BASIX® Certificate

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

Alterations and Additions

Certificate number: A439470_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 Alterations and Additions Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Sunday, 28, November 2021
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT | Planning, Industry & Environment

Description of project

Project address	
Project name	155 Pacific Road_03
Street address	155 Pacific Road Palm Beach 2108
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan 1144798
Lot number	1
Section number	

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: The House Energy Rating Company of Aust. Pty Ltd
ABN (if applicable): 61495952256

Pool and Spa	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Rainwater tank			
The applicant must install a rainwater tank of at least 901 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 300 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.		✓	✓
Outdoor swimming pool			
The swimming pool must be outdoors.	✓	✓	✓
The swimming pool must not have a capacity greater than 29 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: electric heat pump.		✓	✓

Fixtures and systems	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: gas instantaneous.	✓	✓	✓
Lighting			
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.		✓	✓
Fixtures			
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

Insulation requirements

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 2m2, 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.	nil	
floor above existing dwelling or building.	nil	
external wall: cavity brick	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
flat ceiling, pitched roof	ceiling: R1.45 (up), roof: foil backed blanket (55 mm)	medium (solar absorptance 0.475 - 0.70)
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (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			
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.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
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.		✓	✓
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.		✓	✓
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.	✓	✓	✓
For projections described as a ratio, the ratio of the projection from the wall to the height above the window or glazed door sill must be at least that shown in the table below.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
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.		✓	✓
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.	✓	✓	✓

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)		
W01	NW	7.5	0	0	projection/height above sill ratio >=0.43	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)					
W02	SW	6	0	0	projection/height above sill ratio >=0.43	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W03	NE	4.2	0	0	projection/height above sill ratio >=0.43	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W04	NE	7.8	0	0	projection/height above sill ratio >=0.36	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W05	SW	1.6	0	0	projection/height above sill ratio >=0.23	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W06	NW	4.8	3.7	1.5	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W07	SW	4.4	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W08	SE	4	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W09	SE	1.6	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W10	NE	8	0	0	projection/height above sill ratio >=0.29	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W11	NE	8	0	0	projection/height above sill ratio >=0.29	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W12	NE	3.1	0	0	projection/height above sill ratio >=0.29	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W13	NW	6.6	0	0	projection/height above sill ratio >=0.43	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W14	NE	15.4	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			

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)					
W15	SE	26.1	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W16	NE	18.6	0	0	projection/height above sill ratio >=0.43	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W17	NW	12	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			
W18	NW	7	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			
W19	SE	0.72	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W20	NE	3.6	0	0	projection/height above sill ratio >=0.23	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W21	NE	3.6	0	0	projection/height above sill ratio >=0.23	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W22	NE	7.8	0	0	projection/height above sill ratio >=0.23	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W23	NE	4	0	0	projection/height above sill ratio >=0.23	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W25	NE	7.7	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W26	NE	7.7	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W27	NW	12	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			
W28	NW	7	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			

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)		
W29	NW	7.7	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W30	NE	6.5	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W31	NE	6.5	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W32	SE	0.6	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W33	SE	0.53	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W34	SW	2.2	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)

Glazed roofs

The applicant must install the glazed roofs described in the table below, in accordance with the specifications listed in the table.	✓	✓	✓
The following requirements must also be satisfied in relation to each glazed roof:		✓	✓

Glazed roofs glazing requirements

Glazed roof number	Area of glazing (m2)	Shading device	Glass type
SK01-4	3.2	no shading	standard aluminium, toned/air gap/clear, (U-value: 5.31, SHGC: 0.48)
SK05	0.7	no shading	standard aluminium, toned/air gap/clear, (U-value: 5.31, SHGC: 0.48)
SK06	0.7	no shading	standard aluminium, toned/air gap/clear, (U-value: 5.31, SHGC: 0.48)

Glazing requirements				Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Glazed roof number	Area of glazing (m2)	Shading device	Glass type			
SK07	1.7	no shading	standard aluminium, toned/air gap/clear, (U-value: 5.31, SHGC: 0.48)			
SK08	1.95	no shading	standard aluminium, toned/air gap/clear, (U-value: 5.31, SHGC: 0.48)			

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.