BASIX® Certificate

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

Single Dwelling

Certificate number: 1338497S

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: Tuesday, 01 November 2022
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	Forestville_7CullenSt
Street address	7 Cullen Street Forestville 2087
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 758421
Lot no.	6
Section no.	44
Project type	separate dwelling house
No. of bedrooms	5

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

Certificate Prepared by
Name / Company Name: ZOUK ARCHITECTS
ABN (if applicable): 129 181 120

Description of project

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Site details	
Site area (m²)	1084
Roof area (m²)	275
Conditioned floor area (m2)	284.0
Unconditioned floor area (m2)	24.0
Total area of garden and lawn (m2)	536

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	
Ceiling fan in at least one bedroom	n/a	
Ceiling fan in at least one living room or other conditioned area	n/a	
Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 50	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
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 4.5 but <= 6 L/min plus spray force and/or coverage tests) in all showers in the development.		✔	✔
The applicant must install a toilet flushing system with a minimum rating of 5 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 6 star in each bathroom in the development.		✔	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2000 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 275 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: • all toilets in the development • 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 - concrete slab on ground, 52 square metres	nil	
floor - suspended floor above enclosed subfloor, 120 square metres, framed	1.10 (or 1.8 including construction) (down)	
floor - above habitable rooms or mezzanine, 135 square metres, framed	nil	
external wall - brick veneer	2.86 (or 3.40 including construction)	
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: 5 (up), roof: foil/sarking	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.	✔	✔	✔

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North-East facing					
W011	600	2400	U-value: 2, SHGC: 0.162 - 0.198 (timber/UPVC/fibreglass, double (argon), Lo-Tsol Low-e/clear)	eave 600 mm, 0 mm above head of window or glazed door	not overshadowed
W012	600	1800	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	none	1-2 m high, <1.5 m away
South-East facing					
D01	2400	2400	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 600 mm, 0 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
W01	2400	2190	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 2010 mm, 0 mm above head of window or glazed door	not overshadowed
W02	2400	2700	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 350 mm, 0 mm above head of window or glazed door	not overshadowed
W03	2050	2670	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	none	not overshadowed
W04	2050	1590	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	none	not overshadowed
W05	2400	900	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 1770 mm, 300 mm above head of window or glazed door	not overshadowed
South-West facing					
D02	2400	820	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	eave 2860 mm, 0 mm above head of window or glazed door	2-4 m high, 2-5 m away
W13	1200	1775	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	eave 600 mm, 0 mm above head of window or glazed door	not overshadowed
W14	600	1500	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	eave 600 mm, 0 mm above head of window or glazed door	not overshadowed
W15	600	2400	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	eave 600 mm, 0 mm above head of window or glazed door	not overshadowed
W16	600	1500	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	none	not overshadowed
North-West facing					
D03	2400	2400	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 1190 mm, 0 mm above head of window or glazed door	not overshadowed
D04	2400	4060	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	solid overhang 4800 mm, 350 mm above head of window or glazed door	not overshadowed
D05	2400	820	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	eave 450 mm, 960 mm above head of window or glazed door	not overshadowed
W06	1400	2400	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 600 mm, 0 mm above head of window or glazed door	not overshadowed
W07	1400	2400	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 600 mm, 0 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
W08	2400	1500	U-value: 5.6, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	eave 1190 mm, 0 mm above head of window or glazed door	not overshadowed
W09	2400	2310	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	solid overhang 700 mm, 350 mm above head of window or glazed door	not overshadowed
W10	2400	3040	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	solid overhang 700 mm, 350 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: solar (gas boosted, flat plate).	✔	✔	✔
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 3.0 - 3.5		✔	✔
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 3.0 - 3.5		✔	✔
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: EER 3.0 - 3.5		✔	✔
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: EER 3.0 - 3.5		✔	✔
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 6 of the bedrooms / study;		✔	✔

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
• at least 3 of the living / dining rooms;		✔	✔
• the kitchen;		✔	✔
• all bathrooms/toilets;		✔	✔
• the laundry;		✔	✔
• all hallways;		✔	✔
Natural lighting			
The applicant must install a window and/or skylight in 3 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 install a fixed outdoor 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.