# **BASIX**<sup>°</sup>Certificate

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

# Multi Dwelling

Certificate number: 944202M\_04

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

This certificate is a revision of certificate number 944202M lodged with the consent authority or certifier on 25 September 2018 with application 2018/1574.

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: Friday, 18 February 2022 To be valid, this certificate must be lodged within 3 months of the date of issue.



Planning, Industry & Environment

Project summary										
Project name	Fisher Road DEE WHY_04									
Street address	23 Fisher Road Dee Why 2099									
Local Government Area	Northern Beaches Council									
Plan type and plan number	deposited 577062									
Lot no.	11									
Section no.	-									
No. of residential flat buildings	3									
No. of units in residential flat buildings	126									
No. of multi-dwelling houses	0									
No. of single dwelling houses	0									
Project score										
Water	V 40 Target 40									
Thermal Comfort	V Pass Target Pass									
Energy	✓ 35 Target 35									

Certificate Prepared by
Name / Company Name: Rose Management Services Pty Ltd
ABN (if applicable): 82895653449

# **Description of project**

## Project address

Fisher Road DEE WHY_04
23 Fisher Road Dee Why 2099
Northern Beaches Council
deposited 577062
11
-
3
126
0
0
10620
2200
0.0
213
12

Common area landscano	
Common area landscape	
Common area lawn (m²)	300.0
Common area garden (m <sup>2</sup> )	3200.0
Area of indigenous or low water use species (m <sup>2</sup> )	1500.0
Assessor details	
Assessor number	DMN/19/1921
Certificate number	0005635510
Climate zone	56
Ceiling fan in at least one bedroom	No
Ceiling fan in at least one living room or other conditioned area	No
Project score	
Water	V 40 Target 40
Thermal Comfort	V Pass Target Pass
Energy	V 35 Target 35

# **Description of project**

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

#### Residential flat buildings - Building A, 61 dwellings, 7 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.	מיש	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Ū I	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	Unconditioned floor area (m²)	of g; (m²)	Indigenous species (min area m²)
0LG	52	97.0	0.0	9.0	0.0	0LG6 2	97.0	0.0	9.0	0.0	0LG7 2	97.0	0.0	9.0	0.0	0LG8	3 2	97.0	0.0	9.0	0.0	1.G012	2 102	.0 0.0	25.0	0.0
1.G0	23	119.4	0.0	20.0	0.0	1.G03 2	105.0	0.0	15.0	0.0	1.G042	2 102.0	0.0	15.0	0.0	1.G0	51	70.0	0.0	10.0	0.0	1.G062	2 105	.0 0.0	15.0	0.0
1.G0	72	105.0	0.0	15.0	0.0	1.G08 1	56.0	0.0	0.0	0.0	1.G092	97.0	0.0	15.0	0.0	1.G1	02	122.0	0.0	15.0	0.0	1.G113	3 122	.0 0.0	0.0	0.0
1.G1	22	102.0	0.0	5.0	0.0	1.G131	52.0	0.0	5.0	0.0	1.G14 1	54.0	0.0	20.0	0.0	1.G1	52	92.0	0.0	10.0	0.0	1.G162	93.2	2 0.0	5.0	0.0
A.10	12	102.0	0.0	0.0	0.0	A.102 3	119.4	0.0	0.0	0.0	A.103 1	52.0	0.0	0.0	0.0	A.10	42	84.0	0.0	0.0	0.0	A.105 3	3 130	0.0 0.0	0.0	0.0
A.10	62	102.0	0.0	0.0	0.0	A.107 1	52.0	0.0	0.0	0.0	A.108 1	54.0	0.0	0.0	0.0	A.10	92	92.0	0.0	0.0	0.0	A.110 2	93.2	2 0.0	0.0	0.0
A.20	12	102.0	0.0	0.0	0.0	A.202 3	119.4	0.0	0.0	0.0	A.203 2	2 80.0	0.0	0.0	0.0	A.20	41	53.5	0.0	0.0	0.0	A.205 2	2 80.0	0.0	0.0	0.0
A.20	62	85.5	0.0	0.0	0.0	A.207 2	78.5	0.0	0.0	0.0	A.208 2	2 84.0	0.0	0.0	0.0	A.20	93	130.0	0.0	0.0	0.0	A.210 2	2 102	.0 0.0	0.0	0.0
A.21	11	52.0	0.0	0.0	0.0	A.212 1	54.0	0.0	0.0	0.0	A.213 2	92.0	0.0	0.0	0.0	A.21	42	93.2	0.0	0.0	0.0	A.301 2	2 103	.6 0.0	0.0	0.0
A.30	23	140.8	3 0.0	0.0	0.0	A.303 1	52.0	0.0	0.0	0.0	A.304 2	2 81.5	0.0	0.0	0.0	A.30	52	84.0	0.0	0.0	0.0	A.306 2	2 78.5	6 0.0	0.0	0.0
A.30	72	84.0	0.0	0.0	0.0	A.308 3	130.0	0.0	0.0	0.0	A.309 2	2 102.0	0.0	0.0	0.0	A.31	01	52.0	0.0	0.0	0.0	A.311 ′	54.0	0.0	0.0	0.0
A.31	23	137.3	3 0.0	0.0	0.0	A.401 3	165.0	0.0	0.0	0.0	A.402 3	3 150.0	0.0	0.0	0.0	A.40	33	183.4	0.0	0.0	0.0	A.404 2	2 100	.0 0.0	0.0	0.0
A.40	51	55.0	0.0	0.0	0.0	L L	1					1			1]	L							1		<u> </u>	

