

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

# Multi Dwelling

Certificate number: 695486M\_07

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

This certificate is a revision of certificate number 695486M\_03 lodged with the consent authority or certifier on 11 February 2016 with application SSD 15\_7080.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environmental Planning and Assessment Regulation 2000

Secretary

Date of issue: Thursday, 11 April 2019

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



If any changes are required to this BASIX certificate, please contact IGS with following details:

- Project reference: IGLU - Regent St Redfern

- Contact number: 0430 108 801

Project summary								
Project name	80-88 Regents Street Redfern_07							
Street address	80 Regent Street Redfern 2016							
Local Government Area	Sydney City Council							
Plan type and plan number	deposited 105824							
Lot no.	A-E							
Section no.	-							
No. of residential flat buildings	1							
No. of units in residential flat buildings	185							
No. of multi-dwelling houses	0							
No. of single dwelling houses	0							
Project score								
Water	✓ 40 Target 40							
Thermal Comfort	✓ Pass Target Pass							
Energy	✓ 29 Target 20							

Certificate Prepared by
Name / Company Name: IGS
ABN (if applicable): 68163019029

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 1/24

# **Description of project**

Project address							
Project name	80-88 Regents Street Redfern_07						
Street address	80 Regent Street Redfern 2016						
Local Government Area	Sydney City Council						
Plan type and plan number	deposited 105824						
Lot no.	A-E						
Section no.	-						
Project type							
No. of residential flat buildings	1						
No. of units in residential flat buildings	185						
No. of multi-dwelling houses	0						
No. of single dwelling houses	0						
Site details							
Site area (m²)	2249						
Roof area (m²)	1092						
Non-residential floor area (m²)	-						
Residential car spaces	0						
Non-residential car spaces	-						

Common area landscape		
Common area lawn (m²)	172.0	
Common area garden (m²)	86.0	
Area of indigenous or low water use species (m²)	86.0	
Assessor details		
Assessor number	20754	
Certificate number	0003674530	
Climate zone	56	
Project score		
Water	<b>✓</b> 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	<b>2</b> 9	Target 20

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 2/24

# **Description of project**

The tables below describe the dwellings and common areas within the project

# Residential flat buildings - Building1, 185 dwellings, 18 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
101	1	24.3	0.0	0.0	0.0	102	1	24.1	0.0	0.0	0.0	103	1	25.6	0.0	0.0	0.0	104	1	19.2	0.0	0.0	0.0
105	1	19.2	0.0	0.0	0.0	106	1	19.2	0.0	0.0	0.0	107	1	19.2	0.0	0.0	0.0	108	1	19.2	0.0	0.0	0.0
109	1	19.2	0.0	0.0	0.0	201	4 or mo bed	117.0 ore drooms	0.0	0.0	0.0	202	1	16.7	0.0	0.0	0.0	203	1	16.7	0.0	0.0	0.0
204	1	17.3	0.0	0.0	0.0	205	1	17.3	0.0	0.0	0.0	206	1	17.3	0.0	0.0	0.0	207	1	17.3	0.0	0.0	0.0
208	1	17.3	0.0	0.0	0.0	209	1	17.3	0.0	0.0	0.0	210	1	17.3	0.0	0.0	0.0	211	1	16.6	0.0	0.0	0.0
301	4 or mo	117.0 re drooms	0.0	0.0	0.0	302	1	16.7	0.0	0.0	0.0	303	1	16.7	0.0	0.0	0.0	304	1	17.3	0.0	0.0	0.0
305	1	17.3	0.0	0.0	0.0	306	1	17.3	0.0	0.0	0.0	307	1	17.3	0.0	0.0	0.0	308	1	17.3	0.0	0.0	0.0
309	1	17.3	0.0	0.0	0.0	310	1	17.3	0.0	0.0	0.0	311	1	16.6	0.0	0.0	0.0	401	4 or mo	117.0 ore drooms	0.0	0.0	0.0
402	1	16.7	0.0	0.0	0.0	403	1	16.7	0.0	0.0	0.0	404	1	17.3	0.0	0.0	0.0	405	1	17.3	0.0	0.0	0.0
406	1	17.3	0.0	0.0	0.0	407	1	17.3	0.0	0.0	0.0	408	1	17.3	0.0	0.0	0.0	409	1	17.3	0.0	0.0	0.0
410	1	17.3	0.0	0.0	0.0	411	1	16.6	0.0	0.0	0.0	501	4 or mo be	117.0 ore drooms	0.0	0.0	0.0	502	1	16.7	0.0	0.0	0.0

