

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034036S_03

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3302 Wianamatta Parkway_03
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3302
Section no.	-
Project type	attached dwelling house
No. of bedrooms	4

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3302 Wianamatta Parkway_03
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3302
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	193
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004072781
Climate zone	28
Area adjusted cooling load (MJ/m².year)	35
Area adjusted heating load (MJ/m².year)	52

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48.93 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study; dedicated		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; dedicated 		✓	✓
<ul style="list-style-type: none"> • the kitchen; dedicated 		✓	✓
<ul style="list-style-type: none"> • all bathrooms/toilets; dedicated 		✓	✓
<ul style="list-style-type: none"> • the laundry; dedicated 		✓	✓
<ul style="list-style-type: none"> • all hallways; dedicated 		✓	✓
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		✓	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✓	

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034129M_04

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3303 Wianamatta Parkway _04	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3303	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	0	
No. of single dwelling houses	2	
Project score		
Water	✔ 43	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 50	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3303 Wianamatta Parkway _04
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3303
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004072860
Climate zone	28

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	52.0	53.3
All other dwellings	41.1	30.7

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with enclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034072S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3304 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3304
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3304 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3304
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	138
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004072872
Climate zone	28
Area adjusted cooling load (MJ/m².year)	31
Area adjusted heating load (MJ/m².year)	38

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034078S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3305 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3305
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3305 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3305
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	138
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004072880
Climate zone	28
Area adjusted cooling load (MJ/m².year)	30
Area adjusted heating load (MJ/m².year)	39

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034039S_02




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3306 Wianamatta Parkway_02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3306	
Section no.	-	
Project type	attached dwelling house	
No. of bedrooms	4	
Project score		
Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 51	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3306 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3306
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	193
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004072898
Climate zone	28
Area adjusted cooling load (MJ/m².year)	34
Area adjusted heating load (MJ/m².year)	47

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments













The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034040S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3307 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3307
Section no.	-
Project type	attached dwelling house
No. of bedrooms	4

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3307 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3307
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	194
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004072906
Climate zone	28
Area adjusted cooling load (MJ/m².year)	33
Area adjusted heating load (MJ/m².year)	49

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments













The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034103M_02




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3308 Wianamatta Parkway _02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3308	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	0	
No. of single dwelling houses	2	
Project score		
Water	 44	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 50	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3308 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3308
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	167
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004074020
Climate zone	28

Project score

Water	✓ 44	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses
2. Commitments for single dwelling houses
 - (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
3. Commitments for common areas and central systems/facilities for the development (non-building specific)
 - (i) Water
 - (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 50.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	52.0	53.3
All other dwellings	41.1	30.7

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with enclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034075S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3309 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3309
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3309 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3309
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073029
Climate zone	28
Area adjusted cooling load (MJ/m².year)	31
Area adjusted heating load (MJ/m².year)	38

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034079S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3310 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3310
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3310 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3310
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073045
Climate zone	28
Area adjusted cooling load (MJ/m².year)	30
Area adjusted heating load (MJ/m².year)	38

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034104M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3311 Wianamatta Parkway _02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3311	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	0	
No. of single dwelling houses	2	
Project score		
Water	✔ 43	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 50	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3311 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3311
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004073100
Climate zone	28

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses
2. Commitments for single dwelling houses
 - (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
3. Commitments for common areas and central systems/facilities for the development (non-building specific)
 - (i) Water
 - (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	53.5	52.8
All other dwellings	42.7	30.9

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m ²)	Suspended floor with open subfloor (m ²)	Suspended floor with enclosed subfloor (m ²)	Suspended floor above garage (m ²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034041S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3312 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3312
Section no.	-
Project type	attached dwelling house
No. of bedrooms	4

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3312 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3312
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	198
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073110
Climate zone	28
Area adjusted cooling load (MJ/m².year)	40
Area adjusted heating load (MJ/m².year)	46

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments













The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> • all toilets in the development • the cold water tap that supplies each clothes washer in the development • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034042S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3313 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3313
Section no.	-
Project type	attached dwelling house
No. of bedrooms	4

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3313 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3313
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	197
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073136
Climate zone	28
Area adjusted cooling load (MJ/m².year)	36
Area adjusted heating load (MJ/m².year)	50

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments













The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034141M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3314 Wianamatta Parkway_02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3314	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	0	
No. of single dwelling houses	2	
Project score		
Water	✔ 43	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 50	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3314 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3314
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004073210
Climate zone	28

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	52.0	52.3
All other dwellings	40.5	30.0

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with enclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034080S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3315 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3315
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3315 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3315
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073235
Climate zone	28
Area adjusted cooling load (MJ/m².year)	30
Area adjusted heating load (MJ/m².year)	38

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> • all toilets in the development • the cold water tap that supplies each clothes washer in the development • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034081S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3316 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3316
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3316 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3316
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073227
Climate zone	28
Area adjusted cooling load (MJ/m².year)	30
Area adjusted heating load (MJ/m².year)	37

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> • all toilets in the development • the cold water tap that supplies each clothes washer in the development • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034137M_02




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3317 Wianamatta Parkway_02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3317	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	0	
No. of single dwelling houses	2	
Project score		
Water	 43	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 50	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3317 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3317
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004073300
Climate zone	28

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	53.3	52.5
All other dwellings	42.0	30.0

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m ²)	Suspended floor with open subfloor (m ²)	Suspended floor with enclosed subfloor (m ²)	Suspended floor above garage (m ²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034043S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3318 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3318
Section no.	-
Project type	attached dwelling house
No. of bedrooms	4

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3318 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3318
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	197
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073326
Climate zone	28
Area adjusted cooling load (MJ/m².year)	33
Area adjusted heating load (MJ/m².year)	47

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments













The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034038S_02




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3319 Wianamatta Parkway _02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3319	
Section no.	-	
Project type	attached dwelling house	
No. of bedrooms	4	
Project score		
Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 51	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3319 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3319
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	197
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073318
Climate zone	28
Area adjusted cooling load (MJ/m².year)	32
Area adjusted heating load (MJ/m².year)	49

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments













The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> • all toilets in the development • the cold water tap that supplies each clothes washer in the development • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034140M_02




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3320 Wianamatta Parkway_02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3320	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	0	
No. of single dwelling houses	2	
Project score		
Water	 43	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 50	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3320 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3320
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004073360
Climate zone	28

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses
2. Commitments for single dwelling houses
 - (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
3. Commitments for common areas and central systems/facilities for the development (non-building specific)
 - (i) Water
 - (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	52.0	52.3
All other dwellings	40.5	30.0

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m²)	Suspended floor with open subfloor (m²)	Suspended floor with enclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034076S_02




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3321 Wianamatta Parkway _02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3321	
Section no.	-	
Project type	attached dwelling house	
No. of bedrooms	3	
Project score		
Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 51	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3321 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3321
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073375
Climate zone	28
Area adjusted cooling load (MJ/m².year)	30
Area adjusted heating load (MJ/m².year)	38

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034082S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3322 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3322
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3322 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3322
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073391
Climate zone	28
Area adjusted cooling load (MJ/m².year)	30
Area adjusted heating load (MJ/m².year)	38

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> • all toilets in the development • the cold water tap that supplies each clothes washer in the development • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034102S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3323 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3323
Section no.	-
Project type	attached dwelling house
No. of bedrooms	4

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3323 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3323
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m²)	198
Roof area (m²)	97
Conditioned floor area (m2)	128.0
Unconditioned floor area (m2)	3.0
Total area of garden and lawn (m2)	80

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073383
Climate zone	28
Area adjusted cooling load (MJ/m².year)	39
Area adjusted heating load (MJ/m².year)	45

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments













The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 48 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> • all toilets in the development • the cold water tap that supplies each clothes washer in the development • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034101S_02




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3325 Wianamatta Parkway_02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3325	
Section no.	-	
Project type	attached dwelling house	
No. of bedrooms	3	
Project score		
Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 61	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3325 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3325
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	225
Roof area (m²)	93
Conditioned floor area (m2)	146.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	100

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073482
Climate zone	28
Area adjusted cooling load (MJ/m².year)	56
Area adjusted heating load (MJ/m².year)	51

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 61	Target 50

Schedule of BASIX commitments




















The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 90 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 1 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Natural lighting			
The applicant must install a window and/or skylight in 2 bathroom(s)/toilet(s) in the development for natural lighting.			
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 1 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034138M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	Lot 3326 Wianamatta Parkway_02	
Street address	Wianamatta Parkway Jordan Springs 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited Unreg	
Lot no.	3326	
Section no.	-	
No. of residential flat buildings	0	
No. of units in residential flat buildings	0	
No. of multi-dwelling houses	0	
No. of single dwelling houses	2	
Project score		
Water	✔ 43	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 50	Target 50

Certificate Prepared by
Name / Company Name: Frys Energywise
ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3326 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3326
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004073730
Climate zone	28

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses
2. Commitments for single dwelling houses
 - (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
3. Commitments for common areas and central systems/facilities for the development (non-building specific)
 - (i) Water
 - (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	42.2	55.2
All other dwellings	39.6	33.1

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m ²)	Suspended floor with open subfloor (m ²)	Suspended floor with enclosed subfloor (m ²)	Suspended floor above garage (m ²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034084S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3327 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3327
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3327 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3327
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	142
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073755
Climate zone	28
Area adjusted cooling load (MJ/m².year)	33
Area adjusted heating load (MJ/m².year)	37

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034085S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3328 Wianamatta Parkway _02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3328
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3328 Wianamatta Parkway _02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3328
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	142
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073748
Climate zone	28
Area adjusted cooling load (MJ/m².year)	32
Area adjusted heating load (MJ/m².year)	37

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034077S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3329 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3329
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3329 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3329
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	141
Roof area (m²)	73
Conditioned floor area (m2)	91.0
Unconditioned floor area (m2)	2.0
Total area of garden and lawn (m2)	50

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073771
Climate zone	28
Area adjusted cooling load (MJ/m².year)	32
Area adjusted heating load (MJ/m².year)	37

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	Target 50

Schedule of BASIX commitments














The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 33 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1034134M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3330 Wianamatta Parkway._02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3330
Section no.	-
No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3330 Wianamatta Parkway._02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3330
Section no.	-

Project type

No. of residential flat buildings	0
No. of units in residential flat buildings	0
No. of multi-dwelling houses	0
No. of single dwelling houses	2

Site details

Site area (m²)	169
Roof area (m²)	138
Non-residential floor area (m²)	0.0
Residential car spaces	2
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	BDAV/12/1441
Certificate number	0004074050
Climate zone	28

Project score

Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Description of project

The tables below describe the dwellings and common areas within the project

Single dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
S	1	39.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
MH	3	121.0	3.0	50.0	0.0

No common areas specified.

Schedule of BASIX commitments

1. Commitments for multi-dwelling houses

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

2. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	-	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
MH	individual water tank (no. 1)	Tank size (min) 2000.0 litres	To collect run-off from at least: 40.0 square metres of roof area;	yes	yes	yes	no	no

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.	✓	✓	✓

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
S	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off
All other dwellings	gas instantaneous 6 star	individual fan, ducted to façade or roof	manual switch on/off	no mechanical ventilation (ie. natural)	-	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
S	1-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	ceiling fans + 3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3-phase airconditioning EER 3.5 - 4.0 (zoned)	3 (dedicated)	3 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
S	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	yes
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	yes	yes

Alternative energy	
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
S	42.9	54.2
All other dwellings	43.7	33.2

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground(m ²)	Suspended floor with open subfloor (m ²)	Suspended floor with enclosed subfloor (m ²)	Suspended floor above garage (m ²)	Primarily rammed earth or mudbrick walls
S	-	-	-	39	No
All other dwellings	121	-	-	-	No

3. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1034096S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 09 August 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Lot 3331 Wianamatta Parkway_02
Street address	Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	deposited Unreg
Lot no.	3331
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 61	Target 50

Certificate Prepared by

Name / Company Name: Frys Energywise

ABN (if applicable): 631418543

Description of project

Project address

Project name	Lot 3331 Wianamatta Parkway_02
Street address	n/a Wianamatta Parkway Jordan Springs 2747
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan Unreg
Lot no.	3331
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	3

Site details

Site area (m²)	233
Roof area (m²)	93
Conditioned floor area (m2)	143.0
Unconditioned floor area (m2)	5.0
Total area of garden and lawn (m2)	100

Assessor details and thermal loads

Assessor number	BDAV/12/1441
Certificate number	0004073995
Climate zone	28
Area adjusted cooling load (MJ/m².year)	52
Area adjusted heating load (MJ/m².year)	55

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 61	Target 50

Schedule of BASIX commitments




















The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 90 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓


Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 3 of the bedrooms / study;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 1 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Natural lighting			
The applicant must install a window and/or skylight in 2 bathroom(s)/toilet(s) in the development for natural lighting.			
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 1 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004072781**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.9**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3302/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **128.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **51.7**

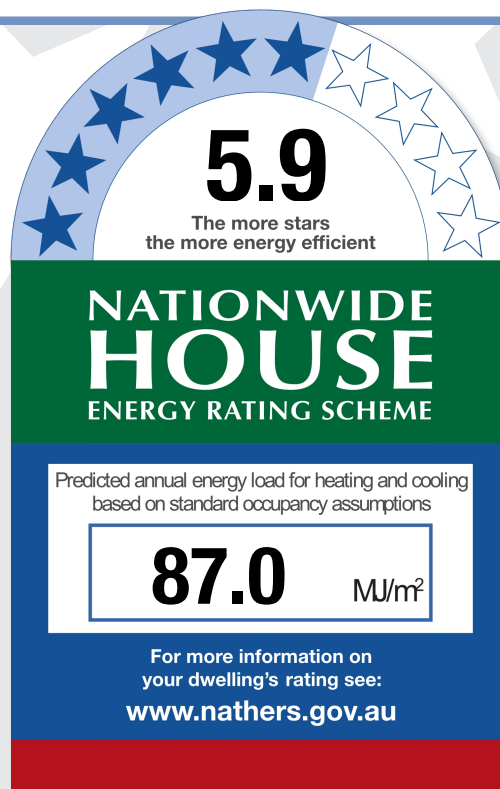
Cooling: **35.3**

TOTAL: **87.0**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072781**

Certificate Date:

01 Aug 2019

★ Star rating:

5.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100
Laundry	EW-1	1890	2595	SW	No	100
Lounge	EW-1	2295	2595	NW	No	1200

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072781**

Certificate Date:

01 Aug 2019

★ Star rating:

5.9



Building features continued

Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	7100	2595	SW	No	100
Kitchen/Living	EW-1	1000	2595	NW	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	4095	1770	SW	No	0
Bedroom 1	EW-2	4095	680	SW	No	100
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Ensuite 1	EW-1	1690	1770	SW	No	0
Ensuite 1	EW-2	1690	680	SW	No	100
Bedroom 2	EW-1	3690	1770	SW	No	0
Bedroom 2	EW-2	3690	680	SW	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-1	3595	1770	SW	No	0
Bedroom 3	EW-2	3595	680	SW	No	100
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

* 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: **0004072781**

Certificate Date:

01 Aug 2019

★ Star rating:

5.9



Building features continued

Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	2.0		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation	Yes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072781**

Certificate Date:

01 Aug 2019

★ Star rating:

5.9



Building features continued

WC	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		
Bath	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		
Upper Hall	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072781

Certificate Date: 01 Aug 2019

★ 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 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

* 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: **0004072807**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.8**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3303/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **121.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **41.1**

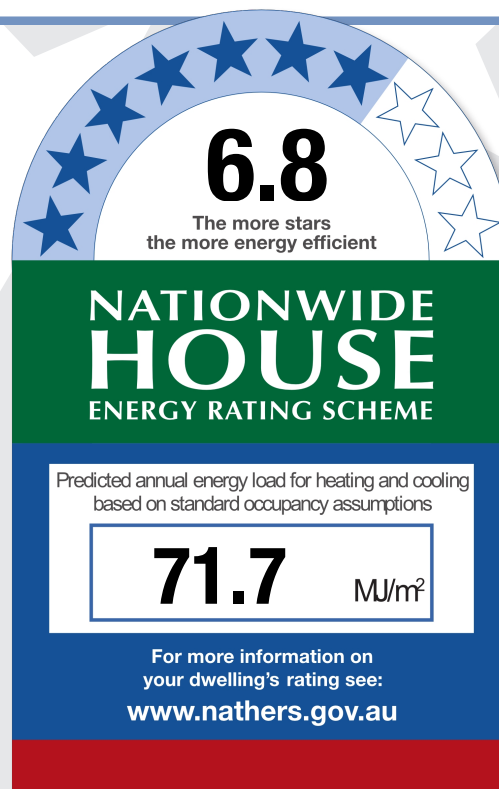
Cooling: **30.7**

TOTAL: **71.7**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**

Unsealed: **0**

TOTAL:** **3**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072807**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072807**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Kitchen/Living	EW-1	2300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	0
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-2	3895	680	SW	No	0
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	900	2450	SW	No	0
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