Residential flat buildings - Building B, 22 dwellings, 4 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 & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	sa of ga /n (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	vo. or <u>neorooms</u> Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
B.101 2	82.0	0.0	0.0	0.0	B.102 2	87.0	0.0	0.0	0.0	B.10	31	60.0	0.0	0.0	0.0	B.104	11	54.0	0.0	0.0	0.0	B.105 1	52.4	0.0	0.0	0.0
B.106 2	82.0	0.0	0.0	0.0	B.201 2	82.0	0.0	0.0	0.0	B.20	22	87.0	0.0	0.0	0.0	B.20	32	80.0	0.0	0.0	0.0	B.204 1	52.0	0.0	0.0	0.0
B.205 1	52.4	0.0	0.0	0.0	B.206 2	82.0	0.0	0.0	0.0	B.30	12	82.0	0.0	0.0	0.0	B.302	22	87.0	0.0	0.0	0.0	B.303 2	80.0	0.0	0.0	0.0
B.304 1	52.0	0.0	0.0	0.0	B.305 1	52.4	0.0	0.0	0.0	B.30	62	82.0	0.0	0.0	0.0	B.40	11	60.0	0.0	0.0	0.0	B.402 3	115.0	0.0	0.0	0.0
B.403 2	85.0	0.0	0.0	0.0	B.404 2	83.0	4.0	0.0	0.0							L	LI					LI				

# Residential flat buildings - Building C, 43 dwellings, 6 storeys above ground

Dwelling no.	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)		Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)		Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedroome	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
C.001 2	120.0	0.0	5.0	0.0	C.00	23	155.0	0.0	5.0	0.0	C.101	13	116.8	3 0.0	5.0	0.0	C.1	)2 2	95.0	0.0	5.0	0.0	C.103	31	53.0	0.0	3.0	0.0
C.104 1	68.0	0.0	3.0	0.0	C.10	52	80.0	0.0	5.0	0.0	C.106	51	54.9	0.0	5.0	0.0	C.1	072	110.0	0.0	5.0	0.0	C.108	31	70.9	0.0	3.0	0.0
C.109 2	95.0	0.0	3.0	0.0	C.11	01	62.0	0.0	0.0	0.0	C.111	12	85.0	0.0	5.0	0.0	C.1	122	85.0	0.0	3.0	0.0	C.20	13	116.8	0.0	0.0	0.0
C.202 2	95.0	0.0	0.0	0.0	C.20	31	53.0	0.0	0.0	0.0	C.204	12	95.0	0.0	0.0	0.0	C.2	05 2	80.0	0.0	0.0	0.0	C.206	61	54.9	0.0	0.0	0.0
C.207 2	110.0	0.0	0.0	0.0	C.20	81	70.9	0.0	0.0	0.0	C.209	92	95.0	0.0	0.0	0.0	C.2	10 1	62.0	0.0	0.0	0.0	C.21	12	93.0	0.0	0.0	0.0
C.212 2	85.0	0.0	0.0	0.0	C.30	13	116.8	0.0	0.0	0.0	C.302	22	95.0	0.0	0.0	0.0	C.3	03 1	53.0	0.0	0.0	0.0	C.304	12	95.0	0.0	0.0	0.0
C.305 2	80.0	0.0	0.0	0.0	C.30	61	54.9	0.0	0.0	0.0	C.307	72	110.0	0.0	0.0	0.0	C.3	08 1	70.9	5.0	0.0	0.0	C.309	92	95.0	0.0	0.0	0.0
C.310 1	62.0	0.0	0.0	0.0	C.31	12	93.0	0.0	0.0	0.0	C.312	22	85.0	0.0	0.0	0.0	C.4	013	180.0	0.0	0.0	0.0	C.402	23	140.0	0.0	0.0	0.0
C.403 2	92.0	0.0	0.0	0.0	C.40	43	151.0	0.0	0.0	0.0	C.40	53	150.0	0.0	0.0	0.0												