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 3/24

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
503	1	16.7	0.0	0.0	0.0	504	1	17.3	0.0	0.0	0.0	505	1	17.3	0.0	0.0	0.0	506	1	17.3	0.0	0.0	0.0
507	1	17.3	0.0	0.0	0.0	508	1	17.3	0.0	0.0	0.0	509	1	17.3	0.0	0.0	0.0	510	1	17.3	0.0	0.0	0.0
511	1	16.6	0.0	0.0	0.0	601	4 or mo	117.0 ore drooms	0.0	0.0	0.0	602	1	16.7	0.0	0.0	0.0	603	1	16.7	0.0	0.0	0.0
604	1	17.3	0.0	0.0	0.0	605	1	17.3	0.0	0.0	0.0	606	1	17.3	0.0	0.0	0.0	607	1	17.3	0.0	0.0	0.0
608	1	17.3	0.0	0.0	0.0	609	1	17.3	0.0	0.0	0.0	610	1	17.3	0.0	0.0	0.0	611	1	16.6	0.0	0.0	0.0
701	4 or mo be	117.0 ore drooms	0.0	0.0	0.0	702	1	16.7	0.0	0.0	0.0	703	1	16.7	0.0	0.0	0.0	704	1	17.3	0.0	0.0	0.0
705	1	17.3	0.0	0.0	0.0	706	1	17.3	0.0	0.0	0.0	707	1	17.3	0.0	0.0	0.0	708	1	17.3	0.0	0.0	0.0
709	1	17.3	0.0	0.0	0.0	710	1	17.3	0.0	0.0	0.0	711	1	16.6	0.0	0.0	0.0	801	4 or mo	117.0 ore drooms	0.0	0.0	0.0
802	1	16.7	0.0	0.0	0.0	803	1	16.7	0.0	0.0	0.0	804	1	17.3	0.0	0.0	0.0	805	1	17.3	0.0	0.0	0.0
806	1	17.3	0.0	0.0	0.0	807	1	17.3	0.0	0.0	0.0	808	1	17.3	0.0	0.0	0.0	809	1	17.3	0.0	0.0	0.0
810	1	17.3	0.0	0.0	0.0	811	1	16.6	0.0	0.0	0.0	901	4 or mo	117.0 ore drooms	0.0	0.0	0.0	902	1	16.7	0.0	0.0	0.0
903	1	16.7	0.0	0.0	0.0	904	1	17.3	0.0	0.0	0.0	905	1	17.3	0.0	0.0	0.0	906	1	17.3	0.0	0.0	0.0
907	1	17.3	0.0	0.0	0.0	908	1	17.3	0.0	0.0	0.0	909	1	17.3	0.0	0.0	0.0	910	1	17.3	0.0	0.0	0.0
911	1	16.6	0.0	0.0	0.0	1001	4 or mo be	117.0 ore drooms	0.0	0.0	0.0	1002	1	16.7	0.0	0.0	0.0	1003	1	16.7	0.0	0.0	0.0

