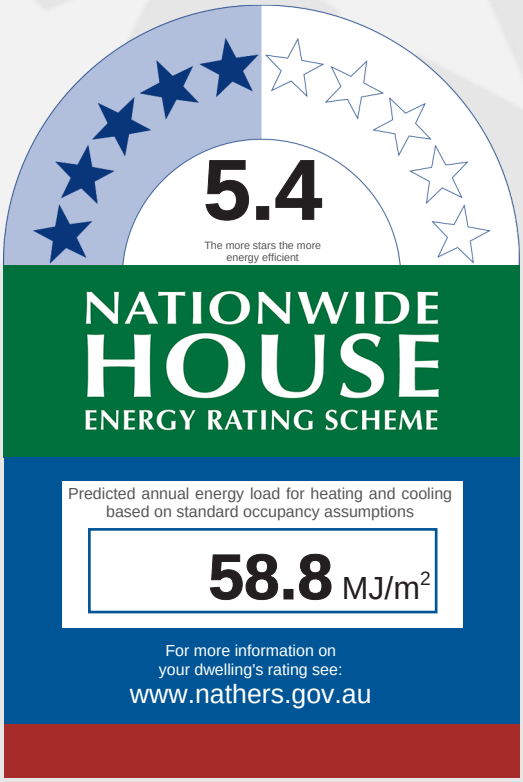
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LBCMU4UE7K** Date of Certificate: **20 Jan 2020** ★Star rating: **5.4**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.07, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**70.4**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**74.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**34.1**
Cooling:	**24.7**
TOTAL:	**58.8**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=LBCMU4UE7K

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 268	2700	2400	WNW	Bedroom 1	No
ALM-002-01 A	Opening 269	2700	3000	NNE	Kitchen/Living 2	No
ALM-002-01 A	Opening 270	2700	2650	NW	Kitchen/Living 2	No
ALM-002-01 A	Opening 271	2700	827	ESE	Bedroom 2	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8	NNE	Bedroom 1	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom 1	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.1	NNE	WIR	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	NNE	Ensuite	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	6.4	ESE	Bath	No	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	NNE	Bath	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	3.8	ESE	Entry	No	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	11.7	NNE	Kitchen/Living 2	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	11.9	NW	Kitchen/Living 2	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	SSW	Kitchen/Living 2	No	No

Building Features

1 : AFS - AFS 200mm (75mm Glasswool)	22.4	SSW	Kitchen/Living 2	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	9.9	SSW	Bedroom 2	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	1.7	SSW	Bedroom 2	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	No	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	65.2	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	8.8	Enclosed	R0.0	Carpet
WIR	FR5 - 200mm concrete slab Lined	3.6	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	8	Enclosed	R0.0	Tiles
Kitchen/Living 2	FR5 - 200mm concrete slab Lined	34.6	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	11.7	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom 1	Plasterboard	R3.0	No
WIR	Plasterboard	R3.0	No
Ensuite	Plasterboard	R3.0	No
Bath	Plasterboard	R3.0	No
Entry	Plasterboard	R3.0	No
Kitchen/Living 2	Plasterboard	R3.0	No
Bedroom 2	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Building Features

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LBCMU4UE7K** Date of Certificate: **20 Jan 2020** ★Star rating: **5.4**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

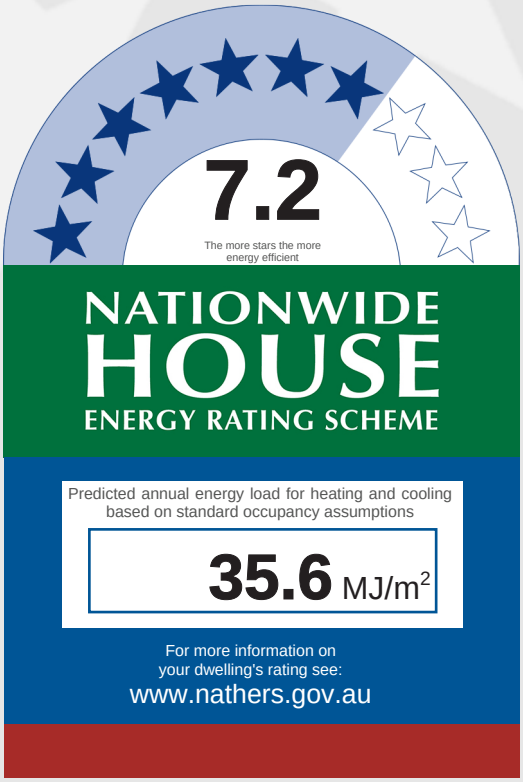
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LQZAL4JI65** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.11, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**13.4**
Cooling:	**22.2**
TOTAL:	**35.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=LQZAL4JI65

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LQZAL4JI65** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LQZAL4JI65** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

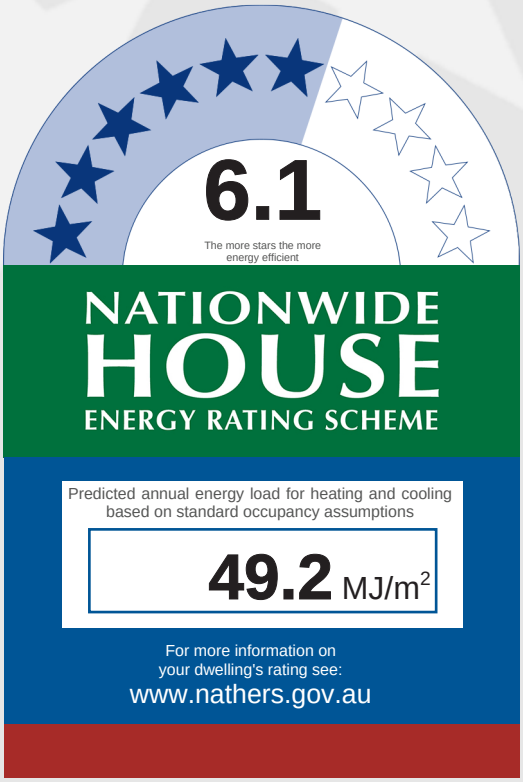
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LZ5ICE6211** Date of Certificate: **20 Jan 2020** ★Star rating: **6.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.08, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**44**
Unconditioned:	**4.1**
Garage:	**-**
TOTAL:	**48.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**27.5**
Cooling:	**21.7**
TOTAL:	**49.2**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=LZ5ICE6211

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LZ5ICE6211** Date of Certificate: **20 Jan 2020** ★Star rating: **6.1**

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 212	2100	3897	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 210	2100	2909	NNE	Bedroom 1	No
ALM-002-01 A	Opening 211	2100	3990	WNW	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	10.1	WNW	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	16.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.4	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.1	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.1	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.3	WNW	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6	SSW	Entrance	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	ESE	Entrance	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.1	ESE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Bathroom	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LZ5ICE6211** Date of Certificate: **20 Jan 2020** ★Star rating: **6.1**

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	21.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	28	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	11.6	Enclosed	R0.0	Carpet
Entrance	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	4.1	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **LZ5ICE6211** Date of Certificate: **20 Jan 2020** ★Star rating: **6.1**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

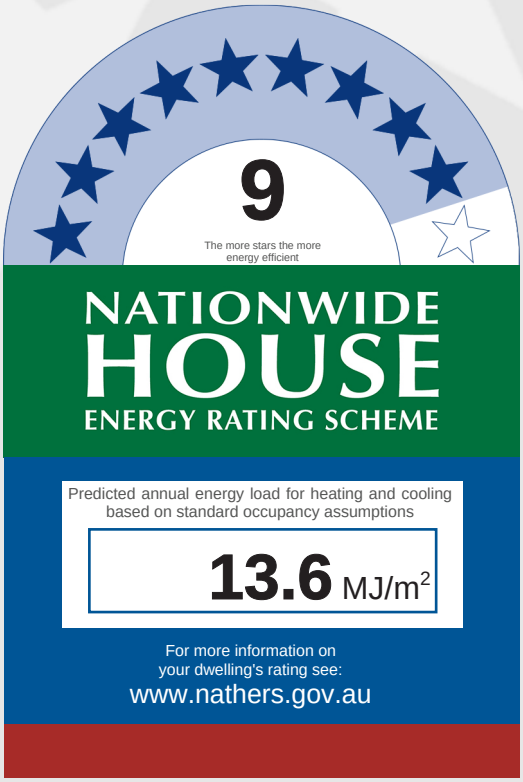
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **M9HT3I05EQ** Date of Certificate: **20 Jan 2020** ★Star rating: **9**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.06, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**76.6**
Unconditioned:	**3.8**
Garage:	**-**
TOTAL:	**80.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**2**
Cooling:	**11.6**
TOTAL:	**13.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=M9HT3I05EQ

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 198	2100	3512	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 197	2100	2905	NNE	Bedroom 2	No
ALM-002-01 A	Opening 199	2100	2917	NNE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	10.4	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.4	NNE	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	20.8	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	SSW	Pantry/Cupboard	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.4	ESE	Pantry/Cupboard	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 2	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	4.5	ESE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	SSW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	ESE	Ensuite	No	No

