

BASIX[®] Certificate

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

Alterations and Additions

Certificate number: A356144_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: Monday, 14, October 2019

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



Description of project

Project address	
Project name	Reef House_03
Street address	37 Heath Street Mona Vale 2103
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan 7236
Lot number	31
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 does not include a pool (and/or spa).

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

Name / Company Name: Markham-Lee Architecture

ABN (if applicable): 27154383089

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
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					
<p>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.</p>			✓	✓	✓
Construction	Additional insulation required (R-value)	Other specifications			
concrete slab on ground floor.	nil				
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)				
internal wall shared with garage: plasterboard (R0.36)	nil				
flat ceiling, flat roof: framed	ceiling: R1.58 (up), roof: foil backed blanket (75 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>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>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>Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.</p> <p>External louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed.</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 (m ²)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W1	N	15.5	3.1	5.5	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W2	N	3.4	3.1	5.5	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)					
W3	S	3.9	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W4	S	7.9	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W5	S	0.8	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W6	S	1.62	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W7	S	5	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W8	S	4.98	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W9	N	4.7	4.6	4.2	projection/height above sill ratio >=0.23	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W10	S	4.7	4.6	4	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W11	W	1.5	5.92	0.1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W12	W	2.6	5.92	0.1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W13	W	4.6	5.92	0.1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W14	E	3.1	4.3	3.1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W15	E	15.9	1.15	3.1	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 (m ²)	Overshadowing		Shading device	Frame and glass type		
			Height (m)	Distance (m)				
W16	W	12.4	1.3	2.2	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W17	S	5.1	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W18	E	2.6	4	1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W19	E	3.27	1.9	2.2	projection/height above sill ratio ≥ 0.23	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W20	E	3.27	3	2.2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W21	E	2.8	3	2.2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W22	E	3.16	3	2.2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W23	E	2.6	3	2.2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W24	E	2.9	3	2.2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W25	N	12.5	4.4	7.5	eave/verandah/pergola/balcony ≥ 900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W26	N	3.9	4.4	7.5	eave/verandah/pergola/balcony ≥ 900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W27	E	8.93	1.1	2	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)		
W28	W	4.94	1.3	2	external louvre/blind (adjustable)	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)					
W29	W	0.6	0	0	projection/height above sill ratio ≥ 0.36	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W30	W	1	0	0	projection/height above sill ratio ≥ 0.36	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W31	N	0.5	0	0	eave/verandah/pergola/balcony ≥ 900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W32	S	0.94	0	0	eave/verandah/pergola/balcony ≥ 900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W33	S	0.94	0	0	eave/verandah/pergola/balcony ≥ 900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
Skylights									
<p>The applicant must install the skylights in accordance with the specifications listed in the table below.</p> <p>The following requirements must also be satisfied in relation to each skylight:</p> <p>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.</p>							✓	✓	✓
Skylights glazing requirements									
Skylight number	Area of glazing inc. frame (m2)	Shading device			Frame and glass type				
S1	3.9	no shading			timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)				
Polycarbonate roofs above enclosed space									
The applicant must install the polycarbonate roofs described in the table below, in accordance with the specifications listed in the table.							✓	✓	✓

Glazing requirements				Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
The following requirements must also be satisfied in relation to each polycarbonate roof:					✓	✓
Polycarbonate roofs above enclosed space glazing requirements						
Polycarbonate roof number	Area of polycarbonate (m2)	Shading device	Polycarbonate type			
P1	27	no shading	double layer, shading coefficient <0.4			

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.