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 4/24

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.		Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1004	1	17.3	0.0	0.0	0.0	1005	1	17.3	0.0	0.0	0.0	1006	1	17.3	0.0	0.0	0.0	1007	1	17.3	0.0	0.0	0.0
1008	1	17.3	0.0	0.0	0.0	1009	1	17.3	0.0	0.0	0.0	1010	1	17.3	0.0	0.0	0.0	1011	1	16.6	0.0	0.0	0.0
1101	4 or mo	117.0 ore drooms	0.0	0.0	0.0	1102	1	16.7	0.0	0.0	0.0	1103	1	16.7	0.0	0.0	0.0	1104	1	17.3	0.0	0.0	0.0
1105	1	17.3	0.0	0.0	0.0	1106	1	17.3	0.0	0.0	0.0	1107	1	17.3	0.0	0.0	0.0	1108	1	17.3	0.0	0.0	0.0
1109	1	17.3	0.0	0.0	0.0	1110	1	17.3	0.0	0.0	0.0	1111	1	16.6	0.0	0.0	0.0	1201	or mo	117.0 ore drooms	0.0	0.0	0.0
1202	1	16.7	0.0	0.0	0.0	1203	1	16.7	0.0	0.0	0.0	1204	1	17.3	0.0	0.0	0.0	1205	1	17.3	0.0	0.0	0.0
1206	1	17.3	0.0	0.0	0.0	1207	1	17.3	0.0	0.0	0.0	1208	1	17.3	0.0	0.0	0.0	1209	1	17.3	0.0	0.0	0.0
1210	1	17.3	0.0	0.0	0.0	1211	1	16.6	0.0	0.0	0.0	1301			0.0	0.0	0.0	1302	1	16.7	0.0	0.0	0.0
1303	1	16.7	0.0	0.0	0.0	1304	1	17.3	0.0	0.0	0.0	1305	1	17.3	0.0	0.0	0.0	1306	1	17.3	0.0	0.0	0.0
1307	1	17.3	0.0	0.0	0.0	1308	1	17.3	0.0	0.0	0.0	1309	1	17.3	0.0	0.0	0.0	1310	1	17.3	0.0	0.0	0.0
1311	1	16.6	0.0	0.0	0.0	1401	or mo bec	117.0 re Irooms	0.0	0.0	0.0	1402	1	16.7	0.0	0.0	0.0	1403	1	16.7	0.0	0.0	0.0
1404	1	17.3	0.0	0.0	0.0	1405	1	17.3	0.0	0.0	0.0	1406	1	17.3	0.0	0.0	0.0	1407	1	17.3	0.0	0.0	0.0
1408	1	17.3	0.0	0.0	0.0	1409	1	17.3	0.0	0.0	0.0	1410	1	17.3	0.0	0.0	0.0	1411	1	16.6	0.0	0.0	0.0
1501	4 or mo be	117.0 ore drooms	0.0	0.0	0.0	1502	1	16.7	0.0	0.0	0.0	1503	1	16.7	0.0	0.0	0.0	1504	1	17.3	0.0	0.0	0.0

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 5/24

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1505	1	17.3	0.0	0.0	0.0
1509	1	17.3	0.0	0.0	0.0
1602	1	16.7	0.0	0.0	0.0
1606	1	17.3	0.0	0.0	0.0
1610	1	17.3	0.0	0.0	0.0
1703	1	16.7	0.0	0.0	0.0
1707	1	17.3	0.0	0.0	0.0
1711	1	16.6	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1506	1	17.3	0.0	0.0	0.0
1510	1	17.3	0.0	0.0	0.0
1603	1	16.7	0.0	0.0	0.0
1607	1	17.3	0.0	0.0	0.0
1611	1	16.6	0.0	0.0	0.0
1704	1	17.3	0.0	0.0	0.0
1708	1	17.3	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1507	1	17.3	0.0	0.0	0.0
1511	1	16.6	0.0	0.0	0.0
1604	1	17.3	0.0	0.0	0.0
1608	1	17.3	0.0	0.0	0.0
1701	or mo	117.0 ore drooms	0.0	0.0	0.0
1705	1	17.3	0.0	0.0	0.0
1709	1	17.3	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
1508	1	17.3	0.0	0.0	0.0
1601	or mo	117.0 ore drooms	0.0	0.0	0.0
1605	1	17.3	0.0	0.0	0.0
1609	1	17.3	0.0	0.0	0.0
1702	1	16.7	0.0	0.0	0.0
1706	1	17.3	0.0	0.0	0.0
1710	1	17.3	0.0	0.0	0.0

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 6/24

# **Description of project**

The tables below describe the dwellings and common areas within the project

# Common areas of unit building - Building1

Common area	Floor area (m²)
Lift car (No. 1)	-
Garbage room	60.0
Other internal common area	66.0

Common area	Floor area (m²)
Lift car (No. 2)	-
Community room	319.5
Ground floor lobby type	35.0

Common area	Floor area (m²)
Switch room	20.0
Plant or service room	155.0
Hallway/lobby type	326.0

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 7/24

# Schedule of BASIX commitments

- 1. Commitments for Residential flat buildings Building1
  - (a) Dwellings
    - (i) Water
    - (ii) Energy
    - (iii) Thermal Comfort
  - (b) Common areas and central systems/facilities
    - (i) Water
    - (ii) Energy
- 2. Commitments for multi-dwelling houses
- 3. Commitments for single dwelling houses
- 4. Commitments for common areas and central systems/facilities for the development (non-building specific)
  - (i) Water
  - (ii) Energy

