Certificate number: 0003677275 Certificate Date: 08 Mar 2019 ★ Star rating: 5.1

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

then this certificate is not valid.

Assessor details

Accreditation

number: 20390 Name: Fadi Sweis

Organisation: Energy Ratings Australia Pty Ltd Email: fsweis@eraservices.com.au

Phone: 1800 372 669

Declaration None

of interest:

Software: BERS Pro v4.3.0.2d (3.13)

AAO: ABSA

Overview

Dwelling details

Street: Ivy Drive
Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: 56

number: 12/- Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Roof Tiles

Suspended Timber Floor

Insulation: R2.5 wall insulation

R4.1 ceiling insulation
No floor insulation

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

Net floor area (m²)

 Conditioned:
 187.0

 Unconditioned:
 24.0

 Garage:
 20.0

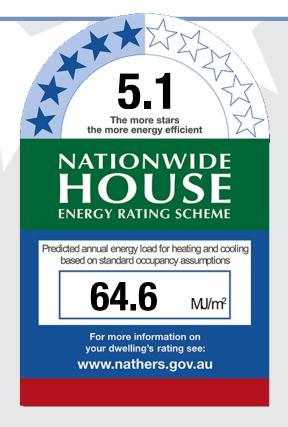
 TOTAL:
 211.0

Annual thermal performance loads (MJ/m²)

Heating: **38.6** Cooling: **26.0** TOTAL: **64.6**

Plan documents

Plan ref/date: **A008849**Prepared by: **NH**



Ceiling penetrations

(see following pages for details)

Sealed: 3 Unsealed: 0

TOTAL:**

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

Principle downlight type: Unknown

Window selection - default windows only

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

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

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

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

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



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Building features

| Window type and performance value | | | | | |
|-----------------------------------|---|---------|------|--|--|
| Window ID | Window type | U-value | SHGC | | |
| AIR-020-03 W | AIR-020-03 W Cedar Double Hung Window SG 5Clr | 4.7 | 0.61 | | |
| BRD-063-07 A | BRD-063-07 A SIG Fixed Lite (67mm) SG 4ET | 4.1 | 0.66 | | |
| ALM-002-01 A | ALM-002-01 A Aluminium B SG Clear | 6.7 | 0.70 | | |
| ALM-001-01 A | ALM-001-01 A Aluminium A SG Clear | 6.7 | 0.57 | | |

Window schedule

| Location | Window ID | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade |
|----------------|--------------|------------|-------------|------------|-------------|---------------|
| Lounge | AIR-020-03 W | n/a | 1500 | 2400 | NW | No Shading |
| Theatre | AIR-020-03 W | n/a | 700 | 2400 | NE | No Shading |
| Kitchen/Living | BRD-063-07 A | n/a | 772 | 2200 | NE | No Shading |
| Kitchen/Living | BRD-063-07 A | n/a | 2200 | 800 | NE | No Shading |
| Kitchen/Living | ALM-002-01 A | n/a | 2300 | 5300 | SE | No Shading |
| Kitchen/Living | BRD-063-07 A | n/a | 2200 | 800 | SW | No Shading |
| Kitchen/Living | BRD-063-07 A | n/a | 2200 | 800 | SW | No Shading |
| Ldry | ALM-001-01 A | n/a | 2100 | 820 | SE | No Shading |
| Bedroom 1 | ALM-002-01 A | n/a | 700 | 1400 | NE | No Shading |
| Bedroom 1 | ALM-001-01 A | n/a | 1300 | 700 | NW | No Shading |
| Bedroom 1 | ALM-001-01 A | n/a | 1300 | 700 | NW | No Shading |
| Bedroom 1 | ALM-001-01 A | n/a | 1300 | 700 | NW | No Shading |
| ENS | ALM-001-01 A | n/a | 1300 | 700 | NW | No Shading |
| Bath | ALM-002-01 A | n/a | 1600 | 1200 | SW | No Shading |
| Study/Media | ALM-002-01 A | n/a | 700 | 1400 | NE | No Shading |
| Study/Media | ALM-002-01 A | n/a | 700 | 1400 | SW | No Shading |
| Study/Media | ALM-002-01 A | n/a | 700 | 1800 | SW | No Shading |
| Bedroom 2 | ALM-002-01 A | n/a | 1200 | 1200 | SE | No Shading |
| Bedroom 3 | ALM-002-01 A | n/a | 1200 | 1200 | SE | No Shading |
| Bedroom 4 | ALM-002-01 A | n/a | 1200 | 1200 | NE | No Shading |

| ID | Window | type | U-value | SHGC | |
|--------------|---------------|-------------|---------|---------------|--|
| None Present | t | | | | |
| Roof windo | w and skyligh | nt schedule | | | |
| | | Roof | | Outdoor shade | |

| External v | External wall type | | | | |
|------------|----------------------------------|----------------------|-------------------|--|--|
| ID | Wall type | Insulation | Wall wrap or foil | | |
| EW-1 | Brick Veneer | Bulk Insulation R2.5 | No | | |
| EW-2 | Brick Veneer | No insulation | No | | |
| EW-3 | Cavity Brick | No insulation | No | | |
| EW-4 | Weatherboard Cavity Panel Direct | Bulk Insulation R2.5 | No | | |