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# **Description of project**

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

# Common areas of unit building - Building A

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m²)
Lift car (No.1)	-	Lift car (No.2)	-	Switch room (Building A)	10.0
Exhaust Plant (Building A)	10.0	Supply Plant (Building A)	30.0	Pump Room (Building A)	8.0
Ground Floor lobby 1 Building A	50.0	Ground floor lobby 2 Building A	70.0	Ground floor lobby 3 Building A	25.0
Hallway 1 Building A Level 3	60.0	Hallway 2 Building A Level 5	14.0	Hallway 1 Building A Level 2	60.0
Hallway 2 Building A Level 2	25.0	Hallway 2 Building A Level 3	25.0	Hallway 1 Building A Level 4	60.0
Hallway 2 Building A Level 4	25.0	Hallway 1 Building A Level 5	16.0		

## Common areas of unit building - Building B

Common area	Floor area (m²)
Lift car (No.3)	-
Supply Plant (Building B)	10.0
Hallway 1 Building B Level 1	40.0
Hallway 1 Building B Level 4	30.0

Common area	Floor area (m²)	Common area	Floor area (m²)
Switch room (Building B)	5.0	Exhaust Plant (Building B)	10.0
Pump Room (Building B)	20.0	Ground floor lobby 1 Building B	13.0
Hallway 1 Building B Level 2	30.0	Hallway 1 Building B Level 3	30.0

### Common areas of unit building - Building C

Common area	Floor area (m²)	Common area	Floor area (m <sup>2</sup>
Lift car (No.4)	-	Lift car (No.5)	-
Exhaust Plant (Building C)	10.0	Supply Plant (Building C)	10.0
allway 2 Building C Level 4	20.0	Pump Room (Building C)	8.0
round floor lobby 2 Building C	65.0	Hallway 1 Building C Level 4	16.0
lallway 1 Building C Level 2	33.0	Hallway 2 Building C Level 2	43.0
Hallway 2 Building C Level 3	43.0		1

Common area	Floor area (m²)
Switch room (Building C)	20.0
Toilet	7.0
Ground floor lobby 1 Building C	13.0
Hallway 1 Building C Level 1	33.0
Hallway 1 Building C Level 3	33.0

# Common areas of the development (non-building specific) Floor area (m<sup>2</sup>) Common area Floor area (m<sup>2</sup>) Common area Floor area (m<sup>2</sup>) Common area Lower Basement Upper Basement 80.0 3500.0 3500.0 Garbage room

# **Schedule of BASIX commitments**

1. Commitments for Residential flat buildings - Building A

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

2. Commitments for Residential flat buildings - Building B

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

3. Commitments for Residential flat buildings - Building C

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

4. Commitments for multi-dwelling houses

5. Commitments for single dwelling houses

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

(i) Water

(ii) Energy

# 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 - Building A

#### (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.		~	~
(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.		~	~
(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		<ul> <li>Image: A set of the set of the</li></ul>	~
(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.		<ul> <li>Image: A second s</li></ul>	~
(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.	~	<ul> <li>Image: A set of the set of the</li></ul>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<ul> <li>Image: A set of the set of the</li></ul>	
(g) The pool or spa must be located as specified in the table.	~	~	
(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.	~	~	~

			Fixtur	es		Applia	ances		Indi	vidual pool		In	dividual	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
All dwellings	4 star (> 6 but <= 7.5 L/min)	4 star	6 star	4 star	no	-	3.5 star	-	-	-	-	-	-	-

		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.		~	~
(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.		~	~
(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.		~	~

ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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;		✓	
(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		✓	~
(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".		<b>_</b>	

	Hot water	Bathroom ven	tilation system	Kitchen vent	lation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control	
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light	