Internal wall type

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **M9HT3I05EQ** Date of Certificate: **20 Jan 2020** ★Star rating: **9**

Building Features

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	73.1	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	34.8	Enclosed	R0.0	Tiles
Pantry/Cupboard	FR5 - 300mm concrete slab	7.2	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.8	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	10.7	Enclosed	R0.0	Carpet
Bedroom 1	FR5 - 300mm concrete slab	10.3	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	3.8	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	6.1	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **M9HT3I05EQ** Date of Certificate: **20 Jan 2020** ★Star rating: **9**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

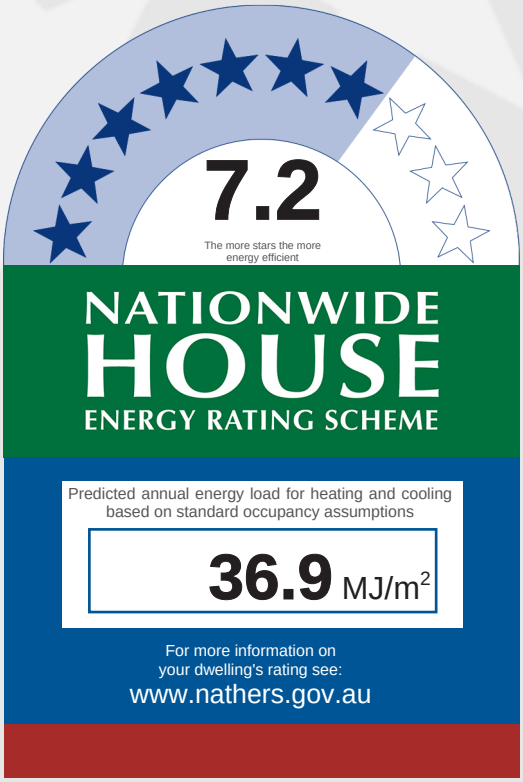
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **MMLFX0ZVEI** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.12, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**14.4**
Cooling:	**22.5**
TOTAL:	**36.9**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=MMLFX0ZVEI

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **MMLFX0ZVEI** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

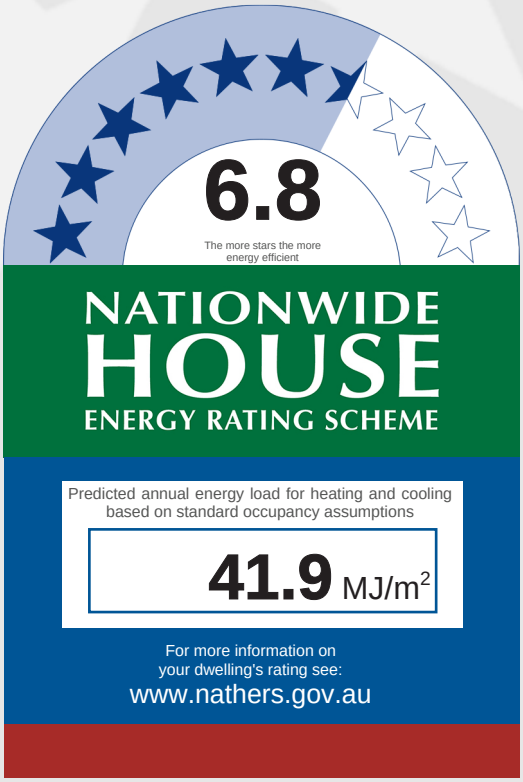
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NJ6KEKCG9G** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.10, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**47.7**
Unconditioned:	**6**
Garage:	**-**
TOTAL:	**53.7**

Annual thermal performance loads (MJ/m^2)

Heating:	**19.2**
Cooling:	**22.7**
TOTAL:	**41.9**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=NJ6KEKCG9G

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 218	2700	3933	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 220	2400	800	SSW	Bedroom 1	No
ALM-002-01 A	Opening 219	2400	800	ESE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	11	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	20.5	SSW	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	15.4	NNE	Kitchen/Living	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	5.1	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	NNE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	11.5	SSW	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.4	SSW	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.7	ESE	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	SSW	Bedroom 1	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	9.8	NNE	Bedroom 1	No	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	34.2	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	31.1	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.4	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NJ6KEKCG9G** Date of Certificate: **20 Jan 2020** ★Star rating: **6.8**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

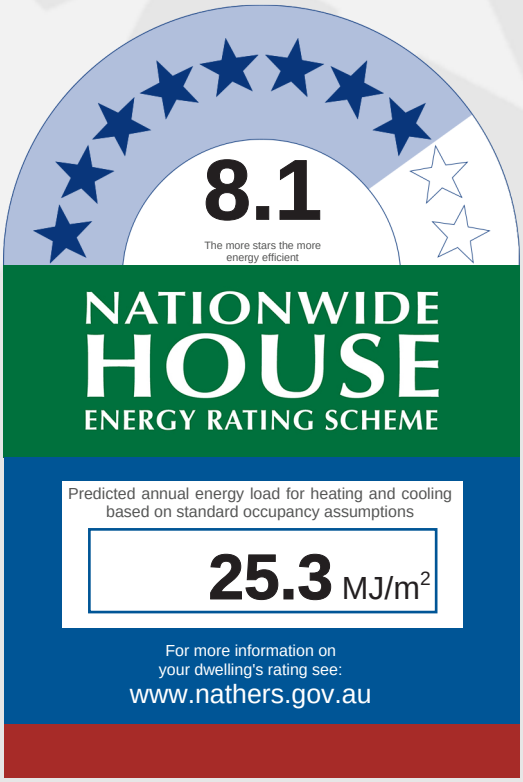
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NP4MXUY19H** Date of Certificate: **20 Jan 2020** ★Star rating: **8.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.04, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.6**
Unconditioned:	**3.6**
Garage:	**-**
TOTAL:	**72.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**9.4**
Cooling:	**15.9**
TOTAL:	**25.3**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=NP4MXUY19H

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 166	2100	1926	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 165	2100	2753	ESE	Bedroom 2	No
ALM-002-01 A	Opening 164	2100	2734	ESE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	18.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.5	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.1	NNE	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.9	SSW	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.9	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.9	WNW	Storage	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3	NNE	W.I.R	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 1	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	67.5	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	32.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	3.2	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	11.3	Enclosed	R0.0	Carpet
Hallway	FR5 - 300mm concrete slab	5.2	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
W.I.R	FR5 - 300mm concrete slab	2.6	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.5	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NP4MXUY19H** Date of Certificate: **20 Jan 2020** ★Star rating: **8.1**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

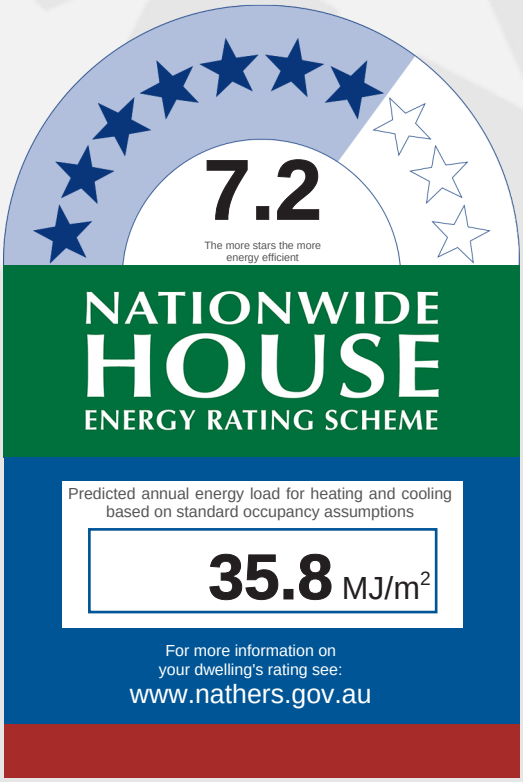
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NVQ2XE59UY** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.05, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials
(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations
(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**71.7**
Unconditioned:	**4.5**
Garage:	**-**
TOTAL:	**76.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**20.5**
Cooling:	**15.3**
TOTAL:	**35.8**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=NVQ2XE59UY

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 218	2700	2400	NNE	Bedroom 1	No
GJA-013-01 A	Opening 217	2700	2400	NNE	Bedroom 2	No
GJA-013-01 A	Opening 219	2700	2500	NNE	Kitchen/Living	No
GJA-013-01 A	Opening 220	2700	2500	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8	NNE	Bedroom 1	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	9.7	WNW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	NNE	Bedroom 2	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	7.8	WNW	Bath	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	4.2	SSW	Bath	Yes	No
2 : AFS - AFS 200mm (75mm Glasswool)	3.4	SSW	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	9.8	SSW	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	17.7	ESE	Kitchen/Living	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	15.9	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	63.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	11.9	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Bath	FR5 - 200mm concrete slab Lined	4.5	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	8	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	37.2	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **NVQ2XE59UY** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

