

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 976799S

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 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Saturday, 10 November 2018

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



Project summary		
Project name	880 Londonderry Road	
Street address	880 Londonderry Road Londonderry 2753	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited 539282	
Lot no.	3	
Section no.	-	
Project type	separate dwelling house	
No. of bedrooms	5	
Project score		
Water	✓ 43	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 69	Target 50

Certificate Prepared by

Name / Company Name: Ammar Musa

ABN (if applicable): N/A

Description of project

Project address

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Site details

Site area (m ²)	31600
Roof area (m ²)	833
Conditioned floor area (m ²)	285.44
Unconditioned floor area (m ²)	42.84
Total area of garden and lawn (m ²)	2500

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

Project score

Water	 43	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 69	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 40 square metres of the site.	✓	✓	
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 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 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 32000 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 832.5 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.) 		✓ ✓ ✓	✓ ✓ ✓
Swimming pool			

Water Commitments

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The swimming pool must not have a volume greater than 66 kilolitres.	✓	✓	
The swimming pool must be outdoors.	✓	✓	

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 - brick veneer	2.06 (or 2.60 including construction)	
internal wall shared with garage - other/undecided	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 4 (up), roof: foil/sarking	unventilated; 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.	✓	✓	✓
<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 	✓	✓	<ul style="list-style-type: none"> ✓ ✓
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	0.81	aluminium, moulded plastic single clear	no shading

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North facing					
W01	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W02	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W03	1800	610	aluminium, single, clear	eave 2250 mm, 650 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
W04	1800	610	aluminium, single, clear	eave 6450 mm, 650 mm above head of window or glazed door	not overshadowed
W05	1800	610	aluminium, single, clear	eave 6450 mm, 650 mm above head of window or glazed door	not overshadowed
W06	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W07	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W08	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
East facing					
W09	1000	600	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W10	860	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W11	860	1570	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W12	860	1570	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W13	860	1570	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W18	2100	2650	aluminium, single, clear	eave 450 mm, 650 mm above head of window or glazed door	not overshadowed
South facing					
W14	1200	1810	aluminium, single, clear	eave 450 mm, 650 mm above head of window or glazed door	not overshadowed
W16	2100	2410	aluminium, single, clear	eave 5870 mm, 650 mm above head of window or glazed door	not overshadowed
W17	2110	5290	aluminium, single, clear	eave 5870 mm, 650 mm above head of window or glazed door	not overshadowed
W19	860	610	aluminium, single, clear	eave 450 mm, 650 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
W20	860	1810	aluminium, single, clear	eave 450 mm, 650 mm above head of window or glazed door	not overshadowed
West facing					
W21	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W22	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W23	2100	2410	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W24	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W25	1800	610	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W26	1000	600	aluminium, single, clear	eave 2250 mm, 650 mm above head of window or glazed door	not overshadowed
W15	2100	2410	aluminium, single, clear	eave 2250 mm, 650 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 (electric boosted).	✓	✓	✓
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: 4 Star		✓	✓
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: 4 Star		✓	✓
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: wood heater; 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: 1-phase airconditioning; Energy rating: 4 Star		✓	✓
The wood heater must have a compliance plate confirming that it complies with the relevant Australian standards, and must be installed in accordance with the requirements of all applicable regulatory authorities.			✓
Ventilation			
<p>The applicant must install the following exhaust systems in the development:</p> <p>At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p>		<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>
Artificial lighting			
<p>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:</p> <ul style="list-style-type: none"> • at least 7 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 5 bathroom(s)/toilet(s) in the development for natural lighting.			
Swimming pool			
The applicant must install the following heating system for the swimming pool in the development (or alternatively must not install any heating system for the swimming pool): gas			
The applicant must install a timer for the swimming pool pump in the development.			
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 15 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.			
Other			
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.