

BASIX[®]Certificate

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

Alterations and Additions

Certificate number: A273540_02

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 18/09/2014 published by Planning & Infrastructure. This document is available at www.basix.nsw.gov.au

Director-General

Date of issue: Tuesday, 21, February 2017

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



Description of project

Project address	
Project name	160-169 Park River Close Mulgoa_02
Street address	160-169 Park River Close Mulgoa 2745
Local Government Area	Penrith City Council
Plan type and number	Deposited Plan 241749
Lot number	60
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 does not include a pool (and/or spa).

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

Name / Company Name: Fuvis Building Design

ABN (if applicable): 75143228773

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				
floor above existing dwelling or building.	nil				
external wall: brick veneer	R1.16 (or R1.70 including construction)				
internal wall shared with garage: plasterboard (R0.36)	nil				
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>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>Pergolas with adjustable shading may have adjustable blades or removable shade cloth (not less than 80% shading ratio). Adjustable blades must overlap in plan view.</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>							✓	✓	✓																														
<p>Windows and glazed doors glazing requirements</p> <table border="1"> <thead> <tr> <th rowspan="2">Window / door no.</th> <th rowspan="2">Orientation</th> <th rowspan="2">Area of glass inc. frame (m²)</th> <th colspan="2">Overshadowing</th> <th rowspan="2">Shading device</th> <th rowspan="2">Frame and glass type</th> </tr> <tr> <th>Height (m)</th> <th>Distance (m)</th> </tr> </thead> <tbody> <tr> <td>W1</td> <td>N</td> <td>3.96</td> <td>0</td> <td>0</td> <td>eave/verandah/pergola/balcony >=900 mm</td> <td>standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)</td> </tr> <tr> <td>W2</td> <td>N</td> <td>3.96</td> <td>0</td> <td>0</td> <td>eave/verandah/pergola/balcony >=900 mm</td> <td>standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)</td> </tr> <tr> <td>W3</td> <td>N</td> <td>0.585</td> <td>0</td> <td>0</td> <td>eave/verandah/pergola/balcony >=900 mm</td> <td>standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)</td> </tr> </tbody> </table>							Window / door no.	Orientation	Area of glass inc. frame (m ²)	Overshadowing		Shading device	Frame and glass type	Height (m)	Distance (m)	W1	N	3.96	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)	W2	N	3.96	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)	W3	N	0.585	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)	✓	✓	✓
Window / door no.	Orientation	Area of glass inc. frame (m ²)	Overshadowing		Shading device	Frame and glass type																																	
			Height (m)	Distance (m)																																			
W1	N	3.96	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)																																	
W2	N	3.96	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)																																	
W3	N	0.585	0	0	eave/verandah/pergola/balcony >=900 mm	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)					
W4	N	3.42	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W5	N	6.36	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W6	S	2.34	0	0	eave/verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W7	S	2.86	0	0	eave/verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W8	S	10.38	0	0	eave/verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W9	S	10.8	0	0	eave/verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W10	S	13.2	0	0	pergola (adjustable shade) >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W11	S	4.8	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W12	W	4.32	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W13	S	0.57	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W14	S	1.133	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W15	S	2.73	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W16	S	1.88	0	0	eave/verandah/ pergola/balcony >=600 mm	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)					
W17	W	1.88	1.5	2	eave/verandah/ pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)			
W18	N	3.96	0	0	eave/verandah/ pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)			
W19	N	3.96	0	0	eave/verandah/ pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)			
W20	S	8.8	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W21	S	3.78	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W22	S	1.44	0	0	eave/verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
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	0.25	no shading			aluminium, moulded plastic single clear, (or U-value: 6.21, SHGC: 0.808)				
S2	0.25	no shading			aluminium, moulded plastic single clear, (or U-value:				

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			
			6.21, SHGC: 0.808)			

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.