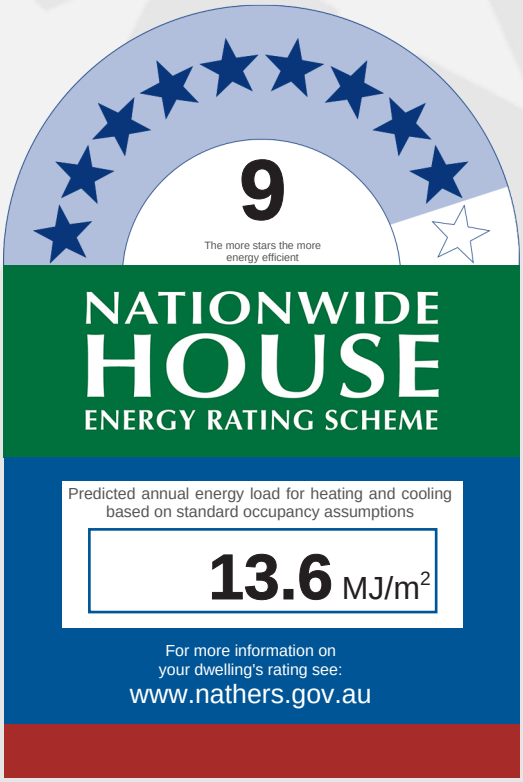
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **OD5VSEOD3O** Date of Certificate: **20 Jan 2020** ★Star rating: **9**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.06, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**76.6**
Unconditioned:	**3.8**
Garage:	**-**
TOTAL:	**80.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**2**
Cooling:	**11.6**
TOTAL:	**13.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=OD5VSEOD3O

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 198	2100	3512	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 197	2100	2905	NNE	Bedroom 2	No
ALM-002-01 A	Opening 199	2100	2917	NNE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	10.4	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.4	NNE	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	20.8	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	SSW	Pantry/Cupboard	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.4	ESE	Pantry/Cupboard	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 2	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	4.5	ESE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	SSW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	ESE	Ensuite	No	No

Internal wall type

Building Features

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	73.1	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	34.8	Enclosed	R0.0	Tiles
Pantry/Cupboard	FR5 - 300mm concrete slab	7.2	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.8	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	10.7	Enclosed	R0.0	Carpet
Bedroom 1	FR5 - 300mm concrete slab	10.3	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	3.8	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	6.1	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **OD5VSEOD3O** Date of Certificate: **20 Jan 2020** ★Star rating: **9**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

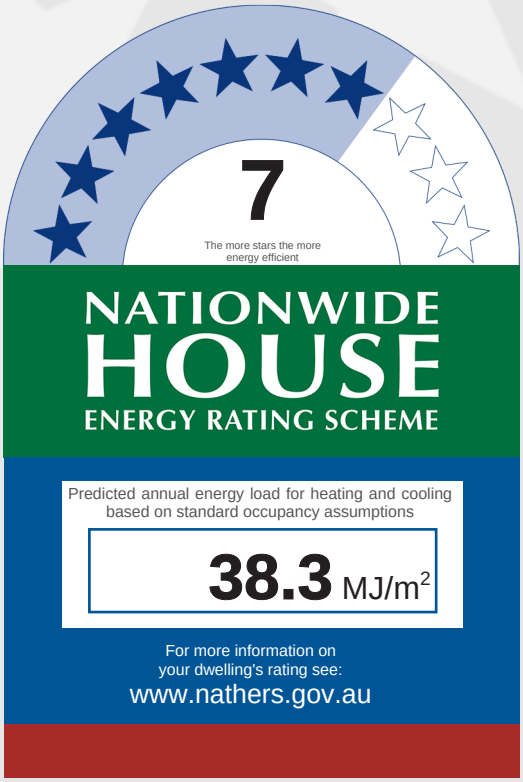
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **QDEUP508S7** Date of Certificate: **20 Jan 2020** ★Star rating: **7**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**6.04, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**88.8**
Unconditioned:	**4.7**
Garage:	**-**
TOTAL:	**93.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**21.5**
Cooling:	**16.8**
TOTAL:	**38.3**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=QDEUP508S7

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77
GJA-070-04 A	Type 245 Aluminium Sliding Door SG 4Clr	6.27	0.73

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 218	2700	2400	NNE	Bedroom 3	No
GJA-013-01 A	Opening 217	2700	2400	NNE	Bedroom 2	No
GJA-013-01 A	Opening 219	2700	2500	NNE	Kitchen/Living	No
GJA-013-01 A	Opening 220	2700	2500	NNE	Kitchen/Living	No
GJA-070-04 A	Opening 221	2700	2400	ESE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8	NNE	Bedroom 3	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	10.3	WNW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	NNE	Bedroom 2	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	7.3	WNW	Bath	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	4.7	SSW	Bath	Yes	No
2 : AFS - AFS 200mm (75mm Glasswool)	2.8	SSW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.5	SSW	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	17.7	ESE	Kitchen/Living	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	15.9	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	9.6	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	Yes	No
2 : AFS - AFS 200mm (75mm Glasswool)	3.2	WNW	Night 24	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	4.5	WNW	Night 25	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	SSW	Night 25	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	83.9	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 3	FR5 - 200mm concrete slab Lined	11.3	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	11.2	Enclosed	R0.0	Carpet
Bath	FR5 - 200mm concrete slab Lined	4.7	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	7.2	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	39	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 200mm concrete slab Lined	11.2	Enclosed	R0.0	Carpet
Night 24	FR5 - 200mm concrete slab Lined	4.9	Enclosed	R0.0	Carpet
Night 25	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Bedroom 1	Plasterboard	R3.0	No
Night 24	Plasterboard	R3.0	No
Night 25	Plasterboard	R3.0	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Building Features

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	dark

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **QDEUP508S7** Date of Certificate: **20 Jan 2020** ★Star rating: **7**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

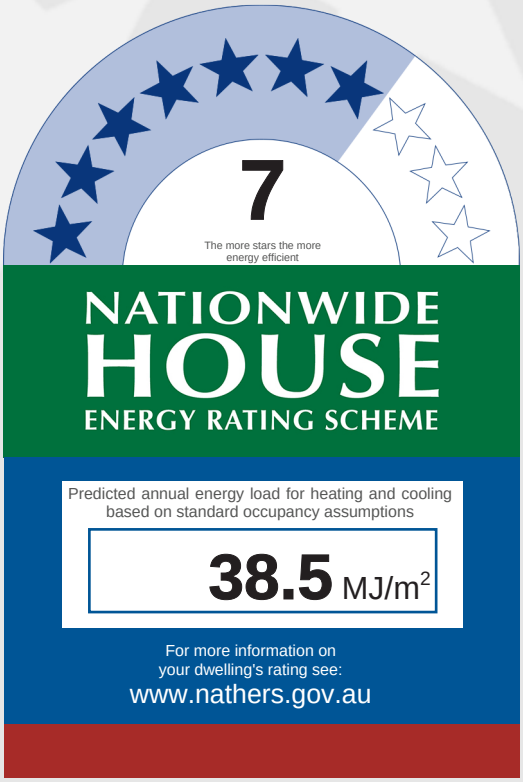
For more information on energy efficient design and insulation visit www.yourhome.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **R2KNNNLHSQ** Date of Certificate: **20 Jan 2020** ★Star rating: **7**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.10, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**72.2**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**75.9**

Annual thermal performance loads (MJ/m^2)

Heating:	**17.8**
Cooling:	**20.7**
TOTAL:	**38.5**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=R2KNNNLHSQ

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 261	2700	2500	WNW	Bedroom 1	No
ALM-002-01 A	Opening 260	2700	3851	WNW	Kitchen/Living 24	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	9.3	SSW	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	SSW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	SSW	Study	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.7	SSW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.3	SE	Bedroom 2	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	11.3	NNE	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3	SE	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.3	NE	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	3.6	NNE	Kitchen/Living 24	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	8.1	ESE	Kitchen/Living 24	No	No

Building Features

2 : AFS - AFS 200mm (75mm Glasswool)	12	NNE	Kitchen/Living 24	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	9	NNE	Kitchen/Living 24	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living 24	No	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	72.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	10.3	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	4.6	Enclosed	R0.0	Tiles
Study	FR5 - 200mm concrete slab Lined	4.9	Enclosed	R0.0	Carpet
Bathroom	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	12.4	Enclosed	R0.0	Carpet
Entry	FR5 - 200mm concrete slab Lined	5.2	Enclosed	R0.0	Tiles
Kitchen/Living 24	FR5 - 200mm concrete slab Lined	34.9	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **R2KNNNLHSQ** Date of Certificate: **20 Jan 2020** ★Star rating: **7**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