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Building features continued

| Location | ID | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves (mm) |
|----------------|------|------------|-------------|-------------|-------------|------------|
| Lounge | EW-1 | 3345 | 2600 | NE | No | 50 |
| Lounge | EW-1 | 950 | 2600 | SW | No | 3450 |
| Lounge | EW-1 | 3200 | 2600 | NW | No | 50 |
| Theatre | EW-1 | 3940 | 2600 | NE | No | 50 |
| Kitchen/Living | EW-1 | 8645 | 2600 | NE | No | 50 |
| Kitchen/Living | EW-1 | 6500 | 2600 | SE | No | 3600 |
| Kitchen/Living | EW-1 | 7250 | 2600 | SW | No | 50 |
| Ldry | EW-1 | 1045 | 2600 | SE | No | 50 |
| Ldry | EW-1 | 2195 | 2600 | SW | No | 50 |
| Garage 1 | EW-2 | 700 | 2930 | SE | No | 50 |
| Garage 1 | EW-2 | 5550 | 2930 | SW | No | 50 |
| Garage 1 | EW-3 | 3745 | 2930 | NW | No | 600 |
| Entry/Hallway | EW-1 | 1290 | 2600 | NW | No | 1000 |
| Bedroom 1 | EW-4 | 800 | 2450 | NE | No | 650 |
| Bedroom 1 | EW-1 | 4695 | 2450 | NE | No | 650 |
| Bedroom 1 | EW-4 | 400 | 2450 | SW | No | 2700 |
| Bedroom 1 | EW-4 | 4400 | 2450 | NW | No | 650 |
| ENS | EW-4 | 4945 | 2450 | SW | No | 600 |
| ENS | EW-4 | 2095 | 2450 | NW | No | 600 |
| Bath | EW-4 | 2740 | 2450 | SW | No | 600 |
| WIR | EW-1 | 2640 | 2450 | NE | No | 650 |
| Study/Media | EW-1 | 1890 | 2450 | NE | No | 650 |
| Study/Media | EW-4 | 5390 | 2450 | SW | No | 600 |
| Bedroom 2 | EW-1 | 3545 | 2450 | NE | No | 650 |
| Bedroom 2 | EW-4 | 3345 | 2450 | SE | No | 600 |
| Bedroom 3 | EW-4 | 3145 | 2450 | SE | No | 600 |
| Bedroom 3 | EW-4 | 3595 | 2450 | SW | No | 600 |
| Bedroom 4 | EW-1 | 3490 | 2450 | NE | No | 650 |

| Wall type | Area (m²) | Insulation | Wall wrap or foil |
|---|-----------|----------------------------------|-------------------|
| IW-1 - Cavity wall, direct fix plasterboard, single gap | 164.0 | No insulation | No |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 22.0 | Bulk Insulation, No Air Gap R2.5 | No |

| Floors | | | | | | |
|----------|------------------------------|-----------|-----------------------|---------------------|----------------------|--|
| Location | Construction | Area (m²) | Sub floor ventilation | Added insulation | Covering | |
| Lounge | Waffle pod slab 300 mm 100mm | 10.5 | None | Waffle Pod 300mm | Ceramic Tiles 8mm | |
| Theatre | Waffle pod slab 300 mm 100mm | 12.9 | None | Waffle Pod | Ceramic Tiles | |

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NATIONWIDE HOUSE ENERGY RATING SCHEME