* 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: **0004072807**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.4	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072807**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072807

Certificate Date: 01 Aug 2019

★ 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 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

* 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* — Multiple-dwelling summary



Certificate number: **0004072860**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.1**

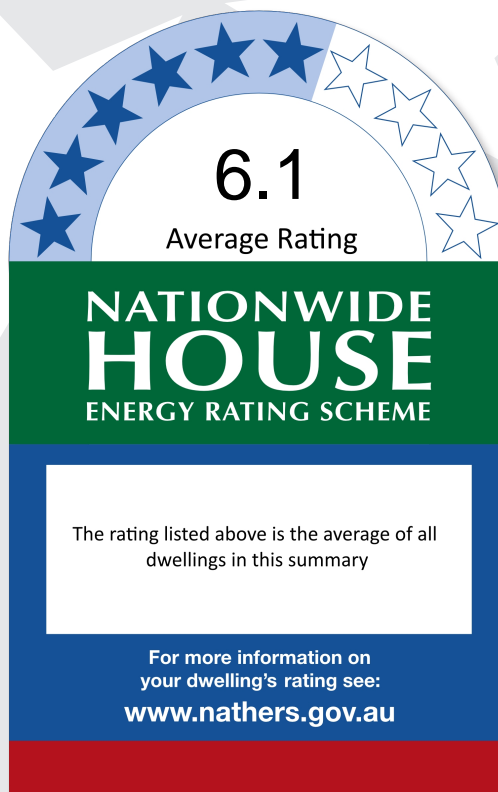
Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

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



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004072807		41.1	30.7	71.7	6.8
0004072823	Studio	52.0	53.3	105.3	5.3

* 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: **0004072823**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.3**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3303/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

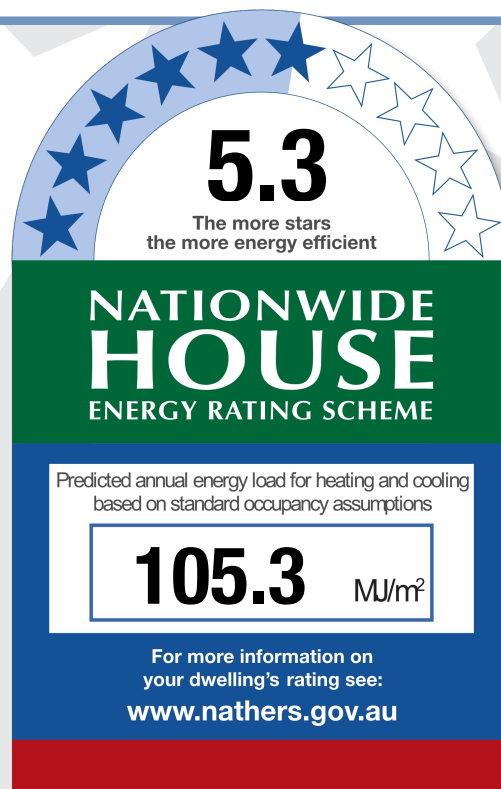
Conditioned: **39.0**
Unconditioned: **31.0**
Garage: **31.0**
TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **52.0**
Cooling: **53.3**
TOTAL: **105.3**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**
Unsealed: **0**
TOTAL:** **1**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072823**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072823**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

Ceiling fans

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072823**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Location	Number	Diameter (mm)
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None Present		
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Roof type

Construction	Added insulation	Roof colour
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Corrugated Iron		
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	Added insulation	Roof colour
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	Bulk, Reflective Side Down, No Air Gap Above R1.3	
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		Dark
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072823

Certificate Date: 01 Aug 2019

★ Star rating: 5.3



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004072872**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3304/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

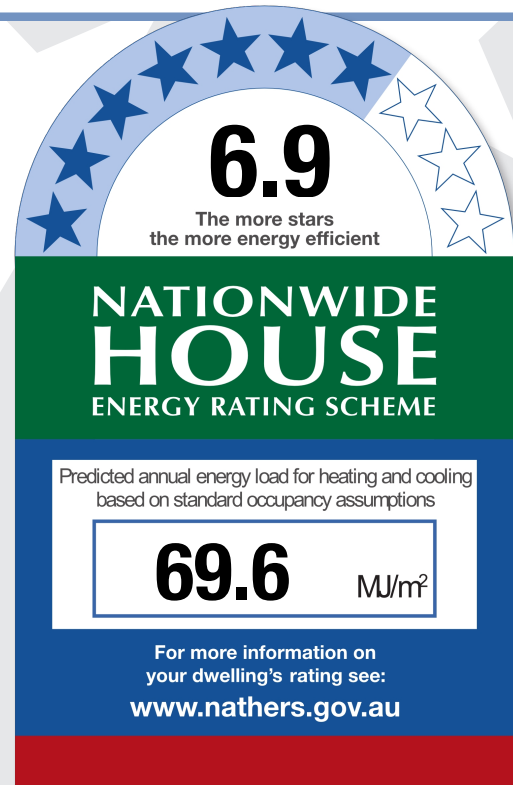
Conditioned: **91.0**
Unconditioned: **2.0**
Garage: **0.0**
TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **38.3**
Cooling: **31.4**
TOTAL: **69.6**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

Principle downlight type: **Unknown**

Window selection - default windows only

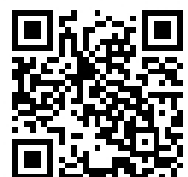
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072872**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	1770	SW	No	0
Bedroom 1	EW-2	900	680	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072872**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072872**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072872

Certificate Date: 01 Aug 2019

★ 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 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

* 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: **0004072880**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3305/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

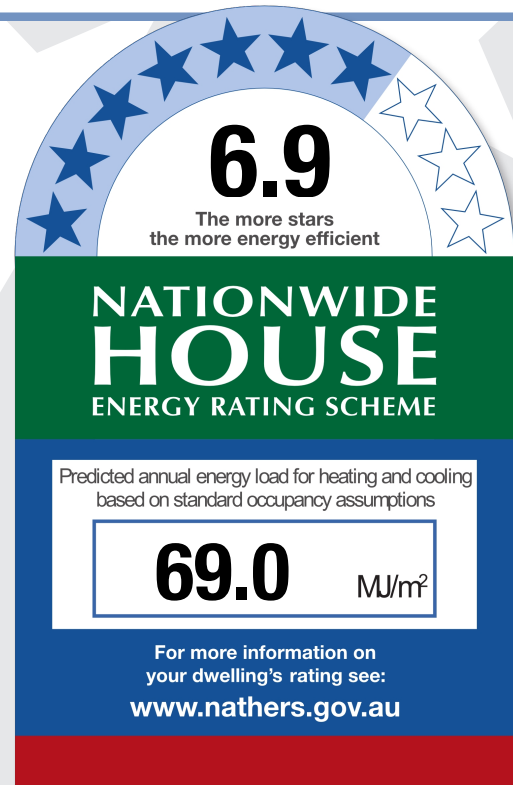
Conditioned: **91.0**
Unconditioned: **2.0**
Garage: **0.0**
TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **38.7**
Cooling: **30.3**
TOTAL: **69.0**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

Principle downlight type: **Unknown**

Window selection - default windows only

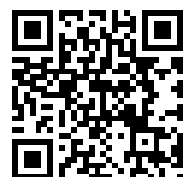
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072880**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072880**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600
Bedroom 3	EW-1	2795	1770	SW	No	0
Bedroom 3	EW-2	2795	680	SW	No	100

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072880**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072880

Certificate Date: 01 Aug 2019

★ Star rating: 6.9



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004072898**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.3**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3306/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

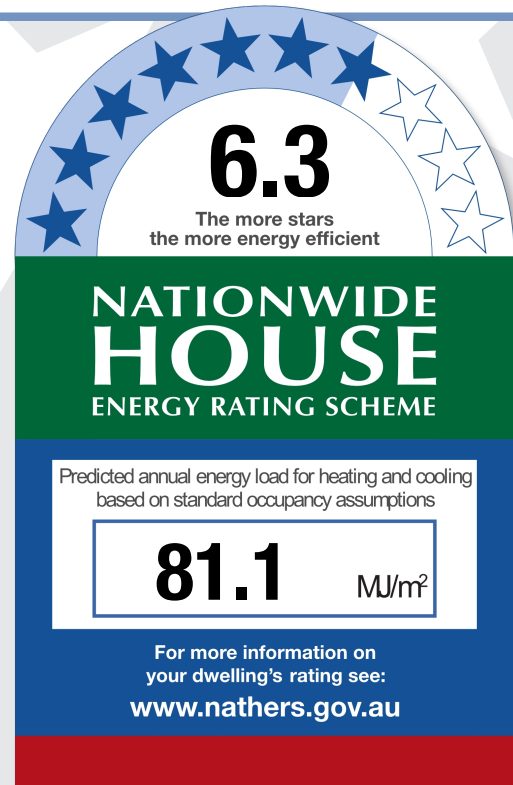
Conditioned: **128.0**
Unconditioned: **3.0**
Garage: **0.0**
TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **46.8**
Cooling: **34.3**
TOTAL: **81.1**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

Principle downlight type: **Unknown**

Window selection - default windows only

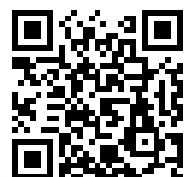
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072898**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200
Laundry	EW-1	1890	2595	NE	No	100
Lounge	EW-1	1300	2595	NW	No	1000

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072898**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features continued

Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	1000	2595	NW	No	100
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Bedroom 1	EW-1	4095	1770	NE	No	0
Bedroom 1	EW-2	4095	680	NE	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
WIR 1	EW-1	900	1770	SW	No	0
WIR 1	EW-2	900	680	SW	No	1300
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
Ensuite 1	EW-1	1690	1770	NE	No	0
Ensuite 1	EW-2	1690	680	NE	No	100
Bedroom 2	EW-1	3690	1770	NE	No	0
Bedroom 2	EW-2	3690	680	NE	No	100
Bedroom 3	EW-1	3595	1770	NE	No	0
Bedroom 3	EW-2	3595	680	NE	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Lounge		10.6		No Insulation	

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072898**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features continued

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072898**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features continued

WC	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072898

Certificate Date: 01 Aug 2019

★ Star rating: 6.3



Additional information

Explanatory notes

About this report

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

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

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

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

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

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

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

Contact

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

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004072906**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.3**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3307/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

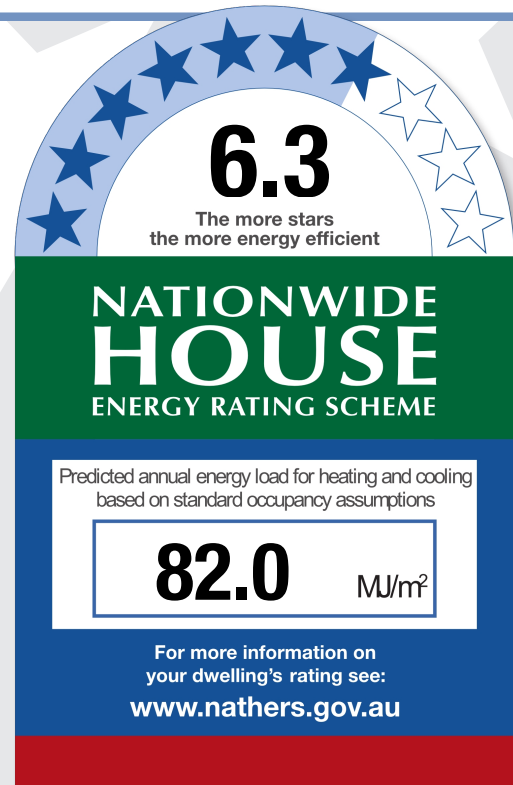
Conditioned: **128.0**
Unconditioned: **3.0**
Garage: **0.0**
TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **49.2**
Cooling: **32.8**
TOTAL: **82.0**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072906**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100
Laundry	EW-1	1890	2595	SW	No	100
Lounge	EW-1	2295	2595	NW	No	1200

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072906**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features continued

Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	1000	2595	NW	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	4095	1770	SW	No	0
Bedroom 1	EW-2	4095	680	SW	No	100
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Ensuite 1	EW-1	1690	1770	SW	No	0
Ensuite 1	EW-2	1690	680	SW	No	100
Bedroom 2	EW-1	3690	1770	SW	No	0
Bedroom 2	EW-2	3690	680	SW	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-1	3595	1770	SW	No	0
Bedroom 3	EW-2	3595	680	SW	No	100
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Lounge		10.6		No Insulation	

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072906**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features continued

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	2.0		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072906**

Certificate Date:

01 Aug 2019

★ Star rating:

6.3



Building features continued

WC	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072906

Certificate Date: 01 Aug 2019

★ Star rating: 6.3



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004072971**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.8**

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Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3308/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **121.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **41.1**

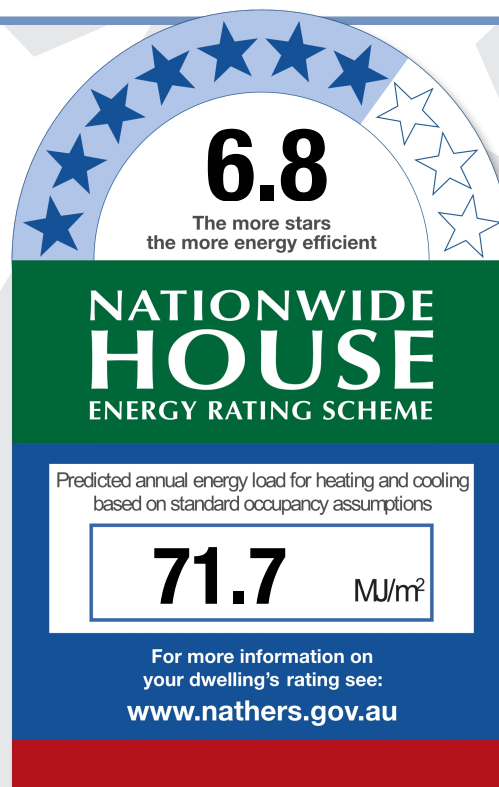
Cooling: **30.7**

TOTAL: **71.7**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**

Unsealed: **0**

TOTAL:** **3**

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

Principle downlight type: **Unknown**

Window selection - default windows only

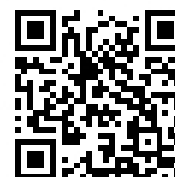
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072971

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072971**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Kitchen/Living	EW-1	2300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	0
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-2	3895	680	SW	No	0
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	900	2450	SW	No	0
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

* 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: **0004072971**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.4	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004072971**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004072971

Certificate Date: 01 Aug 2019

★ 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 the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

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

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

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

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

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

Accredited Assessors

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

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

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

Disclaimer

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

Contact

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

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

Nationwide House Energy Rating Scheme* — Multiple-dwelling summary



Certificate number: **0004074020**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.1**

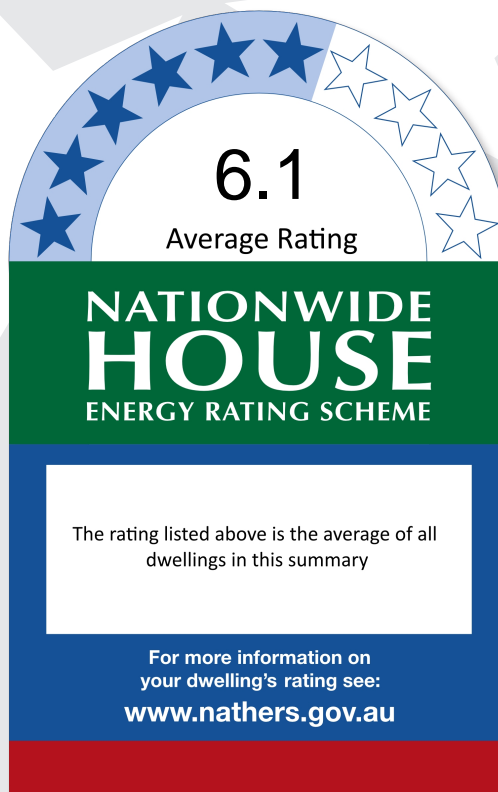
Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

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



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004072963-01		41.1	30.7	71.7	6.8
0004073961	Studio	52.0	53.3	105.3	5.3

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073961**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.3**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3308/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