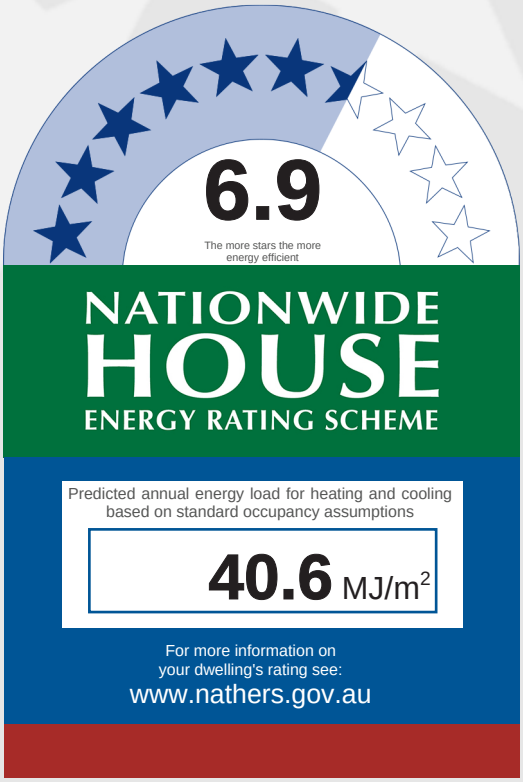
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **S0IDT17O7L** Date of Certificate: **20 Jan 2020** ★Star rating: **6.9**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.02, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**44.6**
Unconditioned:	**3.6**
Garage:	**-**
TOTAL:	**48.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**13.1**
Cooling:	**27.5**
TOTAL:	**40.6**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=S0IDT17O7L

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **S0IDT17O7L** Date of Certificate: **20 Jan 2020** ★Star rating: **6.9**

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 150	2100	2739	ESE	Bedroom	No
ALM-002-01 A	Opening 151	2100	2757	ESE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.6	NNE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.5	ESE	Bedroom	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	2.4	WNW	Hallway	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.2	NNE	Hallway	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	13.4	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9	ESE	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8.4	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	WNW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	NNE	Bathroom	No	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	34.9	

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **S0IDT17O7L** Date of Certificate: **20 Jan 2020** ★Star rating: **6.9**

Building Features

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom	FR5 - 300mm concrete slab	11.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	6.9	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 300mm concrete slab	25.9	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **S0IDT17O7L** Date of Certificate: **20 Jan 2020** ★Star rating: **6.9**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

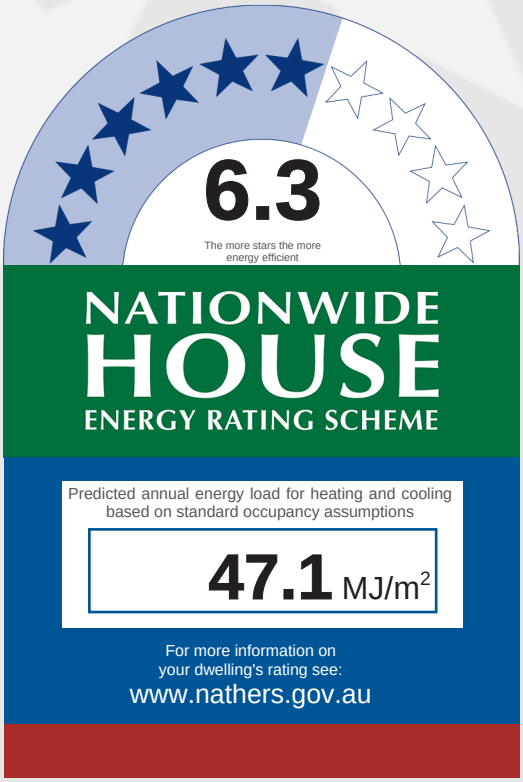
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **TB630RDLS0** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.14, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**25.4**
Cooling:	**21.7**
TOTAL:	**47.1**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=TB630RDLS0

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **TB630RDLS0** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **TB630RDLS0** Date of Certificate: **20 Jan 2020** ★Star rating: **6.3**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

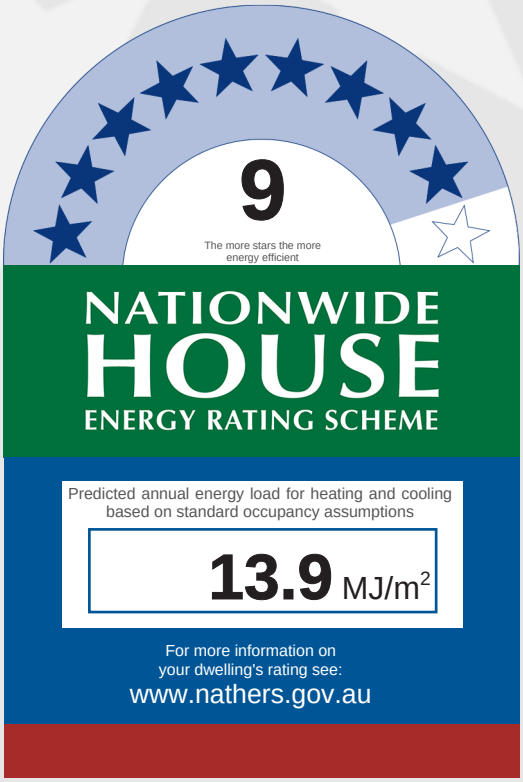
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **UST4RAI2F9** Date of Certificate: **20 Jan 2020** ★Star rating: **9**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.06, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**76.6**
Unconditioned:	**3.8**
Garage:	**-**
TOTAL:	**80.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**1.7**
Cooling:	**12.2**
TOTAL:	**13.9**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=UST4RAI2F9

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 198	2100	3512	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 197	2100	2905	NNE	Bedroom 2	No
ALM-002-01 A	Opening 199	2100	2917	NNE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	10.4	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.4	NNE	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	20.8	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	SSW	Pantry/Cupboard	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.4	ESE	Pantry/Cupboard	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 2	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	4.5	ESE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	SSW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	ESE	Ensuite	No	No

Internal wall type

Building Features

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	73.1	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	34.8	Enclosed	R0.0	Tiles
Pantry/Cupboard	FR5 - 300mm concrete slab	7.2	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.8	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	10.7	Enclosed	R0.0	Carpet
Bedroom 1	FR5 - 300mm concrete slab	10.3	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	3.8	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	6.1	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **UST4RAI2F9** Date of Certificate: **20 Jan 2020** ★Star rating: **9**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

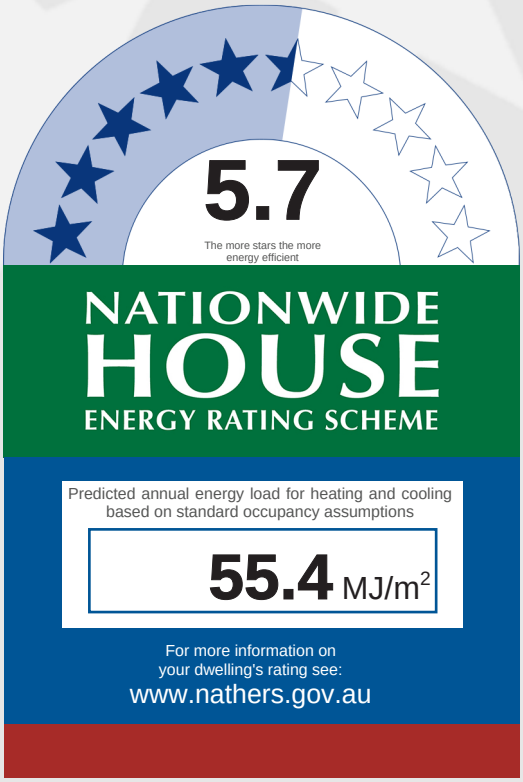
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **V4OBSG4JFK** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.02, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**45.5**
Unconditioned:	**6.9**
Garage:	**-**
TOTAL:	**52.4**

Annual thermal performance loads (MJ/m^2)

Heating:	**27.6**
Cooling:	**27.8**
TOTAL:	**55.4**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=V4OBSG4JFK

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 144	2700	2850	ESE	Bedroom	No
ALM-002-01 A	Opening 146	2400	3200	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 145	2700	1800	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8	NNE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.6	ESE	Bedroom	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	10.2	NNE	Bath	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	3.8	WNW	Bath	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	5.2	SSW	Bath	Yes	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.2	WNW	Bath	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	12.4	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.1	WNW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	16.2	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	3	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	5.8	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	1.2	ESE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	23.3	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom	FR5 - 300mm concrete slab	11.7	Enclosed	R0.0	Carpet
Bath	FR5 - 300mm concrete slab	6.9	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 300mm concrete slab	33.8	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **V4OBSG4JFK** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