Building features continued

| | | | | 300mm | 8mm |
|-------------------------------|-----------------------------------|------|--------------|---------------------|----------------------|
| Kitchen/Living | Waffle pod slab 300 mm 100mm | 50.3 | None | Waffle Pod 300mm | Ceramic Tiles 8mm |
| PWDR | Waffle pod slab 300 mm 100mm | 1.5 | None | Waffle Pod 300mm | Ceramic Tiles 8mm |
| Ldry | Waffle pod slab 300 mm 100mm | 3.7 | None | Waffle Pod 300mm | Ceramic Tiles 8mm |
| Garage 1 | Waffle pod slab 225 mm 100mm | 20.4 | None | Waffle Pod 225mm | Bare |
| Entry/Hallway | Waffle pod slab 300 mm 100mm | 10.1 | None | Waffle Pod 300mm | Ceramic Tiles 8mm |
| Bedroom 1/Lounge | Timber Above Plasterboard 19mm | 10.5 | | No Insulation | Carpet 10mm |
| Bedroom 1/Theatre | Timber Above Plasterboard 19mm | 7.2 | | No Insulation | Carpet 10mm |
| Bedroom 1/Entry/Hallway | Timber Above Plasterboard 19mm | 4.9 | | No Insulation | Carpet 10mm |
| Bedroom 1 | Suspended Timber Floor 19mm | 1.1 | Totally Open | No Insulation | Carpet 10mm |
| ENS/Garage 1 | Timber Above Plasterboard 19mm | 8.3 | | No Insulation | Ceramic Tiles 8mm |
| ENS | Suspended Timber Floor 19mm | 1.1 | Totally Open | No Insulation | Ceramic Tiles 8mm |
| Bath/Ldry | Timber Above Plasterboard 19mm | 1.6 | | No Insulation | Ceramic Tiles 8mm |
| Bath/Garage 1 | Timber Above Plasterboard 19mm | 2.4 | | No Insulation | Ceramic Tiles 8mm |
| Bath/Entry/Hallway | Timber Above Plasterboard 19mm | 1.7 | | No Insulation | Ceramic Tiles 8mm |
| WIR/Theatre | Timber Above Plasterboard 19mm | 5.4 | | No Insulation | Carpet 10mm |
| WIR/Kitchen/Living | Timber Above Plasterboard 19mm | 2.5 | | No Insulation | Carpet 10mm |
| Study/Media/Kitch en/Living | Timber Above Plasterboard 19mm | 22.6 | | No Insulation | Carpet 10mm |
| Study/Media/PWDR | Timber Above Plasterboard 19mm | 1.7 | | No Insulation | Carpet 10mm |
| Study/Media/Entry/ Hallway | Timber Above Plasterboard 19mm | 3.6 | | No Insulation | Carpet 10mm |
| Bedroom 2/Kitchen/Living | Timber Above Plasterboard 19mm | 7.1 | | No Insulation | Carpet 10mm |
| Bedroom 2 | Suspended Timber Floor 19mm | 3.7 | Totally Open | No Insulation | Carpet 10mm |
| Bedroom 3/Kitchen/Living | Timber Above Plasterboard 19mm | 6.7 | | No Insulation | Carpet 10mm |
| Bedroom 3 | Suspended Timber Floor 19mm | 3.5 | Totally Open | No Insulation | Carpet 10mm |
| Bedroom 4/Kitchen/Living | Timber Above Plasterboard 19mm | 10.0 | | No Insulation | Carpet 10mm |

| Ceil | ıng | type |
|------|-----|------|
|------|-----|------|

| Location | Construction | Added insulation | Roof space above | | |
|----------------|---------------------------|------------------|------------------|--|--|
| Lounge | Timber Above Plasterboard | No Insulation | No | | |
| Theatre | Timber Above Plasterboard | No Insulation | No | | |
| Kitchen/Living | Timber Above Plasterboard | No Insulation | No | | |

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Building features continued

| PWDR | Timber Above Plasterboard | No Insulation | No |
|---------------|---------------------------|-------------------------|-----|
| Ldry | Plasterboard | Bulk Insulation R4.1 | Yes |
| Ldry | Timber Above Plasterboard | No Insulation | No |
| Garage 1 | Plasterboard | No insulation | Yes |
| Garage 1 | Timber Above Plasterboard | No Insulation | No |
| Entry/Hallway | Timber Above Plasterboard | No Insulation | No |
| Bedroom 1 | Plasterboard | Bulk Insulation R4.1 | Yes |
| ENS | Plasterboard | Bulk Insulation R4.1 | Yes |
| Bath | Plasterboard | Bulk Insulation R4.1 | Yes |
| WIR | Plasterboard | Bulk Insulation R4.1 | Yes |
| Study/Media | Plasterboard | Bulk Insulation R4.1 | Yes |
| Bedroom 2 | Plasterboard | Bulk Insulation R4.1 | Yes |
| Bedroom 3 | Plasterboard | Bulk Insulation R4.1 | Yes |
| Bedroom 4 | Plasterboard | Bulk Insulation R4.1 | Yes |

| Ceiling penetrations | | | | | |
|----------------------|--------|--------------|---------------|-----------------|--|
| Location | Number | Туре | Diameter (mm) | Sealed/unsealed | |
| PWDR | 1 | Exhaust Fans | 300 | Sealed | |
| ENS | 1 | Exhaust Fans | 300 | Sealed | |
| Bath | 1 | Exhaust Fans | 300 | Sealed | |

| Ceiling fans | | | | | | | |
|--------------|--------|---------------|--|--|--|--|--|
| Location | Number | Diameter (mm) | | | | | |
| None Present | | | | | | | |
| | | | | | | | |

| Roof type | | | | |
|-----------------|---|-------------|--|--|
| Construction | Added insulation | Roof colour | | |
| Roof Tiles | Foil, Gap Above, Reflective Side Down, Anti-glare Up | | | |
| Corrugated Iron | Foil, Gap Above, Reflective Side Down, Anti-glare Up | | | |
| Roof Tiles | Foil, Gap Above, Reflective Side | Dark | | |

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Certificate number: **0003677275** Certificate Date: **08** M

08 Mar 2019

★ Star rating:

NATIONWIDE HOUSE ENERGY RATING SCHEME

5.1

| Building features continued | | | | | | |
|-----------------------------|------------------|--|--|--|--|--|
| | | | | | | |
| | Down, Anti-glare | | | | | |
| | Up | | | | | |



| Additional information | | | | | | |
|------------------------|--|--|--|--|--|--|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Explanatory notes

About this report

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

General Information

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

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

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

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

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

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

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

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

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