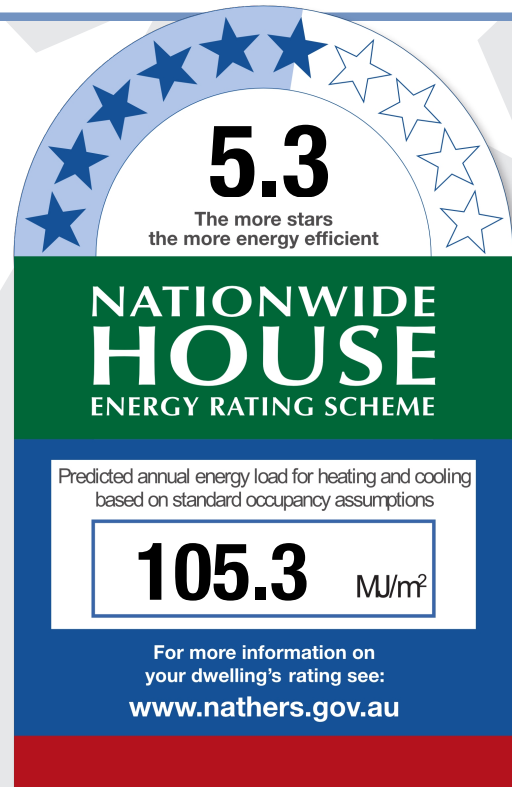
Conditioned: **39.0**
Unconditioned: **31.0**
Garage: **31.0**
TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **52.0**
Cooling: **53.3**
TOTAL: **105.3**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**
Unsealed: **0**
TOTAL:** **1**

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

Principle downlight type: **Unknown**

Window selection - default windows only

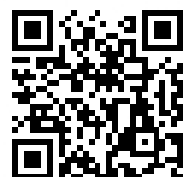
Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073961**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073961**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

Ceiling fans

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073961**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Location	Number	Diameter (mm)
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None Present		
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Roof type

Construction	Added insulation	Roof colour
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Corrugated Iron		
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	Added insulation	Roof colour
--	------------------	-------------

	Bulk, Reflective Side Down, No Air Gap Above R1.3	
--	--	--

		Dark
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073961

Certificate Date: 01 Aug 2019

★ Star rating: 5.3



Additional information

Explanatory notes

About this report

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073029-01**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3309/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron
Suspended Timber Floor**

Insulation: **R2.0 wall insulation
R3.5 ceiling insulation
No floor insulation**

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **91.0**

Unconditioned: **2.0**

Garage: **0.0**

TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **38.3**

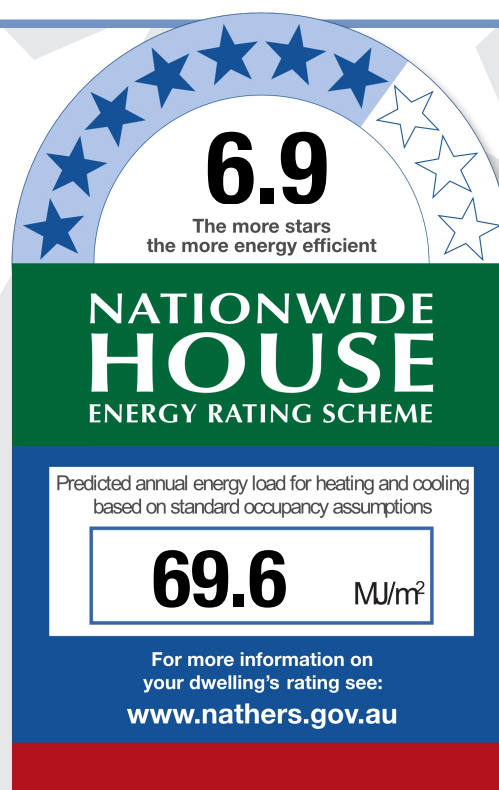
Cooling: **31.4**

TOTAL: **69.6**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073029-01

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	1770	SW	No	0
Bedroom 1	EW-2	900	680	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073029-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073029-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073029-01

Certificate Date: 01 Aug 2019

★ 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 the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

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

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

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

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

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

Accredited Assessors

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

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

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

Disclaimer

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

Contact

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

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

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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073045**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3310/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **91.0**

Unconditioned: **2.0**

Garage: **0.0**

TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **38.7**

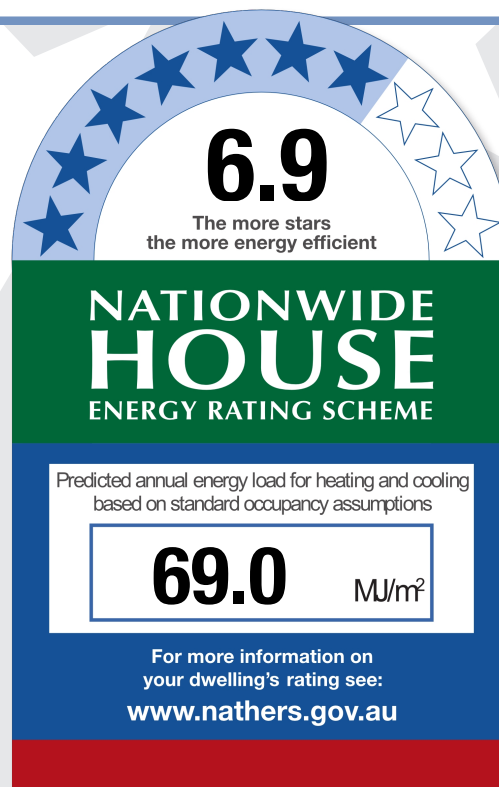
Cooling: **30.3**

TOTAL: **69.0**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073045**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073045**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600
Bedroom 3	EW-1	2795	1770	SW	No	0
Bedroom 3	EW-2	2795	680	SW	No	100

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073045**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073045

Certificate Date: 01 Aug 2019

★ Star rating: 6.9



Additional information

Explanatory notes

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

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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073052**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.7**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3311/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **121.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **42.7**

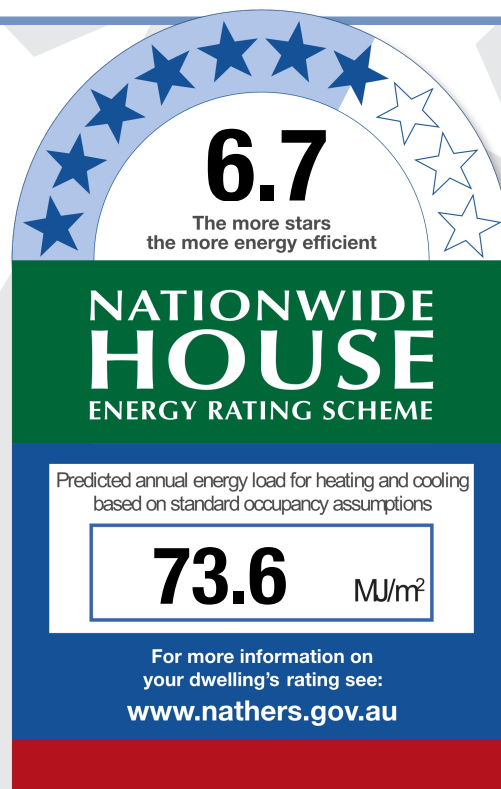
Cooling: **30.9**

TOTAL: **73.6**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**

Unsealed: **0**

TOTAL:** **3**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073052**

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	900	2595	NE	No	0
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	1300	2595	NW	No	1000
Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	2800	2595	NE	No	0
Kitchen/Living	EW-1	2300	2595	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073052**

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features continued

Kitchen/Living	EW-1	2800	2595	SW	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	2900
WIR 1	EW-1	900	1770	SW	No	0
WIR 1	EW-2	900	680	SW	No	1300
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
Bedroom 3	EW-2	3895	680	NE	No	0
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	900	2450	NE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

* 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: **0004073052**

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.5	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.6	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073052**

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features continued

PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073052

Certificate Date: 01 Aug 2019

★ Star rating: 6.7



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 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

Nationwide House Energy Rating Scheme* — Multiple-dwelling summary



Certificate number: **0004073100**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.0**

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

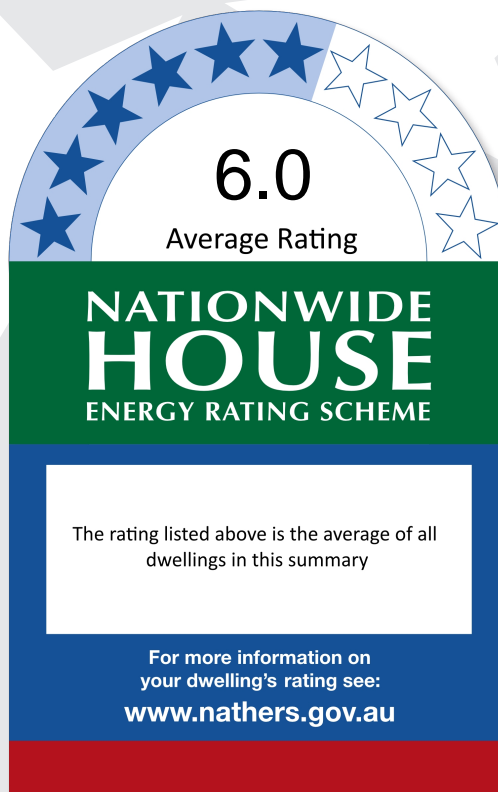
Scan to access this certificate online and confirm this is valid.



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073052		42.7	30.9	73.6	6.7
0004073060	Studio	53.5	52.8	106.3	5.3



Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073060**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.3**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3310/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

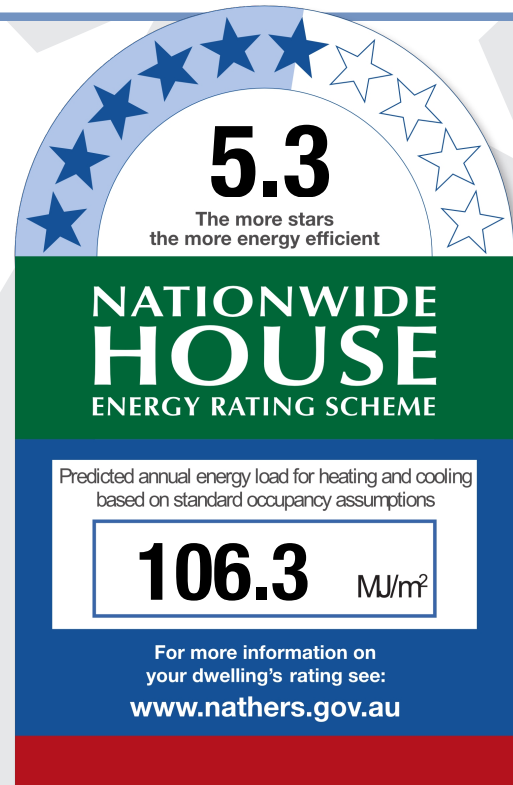
Conditioned: **39.0**
Unconditioned: **31.0**
Garage: **31.0**
TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **53.5**
Cooling: **52.8**
TOTAL: **106.3**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**
Unsealed: **0**
TOTAL:** **1**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073060**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	SW	No	100
Entry/Stairs	EW-2	1095	2595	SW	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073060**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

Ceiling fans

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073060**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073060

Certificate Date: 01 Aug 2019

★ Star rating: 5.3



Additional information

Explanatory notes

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Contact

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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: **0004073110**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.1**

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: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3312/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

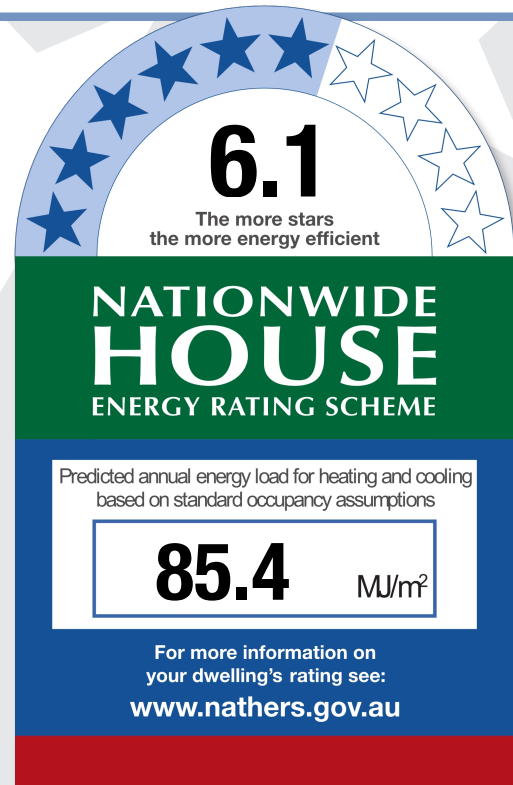
Conditioned: **128.0**
Unconditioned: **3.0**
Garage: **0.0**
TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **45.7**
Cooling: **39.7**
TOTAL: **85.4**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073110**

Certificate Date:

01 Aug 2019

★ Star rating:

6.1



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200
Laundry	EW-1	1890	2595	NE	No	100
Lounge	EW-1	1300	2595	NW	No	1000

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Certificate number: **0004073110**

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01 Aug 2019

★ Star rating:

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Building features continued

Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	1000	2595	NW	No	100
Kitchen/Living	EW-1	7100	2595	NE	No	100
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Bedroom 1	EW-1	4095	1770	NE	No	0
Bedroom 1	EW-2	4095	680	NE	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
WIR 1	EW-1	900	1770	SW	No	0
WIR 1	EW-2	900	680	SW	No	1300
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
Ensuite 1	EW-1	1690	1770	NE	No	0
Ensuite 1	EW-2	1690	680	NE	No	100
Bedroom 2	EW-1	3690	1770	NE	No	0
Bedroom 2	EW-2	3690	680	NE	No	100
Bedroom 3	EW-1	3595	1770	NE	No	0
Bedroom 3	EW-2	3595	680	NE	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073110**

Certificate Date:

01 Aug 2019

★ Star rating:

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Building features continued

Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation	Yes

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Nationwide House Energy Rating Scheme* Certificate

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Building features continued

WC	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		
Bath	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		
Upper Hall	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073110

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★ Star rating: 6.1



Additional information

Explanatory notes

About this report

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

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

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

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

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

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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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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073136**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.1**

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: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3313/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **128.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **50.1**

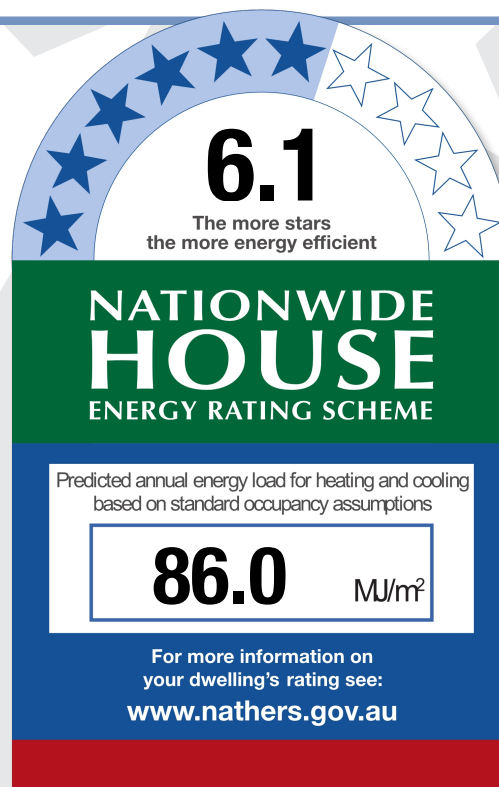
Cooling: **35.9**

TOTAL: **86.0**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

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★ Star rating:

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100
Laundry	EW-1	1890	2595	SW	No	100
Lounge	EW-1	2295	2595	NW	No	1200

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Building features continued

Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	7100	2595	SW	No	100
Kitchen/Living	EW-1	1000	2595	NW	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	4095	1770	SW	No	0
Bedroom 1	EW-2	4095	680	SW	No	100
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Ensuite 1	EW-1	1690	1770	SW	No	0
Ensuite 1	EW-2	1690	680	SW	No	100
Bedroom 2	EW-1	3690	1770	SW	No	0
Bedroom 2	EW-2	3690	680	SW	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-1	3595	1770	SW	No	0
Bedroom 3	EW-2	3595	680	SW	No	100
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

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Nationwide House Energy Rating Scheme* Certificate

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Certificate Date:

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★ Star rating:

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Building features continued

Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	2.0		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation	Yes

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Building features continued

WC	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		
Bath	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		
Upper Hall	Plasterboard	R3.5	Bulk Insulation	Yes
		R3.5		

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

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

Disclaimer

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

Contact

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

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

* 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: **0004073177**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.8**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3314/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

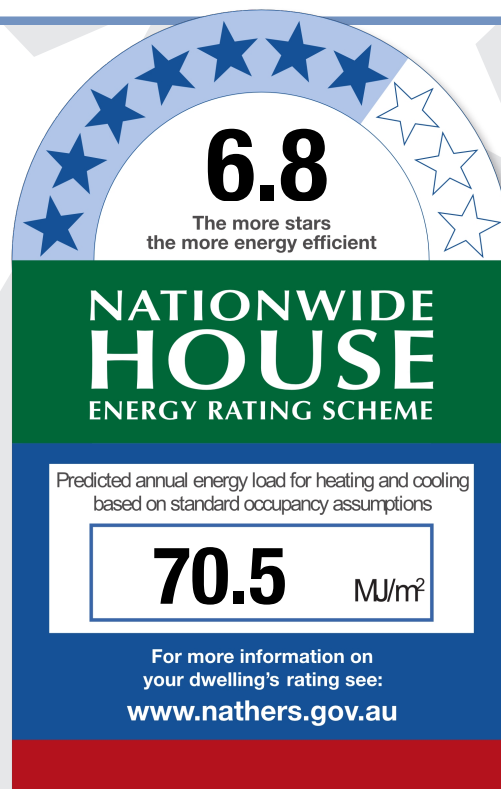
Conditioned: **121.0**
Unconditioned: **3.0**
Garage: **0.0**
TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **40.5**
Cooling: **30.0**
TOTAL: **70.5**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**
Unsealed: **0**
TOTAL:** **3**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073177**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073177**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Kitchen/Living	EW-1	2300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	0
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-2	3895	680	SW	No	0
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	900	2450	SW	No	0
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073177**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.4	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073177**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073177

Certificate Date: 01 Aug 2019

★ 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 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).