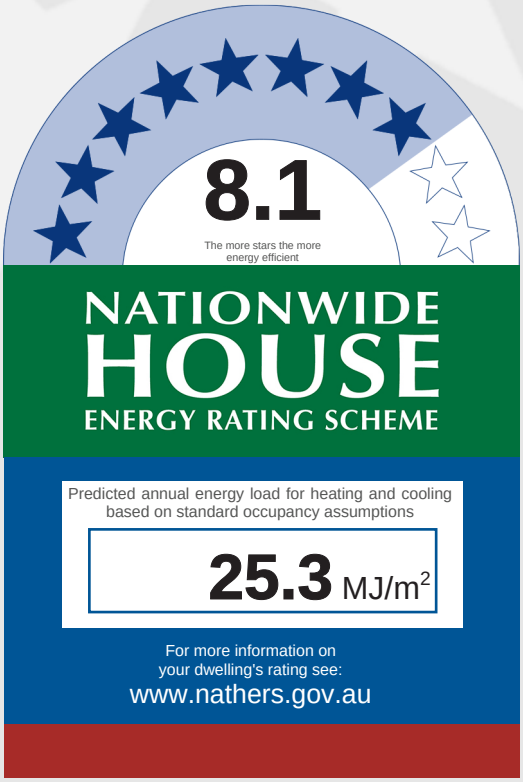
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **V46VSEZ9BB** Date of Certificate: **20 Jan 2020** ★Star rating: **8.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**1.04, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.6**
Unconditioned:	**3.6**
Garage:	**-**
TOTAL:	**72.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**9.4**
Cooling:	**15.9**
TOTAL:	**25.3**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=V46VSEZ9BB

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 166	2100	1926	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 165	2100	2753	ESE	Bedroom 2	No
ALM-002-01 A	Opening 164	2100	2734	ESE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	18.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.5	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.1	NNE	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.9	SSW	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.9	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.9	WNW	Storage	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3	NNE	W.I.R	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **V46VSEZ9BB** Date of Certificate: **20 Jan 2020** ★Star rating: **8.1**

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 1	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	67.5	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	32.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	3.2	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	11.3	Enclosed	R0.0	Carpet
Hallway	FR5 - 300mm concrete slab	5.2	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
W.I.R	FR5 - 300mm concrete slab	2.6	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.5	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **V46VSEZ9BB** Date of Certificate: **20 Jan 2020** ★Star rating: **8.1**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

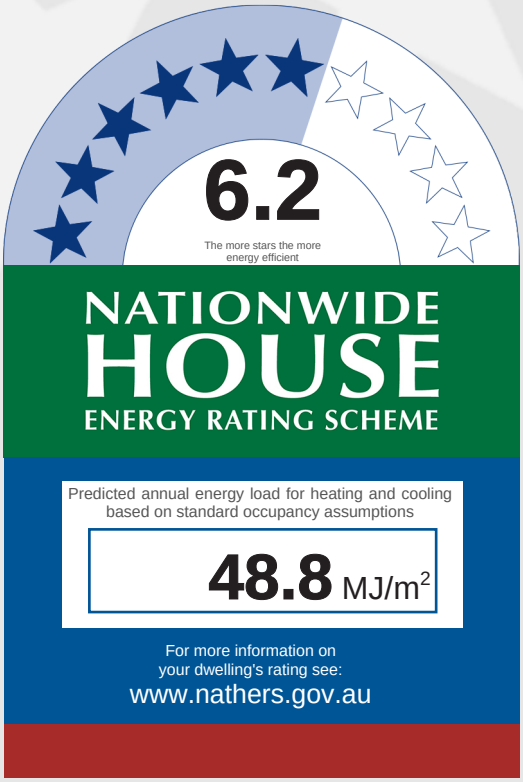
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **WBXMXTFM38** Date of Certificate: **20 Jan 2020** ★Star rating: **6.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.14, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**27.5**
Cooling:	**21.3**
TOTAL:	**48.8**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=WBXMXTFM38

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **WBXMXTFM38** Date of Certificate: **20 Jan 2020** ★Star rating: **6.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

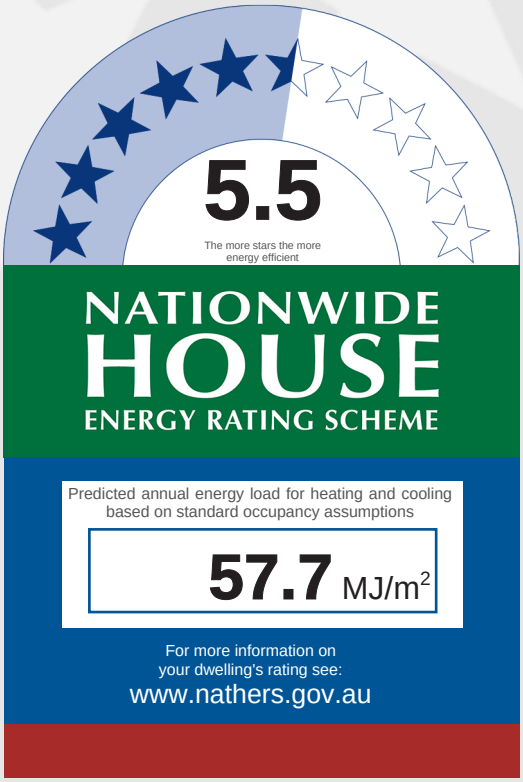
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **WX2G2TVQYP** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.03, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**80.6**
Unconditioned:	**3.7**
Garage:	**-**
TOTAL:	**84.3**

Annual thermal performance loads (MJ/m^2)

Heating:	**38**
Cooling:	**19.7**
TOTAL:	**57.7**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=WX2G2TVQYP

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-070-04 A	Type 245 Aluminium Sliding Door SG 4Clr	6.27	0.73
GJA-017-01 A	Type 136 Aluminium Double Hung Window SG 3Clr	6.45	0.73
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-070-04 A	Opening 191	2700	2700	ESE	Bedroom 1	No
GJA-070-04 A	Opening 190	2700	2700	ESE	Bedroom 2	No
GJA-017-01 A	Opening 187	2400	800	SSW	Study	No
GJA-013-01 A	Opening 188	2700	3100	ESE	Kitchen/Living	No
GJA-070-04 A	Opening 189	2700	1800	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	9.6	NNE	Bedroom 1	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	NNE	WIR	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.6	NNE	Ensuite	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.3	WNW	Ensuite	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	7.8	WNW	Study	Yes	Yes

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	3.6	SSW	Study	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	3.5	SSW	Entry	Yes	No
2 : AFS - AFS 162mm (75mm Glasswool)	0.5	ESE	Entry	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	3.3	WNW	Entry	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	11.6	WNW	Kitchen/Living	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	24.5	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.8	ESE	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	77.9	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	11.9	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.7	Enclosed	R0.0	Carpet
WIR	FR5 - 200mm concrete slab Lined	4.2	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Study	FR5 - 200mm concrete slab Lined	6.7	Enclosed	R0.0	Tiles
Bath	FR5 - 200mm concrete slab Lined	3.7	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	6.4	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	36.8	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Building Features

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **WX2G2TVQYP** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

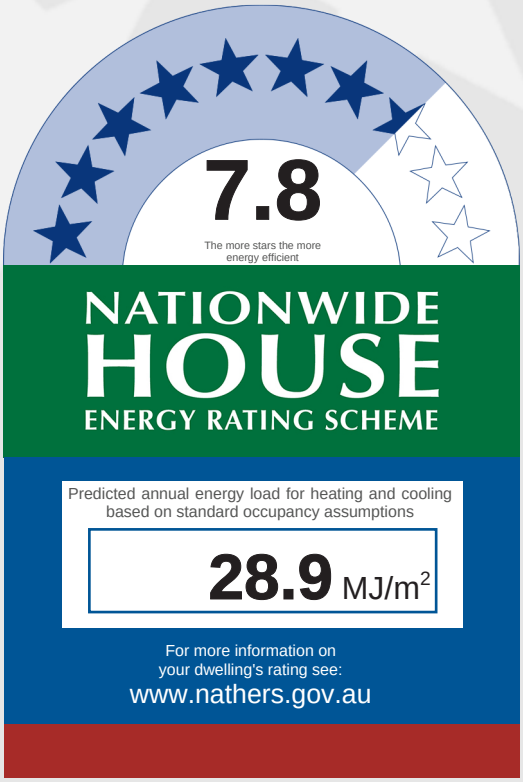
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **X7ZQEXZ45Z** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.05, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**80.2**
Unconditioned:	**3.6**
Garage:	**-**
TOTAL:	**83.8**

Annual thermal performance loads (MJ/m^2)

Heating:	**2.6**
Cooling:	**26.3**
TOTAL:	**28.9**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=X7ZQEXZ45Z

