

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1283766S

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: Monday, 01 August 2022
To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	P. & T. Mayson	
Street address	157 Melrose Road Mudgee 2850	
Local Government Area	Mid-Western Regional Council	
Plan type and plan number	deposited 253326	
Lot no.	6	
Section no.	-	
Project type	separate dwelling house	
No. of bedrooms	4	
Project score		
Water	✔ 88	Target 30
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 88	Target 40

Certificate Prepared by
Name / Company Name: PLAN Pty Ltd
ABN (if applicable): 27212552019

Description of project

Project address

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Site details

Site area (m ²)	106300
Roof area (m ²)	556
Conditioned floor area (m2)	273.0
Unconditioned floor area (m2)	18.0
Total area of garden and lawn (m2)	800

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	 88	Target 30
Thermal Comfort	 Pass	Target Pass
Energy	 88	Target 40

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 3 star (> 7.5 but <= 9 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 100000 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 556 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.) all hot water systems in the development all indoor cold water taps (not including taps that supply clothes washers) in the development 		✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓

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)	
external wall - framed (weatherboard, fibre cement, metal clad)	2.20 (or 2.60 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 3.75 (up), roof: thermocellular reflective	unventilated; dark (solar absorptance > 0.70)
ceiling and roof - raked ceiling / pitched or skillion roof, framed	ceiling: 3.54 (up), roof: thermocellular reflective	framed; dark (solar absorptance > 0.70)

Note	<ul style="list-style-type: none"> Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.
Note	<ul style="list-style-type: none"> 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 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. 	✓	✓	✓ ✓ ✓
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	0.54	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					
W-06	600	2100	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 50 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
W-12	1500	1500	aluminium, double (air), clear	eave 750 mm, 0 mm above head of window or glazed door	not overshadowed
W-13	1500	1500	aluminium, double (air), clear	eave 750 mm, 0 mm above head of window or glazed door	not overshadowed
W-14	1200	1200	aluminium, double (air), clear	eave 750 mm, 0 mm above head of window or glazed door	not overshadowed
W-15	1400	400	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 300 mm, 150 mm above head of window or glazed door	not overshadowed
W-18	2000	1500	aluminium, double (air), clear	eave 750 mm, 50 mm above head of window or glazed door	not overshadowed
W-19	2400	2100	aluminium, double (air), clear	eave 750 mm, 50 mm above head of window or glazed door	not overshadowed
D-05	2400	2100	aluminium, double (air), clear	verandah 2600 mm, 2580 mm above base of window or glazed door	not overshadowed
D-07	2400	2100	aluminium, double (air), clear	eave 750 mm, 50 mm above head of window or glazed door	not overshadowed
East facing					
W-16	1400	1800	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 100 mm above head of window or glazed door	not overshadowed
W-17	2000	500	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 150 mm, 0 mm above head of window or glazed door	not overshadowed
W-20	1500	2300	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	verandah 6000 mm, 2500 mm above base of window or glazed door	not overshadowed
D-04	2400	2700	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	verandah 3800 mm, 3400 mm above base of window or glazed door	not overshadowed
D-06	2400	1800	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 600 mm, 1200 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
D-09	2400	2100	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	verandah 6000 mm, 3150 mm above base of window or glazed door	not overshadowed
South facing					
W-01	2313	500	aluminium, single, clear	solid overhang 3000 mm, 0 mm above head of window or glazed door	not overshadowed
W-02	2313	500	aluminium, single, clear	solid overhang 3000 mm, 0 mm above head of window or glazed door	not overshadowed
W-08	1200	1000	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 750 mm, 0 mm above head of window or glazed door	not overshadowed
W-09	2400	1200	aluminium, double (air), clear	eave 750 mm, 0 mm above head of window or glazed door	not overshadowed
W-10	2100	500	aluminium, single, clear	eave 600 mm, 0 mm above head of window or glazed door	not overshadowed
W-11	2100	500	aluminium, single, clear	eave 600 mm, 0 mm above head of window or glazed door	not overshadowed
W-21	2400	2100	aluminium, double (air), clear	verandah 2700 mm, 2100 mm above base of window or glazed door	not overshadowed
W-22	2400	3300	aluminium, double (air), clear	eave 600 mm, 1500 mm above head of window or glazed door	not overshadowed
D-02	2400	2700	aluminium, double (air), clear	eave 750 mm, 50 mm above head of window or glazed door	not overshadowed
D-10	2400	2100	aluminium, double (air), clear	verandah 2700 mm, 2100 mm above base of window or glazed door	not overshadowed
West facing					
W-03	2400	500	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 600 mm, 1400 mm above head of window or glazed door	not overshadowed
W-04	2400	500	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 600 mm, 1400 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
W-05	2400	500	U-value: 4.9, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	eave 600 mm, 1400 mm above head of window or glazed door	not overshadowed
W-07	1754	600	U-value: 5.6, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 750 mm, 50 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: electric storage.	✓	✓	✓
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: 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: EER 3.0 - 3.5		✓	✓
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: natural ventilation only, or no laundry; Operation control: n/a</p>		<p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p>
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 2 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 20 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 install a gas cooktop & gas 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.