

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1229065S

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, 31 August 2021

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



Planning,
Industry &
Environment

Project summary

Project name	Freshwater One
Street address	74 Soldiers Avenue Freshwater 2096
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 1
Lot no.	954849
Section no.	-
Project type	separate dwelling house
No. of bedrooms	4

Project score

Water	✓ 54	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

Certificate Prepared by

Name / Company Name: Saturday Studio

ABN (if applicable): 85 107 769 022

Description of project

Project address

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Street address	74 Soldiers Avenue Freshwater 2096
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Site details

Site area (m ²)	582
Roof area (m ²)	244
Conditioned floor area (m2)	247.0
Unconditioned floor area (m2)	20.0
Total area of garden and lawn (m2)	205

Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m ² .year)	n/a
Area adjusted heating load (MJ/m ² .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	✓ 54	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
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 50 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 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 4 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3200 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 129 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 configure the rainwater tank so that overflow is diverted to a stormwater tank.		✓	✓
The applicant must connect the rainwater tank to: - all toilets in the development - the cold water tap that supplies each clothes washer 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.)		✓ ✓ ✓	✓ ✓ ✓

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Stormwater tank			
The applicant must install a stormwater tank with a capacity of at least 2500 litres on the site. This stormwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the stormwater tank to collect overflow from the rainwater tank.		✓	✓
The applicant must configure the stormwater tank to collect runoff from: at least 129 square metres of roof area of the development (excluding the area of the roof which drains to any rainwater tank or private dam)		✓	✓
The applicant must connect the stormwater tank to: a sub-surface or non-aerosol irrigation system, or if the stormwater has been appropriately treated in accordance with applicable regulatory requirements, to at least one outdoor tap in the development (Note: NSWHealth does not recommend that stormwater be used to irrigate edible plants which are consumed raw.)		✓	✓

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	nil	
external wall - framed (weatherboard, fibre cement, metal clad)	2.00 (or 2.40 including construction)	
external wall - framed (weatherboard, fibre cement, metal clad)	2.00 (or 2.40 including construction)	
external wall - framed (weatherboard, fibre cement, metal clad)	2.00 (or 2.40 including construction)	
external wall - framed (weatherboard, fibre cement, metal clad)	2.00 (or 2.40 including construction)	
ceiling and roof - raked ceiling / pitched or skillion roof, framed	ceiling: 3.5 (up), roof: foil/sarking	framed; medium (solar absorptance 0.475-0.70)

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 - Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35. - Vertical external louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed. - Unless they have adjustable shading, pergolas must have fixed 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 exceed the height of the battens.	✓	 ✓ ✓ ✓ ✓	 ✓ ✓ ✓ ✓

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
- Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.
- Vertical external louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed.
- Unless they have adjustable shading, pergolas must have fixed 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 exceed the height of the battens.

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North facing					
W01	2400	1100	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed
W02	2400	6000	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed

North facing

W01	2400	1100	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed
W02	2400	6000	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 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
W03	1800	1906	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed
W04	450	1906	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed
W05	450	1906	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed
W06	2400	2200	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed
W07	2400	990	aluminium, double (air), clear	pergola (fixed battens) 2400 mm, 400 mm above head of window or glazed door	not overshadowed
W08	1500	2200	aluminium, double (air), clear	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
W09	1500	2200	aluminium, double (air), clear	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
W10	1500	1900	aluminium, double (air), clear	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
W11	1500	3000	aluminium, double (air), clear	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
W12	1500	3000	aluminium, double (air), clear	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
W13	1500	2100	aluminium, double (air), clear	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
W14	1500	3000	aluminium, double (air), clear	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
East facing					
W15	2400	5000	aluminium, double (air), clear	eave 3600 mm, 275 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
W16	2400	5200	aluminium, double (air), clear	solid overhang 1600 mm, 275 mm above head of window or glazed door	not overshadowed
South facing					
W17	1500	990	aluminium, double (air), clear	none	not overshadowed
W18	650	2116	aluminium, double (air), clear	none	not overshadowed
W19	800	2000	aluminium, double (air), clear	none	not overshadowed
West facing					
W20	800	1900	aluminium, double (air), clear	external louvre/vertical blind (adjustable)	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: electric heat pump with a performance of 31 to 35 STCs or better.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: airconditioning ducting only; Energy rating: n/a		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: airconditioning ducting only; Energy rating: n/a		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: airconditioning ducting only; Energy rating: n/a		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: airconditioning ducting only; Energy rating: n/a		✓	✓
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		✓	✓
• at least 2 of the living / dining rooms; dedicated		✓	✓
• the kitchen; dedicated		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
• 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 an induction 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.		✓	

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.