

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1204405S

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 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Thursday, 03 June 2021

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



Planning,
Industry &
Environment

Project summary

Project name	72 Carrington Pde - Amended DA
Street address	72 Carrington Parade Curl Curl 2096
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 366860
Lot no.	1
Section no.	-
Project type	separate dwelling house
No. of bedrooms	3

Project score

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

Certificate Prepared by

Name / Company Name: Breakspear Architects Pty Ltd

ABN (if applicable): 81601670991

Description of project

Project address

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Site details

Site area (m ²)	281
Roof area (m ²)	108
Conditioned floor area (m2)	300.0
Unconditioned floor area (m2)	13.75
Total area of garden and lawn (m2)	73

Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m ² .year)	n/a
Area adjusted heating load (MJ/m ² .year)	n/a
Ceiling fan in at least one bedroom	n/a
Ceiling fan in at least one living room or other conditioned area	n/a

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	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
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 73.21 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 6 but <= 7.5 L/min plus spray force and/or coverage tests) 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 4 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 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 40 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"> 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
General features			
The dwelling must not have more than 2 storeys.	✓	✓	✓
The conditioned floor area of the dwelling must not exceed 300 square metres.	✓	✓	✓
The dwelling must not contain open mezzanine area exceeding 25 square metres.	✓	✓	✓
The dwelling must not contain third level habitable attic room.	✓	✓	✓
Floor, walls and ceiling/roof			
The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓

Construction	Additional insulation required (R-Value)	Other specifications
floor - concrete slab on ground, 12.31 square metres	nil	
floor - suspended floor above enclosed subfloor, 100.42 square metres, concrete	0.70 (or 1.3 including construction) (down)	
floor - above habitable rooms or mezzanine, 104.24 square metres, concrete	nil	
floor - suspended floor above garage, concrete	nil	
external wall - cavity brick	0.50 (or 1.17 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / flat roof, framed	ceiling: 4 (up), roof: foil/sarking	framed; light (solar absorptance < 0.475)

Note	• Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.
Note	• In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Windows, glazed doors and skylights			
The applicant must install the windows, glazed doors and shading devices described in the table below, in accordance with the specifications listed in the table. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The dwelling may have 1 skylight (<0.7 square metres) which is not listed in the table.	✓	✓	✓
<p>The following requirements must also be satisfied in relation to each window and glazed door:</p> <ul style="list-style-type: none"> For the following glass and frame types, the certifier check can be performed by visual inspection. <ul style="list-style-type: none"> - Aluminium single clear - Aluminium double (air) clear - Timber/uPVC/fibreglass single clear - Timber/uPVC/fibreglass double (air) clear For other glass or frame types, each window and glazed door must be accompanied with certification showing a U value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) within the range of those listed. Total system U values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. Frame and glass types shown in the table below are for reference only. Vertical external louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed. Overshadowing buildings/vegetation must be of the height and distance from the centre and the base of the window and glazed door, as specified in the 'overshadowing' column. 	✓	✓	✓ ✓ ✓
The applicant must install the skylights described in the table below, in accordance with the specifications listed in the table. Total skylight area must not exceed 3 square metres (the 3 square metre limit does not include the optional additional skylight of less than 0.7 square metres that does not have to be listed in the table).	✓	✓	✓
<p>The following requirements must also be satisfied in relation to each skylight:</p> <ul style="list-style-type: none"> External awnings and louvres must fully shade the skylight above which they are situated when fully drawn or closed 		✓ ✓	✓ ✓


















Skylight no.	Maximum area (square metres)	Type	Shading device
S01	2.85	timber, double clear/air fill	adjustable awning or blind

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North facing					
W04	600	90	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	none	not overshadowed
W05	2100	2200	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	solid overhang 395 mm, 0 mm above head of window or glazed door	not overshadowed
W06	1700	1270	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	solid overhang 1186 mm, 0 mm above head of window or glazed door	not overshadowed
W07	2100	1270	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	solid overhang 916 mm, 0 mm above head of window or glazed door	not overshadowed
W08	1100	780	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	eave 243 mm, 0 mm above head of window or glazed door	not overshadowed
D04	2700	945	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	not overshadowed
D05	2700	970	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	not overshadowed
W19	600	600	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	none	not overshadowed
D06	2700	3000	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	not overshadowed
W18	1700	3000	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	not overshadowed
W22	2250	4595	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	solid overhang 980 mm, 0 mm above head of window or glazed door	2-4 m high, 2 m away
North-East facing					

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W02	1170	2000	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	not overshadowed
W17	2250	3935	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	none	not overshadowed
East facing					
W1	2100	4420	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	eave 640 mm, 0 mm above head of window or glazed door	not overshadowed
W16	3400	4430	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	eave 640 mm, 0 mm above head of window or glazed door	not overshadowed
W03	2700	390	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	none	not overshadowed
W21	2250	1830	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	solid overhang 2125 mm, 0 mm above head of window or glazed door	2-4 m high, 2-5 m away
South-East facing					
W14	2275	1160	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	not overshadowed
W15	2875	1160	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	not overshadowed
South facing					
W10	1600	900	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	none	>4 m high, <2 m away
W11	1600	900	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	none	>4 m high, <2 m away


Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W12	1600	900	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	none	>4 m high, <2 m away
W13	1600	900	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	none	>4 m high, <2 m away
D03	2600	900	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	none	>4 m high, <2 m away
W20	2250	4625	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	solid overhang 1800 mm, 0 mm above head of window or glazed door	2-4 m high, 2 m away
West facing					
D07	2700	1030	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	external louvre/vertical blind (adjustable)	2-4 m high, 2-5 m away
D08	2700	2680	U-value: 3.6, SHGC: 0.423 - 0.517 (aluminium: thermally broken, double (air), clear)	solid overhang 1235 mm, 0 mm above head of window or glazed door	2-4 m high, 2-5 m away
North-West facing					
W09	1600	1110	U-value: 3.6, SHGC: 0.486 - 0.594 (aluminium: thermally broken, double (air), clear)	none	2-4 m high, 2-5 m away


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 storage.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: 5 star (average zone)		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: ceiling fans + 1-phase airconditioning; Energy rating: 5 star (average zone)		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: gas hydronic system; Energy rating: n/a		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: gas hydronic system; Energy rating: n/a		✓	✓
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 on / timer 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 on / timer 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; dedicated		✓	✓
• at least 2 of the living / dining rooms; dedicated		✓	✓
• the kitchen;		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • all bathrooms/toilets; • the laundry; • all hallways; 		  	  
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.			
The applicant must install a window and/or skylight in 3 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 0.7 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 install a fixed indoor or sheltered 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.