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 187	2100	2935	ESE	Bedroom 2	No
ALM-002-01 A	Opening 184	2100	3759	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 185	2100	2935	NNE	Bedroom 1	No
ALM-002-01 A	Opening 186	2100	810	ESE	Ensuite	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	SSW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8.5	ESE	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.9	NNE	Kitchen/Living	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	17.3	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.2	WNW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.8	SSW	Entry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	SSW	Pantry	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.1	NNE	Bedroom 1	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	ESE	W.I.R	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	ESE	Ensuite	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	1.6	SSW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Bathroom	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	70.5	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	FR5 - 300mm concrete slab	11.8	Enclosed	R0.0	Carpet
Kitchen/Living	FR5 - 300mm concrete slab	37.7	Enclosed	R0.0	Tiles
Entry	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Pantry	FR5 - 300mm concrete slab	6.2	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	9.4	Enclosed	R0.0	Carpet
W.I.R	FR5 - 300mm concrete slab	4.6	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **X7ZQEXZ45Z** Date of Certificate: **20 Jan 2020** ★Star rating: **7.8**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

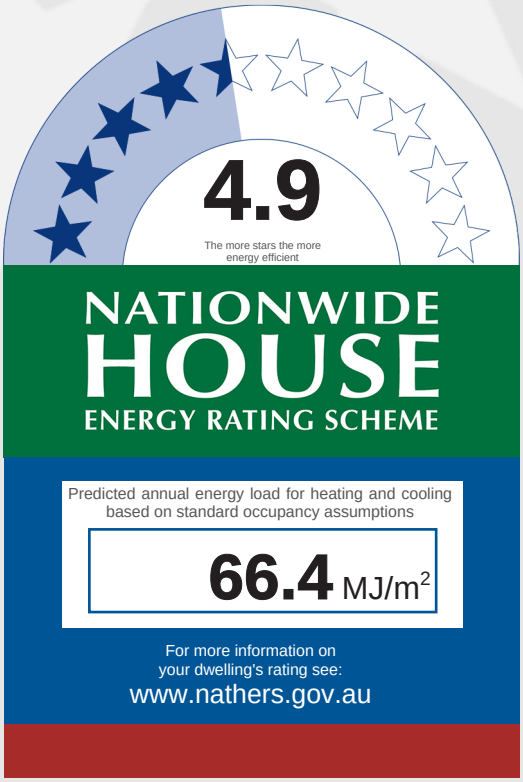
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **XA1RV2SIKQ** Date of Certificate: **20 Jan 2020** ★Star rating: **4.9**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.02, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium**	
	Single Clear	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**64.3**
Unconditioned:	**3.5**
Garage:	**-**
TOTAL:	**67.8**

Annual thermal performance loads (MJ/m^2)

Heating:	**41.8**
Cooling:	**24.6**
TOTAL:	**66.4**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=XA1RV2SIKQ

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 189	2700	1800	NNE	Kitchen/Living 18	No
ALM-002-01 A	Opening 190	2700	3100	ESE	Kitchen/Living 18	No
ALM-002-01 A	Opening 187	2700	2700	ESE	Bedroom 19	No
ALM-002-01 A	Opening 188	2700	1800	ESE	Bedroom 24	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living 18	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.6	WNW	Kitchen/Living 18	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	17.4	SSW	Kitchen/Living 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	1.9	SSW	Kitchen/Living 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living 18	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.7	NNE	Bedroom 19	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 19	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.4	NNE	Night 20	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.5	WNW	Night 20	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	1.3	NNE	Unconditioned 21	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	NNE	Day 22	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **XA1RV2SIKQ** Date of Certificate: **20 Jan 2020** ★Star rating: **4.9**

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	8	WNW	Day 22	No	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.5	SSW	Day 22	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	6.6	SSW	Day 23	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8.6	WNW	Day 23	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 24	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	64.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living 18	FR5 - 200mm concrete slab Lined	25.9	Enclosed	R0.0	Tiles
Bedroom 19	FR5 - 200mm concrete slab Lined	11.7	Enclosed	R0.0	Carpet
Night 20	FR5 - 200mm concrete slab Lined	4.1	Enclosed	R0.0	Tiles
Unconditioned 21	FR5 - 200mm concrete slab Lined	3.5	Enclosed	R0.0	Tiles
Day 22	FR5 - 200mm concrete slab Lined	6.1	Enclosed	R0.0	Tiles
Day 23	FR5 - 200mm concrete slab Lined	6.9	Enclosed	R0.0	Tiles
Bedroom 24	FR5 - 200mm concrete slab Lined	9.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **XA1RV2SIKQ** Date of Certificate: **20 Jan 2020** ★Star rating: **4.9**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

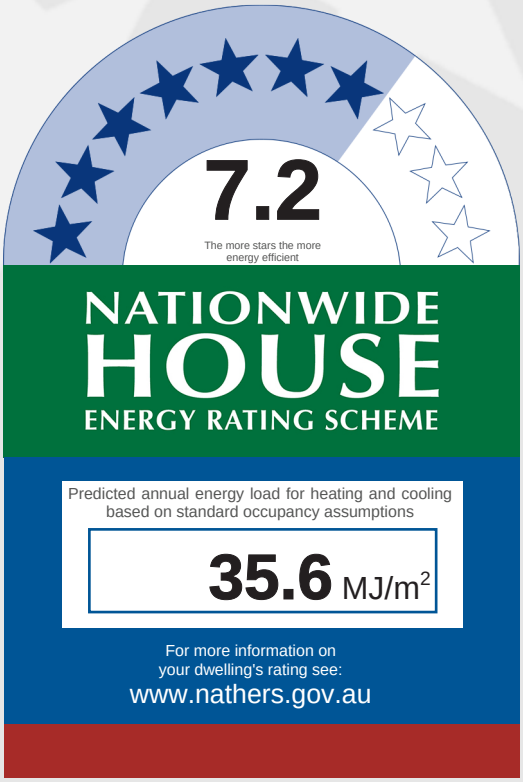
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **XOVS5SCJ5S** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.13, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**53.7**
Unconditioned:	**5.8**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**13.4**
Cooling:	**22.2**
TOTAL:	**35.6**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=XOVS5SCJ5S

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 219	2700	3954	WNW	Kitchen/Living	No
ALM-002-01 A	Opening 230	2100	823	ESE	Bedroom	No
ALM-002-01 A	Opening 229	2100	812	NNE	Bedroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	12.8	NNE	Kitchen/Living	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	5.5	NNE	Kitchen/Living	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	10.9	WNW	Kitchen/Living	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.3	SSW	Bathroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.6	ESE	Hallway	Yes	No
1 : AFS - AFS 200mm (75mm Glasswool)	19.5	NNE	Hallway	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Storage	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	9.6	SSW	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	4.1	NNE	Bedroom	Yes	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **XOVS5SCJ5S** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	46.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	27.5	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	5.8	Enclosed	R0.0	Tiles
Hallway	FR5 - 300mm concrete slab	8.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	7.5	Enclosed	R0.0	Tiles
Bedroom	FR5 - 300mm concrete slab	10.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 150mm: 150mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **XOVS5SCJ5S** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

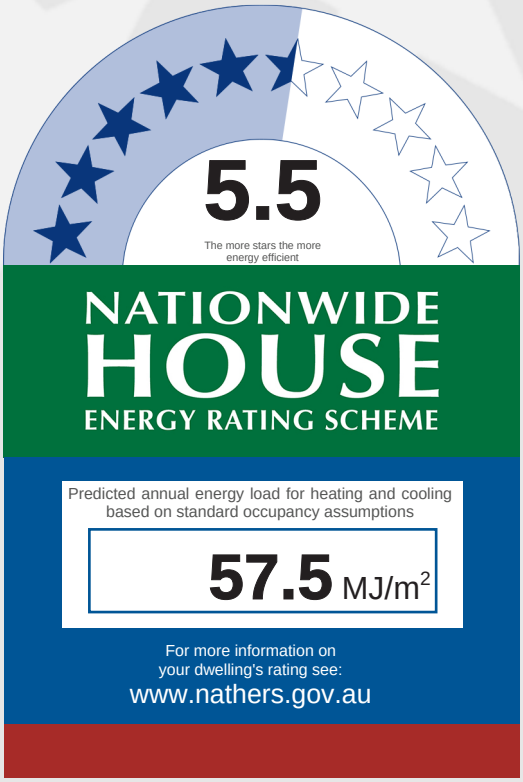
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **YLS8ZHAMXL** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.01, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**76**
Unconditioned:	**3.8**
Garage:	**-**
TOTAL:	**79.8**

Annual thermal performance loads (MJ/m^2)

Heating:	**38.2**
Cooling:	**19.3**
TOTAL:	**57.5**

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=YLS8ZHAMXL

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 179	2700	1800	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 180	2700	3200	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 177	2700	1800	SSW	Bedroom 1	No
ALM-002-01 A	Opening 178	2700	2753	ESE	Bedroom 2	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	22.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.6	NNE	Hallway	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	21.2	WNW	Hallway	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.5	NNE	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	10.5	NNE	Bedroom 1	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	SSW	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 1	Yes	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **YLS8ZHAMXL** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	4.2	ESE	Bathroom	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	8.2	ESE	Bedroom 2	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	65.1	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 200mm concrete slab Lined	33.5	Enclosed	R0.0	Tiles
Hallway	FR5 - 200mm concrete slab Lined	13.2	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab Lined	4.3	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 200mm concrete slab Lined	13.4	Enclosed	R0.0	Carpet
Bathroom	FR5 - 200mm concrete slab Lined	3.8	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 200mm concrete slab Lined	11.6	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **YLS8ZHAMXL** Date of Certificate: **20 Jan 2020** ★Star rating: **5.5**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

