BASIX® Certificate

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

Alterations and Additions

Certificate number: A1375065_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 Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number A1375065 submitted to the consent authority or certifier on 02 January 2024 with application DA2023/1780.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environment Planning and Assessment Regulation 2000

Secretary
Date of issue: Tuesday, 23 April 2024
To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application within 3 months of the date of issue.

NSW GOVERNMENT

Project address	
Project name	89 Marine Parade Avalon Beach_02
Street address	89 MARINE PARADE - AVALON BEACH 2107
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan DP8394
Lot number	122
Section number	-

Project type	
Dwelling type	Dwelling house (detached)
Type of alteration and addition	The estimated development cost for my renovation work is $50,000 or more, and includes a pool (and/or spa).
N/A	N/A

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

Name / Company Name: Efficient Living Pty Ltd

ABN (if applicable): 82 623 289 976

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 907.82 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 65 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 27 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: solar (electric boosted).		✔	✔

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	N/A
suspended floor above garage: concrete (R0.6).	nil	N/A
floor above existing dwelling or building.	nil	N/A
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: other/undecided	R1.70 (including construction)	
flat ceiling, pitched roof	ceiling: R2.50 (up), roof: foil/sarking	medium (solar absorptance 0.475 - 0.70)
raked ceiling, pitched/skillion roof: framed	ceiling: R2.50 (up), roof: foil/sarking	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.	✔	✔	✔

Glazing requirements

Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Windows and glazed doors glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
DLG01	W	4.88	0	0	projection/ height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WLG01	W	5.05	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WLG02	W	9.88	0	0	projection/ height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WLG03	S	2.79	0	0	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WLG04	S	1.39	0	0	none	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 number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
WLG05	S	1.44	0	0	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
WLG06	S	1.45	0	0	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
WLG07	E	2.96	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
WLG08	N	9.83	0	0	projection/ height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
WLG09	E	4.13	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

Windows and glazed doors glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
WLG10	N	4.18	1.4	2.56	projection/ height above sill ratio >=0.29	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)
WLG11	N	1.39	1.4	2.56	none	aluminium: thermally broken, double Lo-Tsol/air gap/clear , (U-value: 3.1, SHGC: 0.27)
WLG12	N	3.02	1.4	2.56	none	aluminium: thermally broken, double Lo-Tsol/air gap/clear , (U-value: 3.1, SHGC: 0.27)
DLG02	N	2.15	1.8	2.56	projection/ height above sill ratio >=0.23	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)
WLG13	N	1.39	1.4	2.56	none	aluminium: thermally broken, double Lo-Tsol/air gap/clear , (U-value: 3.1, SHGC: 0.27)

Glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
DLG03	N	4.25	1.8	2.56	projection/ height above sill ratio >=0.23	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)
DLG04	N	4.25	1.8	2.56	projection/ height above sill ratio >=0.23	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)
DUG01	N	3.62	0	0	projection/ height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG01	W	6.42	0	0	projection/ height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG02	N	8.68	0	0	projection/ height above sill ratio >=0.43	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)

Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Windows and glazed doors glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
WUG03	W	2.35	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG04	W	9.33	0	0	projection/ height above sill ratio >=0.23	aluminium, single Lo-Tsol low-e, (U-value: 5.6, SHGC: 0.36)
WUG05	S	1.92	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG06	S	4.3	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG07	S	1.15	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)

Glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
WUG08	S	1.72	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG09	W	0.96	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG10-11	S	1.5	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG12-13	S	2.25	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG14	E	11.65	0	0	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)

Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Windows and glazed doors glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
WUG15	N	9.3	0	0	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)
WUG16	E	13.35	0	0	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)
WUG17	S	6.6	0	0	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG18	E	14.6	0	0	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)
WUG19	N	7	0	0	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)

Glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
WUG20	W	8.85	2.95	7	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)
WUG21	N	21.37	0	0	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)
WUG22	E	8.85	2.95	7	projection/ height above sill ratio >=0.23	standard aluminium, single pyrolytic low-e, (U-value: 5.7, SHGC: 0.47)
WUG23	N	0.75	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)
WUG24	N	0.75	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)

Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
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	0.92	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)
S2	3.64	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)
S3	0.95	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)
S4-9	3.24	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)
S10-11	1.6	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)

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.