

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

Single Dwelling

Certificate number: 943779S

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: Wednesday, 04 September 2019

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



Project summary				
Project name	9 Thyra Road, Palm Beach			
Street address	9 Thyra Road Palm Beach 2108			
Local Government Area	Northern Beaches Council			
Plan type and plan number	deposited 18612			
Lot no.	9			
Section no.	-			
Project type	attached dwelling house			
No. of bedrooms	1			
Project score				
Water	✓ 41 Target 40			
Thermal Comfort	✓ Pass Target Pass			
Energy	✓ 87 Target 50			

Certificate Prepared by

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Description of project

Project address	
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Local Government Area	Northern Beaches Council
Plan type and plan number	Deposited Plan 18612
Lot no.	9
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	1
Site details	
Site area (m²)	578
Roof area (m²)	57
Conditioned floor area (m2)	73.0
Unconditioned floor area (m2)	13.0
Total area of garden and lawn (m2)	245

Assessor details and thermal loads							
Assessor number	n/a						
Certificate number	n/a						
Climate zone	n/a						
Area adjusted cooling load (MJ/m².year)	n/a						
Area adjusted heating load (MJ/m².year)	n/a						
Project score							
Water	✓ 41	Target 40					
Thermal Comfort	✓ Pass	Target Pass					
Energy	✓ 87	Target 50					

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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 100 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 5 star in each toilet in the development.		~	~
The applicant must install taps with a minimum rating of 5 star in the kitchen in the development.		~	
The applicant must install basin taps with a minimum rating of 6 star in each bathroom in the development.		~	
Alternative water			
Stormwater tank			
The applicant must install a stormwater tank with a capacity of at least 4500 litres on the site. This stormwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	•	~	~
The applicant must configure the stormwater tank to collect runoff from:			
 at least 57 square metres of roof area of the development (excluding the area of the roof which drains to any rainwater tank or private dam) 		~	•
at least 30 square metres of impervious areas		~	~
at least 100 square metres of garden and lawn		~	V
The applicant must connect the stormwater tank to:			
all toilets in the development			

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Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
 a sub-surface or non-aerosol irrigation system, or if the stormwater has been appropriately treated in accordance with applicable regulatory requirements, to at least one outdoor tap in the development (Note: NSWHealth does not recommend that stormwater be used to irrigate edible plants which are consumed raw.) 		~	•

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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.	V	~	-
The conditioned floor area of the dwelling must not exceed 300 square metres.	V	~	V
The dwelling must not contain open mezzanine area exceeding 25 square metres.	V	V	V
The dwelling must not contain third level habitable attic room.	V	~	-
Floor, walls and ceiling/roof	1		1
The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below.	V	~	V

Construction	Additional insulation required (R-Value)	Other specifications
floor - concrete slab on ground	nil	
external wall - concrete block/plasterboard	1.88 (or 2.40 including construction)	
external wall - other/undecided	2.40 (including construction)	
ceiling and roof - flat ceiling / pitched roof	ceiling: 1.95 (up), roof: foil backed blanket (75 mm)	gable end vents; medium (solar absorptance 0.475-0.70)

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.

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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.	~	→	V
The dwelling may have 1 skylight (<0.7 square metres) which is not listed in the table.	V	~	~
The following requirements must also be satisfied in relation to each window and glazed door:	V	•	~
• For the following glass and frame types, the certifier check can be performed by visual inspection.			
- 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.			~
• Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		~	V
 Vertical external louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed. 		→	V
 Unless they have adjustable shading, pergolas must have fixed battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not exceed the height of the battens. 		~	~

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Туре	Shading Device (Dimension within 10%)	Overshadowing
North facing					
W04 FF	2700	900	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	none	not overshadowed
West facing					

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Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Туре	Shading Device (Dimension within 10%)	Overshadowing
W01 GF	1350	930	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	external louvre/vertical blind (adjustable)	not overshadowed
W02 GF	3550	930	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	solid overhang 1000 mm, 0 mm above head of window or glazed door	not overshadowed
W01 FF	1920	1800	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	external louvre/vertical blind (adjustable)	not overshadowed
W02 FF	2700	3550	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	pergola (fixed battens) 1000 mm, 0 mm above head of window or glazed door	not overshadowed
W03 FF	1920	1800	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	external louvre/vertical blind (adjustable)	not overshadowed

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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: ceiling fans; Energy rating: n/a		→	V
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: ceiling fans; Energy rating: n/a		✓	V
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		→	V
The bedrooms must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		•	-
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 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 1 of the bedrooms / study; dedicated		~	-
at least 2 of the living / dining rooms; dedicated		✓	-
the kitchen; dedicated			

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
all bathrooms/toilets; dedicated		V	V
the laundry; dedicated			
all hallways; dedicated			-
Natural lighting			
The applicant must install a window and/or skylight in 1 bathroom(s)/toilet(s) in the development for natural lighting.	~	~	V
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 5 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.	~	~	V
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.		V	

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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.

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