BASIX® Certificate

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

Single Dwelling

Certificate number: 1136419S

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

Secretary
Date of issue: Thursday, 17 September 2020
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT | Planning, Industry & Environment

Project summary	
Project name	0724 - 24 TREVOR ROAD, NEWPORT
Street address	24 TREVOR Road NEWPORT 2106
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 19380
Lot no.	25
Section no.	-
Project type	separate dwelling house
No. of bedrooms	3

Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 52	Target 50

Certificate Prepared by
Name / Company Name: Action Plans
ABN (if applicable): 17118297587

Description of project

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Site details	
Site area (m²)	556
Roof area (m²)	307
Conditioned floor area (m2)	225.88
Unconditioned floor area (m2)	24.1
Total area of garden and lawn (m2)	231

Assessor details and thermal loads		
Assessor number	n/a	
Certificate number	n/a	
Climate zone	n/a	
Area adjusted cooling load (MJ/m².year)	n/a	
Area adjusted heating load (MJ/m².year)	n/a	
Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 52	Target 50

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 150 square metres of the site.	✔	✔	
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 4.5 but <= 6 L/min) in all showers in the development.		✔	✔
The applicant must install a toilet flushing system with a minimum rating of 3 star in each toilet in the development.		✔	✔
The applicant must install taps with a minimum rating of 5 star in the kitchen in the development.		✔	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✔	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 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 rain runoff from at least 189.74 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✔	✔
The applicant must connect the rainwater tank to: • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✔	✔

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
General features			
The dwelling must not have more than 2 storeys.	✔	✔	✔
The conditioned floor area of the dwelling must not exceed 300 square metres.	✔	✔	✔
The dwelling must not contain open mezzanine area exceeding 25 square metres.	✔	✔	✔
The dwelling must not contain third level habitable attic room.	✔	✔	✔
Floor, walls and ceiling/roof			
The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below.	✔	✔	✔

Construction	Additional insulation required (R-Value)	Other specifications
floor - suspended floor above open subfloor, 130 square metres, framed	1.3 (or 2 including construction) (down)	
floor - above habitable rooms or mezzanine, 102 square metres, framed	nil	
floor - suspended floor above garage, framed	nil	
external wall - framed (weatherboard, fibre cement, metal clad)	3.00 (or 3.40 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 2.95 (up), roof: foil backed blanket (100 mm)	gable end vents; dark (solar absorptance > 0.70)

Note	• Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.
Note	• In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Windows, glazed doors and skylights			
The applicant must install the windows, glazed doors and shading devices described in the table below, in accordance with the specifications listed in the table. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✔	✔	✔
The dwelling may have 1 skylight (<0.7 square metres) which is not listed in the table.	✔	✔	✔
The following requirements must also be satisfied in relation to each window and glazed door:	✔	✔	✔
• For the following glass and frame types, the certifier check can be performed by visual inspection. - Aluminium single clear - Aluminium double (air) clear - Timber/uPVC/fibreglass single clear - Timber/uPVC/fibreglass double (air) clear			✔
• For other glass or frame types, each window and glazed door must be accompanied with certification showing a U value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) within the range of those listed. Total system U values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. Frame and glass types shown in the table below are for reference only.			✔
• Overshadowing buildings/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.	✔	✔	✔
The applicant must install the skylights described in the table below, in accordance with the specifications listed in the table. Total skylight area must not exceed 3 square metres (the 3 square metre limit does not include the optional additional skylight of less than 0.7 square metres that does not have to be listed in the table).	✔	✔	✔
The following requirements must also be satisfied in relation to each skylight:		✔	✔
• External awnings and louvres must fully shade the skylight above which they are situated when fully drawn or closed		✔	✔

Skylight no.	Maximum area (square metres)	Type	Shading device
S01	1.34	aluminium, moulded plastic single clear	adjustable awning or blind
S02	1.09	aluminium, moulded plastic single clear	adjustable awning or blind

