

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1199789S

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, 04 May 2021

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



Planning,
Industry &
Environment

Project summary

Project name	41 Irrubel Road
Street address	41 Irrubel Road Newport 2106
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 4689
Lot no.	4
Section no.	n/a
Project type	separate dwelling house
No. of bedrooms	5

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 52	Target 50

Certificate Prepared by

Name / Company Name: CHAPMAN ENVIRONMENTAL SERVICES PTY LTD

ABN (if applicable): 58601921108

Description of project

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Site details

Site area (m ²)	1300
Roof area (m ²)	286
Conditioned floor area (m2)	254.9
Unconditioned floor area (m2)	27.6
Total area of garden and lawn (m2)	500

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	✓ 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
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 6 but <= 7.5 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 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 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 110 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: <ul style="list-style-type: none"> 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.) 		✓ ✓ ✓	✓ ✓ ✓

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, 145.7 square metres	nil	
floor - suspended floor above open subfloor, 6 square metres, framed	0.8 (or 1.5 including construction) (down)	
floor - suspended floor above garage, framed	nil	
external wall - framed (weatherboard, fibre cement, metal clad)	2.00 (or 2.40 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 3.45 (up), roof: foil backed blanket (55 mm)	unventilated; 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.	✓	✓	✓
<p>The following requirements must also be satisfied in relation to each window and glazed door:</p> <ul style="list-style-type: none"> For the following glass and frame types, the certifier check can be performed by visual inspection. <ul style="list-style-type: none"> Aluminium single clear Aluminium double (air) clear Timber/uPVC/fibreglass single clear Timber/uPVC/fibreglass double (air) clear 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).	✓	✓	✓




















Skylight no.	Maximum area (square metres)	Type	Shading device
S01	0.50	timber, double clear/air fill	no shading
S02	0.50	timber, double clear/air fill	no shading

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North facing					
Sidelight	2100	300	aluminium, single, clear	eave 3155 mm, 100 mm above head of window or glazed door	>4 m high, 5-8 m away

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
Sidelight	2100	300	aluminium, single, clear	eave 3155 mm, 100 mm above head of window or glazed door	>4 m high, 5-8 m away
W01	1500	600	aluminium, single, clear	eave 2255 mm, 100 mm above head of window or glazed door	>4 m high, 8-12 m away
D02	2400	1690	aluminium, single, clear	eave 2255 mm, 100 mm above head of window or glazed door	>4 m high, 8-12 m away
W02	1500	600	aluminium, single, clear	eave 2255 mm, 100 mm above head of window or glazed door	>4 m high, 8-12 m away
W12	1200	1600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	>4 m high, 8-12 m away
D06	2100	2700	aluminium, single, clear	eave 3255 mm, 100 mm above head of window or glazed door	>4 m high, 8-12 m away
W25	1200	1600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	>4 m high, 8-12 m away
W23	1200	1600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
East facing					
W03	1500	900	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	2-4 m high, 8-12 m away
W04	1500	900	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	2-4 m high, 8-12 m away
W05	2100	600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	2-4 m high, 8-12 m away
W06	1500	2400	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W07	2100	1200	aluminium, single, clear	eave 600 mm, 450 mm above head of window or glazed door	not overshadowed
W08	2100	1200	aluminium, single, clear	eave 600 mm, 450 mm above head of window or glazed door	>4 m high, <2 m away
W13	1200	600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W14	1200	600	aluminium, single, clear	eave 600 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
W15	1200	2400	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W16	900	1600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W17	900	2400	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	>4 m high, <2 m away
South facing					
D03	2400	4800	aluminium, single, clear	eave 4305 mm, 450 mm above head of window or glazed door	not overshadowed
D04	2400	3600	aluminium, single, clear	eave 5305 mm, 450 mm above head of window or glazed door	not overshadowed
W18	900	2400	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W19	900	2400	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W20	900	600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
West facing					
W09	1800	600	aluminium, single, clear	eave 5600 mm, 450 mm above head of window or glazed door	not overshadowed
W10	600	2400	aluminium, single, clear	eave 600 mm, 1250 mm above head of window or glazed door	2-4 m high, 8-12 m away
W11	1500	500	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	2-4 m high, 8-12 m away
D05	2400	820	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	2-4 m high, 8-12 m away
W21	900	600	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W22	600	1800	aluminium, single, clear	eave 600 mm, 100 mm above head of window or glazed door	not overshadowed
W24	1200	1500	aluminium, single, clear	eave 600 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: 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: natural ventilation only, or no laundry; Operation control: n/a		✓	✓
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:			
<ul style="list-style-type: none"> at least 5 of the bedrooms / study; dedicated 		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> at least 3 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 the kitchen of the dwelling for 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 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.