	Coo	ling	Hea	ting			Natural lig	hting				
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitcher
0LG8	1-phase airconditioning 4 Star (old label) (zoned)	2	2	yes	yes	yes	yes	0	no			
A.312	1-phase airconditioning 4 Star (old label) (zoned)	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes			
A.402	1-phase airconditioning 4 Star (old label) (zoned)	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no			
A.403	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	no			
A.404	1-phase airconditioning 4 Star (old label) (zoned)	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	no			
1.G10, A.401	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no			
1.G15, A.109, A.213	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes			

	Coo	ling	Hee	ting			Artificial	lighting			Netural lia	a la timer
Dwelling no.		ling bedroom areas	пеа living areas	ting bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Artificial Each kitchen	All bathrooms/ toilets	Each Iaundry	All hallways	Natural lig No. of bathrooms &/or toilets	Main
1.G02, 1.G11, A.102, A.105, A.202, A.209, A.302, A.308	1-phase airconditioning 4 Star (old label) (zoned)	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
1.G05, 1.G08, 1.G13, 1.G14, A.103, A.107, A.108, A.203, A.204, A.211, A.212, A.303, A.310, A.311	1-phase airconditioning 4 Star (old label) (zoned)	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
All other dwellings	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			

	Individual	lood	Individual s	spa			Appliance	es & other effic	iency meas	sures		
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
0LG8	-	-	-	-	induction cooktop & electric oven	-	no	4 star	-	2 star	no	no
All other dwellings	-	-	-	-	induction cooktop & electric oven	-	no	4 star	-	2 star	-	-

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:	~	~	~
(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.			

i) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	~	~	~

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
0LG5	25.3	6.4
0LG6	21.8	6.3
0LG7	21.7	6.4
0LG8	34.0	6.2
1.G01	45.3	23.8
1.G02	45.3	24.6
1.G03	39.1	19.7
1.G04	34.9	18.2
1.G05	42.6	22.7
1.G06	37.9	20.9
1.G07	34.8	22.6
1.G08	37.7	26.3
1.G09	34.7	19.2
1.G10	22.2	17.3
1.G11	36.9	13.8
1.G12	23.3	10.9
1.G13	17.5	23.1
1.G14	41.1	17.5
1.G15	26.4	22.2
1.G16	41.1	28.3

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
A.101	18.7	29.5
A.102	35.6	26.9
A.103	20.9	25.0
A.104	15.0	28.9
A.105	14.1	10.4
A.106	9.0	10.8
A.107	7.7	25.6
A.108	24.0	22.4
A.109	17.6	19.0
A.110	27.8	26.9
A.201	27.3	28.9
A.202	44.9	26.5
A.203	13.3	29.1
A.204	29.1	20.0
A.205	12.0	28.8
A.206	28.4	19.7
A.207	28.4	19.6
A.208	12.2	29.1
A.209	14.5	10.3
A.210	8.9	10.8
A.211	7.3	25.9
A.212	24.3	22.6
A.213	26.7	21.9
A.214	40.9	29.0
A.301	42.0	29.0
A.302	39.3	24.6
A.303	21.4	29.4

	Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
A.304	37.5	23.1				
A.305	28.5	29.2				
A.306	39.5	24.0				
A.307	19.3	24.2				
A.308	23.4	12.3				
A.309	11.0	11.2				
A.310	17.3	28.1				
A.311	30.9	22.0				
A.312	35.6	20.4				
A.401	34.7	26.3				
A.402	26.8	28.7				
A.403	29.9	24.7				
A.404	28.5	22.7				
All other dwellings	27.4	29.4				

(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) 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.	~	~	
(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.		~	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		~	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		~	~

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for)
Central water tank - rainwater or stormwater (No. 1)	15000.0	To collect run-off from at least: - 400.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	<ul> <li>irrigation of 2000.0 square metres of common landscaped area on the site</li> <li>car washing in 1 car washing bays on the site</li> </ul>

(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.	~	~	~

	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 (Building A)	no mechanical ventilation	-	fluorescent	manual on / manual off	No	
Exhaust Plant (Building A)	no mechanical ventilation	-	fluorescent	manual on / manual off	No	
Supply Plant (Building A)	no mechanical ventilation	-	fluorescent	manual on / manual off	No	
Pump Room (Building A)	no mechanical ventilation	-	fluorescent	manual on / manual off	No	
Ground Floor lobby 1 Building A	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Ground floor lobby 2 Building A	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Ground floor lobby 3 Building A	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Hallway 1 Building A Level 3	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Hallway 2 Building A Level 5	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Hallway 1 Building A Level 2	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	