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 8/24

## **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.

## 1. Commitments for Residential flat buildings - Building1

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	~	~	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		<b>&gt;</b>	V
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		~	V
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		<b>✓</b>	V
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		<b>✓</b>	V
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	V	<b>✓</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>✓</b>	
(g) The pool or spa must be located as specified in the table.	V	<b>✓</b>	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	~	~	•

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 9/24

	Fixtures			Appliances I		Indi	vidual pool	Individual spa						
Dwelling no.	All shower- heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish- washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
101, 102, 103, 104, 105, 106, 107, 108, 109	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	6 star	no	-	-	-	-	-	-	-	-	-
All other dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	no	-	-	-	-	-	-	-	-	-

		Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up	
None	-	-	-	-	-	-	-	-	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	~	~	~
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		~	V
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		~	~

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 10/24

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		~	~
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	~	~	~
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		<b>~</b>	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		<b>~</b>	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		<b>~</b>	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		<b>~</b>	V
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>~</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		V	

	Hot water	Bathroom ven	tilation system	Kitchen venti	lation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Nation Nation Control		Operation control	
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	manual on / timer off	individual fan, ducted to façade or roof	manual switch on/off	natural ventilation only, or no laundry	-	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 11/24

	Cod	oling	Hea	ting			Natural lighting					
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitche
201, 301, 401, 501, 601, 701, 801, 901, 1001, 1101, 1201, 1301, 1401, 1501, 1601, 1701	-	1-phase airconditioning 2 Star (new rating)	-	1-phase airconditioning 2 Star (new rating)	6 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 2 Star (new rating)	-	1-phase airconditioning 2 Star (new rating)	-	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

	Individual po	ool	Individual s	ра		Appliances & other efficiency measures							
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line	
All dwellings	-	-	-	-	gas cooktop & electric oven	-	no	-	-	-	no	no	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 12/24

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	~		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		~	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		~	~
(g) Where there is an in-slab heating or cooling system, the applicant must:	V	~	V
(aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or			
(bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.			
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	V	<b>~</b>	~

		Thermal loads							
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)							
101	44.6	23.8							
102	37.6	24.3							
103	36.4	29.0							
104	27.8	28.5							
201	17.7	13.6							

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 13/24

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
202	22.0	18.9
203	18.6	20.5
204	24.5	27.6
208	7.5	22.7
210	23.7	26.2
211	15.9	17.9
301	18.7	12.5
302	22.3	19.0
303	19.2	20.2
304	25.4	27.9
305	7.4	23.1
306	7.4	23.5
307	7.7	23.2
308	7.7	23.3
309	7.0	22.7
310	22.5	24.8
311	15.6	18.2
401	19.0	12.4
402	22.6	18.8
403	19.5	20.5
404	25.6	28.0
407	7.8	22.8
408	7.9	22.5
409	7.2	22.5
410	22.8	24.7
411	16.0	17.5
501	19.3	12.4

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 14/24

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
502	23.2	18.9
503	20.0	20.2
504	26.1	26.5
505	7.8	22.1
506	8.0	22.2
509	7.4	22.2
510	23.2	23.9
511	16.5	17.8
601	19.5	12.5
602	23.3	19.0
603	20.2	20.3
604	26.3	26.1
605	8.0	22.0
606	8.3	22.0
607	8.2	22.0
608	8.2	22.1
609	7.5	22.2
610	23.4	23.8
611	16.7	17.4
701	19.8	12.4
703	20.7	19.9
704	26.6	25.7
707	8.6	21.6
708	8.5	21.6
709	8.0	21.5
710	23.9	23.4
711	17.4	16.8

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 15/24

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
801	20.0	12.3
802	23.9	18.2
803	20.8	20.3
804	26.8	25.5
805	8.5	20.9
808	9.0	21.0
810	24.4	23.2
811	17.3	16.6
901	20.2	12.5
902	24.1	18.8
903	20.9	20.2
904	27.6	25.5
905	8.7	20.1
906	8.8	20.1
907	9.0	20.2
908	8.9	20.1
910	25.0	22.8
911	17.8	16.6
1001	20.3	12.3
1002	24.2	19.1
1003	20.9	20.0
1004	27.9	25.3
1005	8.6	19.9
1006	8.9	19.9
1009	8.5	20.4
1010	25.1	23.0
1011	17.9	16.9