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North facing					
W03	1500	700	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 4040 mm, 150 mm above head of window or glazed door	>4 m high, 5-8 m away
W04	2400	3000	U-value: 2.9, SHGC: 0.459 - 0.561 (aluminium: thermally broken, double (argon), Hi-Tsol Low-e/clear)	eave 1860 mm, 150 mm above head of window or glazed door	>4 m high, 5-8 m away
W11	600	1500	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	>4 m high, 5-8 m away
W12	1300	900	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	>4 m high, 5-8 m away
D03	2360	820	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 4040 mm, 150 mm above head of window or glazed door	>4 m high, 5-8 m away
D05	2400	4300	U-value: 2.9, SHGC: 0.396 - 0.484 (aluminium: thermally broken, double (argon), Hi-Tsol Low-e/clear)	solid overhang 4950 mm, 150 mm above head of window or glazed door	>4 m high, 5-8 m away
D06	2400	2700	U-value: 2.9, SHGC: 0.396 - 0.484 (aluminium: thermally broken, double (argon), Hi-Tsol Low-e/clear)	eave 2750 mm, 150 mm above head of window or glazed door	>4 m high, 5-8 m away
D07	2400	2700	U-value: 2.9, SHGC: 0.396 - 0.484 (aluminium: thermally broken, double (argon), Hi-Tsol Low-e/clear)	eave 2750 mm, 150 mm above head of window or glazed door	>4 m high, 5-8 m away
East facing					
W05	600	2700	U-value: 3.1, SHGC: 0.441 - 0.539 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
W06	2400	1800	U-value: 3.1, SHGC: 0.441 - 0.539 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
W07	2400	1800	U-value: 3.1, SHGC: 0.441 - 0.539 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W13	750	3000	U-value: 3.1, SHGC: 0.441 - 0.539 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
W14	600	2100	U-value: 3.1, SHGC: 0.441 - 0.539 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 750 mm, 1110 mm above head of window or glazed door	not overshadowed
W15	1300	2500	U-value: 3.1, SHGC: 0.441 - 0.539 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
D04	2400	2965	U-value: 3.1, SHGC: 0.351 - 0.429 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	solid overhang 8020 mm, 150 mm above head of window or glazed door	not overshadowed
South facing					
W08	1020	2500	U-value: 3.1, SHGC: 0.441 - 0.539 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
D01	2400	3000	U-value: 3.1, SHGC: 0.351 - 0.429 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	solid overhang 2600 mm, 100 mm above head of window or glazed door	not overshadowed
D02	2040	1796	U-value: 3.1, SHGC: 0.351 - 0.429 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	solid overhang 2600 mm, 100 mm above head of window or glazed door	not overshadowed
D05	2400	3000	U-value: 3.1, SHGC: 0.351 - 0.429 (aluminium: thermally broken, double (air), Hi-Tsol Low-e/clear)	eave 2050 mm, 150 mm above head of window or glazed door	not overshadowed
West facing					
W01	600	3000	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
W02	600	2100	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
W09	600	2500	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W10	600	2100	U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed

Energy Commitments	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, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars.	✔	✔	✔
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: ceiling fans + 1-phase airconditioning; Energy rating: 5 Star (old label)		✔	✔
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: ceiling fans + 1-phase airconditioning; Energy rating: 5 Star (old label)		✔	✔
The cooling system must provide for day/night zoning between living areas and bedrooms.		✔	✔
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: 5 Star (old label)		✔	✔
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: 5 Star (old label)		✔	✔
The heating system must provide for day/night zoning between living areas and bedrooms.		✔	✔
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✔	✔
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✔	✔
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✔	✔
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
• at least 4 of the bedrooms / study; dedicated		✔	✔

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
• at least 2 of the living / dining rooms; dedicated		✔	✔
• the kitchen; dedicated		✔	✔
• all bathrooms/toilets; dedicated		✔	✔
• the laundry; dedicated		✔	✔
• all hallways; dedicated		✔	✔
Natural lighting			
The applicant must install a window and/or skylight in 2 bathroom(s)/toilet(s) in the development for natural lighting.	✔	✔	✔
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		✔	
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.		✔	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✔	
The applicant must install a fixed indoor or sheltered clothes drying line as part of the development.		✔	

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 and 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(either interim or final) for the development may be issued.