

# BASIX<sup>®</sup>Certificate

Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

## Alterations and Additions

Certificate number: A328515

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 Alterations and Additions Definitions" dated 06/10/2017 published by the Department. This document is available at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

Secretary

Date of issue: Monday, 05, November 2018

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



## Description of project

Project address	
Project name	52 Iluka Road Palm Beach
Street address	52 Iluka Road Palm Beach 2108
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan 14682
Lot number	27
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at \$50,000 or more, and includes a pool (and/or spa).

**Certificate Prepared by** (please complete before submitting to Council or PCA)

Name / Company Name: Rachel Hudson

ABN (if applicable): N/A

Pool and Spa	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
<b>Rainwater tank</b>			
The applicant must install a rainwater tank of at least 1290 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 rainwater runoff from at least 190 square metres of roof area.		✓	✓
The applicant must connect the rainwater tank to a tap located within 10 metres of the edge of the pool and outdoor spa.		✓	✓
<b>Outdoor swimming pool</b>			
The swimming pool must be outdoors.	✓	✓	✓
The swimming pool must not have a capacity greater than 30 kilolitres.	✓	✓	✓
The swimming pool must have a pool cover.		✓	✓
The applicant must install a pool pump timer for the swimming pool.		✓	✓
The applicant must install the following heating system for the swimming pool that is part of this development: gas.		✓	✓
<b>Outdoor spa</b>			
The spa must not have a capacity greater than 2.3 kilolitres.	✓	✓	✓
The spa must have a spa cover.		✓	✓
The applicant must install a spa pump timer.		✓	✓
The applicant must install the following heating system for the outdoor spa that is part of this development: gas.		✓	✓

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
<b>Hot water</b>			
The applicant must install the following hot water system in the development: gas instantaneous.	✓	✓	✓
<b>Lighting</b>			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
<b>Fixtures</b>			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Construction			Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
<b>Insulation requirements</b>					
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m <sup>2</sup> , b) insulation specified is not required for parts of altered construction where insulation already exists.			✓	✓	✓
Construction	Additional insulation required (R-value)	Other specifications			
concrete slab on ground floor with in-slab heating system.	R1.00 (slab edge)	in-slab heating system			
suspended floor above garage: concrete and in-floor heating system (R0.6).	R0.40 (down) under + slab edge (or R1 including construction)	in-slab heating system			
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)				
external wall: cavity brick	nil				
internal wall shared with garage: single skin masonry (R0.18)	nil				
flat ceiling, flat roof: framed	ceiling: R1.58 (up), roof: foil backed blanket (55 mm)	medium (solar absorptance 0.475 - 0.70)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors									
<p>The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.</p> <p>The following requirements must also be satisfied in relation to each window and glazed door:</p> <p>Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.</p> <p>Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.</p> <p>For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.</p> <p>Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.</p> <p>Pergolas with fixed battens must have 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 be more than 50 mm.</p> <p>Overshadowing buildings or 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 in the table below.</p>							✓	✓	✓
								✓	✓
								✓	✓
								✓	✓
							✓	✓	✓
								✓	✓
								✓	✓
							✓	✓	✓
Windows and glazed doors glazing requirements									
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W1	NE	12.3	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W2	NE	3.2	0	0	eave/verandah/pergola/balcony >=450 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W3	NE	1	0	0	eave/verandah/pergola/balcony ≥450 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W4	NE	2.1	0	0	eave/verandah/pergola/balcony ≥450 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W5	NE	5.1	0	0	eave/verandah/pergola/balcony ≥450 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W6	NE	13.1	0	0	eave/verandah/pergola/balcony ≥450 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W7	SE	1.2	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W8	SE	2.4	3.4	7.1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W9	SE	2.3	3.4	6.1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W10	SE	10.2	6.1	4.2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W11	SE	2.5	3.4	4	eave/verandah/pergola/balcony ≥450 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W12	SE	7.5	3.4	4	eave/verandah/pergola/balcony ≥450 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W13	SW	7.8	0	0	eave/verandah/pergola/balcony ≥900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W14	SW	10.1	0	0	eave/verandah/pergola/balcony ≥900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W15	SW	16.4	0	0	eave/verandah/pergola/balcony ≥900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W16	SW	1.4	0	0	eave/verandah/ pergola/ balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W17	SW	14.2	0	0	eave/verandah/ pergola/ balcony >=450 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W18	SW	6.3	0	0	eave/verandah/ pergola/ balcony >=450 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W19	SW	17.5	0	0	awning (adjustable) >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W20	SW	1	0	0	eave/verandah/ pergola/ balcony >=450 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W21	NW	15	1.2	6.1	eave/verandah/ pergola/ balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W22	NW	1.5	3.6	1.6	eave/verandah/ pergola/ balcony >=450 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W23	NW	2.5	1.2	2.85	eave/verandah/ pergola/ balcony >=450 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
Skylights									
The applicant must install the skylights in accordance with the specifications listed in the table below.							✓	✓ ✓ ✓	✓ ✓ ✓
The following requirements must also be satisfied in relation to each skylight:									
Each skylight may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below.									
Skylights glazing requirements									

Glazing requirements				Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Skylight number	Area of glazing inc. frame (m2)	Shading device	Frame and glass type			
S1	2	no shading	timber, double clear/air fill, (or U-value: 4.3, SHGC: 0.5)			



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 & 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 for the development may be issued.