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 16/24

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
1102	26.3	17.4
1103	23.5	17.7
1104	30.9	23.8
1105	10.9	16.2
1109	10.5	16.0
1110	27.5	19.0
1111	21.0	15.5
1201	21.9	11.4
1202	26.3	17.7
1203	23.3	18.0
1204	31.1	23.5
1209	10.5	15.8
1210	27.5	18.6
1211	20.8	15.5
1302	26.1	18.0
1304	31.6	23.8
1308	11.5	16.2
1309	10.7	16.1
1310	27.9	18.3
1311	21.3	15.2
1401	21.8	11.6
1402	26.1	18.7
1403	23.7	18.6
1404	31.6	23.9
1408	11.7	16.2
1409	11.0	16.1
1410	28.3	18.0

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 17/24

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
1411	21.1	14.9
1501	21.4	11.6
1502	26.0	19.3
1503	23.1	20.2
1504	31.3	24.3
1505	11.5	16.8
1506	11.3	16.8
1507	11.9	16.6
1508	11.6	16.7
1510	28.2	17.6
1511	21.5	14.6
1601	20.9	11.3
1602	25.4	20.1
1603	22.9	20.4
1604	28.8	24.6
1605	11.7	16.4
1607	11.9	16.2
1610	28.7	17.9
1611	21.6	14.4
1701	30.6	12.1
1702	32.1	19.1
1703	28.9	20.8
1704	32.6	24.8
1707	20.8	18.3
1708	21.0	18.4
1709	20.3	18.1
1710	38.0	20.3

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 18/24

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
1711	31.8	16.8
108, 109	7.0	28.0
205, 206	7.2	22.6
207, 209	7.4	22.7
405, 406	7.6	22.8
507, 508	8.1	22.2
705, 706	8.3	21.4
806, 807	8.6	20.9
809, 909	8.3	20.4
702, 1303	23.6	18.2
1007, 1008	9.3	19.9
1101, 1301	21.9	11.5
1108, 1405	11.2	16.2
1207, 1208	11.2	16.1
1606, 1608	11.9	16.4
1705, 1706	20.6	18.4
105, 106, 107	7.1	28.0
1306, 1307, 1407	11.4	16.2
1106, 1205, 1206, 1509	11.0	16.2
All other dwellings	11.3	16.2

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 19/24

## (b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		<b>~</b>	V
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	~	~	~
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	V	~	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		<b>~</b>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		<b>~</b>	V
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		V	V

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	not specified

Central systems	Size	Configuration	Connection (to allow for)
Fire sprinkler system (No. 1)	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		~	~

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 20/24

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		~	~
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	V	~	~

Common area ventilation system				Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS	
Lift car (No. 1)	-	-	light-emitting diode	connected to lift call button	No	
Lift car (No. 2)	-	-	light-emitting diode	connected to lift call button	No	
Switch room	ventilation (supply + exhaust)	thermostatically controlled	fluorescent	manual on / manual off	No	
Garbage room	ventilation exhaust only	-	fluorescent	motion sensors	No	
Community room	ventilation (supply + exhaust)	time clock or BMS controlled	fluorescent	motion sensors	No	
Plant or service room	ventilation (supply + exhaust)	thermostatically controlled	fluorescent	manual on / manual off	No	
Other internal common area	ventilation supply only	time clock or BMS controlled	fluorescent	motion sensors	No	
Ground floor lobby type	ventilation supply only	time clock or BMS controlled	fluorescent	time clock and motion sensors	No	
Hallway/lobby type	no mechanical ventilation	-	fluorescent	daylight sensor and motion sensor	No	

Central energy systems	Туре	Specification
Central hot water system (No. 1)	gas-fired storage (manifolded)	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm)

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 21/24

Central energy systems	Туре	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 19
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 19

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 22/24

## 4. Commitments for common areas and central systems/facilities for the development (non-building specific)

### (b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.	<b>~</b>		V
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	~	~	~
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	V	<b>~</b>	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		V	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		~	V
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		<b>V</b>	V

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	not specified

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		~	~
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		~	~
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	V	~	V

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 23/24

#### **Notes**

- 1. In these commitments, "applicant" means the person carrying out the development.
- 2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
- 3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
- 4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
- 5. If a star or other rating is specified in a commitment, this is a minimum rating.
- 6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

## Legend

- 1. 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).
- 2. 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.
- 3. Commitments identified with a " in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfillment it is required to monitor in relation to the building or part, has been fulfilled).

BASIX Planning & Environment www.basix.nsw.gov.au Version: 2.3 / CASUARINA\_3\_8\_8 Certificate No.: 695486M\_07 Thursday, 11 April 2019 page 24/24