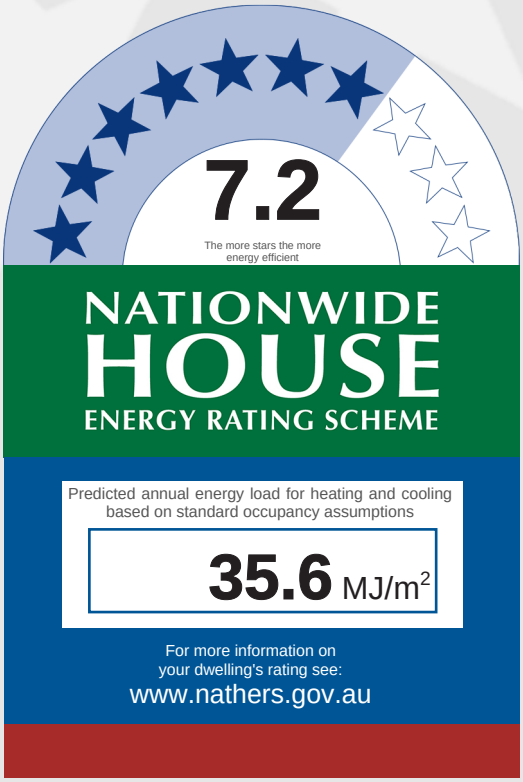
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **YW5ASZ845Z** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**5.09, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**54.2**
Unconditioned:	**5.3**
Garage:	**-**
TOTAL:	**59.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**20.6**
Cooling:	**15**
TOTAL:	**35.6**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=YW5ASZ845Z

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **YW5ASZ845Z** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 253	2100	750	ESE	Bedroom 2	No
ALM-002-01 A	Opening 252	2700	3400	WNW	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 2	No	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	9.6	NNE	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.9	SSW	Bedroom 2	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 1	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	9.6	SSW	Bedroom 1	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.4	NNE	Bath	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	15.2	NNE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	11	WNW	Kitchen/Living	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	12.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.3	ESE	Day 22	Yes	No
2 : AFS - AFS 200mm (75mm Glasswool)	7.8	WNW	Ensuite	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	4.4	SSW	Ensuite	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **YW5ASZ845Z** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Building Features

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	52.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Bedroom 1	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Bath	FR5 - 200mm concrete slab Lined	5.3	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	22.9	Enclosed	R0.0	Tiles
Day 22	FR5 - 200mm concrete slab Lined	5.4	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab Lined	4.7	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **YW5ASZ845Z** Date of Certificate: **20 Jan 2020** ★Star rating: **7.2**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

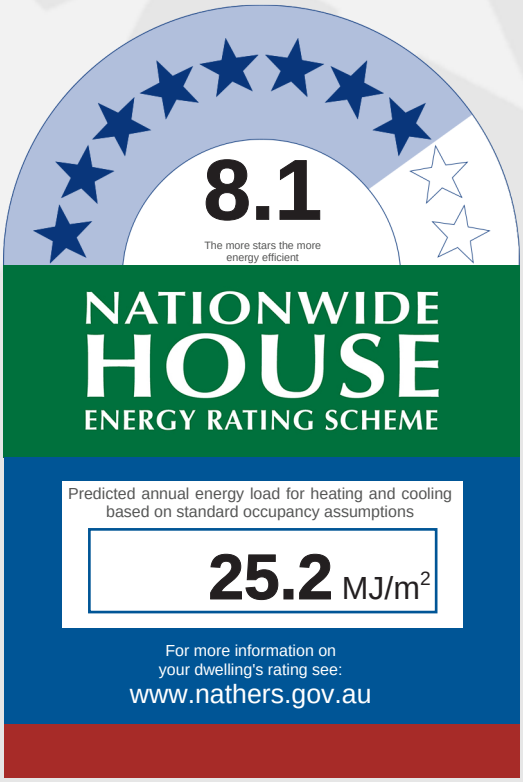
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **Z5QC90EQCN** Date of Certificate: **20 Jan 2020** ★Star rating: **8.1**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**3.04, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.6**
Unconditioned:	**3.6**
Garage:	**-**
TOTAL:	**72.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**10.6**
Cooling:	**14.6**
TOTAL:	**25.2**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=Z5QC90EQCN

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 166	2100	1926	NNE	Kitchen/Living	No
ALM-002-01 A	Opening 165	2100	2753	ESE	Bedroom 2	No
ALM-002-01 A	Opening 164	2100	2734	ESE	Bedroom 1	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	18.7	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	9.5	ESE	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.1	NNE	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.5	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	2.9	SSW	Kitchen/Living	Yes	No
1 : AFS - AFS 162mm (75mm Glasswool)	6.9	WNW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	4.9	WNW	Storage	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	ESE	Bedroom 2	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	WNW	Bathroom	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	5.7	NNE	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3.7	WNW	Ensuite	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	3	NNE	W.I.R	No	No

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	7.6	ESE	Bedroom 1	Yes	Yes
1 : AFS - AFS 162mm (75mm Glasswool)	7.2	NNE	Bedroom 1	No	No

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	67.5	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	FR5 - 300mm concrete slab	32.1	Enclosed	R0.0	Tiles
Storage	FR5 - 300mm concrete slab	3.2	Enclosed	R0.0	Tiles
Bedroom 2	FR5 - 300mm concrete slab	11.3	Enclosed	R0.0	Carpet
Hallway	FR5 - 300mm concrete slab	5.2	Enclosed	R0.0	Tiles
Bathroom	FR5 - 300mm concrete slab	3.6	Enclosed	R0.0	Tiles
Ensuite	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
W.I.R	FR5 - 300mm concrete slab	2.6	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 300mm concrete slab	10.5	Enclosed	R0.0	Carpet

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **Z5QC90EQCN** Date of Certificate: **20 Jan 2020** ★Star rating: **8.1**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

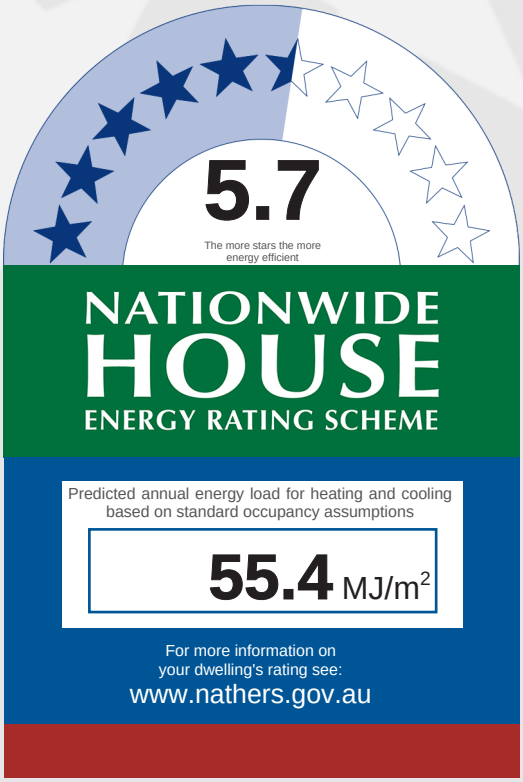
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **Z9RD8ND6KK** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.04, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium**	
	Single Clear	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**66**
Unconditioned:	**4.3**
Garage:	**-**
TOTAL:	**70.3**

Annual thermal performance loads (MJ/m^2)

Heating:	**33.4**
Cooling:	**22**
TOTAL:	**55.4**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=Z9RD8ND6KK

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 207	2700	2700	ESE	Bedroom 18	No
GJA-013-01 A	Opening 208	2700	2700	ESE	Bedroom 21	No
GJA-013-01 A	Opening 210	2700	3100	ESE	Kitchen/Living 24	No
GJA-013-01 A	Opening 209	2700	1800	NNE	Kitchen/Living 24	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	8.5	NNE	Bedroom 18	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 18	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	4.5	NNE	Night 19	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 21	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	6.2	WNW	Day 22	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	14.5	WNW	Day 22	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	2.6	NNE	Day 22	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	6.5	WNW	Unconditioned 23	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.8	SSW	Unconditioned 23	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	11.5	SSW	Kitchen/Living 24	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **Z9RD8ND6KK** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	7.8	SSW	Kitchen/Living 24	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living 24	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	NNE	Kitchen/Living 24	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	69.7	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 18	FR5 - 200mm concrete slab Lined	9.4	Enclosed	R0.0	Carpet
Night 19	FR5 - 200mm concrete slab Lined	2.6	Enclosed	R0.0	Carpet
Night 20	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Bedroom 21	FR5 - 200mm concrete slab Lined	11.3	Enclosed	R0.0	Carpet
Day 22	FR5 - 200mm concrete slab Lined	10.3	Enclosed	R0.0	Tiles
Unconditioned 23	FR5 - 200mm concrete slab Lined	4.3	Enclosed	R0.0	Tiles
Kitchen/Living 24	FR5 - 200mm concrete slab Lined	28.4	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **Z9RD8ND6KK** Date of Certificate: **20 Jan 2020** ★Star rating: **5.7**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

