

# BASIX<sup>®</sup>Certificate

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

## Alterations and Additions

Certificate number: A417178

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: Friday, 04, June 2021

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



Planning,  
Industry &  
Environment

## Description of project

Project address	
Project name	18 Grenfell Avenue, North Narrabeen
Street address	18 Grenfell Avenue North Narrabeen 2101
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan 16685
Lot number	52
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: AENEC - Office: 02 9994 8906

ABN (if applicable): 32612556377

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 962 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 50 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.		✓	✓
<b>Outdoor swimming pool</b>			
The swimming pool must be outdoors.	✓	✓	✓
The swimming pool must not have a capacity greater than 19 kilolitres.	✓	✓	✓
The applicant must install a pool pump timer for the swimming pool.		✓	✓
The applicant must not incorporate any heating system for the swimming pool that is part of this development.		✓	✓

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			
suspended floor with open subfloor: framed (R0.7).	R0.8 (down) (or R1.50 including construction)				
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)				
floor above existing dwelling or building.	nil				
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)				
flat ceiling, pitched roof	ceiling: R3.00 (up), roof: foil/sarking	dark (solar absorptance > 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 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.</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>							✓	✓	✓
								✓	✓
								✓	✓
							✓	✓	✓
							✓	✓	✓
<b>Windows and glazed doors glazing requirements</b>									
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W1	N	9.12	0	0	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W2	E	2.46	0	0	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W3	N	3.19	0	0	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W4	E	3.1	3	8.5	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			

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)					
W5	E	3.1	3	8.5	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W6	E	0.87	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W7	S	3.3	0	0	projection/height above sill ratio ≥0.29	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W8	W	0.87	3	6.2	projection/height above sill ratio ≥0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)			
W9	W	2.48	3	6.2	projection/height above sill ratio ≥0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)			
W10	W	0.87	3	6.2	projection/height above sill ratio ≥0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)			
W12	N	2.48	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W13	N	2.48	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W14	E	1.44	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W15	E	2.17	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W16	E	0.87	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W17	E	0.73	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W18	E	2.07	0	0	projection/height above sill ratio ≥0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			

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)					
W19	S	2.07	0	0	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W20	S	2.89	0	0	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W21	W	0.62	0	0	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W22	W	2.48	0	0	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W23	W	0.87	0	0	projection/height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
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									
Skylight number	Area of glazing inc. frame (m2)		Shading device			Frame and glass type			
S1	1.34		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.