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Contact

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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* — Multiple-dwelling summary



Certificate number: **0004073210**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.1**

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

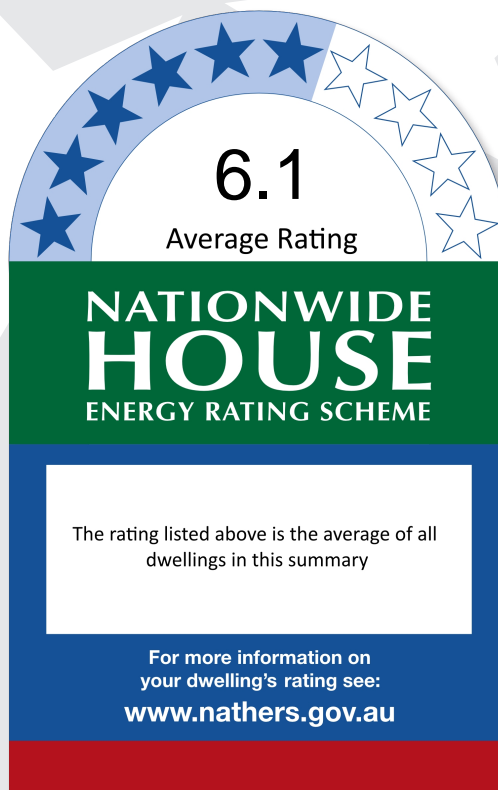
Scan to access this certificate online and confirm this is valid.



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073177		40.5	30.0	70.5	6.8
0004073185	Studio	52.0	52.3	104.2	5.3



Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073185**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.3**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3314/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**

Corrugated Iron

Suspended Timber Floor

Insulation:

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing:

BRD-112-01 A ESS Awning 52 SG

4mmClr

Net floor area (m²)

Conditioned: **39.0**

Unconditioned: **31.0**

Garage: **31.0**

TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **52.0**

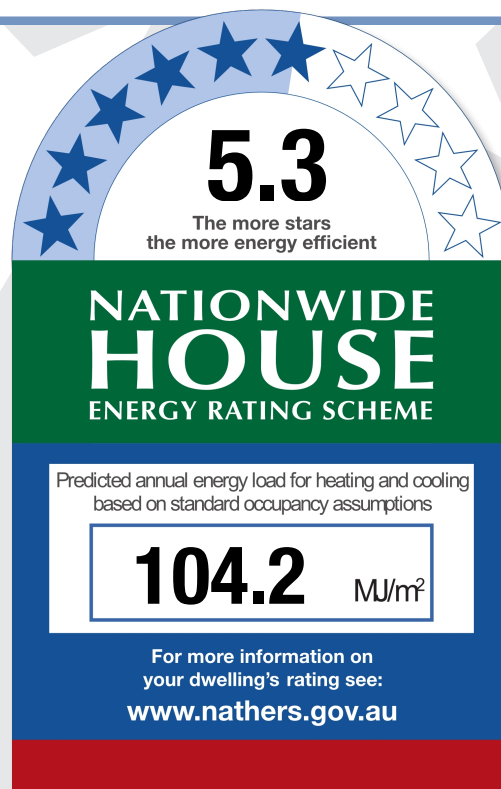
Cooling: **52.3**

TOTAL: **104.2**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**

Unsealed: **0**

TOTAL:** **1**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073185**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073185**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

Ceiling fans

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073185**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Location	Number	Diameter (mm)
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None Present		
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Roof type

Construction	Added insulation	Roof colour
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Corrugated Iron		
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Bulk, Reflective Side Down, No Air Gap Above R1.3	
--	--

Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073185

Certificate Date: 01 Aug 2019

★ Star rating: 5.3



Additional information

Explanatory notes

About this report

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Accredited Assessors

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Contact

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073235**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3315/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **91.0**

Unconditioned: **2.0**

Garage: **0.0**

TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **38.3**

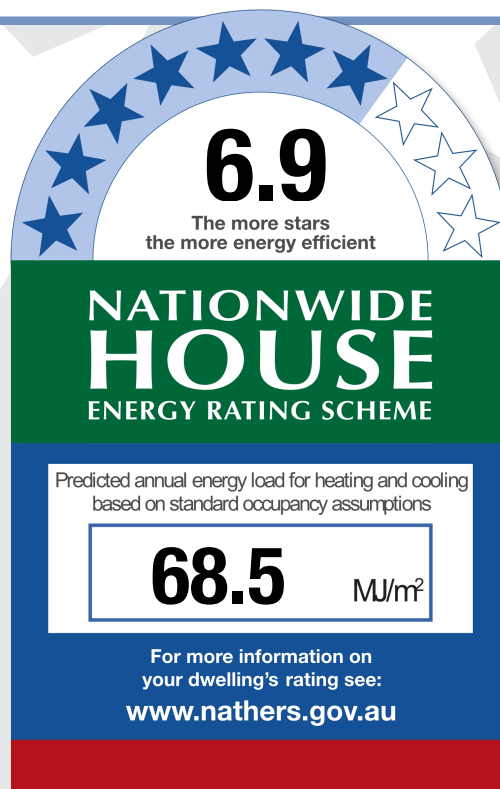
Cooling: **30.2**

TOTAL: **68.5**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073235**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	2450	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100
Hall	EW-1	1295	1770	NW	No	0

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073235**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No

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6.9



Building features continued

Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

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Additional information

Explanatory notes

About this report

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General Information

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

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

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

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

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

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

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

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Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3316/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

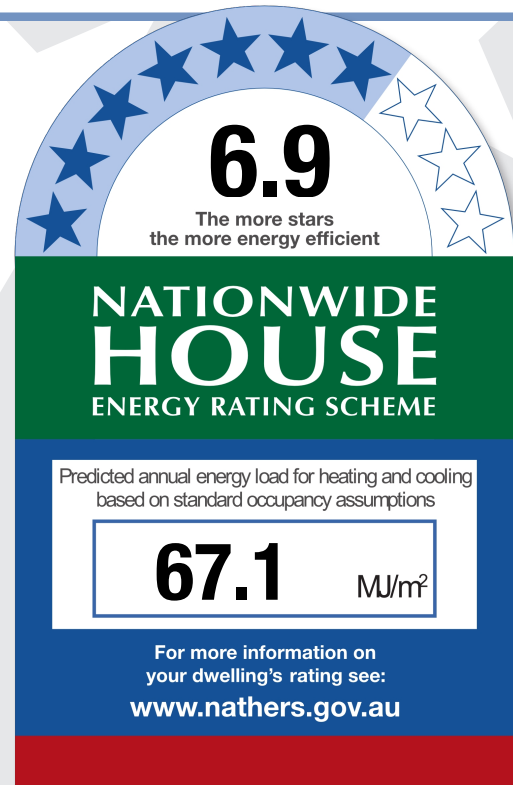
Conditioned: **91.0**
Unconditioned: **2.0**
Garage: **0.0**
TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **37.4**
Cooling: **29.6**
TOTAL: **67.1**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

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.

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Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

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★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600
Bedroom 3	EW-1	2795	1770	SW	No	0
Bedroom 3	EW-2	2795	680	SW	No	100

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073227

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Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073250-02**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.8**

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Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3317/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **121.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **42.0**

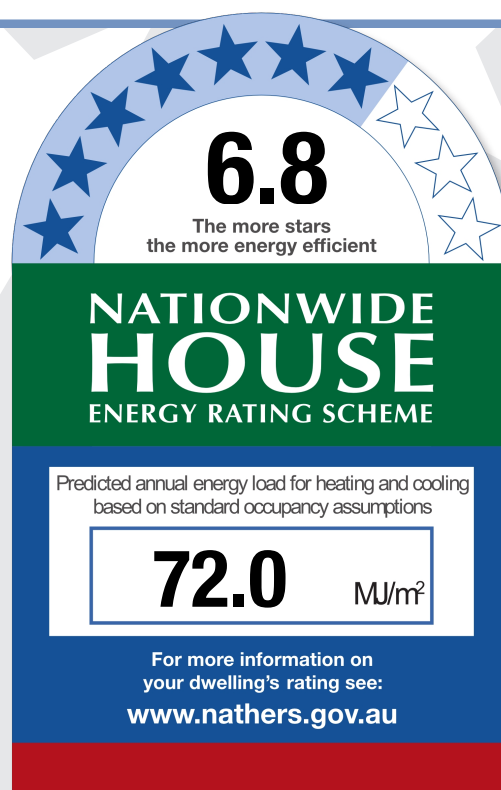
Cooling: **30.0**

TOTAL: **72.0**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**

Unsealed: **0**

TOTAL:** **3**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073250-02

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	900	2595	NE	No	0
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	1300	2595	NW	No	1000
Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	2800	2595	NE	No	0
Kitchen/Living	EW-1	2300	2595	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073250-02**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Kitchen/Living	EW-1	2800	2595	SW	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	2900
WIR 1	EW-1	900	1770	SW	No	0
WIR 1	EW-2	900	680	SW	No	1300
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
Bedroom 3	EW-2	3895	680	NE	No	0
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	900	2450	NE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

* 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: **0004073250-02**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.5	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.6	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073250-02**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073250-02

Certificate Date: 01 Aug 2019

★ 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 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).

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

Disclaimer

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

Contact

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

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

* 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* — Multiple-dwelling summary



Certificate number: **0004073300**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.1**

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

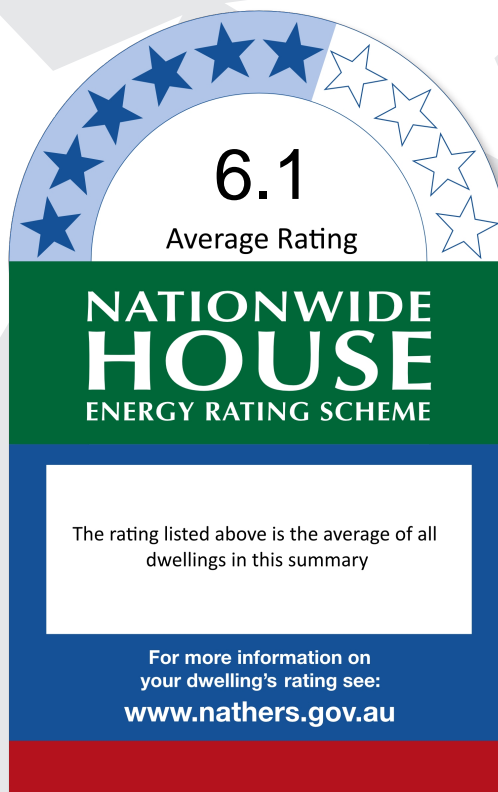
Scan to access this certificate online and confirm this is valid.



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073250-02		42.0	30.0	72.0	6.8
0004073284	Studio	53.3	52.5	105.8	5.3



Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073284**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.3**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3317/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**

Corrugated Iron

Suspended Timber Floor

Insulation:

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing:

BRD-112-01 A ESS Awning 52 SG

4mmClr

Net floor area (m²)

Conditioned: **39.0**

Unconditioned: **31.0**

Garage: **31.0**

TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **53.3**

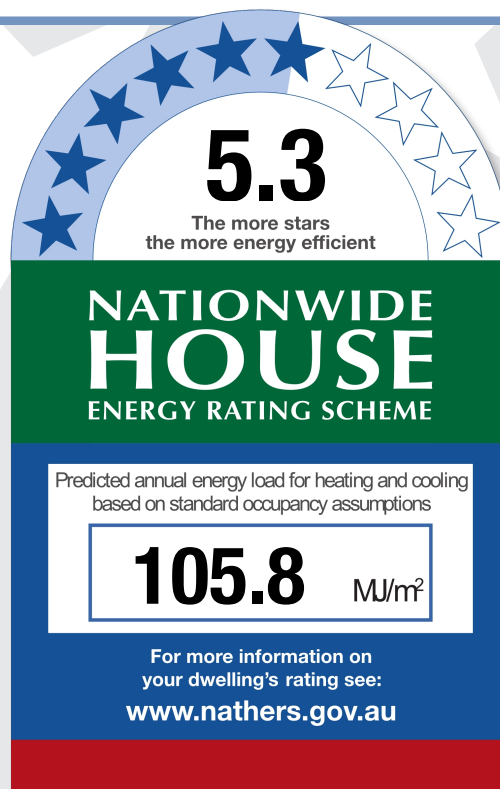
Cooling: **52.5**

TOTAL: **105.8**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**

Unsealed: **0**

TOTAL:** **1**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073284**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	SW	No	100
Entry/Stairs	EW-2	1095	2595	SW	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073284**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

Ceiling fans

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073284**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Location	Number	Diameter (mm)
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None Present		
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Roof type

Construction	Added insulation	Roof colour
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Corrugated Iron		
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Bulk, Reflective Side Down, No Air Gap Above R1.3	
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Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073284

Certificate Date: 01 Aug 2019

★ Star rating: 5.3



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073326**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.4**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3318/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

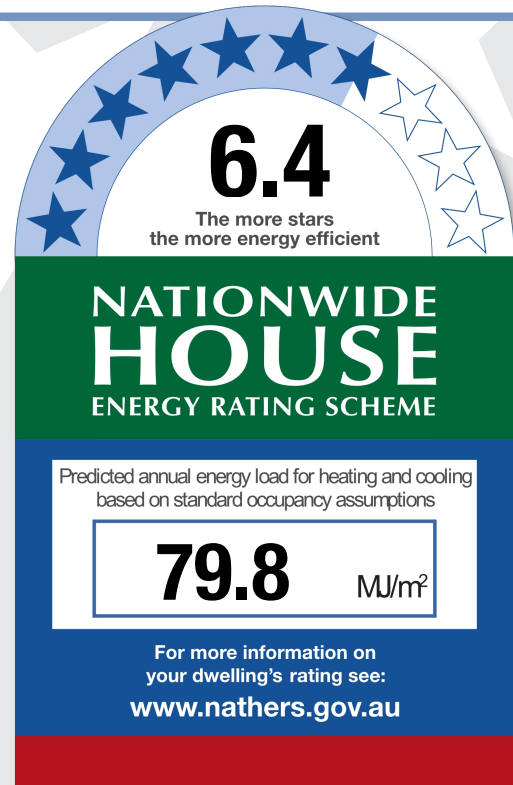
Conditioned: **128.0**
Unconditioned: **3.0**
Garage: **0.0**
TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **46.5**
Cooling: **33.4**
TOTAL: **79.8**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

Principle downlight type: **Unknown**

Window selection - default windows only

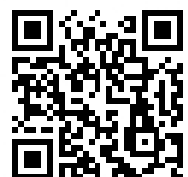
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073326**

Certificate Date:

01 Aug 2019

★ Star rating:

6.4



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200
Laundry	EW-1	1890	2595	NE	No	100
Lounge	EW-1	1300	2595	NW	No	1000

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073326**

Certificate Date:

01 Aug 2019

★ Star rating:

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Building features continued

Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	1000	2595	NW	No	100
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Bedroom 1	EW-1	4095	1770	NE	No	0
Bedroom 1	EW-2	4095	680	NE	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
WIR 1	EW-1	900	1770	SW	No	0
WIR 1	EW-2	900	680	SW	No	1300
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
Ensuite 1	EW-1	1690	1770	NE	No	0
Ensuite 1	EW-2	1690	680	NE	No	100
Bedroom 2	EW-1	3690	1770	NE	No	0
Bedroom 2	EW-2	3690	680	NE	No	100
Bedroom 3	EW-1	3595	1770	NE	No	0
Bedroom 3	EW-2	3595	680	NE	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Lounge		10.6		No Insulation	