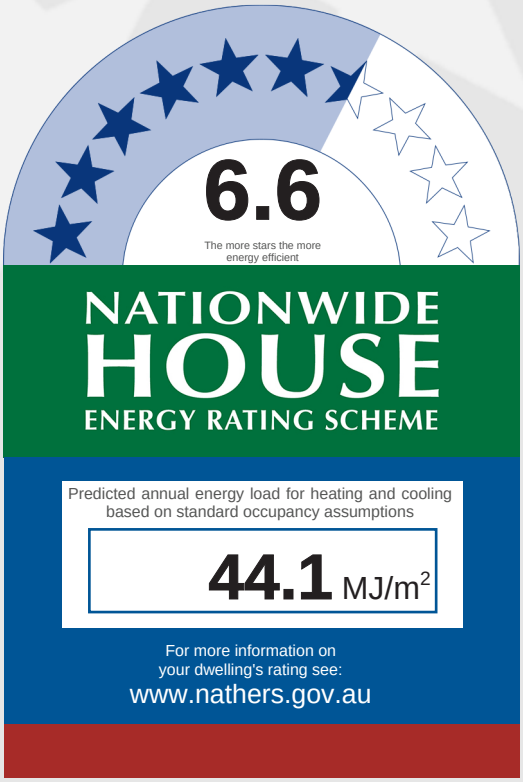
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ZHN83DA20L** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**2.01, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**68.7**
Unconditioned:	**4.4**
Garage:	**-**
TOTAL:	**73.1**

Annual thermal performance loads (MJ/m^2)

Heating:	**18.4**
Cooling:	**25.7**
TOTAL:	**44.1**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=ZHN83DA20L

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
ALM-002-01 A	Opening 134	2400	2800	ESE	Bedroom 18	No
ALM-002-01 A	Opening 135	2400	2800	ESE	Bedroom 19	No
ALM-002-01 A	Opening 137	2400	1600	ESE	Kitchen/Living	No
ALM-002-01 A	Opening 136	2400	1400	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 200mm (75mm Glasswool)	15.4	NNE	Bedroom 18	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	8	ESE	Bedroom 18	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	8.1	ESE	Bedroom 19	Yes	Yes
1 : AFS - AFS 200mm (75mm Glasswool)	1.6	ESE	Entry Hallway	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	2.7	NNE	Entry Hallway	Yes	Yes
2 : AFS - AFS 162mm (75mm Glasswool)	21	WNW	Entry Hallway	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	7.7	WNW	Bath	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	4.2	SSW	Bath	No	No
1 : AFS - AFS 200mm (75mm Glasswool)	18.3	SSW	Kitchen/Living	No	No
2 : AFS - AFS 162mm (75mm Glasswool)	10.7	ESE	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ZHN83DA20L** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Building Features

2 : AFS - AFS 162mm (75mm Glasswool)	4.5	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	70.6	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 18	FR5 - 300mm concrete slab	13.6	Enclosed	R0.0	Carpet
Bedroom 19	FR5 - 300mm concrete slab	14.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 300mm concrete slab	3.7	Enclosed	R0.0	Tiles
Entry Hallway	FR5 - 300mm concrete slab	11.2	Enclosed	R0.0	Tiles
Bath	FR5 - 300mm concrete slab	4.4	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 300mm concrete slab	26	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ZHN83DA20L** Date of Certificate: **20 Jan 2020** ★Star rating: **6.6**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

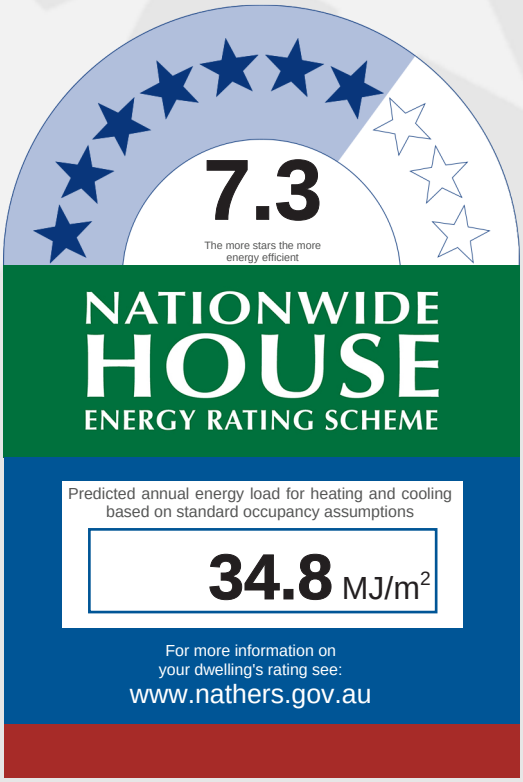
* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ZVHUUALQMG** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Assessor details

Accreditation number:	**VIC/BDAV/14/1658**
Name:	**Duncan Hope**
Organisation:	**Senica Consultancy Group**
Email:	**duncan@senica.com.au**
Phone:	**61280067784**
Declaration of interest:	**Employed by organisation constructing the building**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**4.05, 2 Delmar Parade**		
Suburb:	**DEE WHY**		
State:	**NSW**	Postcode:	**2099**
Type:	**New Home**	NCC Class:	**Class 2**
Lot/DP number:	**-**	NatHERS climate zone:	**56**
Exposure:	**open**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Insulation:	Wall:	**As indicated**
	Roof:	**As indicated**
	Floor:	**As indicated**
Glazing:	**Aluminium Single Clear**	

Ceiling penetrations

(see following pages for details)

Sealed:	**0**
Unsealed:	**0**
TOTAL:**	**0**

Principal downlight type: **Compact fluorescent**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is 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.

Net floor area (m^2)

Conditioned:	**71.7**
Unconditioned:	**4.5**
Garage:	**-**
TOTAL:	**76.2**

Annual thermal performance loads (MJ/m^2)

Heating:	**19.8**
Cooling:	**15**
TOTAL:	**34.8**

Window selection - default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/-5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Plan documents

Plan ref/date:	**Project No. 219132**
Prepared by:	**Rothe Lowman Architects**

Scan to access this certificate online and confirm this is valid.

https://www.fr5.com.au/QRCodeLanding?PublicId=ZVHUUALQMG

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building Features

Windows type and performance value

Window ID	Window type	U-value	SHGC
GJA-013-01 A	Type 131 Aluminium Sliding Window SG 3Clr	6.35	0.77

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
GJA-013-01 A	Opening 218	2700	2400	NNE	Bedroom 1	No
GJA-013-01 A	Opening 217	2700	2400	NNE	Bedroom 2	No
GJA-013-01 A	Opening 219	2700	2500	NNE	Kitchen/Living	No
GJA-013-01 A	Opening 220	2700	2500	NNE	Kitchen/Living	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : AFS - AFS 162mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No
2 : AFS - AFS 200mm (75mm Glasswool)	Rockwool batt (k = 0.033) (R2.3)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : AFS - AFS 162mm (75mm Glasswool)	8	NNE	Bedroom 1	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	9.7	WNW	Bedroom 2	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	8	NNE	Bedroom 2	Yes	Yes
2 : AFS - AFS 200mm (75mm Glasswool)	7.8	WNW	Bath	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	4.2	SSW	Bath	Yes	No
2 : AFS - AFS 200mm (75mm Glasswool)	3.4	SSW	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	9.8	SSW	Entry	No	No
2 : AFS - AFS 200mm (75mm Glasswool)	6.9	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	7.6	SSW	Kitchen/Living	No	No
1 : AFS - AFS 162mm (75mm Glasswool)	17.7	ESE	Kitchen/Living	No	No

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ZVHUUALQMG** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Building Features

1 : AFS - AFS 162mm (75mm Glasswool)	15.9	NNE	Kitchen/Living	Yes	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : FR5 - Internal Plasterboard Stud Wall	63.4	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	FR5 - 200mm concrete slab Lined	11.9	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab Lined	10.6	Enclosed	R0.0	Carpet
Bath	FR5 - 200mm concrete slab Lined	4.5	Enclosed	R0.0	Tiles
Entry	FR5 - 200mm concrete slab Lined	8	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab Lined	3.9	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 200mm concrete slab Lined	37.2	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	medium

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **ZVHUUALQMG** Date of Certificate: **20 Jan 2020** ★Star rating: **7.3**

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using an underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance. The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au