

# BASIX<sup>®</sup>Certificate

Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

## Single Dwelling

Certificate number: 1382349S

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](http://www.basix.nsw.gov.au)

Secretary

Date of issue: Saturday, 01 April 2023

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



Planning,  
Industry &  
Environment

### Project summary

Project name	103 Tower Street, Panania - Lot103a
Street address	103 Tower Street Panania 2213
Local Government Area	Canterbury-Bankstown Council
Plan type and plan number	deposited 27642
Lot no.	5
Section no.	-
Project type	attached dwelling house
No. of bedrooms	5

### Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 53	Target 50

### Certificate Prepared by

Name / Company Name: NLCONSULTANTS PTY LTD

ABN (if applicable): 57600679454

# Description of project

## Project address

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## Site details

Site area (m <sup>2</sup> )	313
Roof area (m <sup>2</sup> )	175
Conditioned floor area (m2)	200.0
Unconditioned floor area (m2)	40.0
Total area of garden and lawn (m2)	93

## Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m <sup>2</sup> .year)	n/a
Area adjusted heating load (MJ/m <sup>2</sup> .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	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 53	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
<b>Fixtures</b>			
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 6 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 6 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.		✓	
<b>Alternative water</b>			
<b>Rainwater tank</b>			
The applicant must install a rainwater tank of at least 1500 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 50 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"> <li>all toilets in the development</li> <li>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.)</li> </ul>		✓ ✓	✓ ✓
<b>Swimming pool</b>			
The swimming pool must not have a volume greater than 30 kilolitres.	✓	✓	
The swimming pool must be outdoors.	✓	✓	

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<b>General features</b>			
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.	✓	✓	✓
<b>Floor, walls and ceiling/roof</b>			
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, 120 square metres	nil	
floor - above habitable rooms or mezzanine, 120 square metres, concrete	nil	
external wall - cavity brick	0.50 (or 1.17 including construction)	
external wall - brick veneer	1.86 (or 2.40 including construction)	
internal wall shared with garage - cavity brick wall	nil	
ceiling and roof - flat ceiling / flat 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
<b>Windows, glazed doors and skylights</b>			
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"> <li>For the following glass and frame types, the certifier check can be performed by visual inspection. <ul style="list-style-type: none"> <li>Aluminium single clear</li> <li>Aluminium double (air) clear</li> <li>Timber/uPVC/fibreglass single clear</li> <li>Timber/uPVC/fibreglass double (air) clear</li> </ul> </li> <li>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.</li> </ul>	✓	✓	✓ ✓
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	1.00	aluminium, moulded plastic single clear	no shading

























Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
<b>North facing</b>					
W-1.18	2700	2270	aluminium, single, clear	solid overhang 2695 mm, 500 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
W0.16	2800	960	aluminium, single, clear	solid overhang 1500 mm, 300 mm above head of window or glazed door	not overshadowed
W-1.17	2700	3270	aluminium, single, clear	solid overhang 2600 mm, 300 mm above head of window or glazed door	not overshadowed
W0.17	565	1310	aluminium, single, clear	solid overhang 1500 mm, 200 mm above head of window or glazed door	not overshadowed
<b>East facing</b>					
W-1.15	930	900	aluminium, single, clear	eave 450 mm, 200 mm above head of window or glazed door	>4 m high, 2-5 m away
W-0.11	3000	700	aluminium, single, clear	eave 450 mm, 3250 mm above head of window or glazed door	>4 m high, 2-5 m away
W-0.15	1200	1800	aluminium, single, clear	eave 450 mm, 3250 mm above head of window or glazed door	>4 m high, 2-5 m away
W-0.10	2810	700	aluminium, single, clear	eave 450 mm, 3250 mm above head of window or glazed door	>4 m high, 2-5 m away
W-1.12	930	1910	aluminium, single, clear	eave 450 mm, 200 mm above head of window or glazed door	>4 m high, 2-5 m away
W-0.12	700	920	aluminium, single, clear	eave 450 mm, 3250 mm above head of window or glazed door	>4 m high, 2-5 m away
W-1.16	930	1600	aluminium, single, clear	eave 450 mm, 200 mm above head of window or glazed door	>4 m high, 2-5 m away
W-0.13	700	1480	aluminium, single, clear	eave 450 mm, 3250 mm above head of window or glazed door	>4 m high, 2-5 m away
W-1.14	930	1600	aluminium, single, clear	eave 450 mm, 200 mm above head of window or glazed door	>4 m high, 2-5 m away
W-0.14	700	1380	aluminium, single, clear	eave 450 mm, 3250 mm above head of window or glazed door	>4 m high, 2-5 m away
W-1.13	930	1910	aluminium, single, clear	eave 450 mm, 200 mm above head of window or glazed door	>4 m high, 2-5 m away
<b>South facing</b>					

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W-0.9	2400	4540	aluminium, single, clear	solid overhang 3450 mm, 1200 mm above head of window or glazed door	not overshadowed
W-1.11	930	1600	aluminium, single, clear	eave 450 mm, 350 mm above head of window or glazed door	not overshadowed
W-1.10	930	1600	aluminium, single, clear	eave 450 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
<b>Hot water</b>			
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 6 stars.	✓	✓	✓
<b>Cooling system</b>			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: ceiling fans + 1-phase airconditioning; Energy rating: 7.5 star (average zone)		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: ceiling fans + 1-phase airconditioning; Energy rating: 7.5 star (average zone)		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
<b>Heating system</b>			
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: 7.5 star (average zone)		✓	✓
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: 7 star (average zone)		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
<b>Ventilation</b>			
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		✓ ✓ ✓	✓ ✓ ✓
<b>Artificial lighting</b>			
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 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"> <li>at least 1 of the living / dining rooms; dedicated</li> <li>the kitchen; dedicated</li> <li>all bathrooms/toilets; dedicated</li> <li>the laundry; dedicated</li> <li>all hallways; dedicated</li> </ul>		    	    
<b>Natural lighting</b>			
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.			
<b>Swimming pool</b>			
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): solar (gas boosted)			
The applicant must install a timer for the swimming pool pump in the development.			
<b>Alternative energy</b>			
The applicant must install a photovoltaic system with the capacity to generate at least 1 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.			
<b>Other</b>			
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.