* 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: **0004073326**

Certificate Date:

01 Aug 2019

★ Star rating:

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Building features continued

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073326**

Certificate Date:

01 Aug 2019

★ Star rating:

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Building features continued

WC	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073326

Certificate Date: 01 Aug 2019

★ 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 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

* 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: **0004073318**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.4**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3119/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **128.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **48.5**

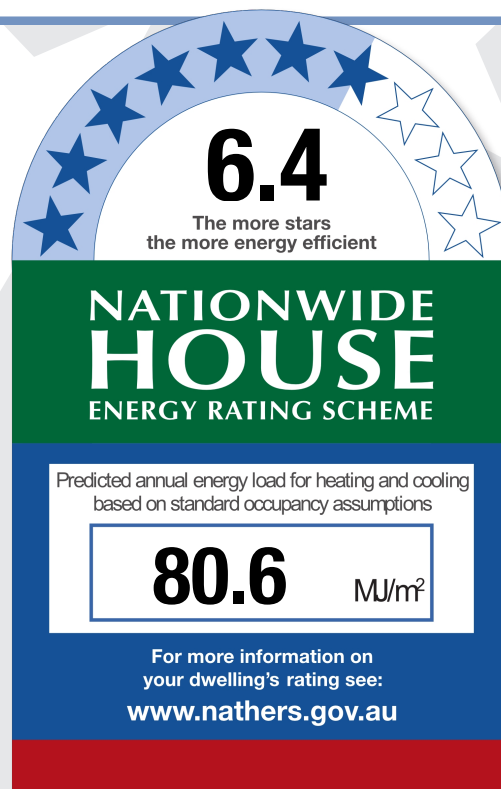
Cooling: **32.1**

TOTAL: **80.6**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073318**

Certificate Date:

01 Aug 2019

★ Star rating:

6.4



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	4095	2595	SW	No	100
Laundry	EW-1	1890	2595	SW	No	100
Lounge	EW-1	2295	2595	NW	No	1200

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073318**

Certificate Date:

01 Aug 2019

★ Star rating:

6.4



Building features continued

Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	1000	2595	NW	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
Bedroom 1	EW-1	4095	1770	SW	No	0
Bedroom 1	EW-2	4095	680	SW	No	100
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Ensuite 1	EW-1	1690	1770	SW	No	0
Ensuite 1	EW-2	1690	680	SW	No	100
Bedroom 2	EW-1	3690	1770	SW	No	0
Bedroom 2	EW-2	3690	680	SW	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-1	3595	1770	SW	No	0
Bedroom 3	EW-2	3595	680	SW	No	100
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	73.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Lounge		10.6		No Insulation	

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073318**

Certificate Date:

01 Aug 2019

★ Star rating:

6.4



Building features continued

	Timber Above Plasterboard 19mm				Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	2.0		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes

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

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073318**

Certificate Date:

01 Aug 2019

★ Star rating:

6.4

Building features continued

WC	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073318

Certificate Date: 01 Aug 2019

★ 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 the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

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

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

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

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

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

Accredited Assessors

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

Disclaimer

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

Contact

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

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

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073334-01**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.8**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3320/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

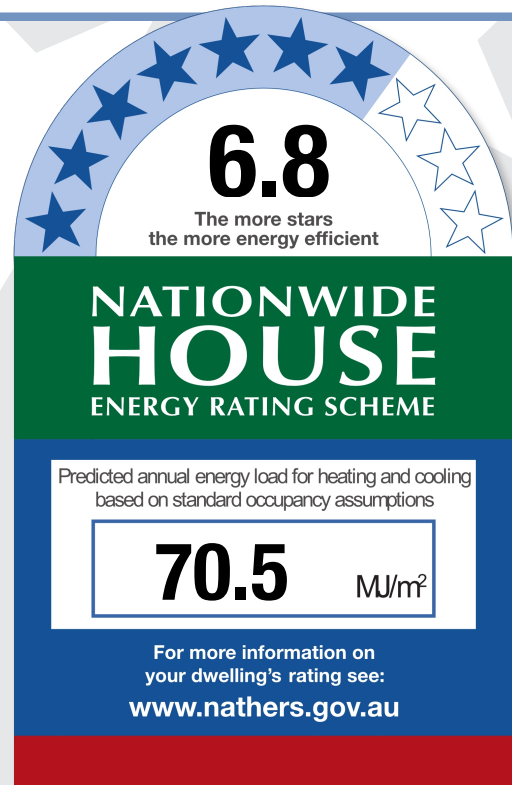
Conditioned: **121.0**
Unconditioned: **3.0**
Garage: **0.0**
TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **40.5**
Cooling: **30.0**
TOTAL: **70.5**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**
Unsealed: **0**
TOTAL:** **3**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073334-01

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	NW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	SE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	NW	No	1200
Lounge	EW-1	900	2595	SW	No	0
Lounge	EW-1	2295	2595	NW	No	1200
Lounge	EW-1	900	2595	NE	No	1300
Lounge	EW-1	1300	2595	NW	No	1000
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Kitchen/Living	EW-1	2800	2595	NE	No	3300

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073334-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Kitchen/Living	EW-1	2300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	0
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
WIR 1	EW-1	900	1770	NE	No	0
WIR 1	EW-2	900	680	NE	No	1300
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 3	EW-2	3895	680	SW	No	0
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600
Bedroom 1	EW-1	900	2450	SW	No	0
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073334-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.4	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073334-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.8



Building features continued

PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073334-01

Certificate Date: 01 Aug 2019

★ Star rating: 6.8



Additional information

Explanatory notes

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Contact

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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* — Multiple-dwelling summary



Certificate number: **0004073360**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.1**

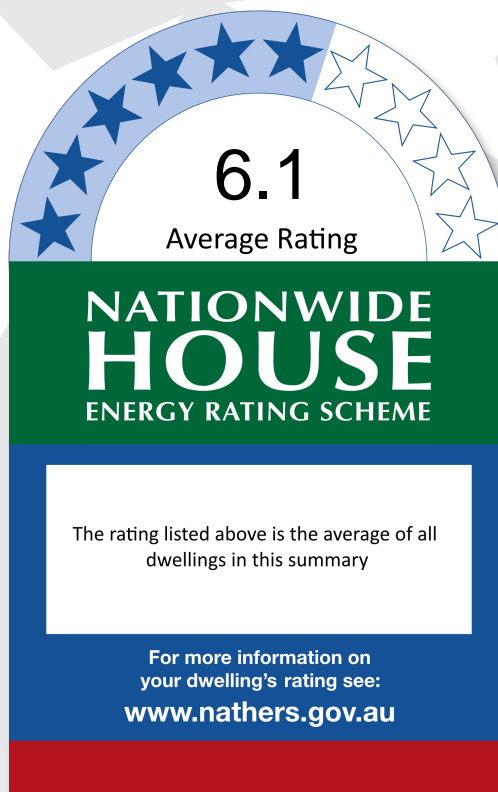
Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

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



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073334-01		40.5	30.0	70.5	6.8
0004073359	Studio	52.0	52.3	104.2	5.3

* 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: **0004073359**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.3**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3320/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**

Corrugated Iron

Suspended Timber Floor

Insulation:

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing:

BRD-112-01 A ESS Awning 52 SG

4mmClr

Net floor area (m²)

Conditioned: **39.0**

Unconditioned: **31.0**

Garage: **31.0**

TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **52.0**

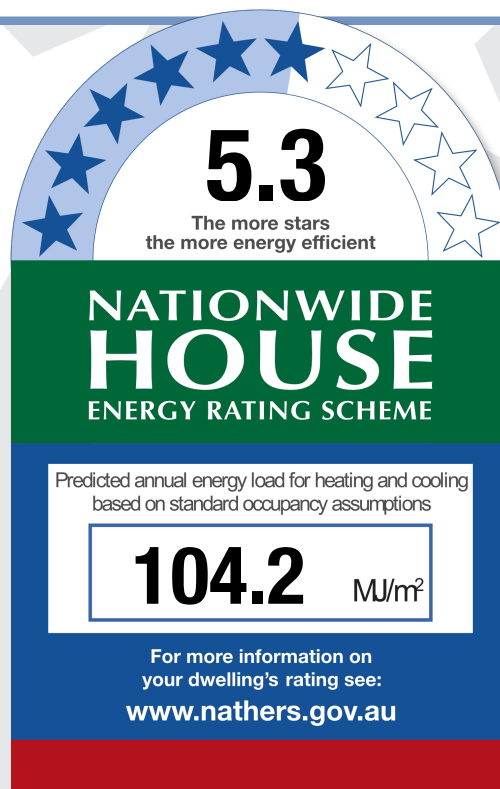
Cooling: **52.3**

TOTAL: **104.2**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**

Unsealed: **0**

TOTAL:** **1**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073359**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	SE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	SE	No	100
Garage	EW-1	5495	2595	NE	No	100
Entry/Stairs	EW-2	5600	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	NE	No	100
Bedroom 1	EW-2	2895	1770	SE	No	0
Bedroom 1	EW-3	2895	680	SE	No	600
Bedroom 1	EW-2	3595	2450	NE	No	100
PDR	EW-2	995	1770	NW	No	0
PDR	EW-3	995	680	NW	No	600
PDR	EW-2	2995	2450	NE	No	100
Kitchen/Living	EW-2	2695	1770	SE	No	0
Kitchen/Living	EW-3	2695	680	SE	No	600
Kitchen/Living	EW-2	5495	2450	SW	No	100
Stairs	EW-2	1095	2450	SW	No	100
Stairs	EW-2	4595	1770	NW	No	0
Stairs	EW-3	4595	680	NW	No	600

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073359**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

Ceiling fans

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073359**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Location	Number	Diameter (mm)
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None Present		
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Roof type

Construction	Added insulation	Roof colour
--------------	------------------	-------------

Corrugated Iron		
-----------------	--	--

Bulk, Reflective Side Down, No Air Gap Above R1.3	
--	--

Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073359

Certificate Date: 01 Aug 2019

★ Star rating: 5.3



Additional information

Explanatory notes

About this report

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General Information

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

The actual energy consumption of your home may vary significantly from the predicted energy load figures in 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

* 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: **0004073375**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3321/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **91.0**

Unconditioned: **2.0**

Garage: **0.0**

TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **37.9**

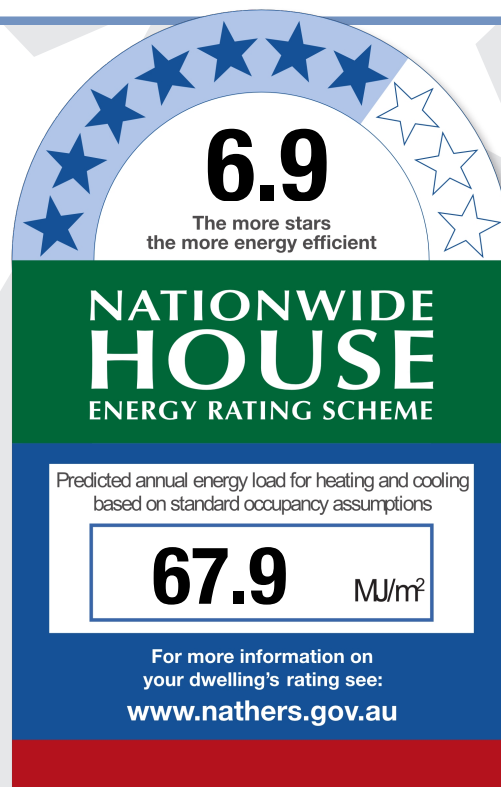
Cooling: **30.0**

TOTAL: **67.9**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073375**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	NW	No	1000
Living/Entry	EW-1	900	2595	SW	No	1300
Living/Entry	EW-1	3300	2595	NW	No	1200
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	900	1770	SW	No	0
Bedroom 1	EW-2	900	680	SW	No	1300
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073375**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	100
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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Nationwide House Energy Rating Scheme* Certificate

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Certificate Date:

01 Aug 2019

★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073375

Certificate Date: 01 Aug 2019

★ Star rating: 6.9



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073391**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3322/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

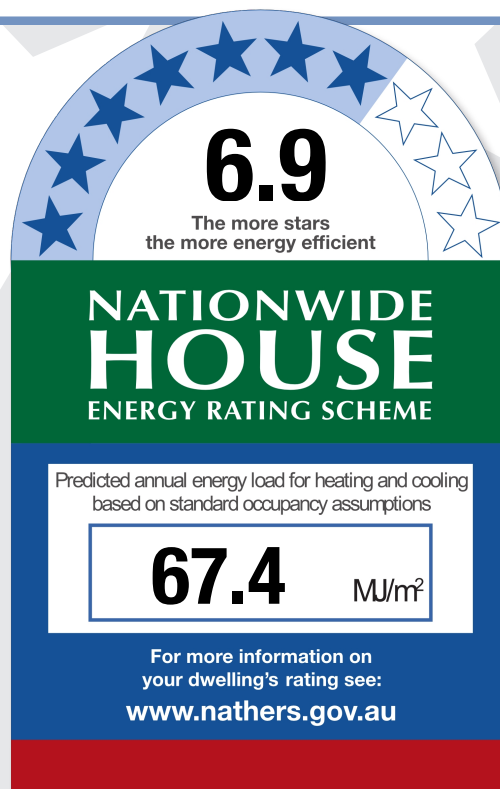
Conditioned: **91.0**
Unconditioned: **2.0**
Garage: **0.0**
TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **37.9**
Cooling: **29.5**
TOTAL: **67.4**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073391**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	NW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	NW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	SE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	SE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	NW	No	1200
Living/Entry	EW-1	900	2595	NE	No	1300
Living/Entry	EW-1	1300	2595	NW	No	1000
Kitchen/Dining	EW-1	4600	2595	SE	No	3000
Bedroom 1	EW-1	3300	1770	NW	No	0
Bedroom 1	EW-2	3300	680	NW	No	1700
Bedroom 1	EW-1	900	1770	NE	No	0
Bedroom 1	EW-2	900	680	NE	No	1300
Bedroom 2	EW-1	1000	1770	SE	No	0
Bedroom 2	EW-2	1000	680	SE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073391**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	NW	No	0
Hall	EW-2	1295	680	NW	No	1500
Bedroom 3	EW-1	3600	1770	SE	No	0
Bedroom 3	EW-2	3600	680	SE	No	600
Bedroom 3	EW-1	2795	1770	SW	No	0
Bedroom 3	EW-2	2795	680	SW	No	100

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073391**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073391

Certificate Date: 01 Aug 2019

★ Star rating: 6.9



Additional information

Explanatory notes

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Contact

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073383**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.2**

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Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3323/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **128.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **131.0**

Annual thermal performance loads (MJ/m²)

Heating: **44.7**

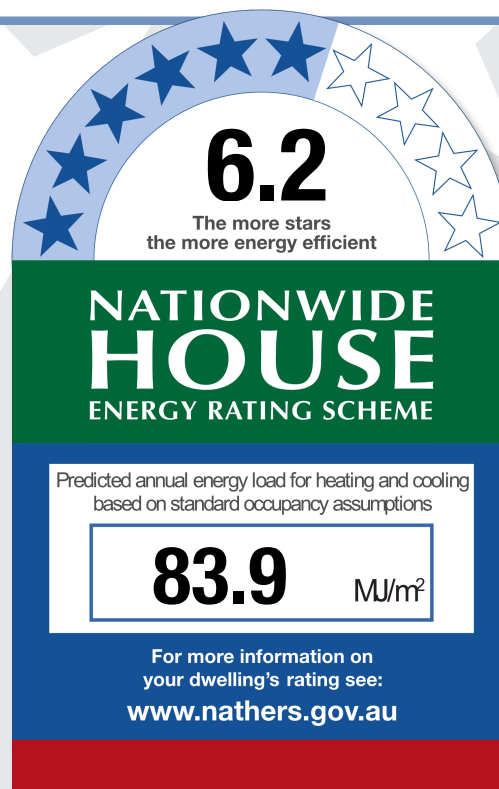
Cooling: **39.2**

TOTAL: **83.9**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073383**

Certificate Date:

01 Aug 2019

★ Star rating:

6.2



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Laundry	BRD-033-01 A	n/a	2100	1470	NE	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	NW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1570	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	SE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	NW	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	NW	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	SE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	NW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	4095	2595	NE	No	100
Lounge	EW-1	1995	2595	NW	No	1200
Laundry	EW-1	1890	2595	NE	No	100
Lounge	EW-1	1300	2595	NW	No	1000

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073383**

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01 Aug 2019

★ Star rating:

6.2



Building features continued

Lounge	EW-1	900	2595	SW	No	1300
Lounge	EW-1	2295	2595	NW	No	1200
Kitchen/Living	EW-1	1000	2595	NW	No	100
Kitchen/Living	EW-1	7100	2595	NE	No	100
Kitchen/Living	EW-1	3300	2595	SE	No	100
Kitchen/Living	EW-1	2800	2595	SW	No	3300
Kitchen/Living	EW-1	3300	2595	SE	No	2900
Bedroom 1	EW-1	4095	1770	NE	No	0
Bedroom 1	EW-2	4095	680	NE	No	100
Bedroom 1	EW-1	2795	1770	NW	No	0
Bedroom 1	EW-2	2795	680	NW	No	1700
WIR 1	EW-1	900	1770	SW	No	0
WIR 1	EW-2	900	680	SW	No	1300
WIR 1	EW-1	1495	1770	NW	No	0
WIR 1	EW-2	1495	680	NW	No	1700
Ensuite 1	EW-1	1690	1770	NE	No	0
Ensuite 1	EW-2	1690	680	NE	No	100
Bedroom 2	EW-1	3690	1770	NE	No	0
Bedroom 2	EW-2	3690	680	NE	No	100
Bedroom 3	EW-1	3595	1770	NE	No	0
Bedroom 3	EW-2	3595	680	NE	No	100
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	600
Bedroom 4	EW-1	2795	1770	SE	No	0
Bedroom 4	EW-2	2795	680	SE	No	600
Upper Hall	EW-1	1295	1770	NW	No	0
Upper Hall	EW-2	1295	680	NW	No	1600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	140.0	No insulation	No
IW-2 - AAC, plaster on studs	54.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	37.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

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6.2



Building features continued

Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	1.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	4.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	2.7		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.7		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.9		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	8.4		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Kitchen/Living	Timber Above Plasterboard 19mm	1.6		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	5.1		No Insulation	Ceramic Tiles 8mm
Upper Hall/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	4.5		No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation	Yes

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6.2



Building features continued

		R3.5		
WC	Plasterboard	Bulk Insulation R3.5	Yes	
Bath	Plasterboard	Bulk Insulation R3.5	Yes	
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes	

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	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
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

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Additional information

Explanatory notes

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Certificate number: **0004073482**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.3**

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Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3325/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Fibro Cavity Panel Direct Fix**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

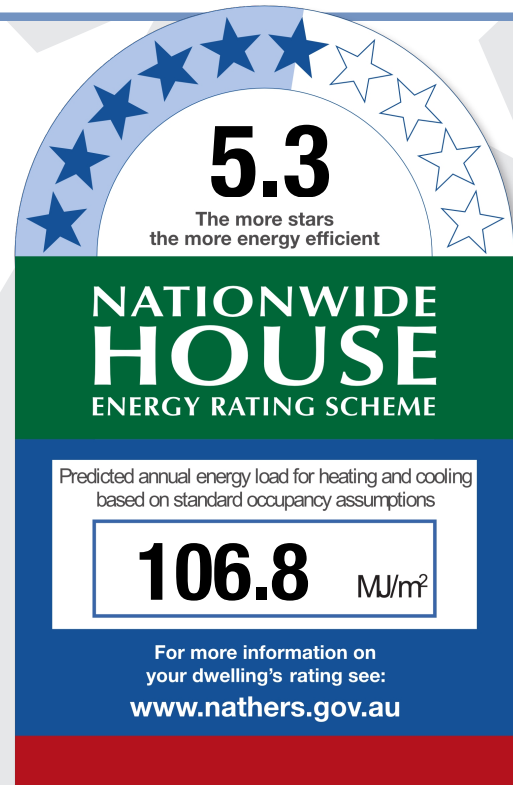
Conditioned: **146.0**
Unconditioned: **2.0**
Garage: **0.0**
TOTAL: **148.0**

Annual thermal performance loads (MJ/m²)

Heating: **50.7**
Cooling: **56.1**
TOTAL: **106.8**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

Principle downlight type: **Unknown**

Window selection - default windows only

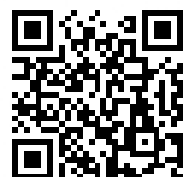
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Scan to access this
certificate online and
confirm this is valid.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073482**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-026-18 A	BRD-026-18 A ESS Awning Window (52mm) SG 638CP	5.0	0.40
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76
BRD-033-10 A	BRD-033-10 A ESS Sliding Door (80mm) SG 6.38CPClr	4.3	0.60

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Home Office	BRD-063-01 A	n/a	1500	600	SW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	SW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	SW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	NW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	NW	No Shading
Home Office	BRD-112-01 A	n/a	2080	610	NW	No Shading
Entry	BRD-026-18 A	n/a	2080	610	NW	No Shading
Entry	BRD-026-18 A	n/a	2080	610	NW	No Shading
PWD	BRD-112-01 A	n/a	600	600	NE	No Shading
Bedroom 3	BRD-001-01 A	n/a	900	2200	NW	No Shading
Laundry	BRD-112-01 A	n/a	600	600	NE	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1500	600	SW	No Shading
Kitchen/Living	BRD-026-18 A	n/a	2080	610	SW	No Shading
Kitchen/Living	BRD-033-10 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1200	600	NW	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1200	600	NW	No Shading
Dining/Stairs	BRD-026-18 A	n/a	1200	1800	NW	No Shading
Dining/Stairs	BRD-033-10 A	n/a	2100	3100	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073482**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Home Office	EW-1	1700	2595	SW	No	1000
Home Office	EW-1	900	2595	SE	No	1700
Home Office	EW-1	3900	2595	SW	No	1200
Home Office	EW-1	5395	2595	NW	No	100
Entry	EW-1	2990	2595	NW	No	100
PWD	EW-1	1895	2595	NW	No	100
PWD	EW-1	1595	2595	NE	No	2800
Hall/Stairs	EW-1	1290	2595	NE	No	2800
Bedroom 3	EW-1	2700	2595	NW	No	3000
Bedroom 3	EW-1	2700	2595	NE	No	100
Bedroom 3	EW-1	2700	2595	SE	No	0
Laundry	EW-1	1095	1770	NE	No	0
Laundry	EW-2	1095	680	NE	No	3400
Kitchen/Living	EW-1	1700	1770	SW	No	0
Kitchen/Living	EW-2	1700	680	SW	No	1500
Kitchen/Living	EW-1	900	1770	SE	No	0
Kitchen/Living	EW-2	900	680	SE	No	1700
Kitchen/Living	EW-1	3900	1770	SW	No	0
Kitchen/Living	EW-2	3900	680	SW	No	1400
Kitchen/Living	EW-1	5395	1770	NW	No	0
Kitchen/Living	EW-2	5395	680	NW	No	600
Dining/Stairs	EW-1	4895	1770	NW	No	0
Dining/Stairs	EW-2	4895	680	NW	No	600
Dining/Stairs	EW-1	4495	1770	NE	No	0
Dining/Stairs	EW-2	4495	680	NE	No	3400
Bedroom 2	EW-2	3695	2450	SE	No	700
Bedroom 2	EW-2	2895	2450	NE	No	100
Ensuite 2	EW-2	2695	2450	NW	No	700
Ensuite 2	EW-2	1395	2450	NE	No	100
WIR 2	EW-2	2390	2450	NW	No	700
WIR 1	EW-2	1690	2450	NW	No	700
Ensuite 1	EW-2	1595	2450	SW	No	100
Ensuite 1	EW-2	2595	2450	NW	No	700
Bedroom 1	EW-2	3595	2450	SE	No	700
Bedroom 1	EW-2	2695	2450	SW	No	100
Stairs	EW-2	700	2450	NE	No	3800
Stairs	EW-2	2100	2450	SE	No	0
Stairs	EW-2	700	2450	SW	No	3700

Internal wall type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073482**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	121.0	No insulation	No
IW-2 - AAC, plaster on studs	47.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Home Office	Waffle pod slab 300 mm 100mm	28.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Entry	Waffle pod slab 300 mm 100mm	4.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PWD	Waffle pod slab 300 mm 100mm	2.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Hall/Stairs	Waffle pod slab 300 mm 100mm	11.7	None	Waffle Pod 300mm	40/60 Carpet 10mm/Ceramic
Bath	Waffle pod slab 300 mm 100mm	4.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 3	Waffle pod slab 300 mm 100mm	9.8	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Laundry/Bath	Timber Above Plasterboard 19mm	0.7		No Insulation	Ceramic Tiles 8mm
Laundry/Bedroom 3	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Home Office	Timber Above Plasterboard 19mm	28.5		No Insulation	Ceramic Tiles 8mm
Dining/Stairs/Entry	Timber Above Plasterboard 19mm	4.7		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/PWD	Timber Above Plasterboard 19mm	3.0		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Hall/Stairs	Timber Above Plasterboard 19mm	12.1		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bath	Timber Above Plasterboard 19mm	3.8		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bedroom 3	Timber Above Plasterboard 19mm	1.6		No Insulation	20/80 Carpet 10mm/Ceramic
Bedroom 2/Laundry	Timber Above Plasterboard 19mm	0.7		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Dining/Stairs	Timber Above Plasterboard 19mm	9.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 2/Dining/Stairs	Timber Above Plasterboard 19mm	3.6		No Insulation	Ceramic Tiles 8mm
WIR 2/Dining/Stairs	Timber Above Plasterboard 19mm	2.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Kitchen/Living	Timber Above Plasterboard 19mm	2.2		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	4.0		No Insulation	Ceramic Tiles 8mm
Bedroom 1/Kitchen/Living	Timber Above Plasterboard 19mm	9.6		No Insulation	Carpet+Rubber Underlay 18mm
Stairs/Kitchen/Living	Timber Above Plasterboard 19mm	3.1		No Insulation	Carpet+Rubber Underlay 18mm
Stairs/Dining/Stairs	Timber Above Plasterboard	4.1		No Insulation	Carpet+Rubber

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073482**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

19mm

Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Home Office	Timber Above Plasterboard	No Insulation	No
Entry	Timber Above Plasterboard	No Insulation	No
PWD	Timber Above Plasterboard	No Insulation	No
Hall/Stairs	Timber Above Plasterboard	No Insulation	No
Bath	Timber Above Plasterboard	No Insulation	No
Bedroom 3	Plasterboard	Bulk Insulation R3.5	No
Bedroom 3	Timber Above Plasterboard	No Insulation	No
Laundry	Plasterboard	Bulk Insulation R3.5	Yes
Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Dining/Stairs	Plasterboard	Bulk Insulation R3.5	Yes
Dining/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 2	Plasterboard	Bulk Insulation R3.5	Yes
WIR 2	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PWD	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073482**

Certificate Date:

01 Aug 2019

★ Star rating:

5.3



Building features continued

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073482

Certificate Date: 01 Aug 2019

★ Star rating: 5.3



Additional information

Explanatory notes

About this report

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General Information

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

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

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

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

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

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

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

Accredited Assessors

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

Disclaimer

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

Contact

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

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

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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073714-01**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.7**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3326/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

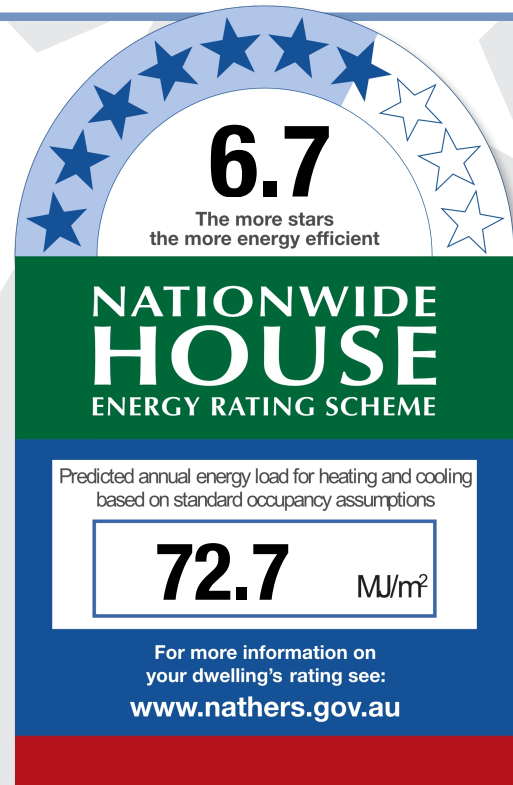
Conditioned: **121.0**
Unconditioned: **3.0**
Garage: **0.0**
TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **39.6**
Cooling: **33.1**
TOTAL: **72.7**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**
Unsealed: **0**
TOTAL:** **3**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073714-01

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	SW	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	NE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	NW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	NE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	1995	2595	SW	No	1200
Lounge	EW-1	900	2595	SE	No	0
Lounge	EW-1	2295	2595	SW	No	1200
Lounge	EW-1	900	2595	NW	No	1300
Lounge	EW-1	1300	2595	SW	No	1000
Kitchen/Living	EW-1	3300	2595	NE	No	2900
Kitchen/Living	EW-1	2800	2595	NW	No	3300

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073714-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features continued

Kitchen/Living	EW-1	2300	2595	NE	No	100
Kitchen/Living	EW-1	2800	2595	SE	No	0
WIR 1	EW-1	1495	1770	SW	No	0
WIR 1	EW-2	1495	680	SW	No	1700
WIR 1	EW-1	900	1770	NW	No	0
WIR 1	EW-2	900	680	NW	No	1300
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	600
Bedroom 3	EW-2	3895	680	SE	No	0
Bedroom 4	EW-1	2795	1770	NE	No	0
Bedroom 4	EW-2	2795	680	NE	No	600
Upper Hall	EW-1	1295	1770	SW	No	0
Upper Hall	EW-2	1295	680	SW	No	1600
Bedroom 1	EW-1	900	2450	SE	No	0
Bedroom 1	EW-1	2795	1770	SW	No	0
Bedroom 1	EW-2	2795	680	SW	No	1700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No
IW-2 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber Underlay 18mm

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073714-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.4	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.7	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073714-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.7



Building features continued

PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073714-01

Certificate Date: 01 Aug 2019

★ Star rating: 6.7



Additional information

Explanatory notes

About this report

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Contact

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Nationwide House Energy Rating Scheme* — Multiple-dwelling summary



Certificate number: **0004073730**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.2**

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

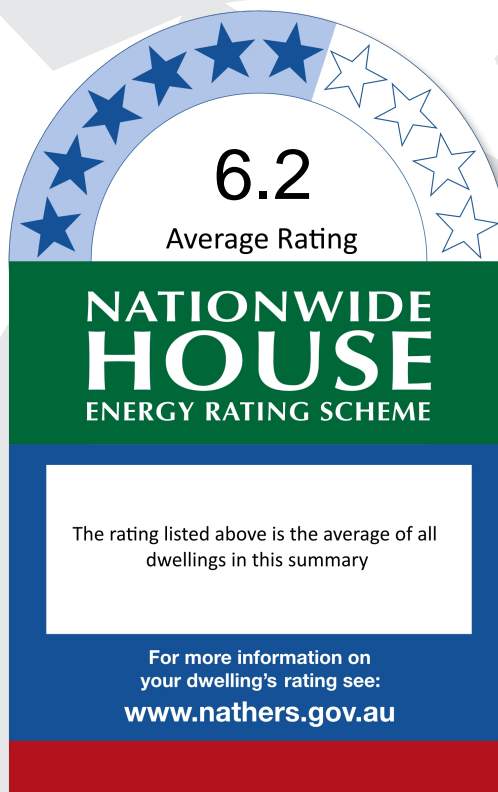
Scan to access this certificate online and confirm this is valid.



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073714-01		39.6	33.1	72.7	6.7
0004073722	Studio	42.2	55.2	97.4	5.6



Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073722**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.6**

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: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3326/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

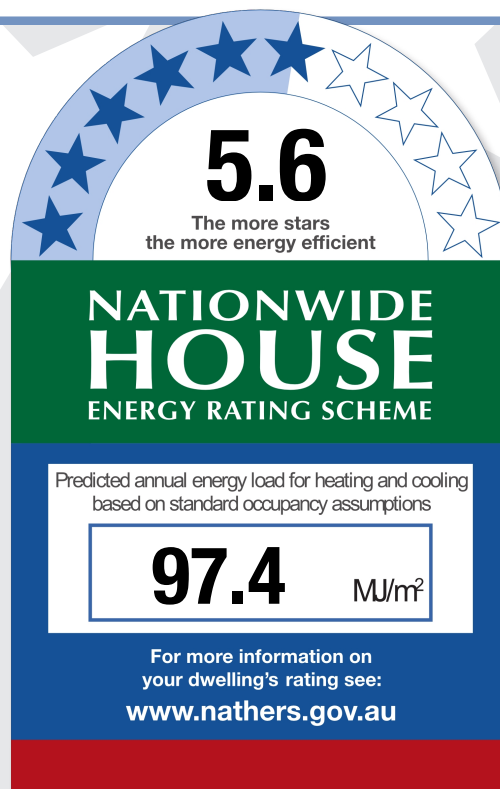
Conditioned: **39.0**
Unconditioned: **31.0**
Garage: **31.0**
TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **42.2**
Cooling: **55.2**
TOTAL: **97.4**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**
Unsealed: **0**
TOTAL:** **1**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073722**

Certificate Date:

01 Aug 2019

★ Star rating:

5.6



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	NE	No Shading
Kitchen/Living	BRD-112-01 A	n/a	1400	600	NE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	SW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	NE	No	100
Garage	EW-1	5495	2595	SE	No	100
Garage	EW-1	5495	2595	NW	No	100
Entry/Stairs	EW-2	1095	2595	SE	No	100
Entry/Stairs	EW-2	5600	2595	SW	No	100
Entry/Stairs	EW-2	1095	2595	NW	No	100
Bedroom 1	EW-2	2895	1770	NE	No	0
Bedroom 1	EW-3	2895	680	NE	No	600
Bedroom 1	EW-2	3595	2450	NW	No	100
PDR	EW-2	995	1770	SW	No	0
PDR	EW-3	995	680	SW	No	600
PDR	EW-2	2995	2450	NW	No	100
Kitchen/Living	EW-2	2695	1770	NE	No	0
Kitchen/Living	EW-3	2695	680	NE	No	600
Kitchen/Living	EW-2	5495	2450	SE	No	100
Stairs	EW-2	1095	2450	SE	No	100

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073722**

Certificate Date:

01 Aug 2019

★ Star rating:

5.6



Building features continued

Stairs	EW-2	4595	1770	SW	No	0
Stairs	EW-3	4595	680	SW	No	600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073722**

Certificate Date:

01 Aug 2019

★ Star rating:

5.6



Building features continued

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073722

Certificate Date: 01 Aug 2019

★ 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 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).

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

Disclaimer

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

Contact

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

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

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073755-01**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3327/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

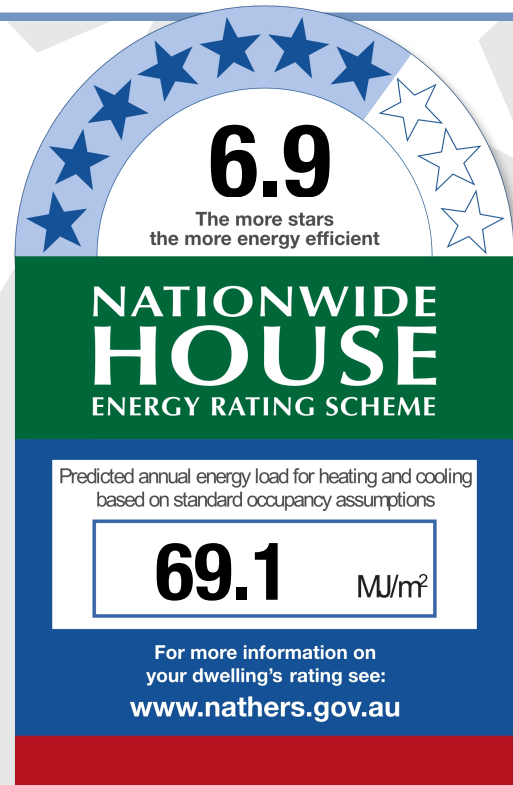
Conditioned: **91.0**
Unconditioned: **2.0**
Garage: **0.0**
TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **36.6**
Cooling: **32.5**
TOTAL: **69.1**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

Principle downlight type: **Unknown**

Window selection - default windows only

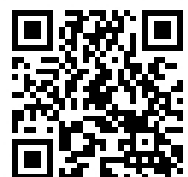
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NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073755-01

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	SW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	NE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	NE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	SW	No	1200
Living/Entry	EW-1	900	2595	NW	No	1300
Living/Entry	EW-1	1300	2595	SW	No	1000
Kitchen/Dining	EW-1	4600	2595	NE	No	3000
Bedroom 1	EW-1	3300	1770	SW	No	0
Bedroom 1	EW-2	3300	680	SW	No	1700
Bedroom 1	EW-1	900	1770	NW	No	0
Bedroom 1	EW-2	900	680	NW	No	1300
Bedroom 2	EW-1	1000	1770	NE	No	0
Bedroom 2	EW-2	1000	680	NE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073755-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	SW	No	0
Hall	EW-2	1295	680	SW	No	1500
Bedroom 3	EW-1	3600	1770	NE	No	0
Bedroom 3	EW-2	3600	680	NE	No	600
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	100

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073755-01

Certificate Date: 01 Aug 2019

★ Star rating: 6.9



Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073748-01**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3328/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens
Corrugated Iron**

Insulation: **Suspended Timber Floor**

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: **BRD-112-01 A ESS Awning 52 SG
4mmClr**

Net floor area (m²)

Conditioned: **91.0**

Unconditioned: **2.0**

Garage: **0.0**

TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **37.3**

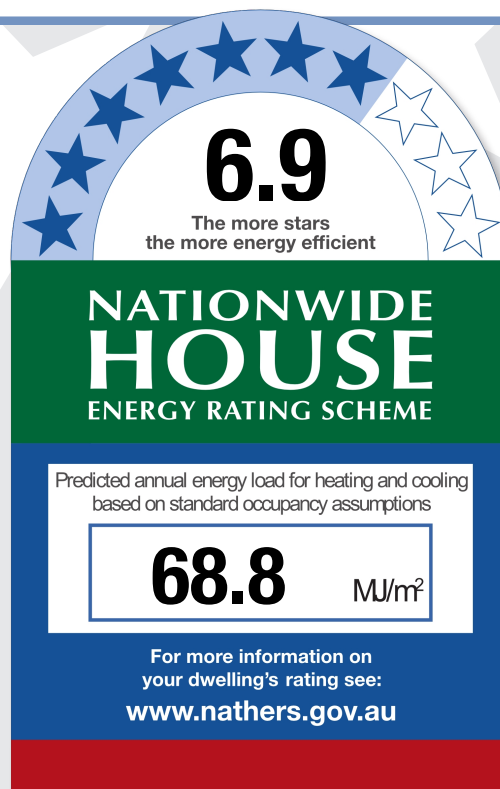
Cooling: **31.5**

TOTAL: **68.8**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**

Unsealed: **0**

TOTAL:** **4**

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

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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073748-01

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-063-01 A	n/a	1500	600	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	NE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	NE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	1300	2595	SW	No	1000
Living/Entry	EW-1	900	2595	SE	No	1300
Living/Entry	EW-1	3300	2595	SW	No	1200
Kitchen/Dining	EW-1	4600	2595	NE	No	3000
Bedroom 1	EW-1	900	2450	SE	No	1300
Bedroom 1	EW-1	3300	1770	SW	No	0
Bedroom 1	EW-2	3300	680	SW	No	1700
Bedroom 2	EW-1	1000	1770	NE	No	0
Bedroom 2	EW-2	1000	680	NE	No	100
Hall	EW-1	1295	1770	SW	No	0

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073748-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-2	1295	680	SW	No	1500
Bedroom 3	EW-1	2795	1770	NW	No	0
Bedroom 3	EW-2	2795	680	NW	No	100
Bedroom 3	EW-1	3600	1770	NE	No	0
Bedroom 3	EW-2	3600	680	NE	No	600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	3.4		No Insulation	Ceramic Tiles 8mm
Shower/Living/Entry	Timber Above Plasterboard 19mm	0.5		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	2.3		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	8.0		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	7.6		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073748-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9

Building features continued

Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073748-01

Certificate Date: 01 Aug 2019

★ 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 the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

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

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

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

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

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

Accredited Assessors

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

Disclaimer

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

Contact

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

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

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073771-01**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.9**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3329/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

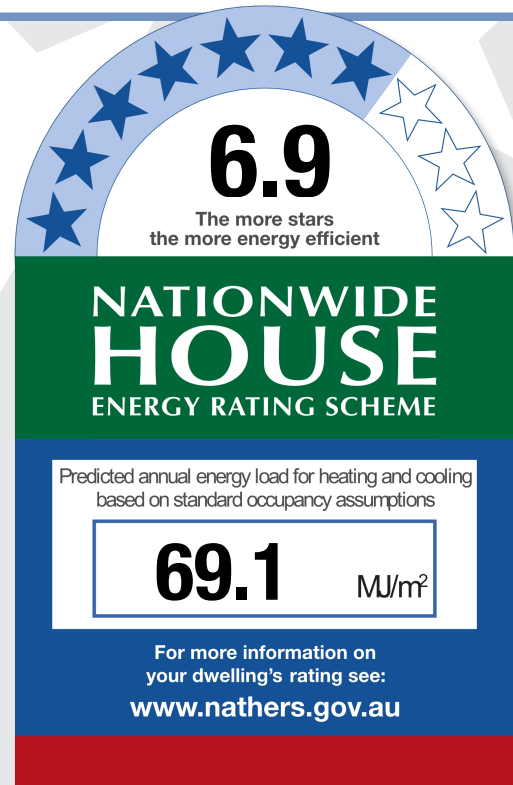
Conditioned: **91.0**
Unconditioned: **2.0**
Garage: **0.0**
TOTAL: **93.0**

Annual thermal performance loads (MJ/m²)

Heating: **36.7**
Cooling: **32.4**
TOTAL: **69.1**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

Principle downlight type: **Unknown**

Window selection - default windows only

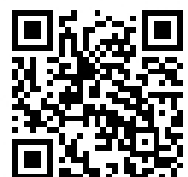
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073771-01

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-112-01 A	n/a	2080	610	SW	No Shading
Living/Entry	BRD-063-01 A	n/a	1500	600	SW	No Shading
Kitchen/Dining	BRD-033-01 A	n/a	2100	3100	NE	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1800	SW	No Shading
Bedroom 2	BRD-112-01 A	n/a	2080	610	NE	No Shading
Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	600	NE	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Living/Entry	EW-1	3300	2595	SW	No	1200
Living/Entry	EW-1	900	2595	NW	No	1300
Living/Entry	EW-1	1300	2595	SW	No	1000
Kitchen/Dining	EW-1	4600	2595	NE	No	3000
Bedroom 1	EW-1	3300	1770	SW	No	0
Bedroom 1	EW-2	3300	680	SW	No	1700
Bedroom 1	EW-1	900	1770	NW	No	0
Bedroom 1	EW-2	900	680	NW	No	1300
Bedroom 2	EW-1	1000	1770	NE	No	0
Bedroom 2	EW-2	1000	680	NE	No	100

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073771-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.9



Building features continued

Hall	EW-1	1295	1770	SW	No	0
Hall	EW-2	1295	680	SW	No	1500
Bedroom 3	EW-1	3600	1770	NE	No	0
Bedroom 3	EW-2	3600	680	NE	No	600
Bedroom 3	EW-1	2795	1770	SE	No	0
Bedroom 3	EW-2	2795	680	SE	No	100

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	106.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Living/Entry	Waffle pod slab 300 mm 100mm	23.8	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
PDR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living/Entry	Timber Above Plasterboard 19mm	12.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Living/Entry	Timber Above Plasterboard 19mm	2.9		No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
Shower/PDR	Timber Above Plasterboard 19mm	0.8		No Insulation	Ceramic Tiles 8mm
Shower/Laundry	Timber Above Plasterboard 19mm	3.1		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Dining	Timber Above Plasterboard 19mm	9.7		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Living/Entry	Timber Above Plasterboard 19mm	7.4		No Insulation	Carpet+Rubber Underlay 18mm
Hall/Kitchen/Dining	Timber Above Plasterboard 19mm	6.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	9.9	Open	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Living/Entry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No

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Nationwide House Energy Rating Scheme* Certificate

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★ Star rating:

6.9

Building features continued

Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Dining	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Shower	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Shower	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073771-01

Certificate Date: 01 Aug 2019

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Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073979-01**

Certificate Date: **01 Aug 2019**

★ Star rating: **6.5**

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Assessor details

Accreditation

number: **VIC/BDAV/12/1441**

Name: **Ian Fry**

Organisation: **Frys Energywise**

Email: **comply@frysenergywise.com.au**

Phone: **02 9899 2825**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**

Suburb: **Jordan Springs**

State: **NSW**

Postcode: **2747**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **28**

Lot/DP

number: **3330/0**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**

Corrugated Iron

Suspended Timber Floor

Insulation:

R2.0 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing:

BRD-112-01 A ESS Awning 52 SG

4mmClr

Net floor area (m²)

Conditioned: **121.0**

Unconditioned: **3.0**

Garage: **0.0**

TOTAL: **124.0**

Annual thermal performance loads (MJ/m²)

Heating: **43.7**

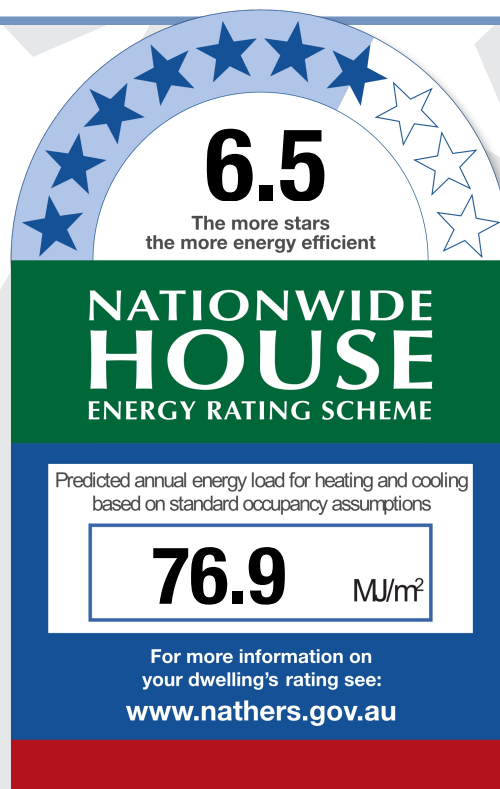
Cooling: **33.2**

TOTAL: **76.9**

Plan documents

Plan ref/date: **Wianamatta Parkway**

Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **3**

Unsealed: **0**

TOTAL:** **3**

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

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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073979-01

Certificate Date:

01 Aug 2019

★ Star rating:

6.5



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	610	SW	No Shading
Lounge	BRD-063-01 A	n/a	1500	600	SW	No Shading
Lounge	BRD-112-01 A	n/a	2080	785	SW	No Shading
Kitchen/Living	BRD-112-01 A	n/a	2080	1210	NE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	1800	SE	No Shading
Kitchen/Living	BRD-033-01 A	n/a	2100	2400	NE	No Shading
WIR 1	BRD-112-01 A	n/a	2080	610	SW	No Shading
Bedroom 3	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Bedroom 4	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Upper Hall	BRD-063-01 A	n/a	1500	600	SW	No Shading
Bedroom 1	BRD-033-01 A	n/a	2100	1470	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	2080	610	SW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Lounge	EW-1	900	2595	NW	No	0
Lounge	EW-1	1995	2595	SW	No	1200
Lounge	EW-1	2900	2595	SE	No	0
Lounge	EW-1	1300	2595	SW	No	1000
Lounge	EW-1	900	2595	SE	No	1300
Lounge	EW-1	2295	2595	SW	No	1200
Kitchen/Living	EW-1	2800	2595	NW	No	0

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073979-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.5



Building features continued

Kitchen/Living	EW-1	2300	2595	NE	No	100
Kitchen/Living	EW-1	2800	2595	SE	No	3300
Kitchen/Living	EW-1	3300	2595	NE	No	2900
WIR 1	EW-1	900	1770	SE	No	0
WIR 1	EW-2	900	680	SE	No	1300
WIR 1	EW-1	1495	1770	SW	No	0
WIR 1	EW-2	1495	680	SW	No	1700
Bedroom 3	EW-2	3895	680	NW	No	0
Bedroom 3	EW-1	2795	1770	NE	No	0
Bedroom 3	EW-2	2795	680	NE	No	600
Bedroom 4	EW-1	2795	1770	NE	No	0
Bedroom 4	EW-2	2795	680	NE	No	600
Upper Hall	EW-1	1295	1770	SW	No	0
Upper Hall	EW-2	1295	680	SW	No	1600
Bedroom 1	EW-1	2795	1770	SW	No	0
Bedroom 1	EW-2	2795	680	SW	No	1700
Bedroom 1	EW-1	900	2450	NW	No	0

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	98.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	129.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Lounge	Waffle pod slab 300 mm 100mm	11.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	3.0	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	14.6	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Kitchen/Living	Waffle pod slab 300 mm 100mm	30.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	0.5		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Lounge	Timber Above Plasterboard 19mm	5.2		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	9.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Timber Floor 19mm	1.4	Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	3.0		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Timber Floor 19mm	7.6	Open	No Insulation	Carpet+Rubber

* 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: **0004073979-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.5



Building features continued

Upper Hall/PDR	Timber Above Plasterboard 19mm	0.7	No Insulation	Underlay 18mm Carpet+Rubber Underlay 18mm
Upper Hall/Lounge	Timber Above Plasterboard 19mm	8.3	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Kitchen/Living	Timber Above Plasterboard 19mm	6.6	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Living	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	7.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Timber Above Plasterboard 19mm	3.0	No Insulation	Ceramic Tiles 8mm
Ensuite 1/PDR	Timber Above Plasterboard 19mm	0.9	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	0.5	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	10.5	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PDR	Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Lounge	Timber Above Plasterboard 19mm	0.6	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Lounge	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Lounge	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R3.5	Yes
Upper Hall	Plasterboard	Bulk Insulation R3.5	Yes
WIL	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073979-01**

Certificate Date:

01 Aug 2019

★ Star rating:

6.5



Building features continued

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073979-01

Certificate Date: 01 Aug 2019

★ Star rating: 6.5



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 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

* 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* — Multiple-dwelling summary



Certificate number: **0004074050**

Certificate Date: **01 Aug 2019**

★ Average Star rating: **6.1**

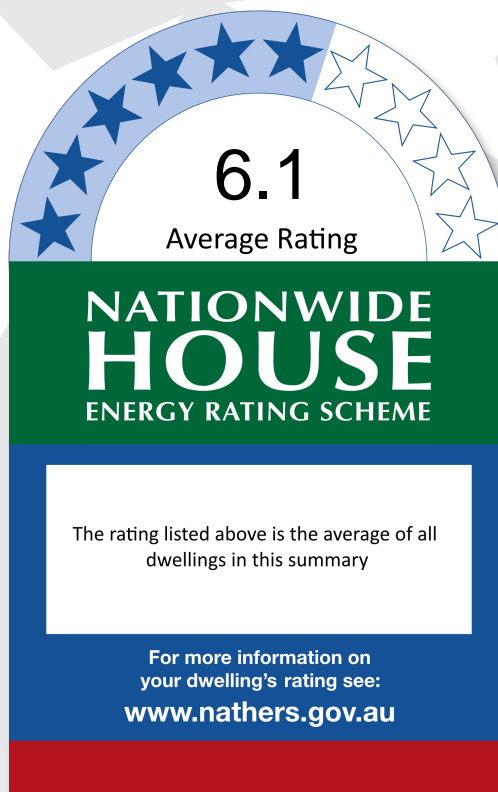
Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW**
Postcode: **2747**

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



Summary of all dwellings

Certificate Details

Certificate number	Dwelling/Unit number	Heating load	Cooling load	Total load	Star Rating
0004073979-01		43.7	33.2	76.9	6.5
0004074035	Studio	42.9	54.2	97.1	5.6

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004074035**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.6**

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: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **BDAV**

Overview

Dwelling details

Street: **Unit Studio, Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3330/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-026-18 A ESS Awning Window**
(52mm) SG 638CP

Net floor area (m²)

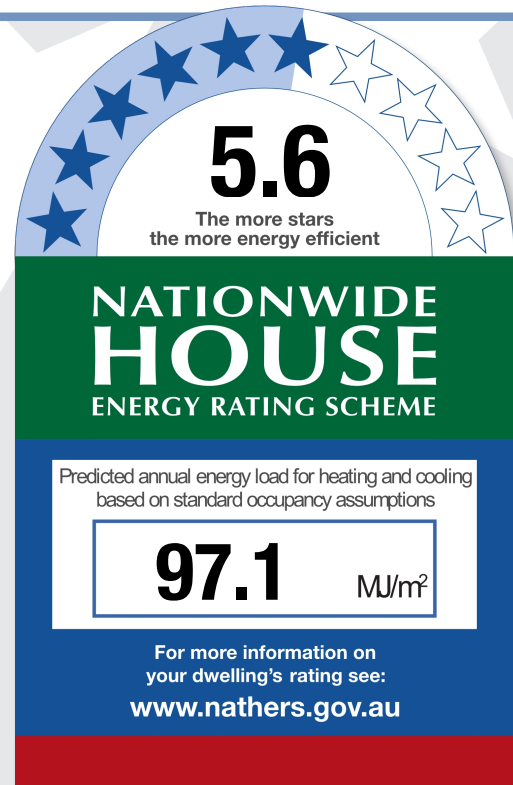
Conditioned: **39.0**
Unconditioned: **31.0**
Garage: **31.0**
TOTAL: **70.0**

Annual thermal performance loads (MJ/m²)

Heating: **42.9**
Cooling: **54.2**
TOTAL: **97.1**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **1**
Unsealed: **0**
TOTAL:** **1**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004074035**

Certificate Date:

01 Aug 2019

★ Star rating:

5.6



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-026-18 A	BRD-026-18 A ESS Awning Window (52mm) SG 638CP	5.0	0.40
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	BRD-112-01 A	n/a	1000	1600	NE	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1400	600	NE	No Shading
Kitchen/Living	BRD-026-18 A	n/a	1400	600	NE	No Shading
Stairs	BRD-063-01 A	n/a	600	1800	SW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

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

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	No insulation	No
EW-2	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2	Yes
EW-3	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	5600	2595	NE	No	100
Garage	EW-1	5495	2595	SE	No	100
Entry/Stairs	EW-2	1095	2595	SE	No	100
Entry/Stairs	EW-2	5600	2595	SW	No	100
Bedroom 1	EW-2	2895	1770	NE	No	0
Bedroom 1	EW-3	2895	680	NE	No	600
Bedroom 1	EW-2	3595	2450	NW	No	100
PDR	EW-2	995	1770	SW	No	0
PDR	EW-3	995	680	SW	No	600
PDR	EW-2	2995	2450	NW	No	100
Kitchen/Living	EW-2	2695	1770	NE	No	0
Kitchen/Living	EW-3	2695	680	NE	No	600
Kitchen/Living	EW-2	5495	2450	SE	No	100
Stairs	EW-2	1095	2450	SE	No	100
Stairs	EW-2	4595	1770	SW	No	0

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004074035**

Certificate Date:

01 Aug 2019

★ Star rating:

5.6



Building features continued

Stairs	EW-3	4595	680	SW	No	600
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Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - AAC, plaster on studs	17.0	Bulk Insulation both sides of shaft liner R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	35.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 225 mm 100mm	30.5	None	Waffle Pod 225mm	Bare
Entry/Stairs	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	9.5		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR/Garage	Timber Above Plasterboard 19mm	3.2		Bulk Insulation R2	Ceramic Tiles 8mm
PDR/Entry/Stairs	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garage	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs/Entry/Stairs	Timber Above Plasterboard 19mm	4.8		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
PDR	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004074035**

Certificate Date:

01 Aug 2019

★ Star rating:

5.6



Building features continued

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004074035

Certificate Date: 01 Aug 2019

★ Star rating: 5.6



Additional information

Explanatory notes

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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004073995**

Certificate Date: **01 Aug 2019**

★ Star rating: **5.2**

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

Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Wianamatta Parkway**
Suburb: **Jordan Springs**
State: **NSW** Postcode: **2747**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **3331/0** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.5 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **BRD-026-24 A ESS Awning Window**
(52mm) SG 4SP10

Net floor area (m²)

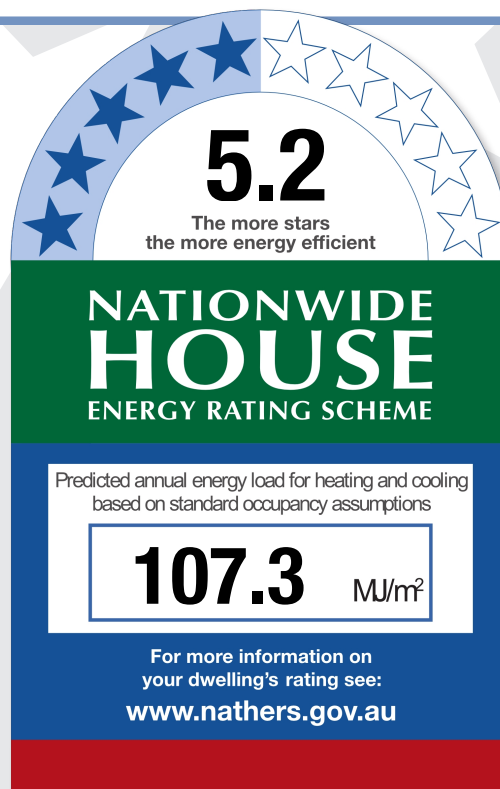
Conditioned: **143.0**
Unconditioned: **5.0**
Garage: **0.0**
TOTAL: **148.0**

Annual thermal performance loads (MJ/m²)

Heating: **55.4**
Cooling: **51.8**
TOTAL: **107.3**

Plan documents

Plan ref/date: **Wianamatta Parkway**
Prepared by: **0**



Ceiling penetrations

(see following pages for details)

Sealed: **4**
Unsealed: **0**
TOTAL:** **4**

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

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004073995

Certificate Date:

01 Aug 2019

★ Star rating:

5.2



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
BRD-026-24 A	BRD-026-24 A ESS Awning Window (52mm) SG 4SP10	5.0	0.54
BRD-063-16 A	BRD-063-16 A SIG Fixed Lite (67mm) SG 4SP10	4.1	0.66
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76
BRD-033-13 A	BRD-033-13 A ESS Sliding Door (80mm) SG 4SP10	4.3	0.63

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Home Office	BRD-026-24 A	n/a	2080	610	SE	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SE	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SE	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SW	No Shading
Home Office	BRD-026-24 A	n/a	2080	610	SW	No Shading
Home Office	BRD-063-16 A	n/a	1500	600	SW	No Shading
Entry	BRD-026-24 A	n/a	2080	610	SE	No Shading
Entry	BRD-026-24 A	n/a	2080	610	SE	No Shading
PWD	BRD-112-01 A	n/a	600	600	NE	No Shading
Bedroom 3	BRD-001-01 A	n/a	900	2200	SE	No Shading
Laundry	BRD-112-01 A	n/a	600	600	NE	No Shading
Kitchen/Living	BRD-026-24 A	n/a	1200	600	SE	No Shading
Kitchen/Living	BRD-026-24 A	n/a	1200	600	SE	No Shading
Kitchen/Living	BRD-026-24 A	n/a	2080	610	SW	No Shading
Kitchen/Living	BRD-033-13 A	n/a	2100	1800	SW	No Shading
Kitchen/Living	BRD-026-24 A	n/a	1500	600	SW	No Shading
Dining/Stairs	BRD-033-13 A	n/a	2100	3100	NE	No Shading
Dining/Stairs	BRD-026-24 A	n/a	1200	1800	SE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Bedroom 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 2	BRD-112-01 A	n/a	1200	600	NE	No Shading
Ensuite 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading
Bedroom 1	BRD-112-01 A	n/a	1200	600	SW	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004073995**

Certificate Date:

01 Aug 2019

★ Star rating:

5.2



Building features continued

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Home Office	EW-1	5395	2595	SE	No	0
Home Office	EW-1	3900	2595	SW	No	1200
Home Office	EW-1	900	2595	NW	No	1700
Home Office	EW-1	1700	2595	SW	No	1000
Entry	EW-1	2990	2595	SE	No	0
PWD	EW-1	1595	2595	NE	No	2800
PWD	EW-1	1895	2595	SE	No	0
Hall/Stairs	EW-1	1290	2595	NE	No	2800
Bath	EW-1	1690	2595	NW	No	0
Bedroom 3	EW-1	3695	2595	NW	No	0
Bedroom 3	EW-1	2700	2595	NE	No	100
Bedroom 3	EW-1	2700	2595	SE	No	2900
Laundry	EW-1	1095	1770	NE	No	0
Laundry	EW-2	1095	680	NE	No	3400
Kitchen/Living	EW-1	5395	1770	SE	No	0
Kitchen/Living	EW-2	5395	680	SE	No	500
Kitchen/Living	EW-1	3900	1770	SW	No	0
Kitchen/Living	EW-2	3900	680	SW	No	1400
Kitchen/Living	EW-1	900	1770	NW	No	0
Kitchen/Living	EW-2	900	680	NW	No	1700
Kitchen/Living	EW-1	1700	1770	SW	No	0
Kitchen/Living	EW-2	1700	680	SW	No	1500
Dining/Stairs	EW-1	4495	1770	NE	No	0
Dining/Stairs	EW-2	4495	680	NE	No	3400
Dining/Stairs	EW-1	4895	1770	SE	No	0
Dining/Stairs	EW-2	4895	680	SE	No	500
Bedroom 2	EW-2	2895	2450	NE	No	100
Bedroom 2	EW-2	3695	2450	NW	No	700
Ensuite 2	EW-2	1395	2450	NE	No	100
Ensuite 2	EW-2	2695	2450	SE	No	700
WIR 2	EW-2	2390	2450	SE	No	700
WIR 1	EW-2	1690	2450	SE	No	700
Ensuite 1	EW-2	2595	2450	SE	No	700
Ensuite 1	EW-2	1595	2450	SW	No	100
Bedroom 1	EW-2	2695	2450	SW	No	100
Bedroom 1	EW-2	3595	2450	NW	No	700
Stairs	EW-2	700	2450	SW	No	3700
Stairs	EW-2	2100	2450	NW	No	0
Stairs	EW-2	700	2450	NE	No	3800

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Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - AAC, plaster on studs	40.0	Bulk Insulation both sides of shaft liner R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	121.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Home Office	Waffle pod slab 300 mm 100mm	28.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Entry	Waffle pod slab 300 mm 100mm	4.5	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PWD	Waffle pod slab 300 mm 100mm	2.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Hall/Stairs	Waffle pod slab 300 mm 100mm	11.7	None	Waffle Pod 300mm	40/60 Carpet 10mm/Ceramic
Bath	Waffle pod slab 300 mm 100mm	4.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 3	Waffle pod slab 300 mm 100mm	9.8	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Laundry/Bath	Timber Above Plasterboard 19mm	0.7		No Insulation	Ceramic Tiles 8mm
Laundry/Bedroom 3	Timber Above Plasterboard 19mm	1.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Home Office	Timber Above Plasterboard 19mm	28.5		No Insulation	Ceramic Tiles 8mm
Dining/Stairs/Entry	Timber Above Plasterboard 19mm	4.7		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/PWD	Timber Above Plasterboard 19mm	3.0		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Hall/Stairs	Timber Above Plasterboard 19mm	12.1		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bath	Timber Above Plasterboard 19mm	3.8		No Insulation	20/80 Carpet 10mm/Ceramic
Dining/Stairs/Bedroom 3	Timber Above Plasterboard 19mm	1.6		No Insulation	20/80 Carpet 10mm/Ceramic
Bedroom 2/Laundry	Timber Above Plasterboard 19mm	0.7		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Dining/Stairs	Timber Above Plasterboard 19mm	9.8		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 2/Dining/Stairs	Timber Above Plasterboard 19mm	3.6		No Insulation	Ceramic Tiles 8mm
WIR 2/Dining/Stairs	Timber Above Plasterboard 19mm	2.9		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1/Kitchen/Living	Timber Above Plasterboard 19mm	2.2		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Kitchen/Living	Timber Above Plasterboard 19mm	4.0		No Insulation	Ceramic Tiles 8mm
Bedroom 1/Kitchen/Living	Timber Above Plasterboard 19mm	9.6		No Insulation	Carpet+Rubber Underlay 18mm
Stairs/Kitchen/Living	Timber Above Plasterboard 19mm	3.1		No Insulation	Carpet+Rubber Underlay 18mm

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

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Building features continued

Stairs/Dining/Stairs	Timber Above Plasterboard 19mm	4.1	No Insulation	Carpet+Rubber Underlay 18mm
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Ceiling type

Location	Construction	Added insulation	Roof space above
Home Office	Timber Above Plasterboard	No Insulation	No
Entry	Timber Above Plasterboard	No Insulation	No
PWD	Timber Above Plasterboard	No Insulation	No
Hall/Stairs	Timber Above Plasterboard	No Insulation	No
Bath	Timber Above Plasterboard	No Insulation	No
Bedroom 3	Plasterboard	Bulk Insulation R3.5	No
Bedroom 3	Timber Above Plasterboard	No Insulation	No
Laundry	Plasterboard	Bulk Insulation R3.5	Yes
Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Dining/Stairs	Plasterboard	Bulk Insulation R3.5	Yes
Dining/Stairs	Timber Above Plasterboard	No Insulation	No
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 2	Plasterboard	Bulk Insulation R3.5	Yes
WIR 2	Plasterboard	Bulk Insulation R3.5	Yes
WIR 1	Plasterboard	Bulk Insulation R3.5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Stairs	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PWD	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

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Building features continued

Location	Number	Diameter (mm)
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None Present		
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Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Dark
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1	Dark

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Additional information

Explanatory notes

About this report

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

General Information

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

The actual energy consumption of your home may vary significantly from the predicted energy load figures in 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

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

For more details see www.nathers.gov.au