	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	
Hallway 2 Building A Level 2	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Hallway 2 Building A Level 3	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Hallway 1 Building A Level 4	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Hallway 2 Building A Level 4	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	
Hallway 1 Building A Level 5	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No	

Central energy systems	Туре	Specification
Central hot water system (No. 1)	electric heat pump - gas boosted	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 7
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 7

# 2. Commitments for Residential flat buildings - Building B

#### (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.		~	~
(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.		~	~
(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>	~
(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.		✓	~
(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.	~	<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.	~	<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.	~	~	~

	Fixtures			Applia	ances	Individual 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
All dwellings	4 star (> 6 but <= 7.5 L/min)	4 star	6 star	4 star	no	-	3.5 star	-	-	-	-	-	-	-

	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.		~	~
(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.		~	~
(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.		~	~

ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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		✓	
(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		<ul> <li>Image: A second s</li></ul>	~
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		~	

	Hot water	Bathroom ventilation system		Kitchen vent	lation system	Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control	
All dwellings	central hot water system 2	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light	

	Coo	ling	Hea	ting	Artificial lighting						Natural lig	ghting
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
B.401	1-phase airconditioning 4 Star (old label) (zoned)	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no			
B.402	1-phase airconditioning 4 Star (old label) (zoned)	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
B.404	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no			
B.105, B.205, B.305	1-phase airconditioning 4 Star (old label) (zoned)	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes			
B.103, B.104, B.204, B.304	1-phase airconditioning 4 Star (old label) (zoned)	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
B.101, B.106, B.201, B.206, B.301, B.306	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes			
All other dwellings	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			

	Individual po	ool	Individual s	ра			Appliance	es & other effici	iency meas	ures		
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	-	-	-	-	induction cooktop & electric oven	-	no	4 star	-	2 star	-	-

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, the applicant is applying for a complying development certificate for the proposed development, to that application). The applican 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 propose development which were used to calculate those specifications.	d	~	
(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:	~	~	~
(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.		<b>_</b>	~

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
B.101	39.1	21.1
B.102	44.3	24.6
B.103	44.8	18.2
B.104	45.0	17.5
B.105	34.5	19.0
B.106	30.3	18.6
B.201	27.0	21.1
B.202	39.0	25.7
B.203	25.2	17.7
B.204	27.1	17.2
B.205	26.4	21.9
B.206	18.3	25.2
B.301	45.3	26.7
B.302	41.4	27.0
B.303	25.9	20.7
B.304	25.5	18.8
B.305	34.7	22.3
B.306	31.1	28.0
B.401	35.6	21.1
B.402	38.1	25.6
B.403	34.7	18.5
All other dwellings	32.9	17.1

(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) 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.	~	~	
(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.		~	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		~	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		~	~

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

(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.	~	<b>v</b>	~

	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.3)	-	-	light-emitting diode	connected to lift call button	No			
Switch room (Building B)	no mechanical ventilation	-	fluorescent	manual on / manual off	No			
Exhaust Plant (Building B)	no mechanical ventilation	-	fluorescent	manual on / manual off	No			
Supply Plant (Building B)	no mechanical ventilation	-	fluorescent	manual on / manual off	No			
Pump Room (Building B)	no mechanical ventilation	-	fluorescent	manual on / manual off	No			
Ground floor lobby 1 Building B	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No			
Hallway 1 Building B Level 1	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No			
Hallway 1 Building B Level 2	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No			
Hallway 1 Building B Level 3	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No			
Hallway 1 Building B Level 4	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No			

Central energy systems	Туре	Specification
Central hot water system (No. 2)	electric heat pump - gas boosted	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 6

# 3. Commitments for Residential flat buildings - Building C

#### (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.		~	~
(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.		~	~
(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>	~
(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.		✓	~
(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.	~	<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.	~	<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.	~	~	~

	Fixtures			Appliances			Individual 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
All dwellings	4 star (> 6 but <= 7.5 L/min)	4 star	6 star	5 star	no	-	3.5 star	-	-	-	-	-	-	-

		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.		~	~
(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.		~	~
(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.		~	~

ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check	
(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.	specified for that room or area). The applicant must ensure that each such room or area is Int installs a water heating system for the dwelling's pool or spa. The applicant must: The pool in the "Individual Pool" column of the table below (or alternatively must not install ecified, the applicant must install a timer, to control the pool's pump; and The spa in the "Individual Spa" column of the table below (or alternatively must not install ecified, the applicant must install a timer to control the spa's pump.			
(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		✓		
(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		<ul> <li>Image: A set of the set of the</li></ul>	~	
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓		
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		~		

	Hot water	Bathroom ven	tilation system	Kitchen venti	lation system	Laundry vent	ilation system
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 3	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

	Coo	oling	Hea	ting			Artificial	lighting			Natural lig	ghting
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
C.401	1-phase airconditioning 4 Star (old label) (zoned)	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	no			
C.001, C.112, C.212, C.312	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes			
C.106, C.108, C.206, C.208, C.306, C.308	1-phase airconditioning 4 Star (old label) (zoned)	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no			
C.002, C.101, C.201, C.301, C.402, C.404, C.405	1-phase airconditioning 4 Star (old label) (zoned)	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
C.103, C.104, C.110, C.203, C.210, C.303, C.310	1-phase airconditioning 4 Star (old label) (zoned)	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
All other dwellings	1-phase airconditioning 4 Star (old label) (zoned)	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			

	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	-	-	-	-	induction cooktop & electric oven	-	no	4 star	-	2 star	-	-

(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, i the applicant is applying for a complying development certificate for the proposed development, to that application). The applican 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 propose development which were used to calculate those specifications.	d	~	
(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:	~	~	~
(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.		<b>_</b>	

		Thermal loads						
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)						
C.001	45.1	14.7						
C.002	28.3	16.5						
C.101	27.4	19.7						
C.102	5.8	28.6						
C.103	17.9	23.5						
C.104	29.0	18.2						
C.105	43.0	13.9						
C.106	36.6	20.0						
C.107	40.3	8.1						
C.108	34.9	25.3						
C.109	33.5	29.4						
C.110	29.0	26.0						
C.111	23.8	27.0						
C.112	26.9	24.3						
C.201	29.3	21.6						
C.202	6.4	28.7						
C.203	6.3	28.1						
C.204	7.3	22.3						
C.205	34.8	21.8						
C.206	27.6	26.5						
C.207	13.1	11.1						
C.208	19.5	23.5						
C.209	9.5	29.5						
C.210	9.1	29.3						
C.211	17.4	28.7						
C.212	12.1	28.6						
C.301	41.1	18.9						

		Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)					
C.302	18.7	29.1					
C.303	10.1	28.6					
C.304	9.1	25.4					
C.305	42.4	20.6					
C.306	42.3	24.6					
C.307	19.1	10.7					
C.308	34.4	21.0					
C.309	14.7	29.5					
C.310	21.7	28.2					
C.311	27.4	27.5					
C.312	27.2	28.3					
C.401	22.0	27.0					
C.402	28.6	13.4					
C.403	34.5	23.8					
C.404	23.8	17.9					
All other dwellings	34.5	27.3					

(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) 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.	~	~	
(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.		~	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		~	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		~	~

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

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.	~	<b>v</b>	~

	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.4)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.5)	-	-	light-emitting diode	connected to lift call button	No
Switch room (Building C)	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Exhaust Plant (Building C)	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Supply Plant (Building C)	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Toilet	ventilation exhaust only	interlocked to light	fluorescent	manual on / manual off	No
Hallway 2 Building C Level 4	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Pump Room (Building C)	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Ground floor lobby 1 Building C	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Ground floor lobby 2 Building C	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Hallway 1 Building C Level 4	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Hallway 1 Building C Level 1	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Hallway 1 Building C Level 2	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Hallway 2 Building C Level 2	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Hallway 1 Building C Level 3	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Hallway 2 Building C Level 3	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No

Central energy systems	Туре	Specification
		Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)

Central energy systems	Туре	Specification
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 6
Lift (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 6

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

(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) 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.	~	~	
(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>v</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.		~	~
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		~	~

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

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.	~	~	~

	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
Lower Basement	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	daylight sensor and motion sensor	No
Upper Basement	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	daylight sensor and motion sensor	No
Garbage room	ventilation (supply + exhaust)	-	fluorescent	motion sensors	No

Central energy systems	Туре	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 15.0 peak kW

1 In these commitments	a "applicant" means the person correcting out the development
T. In these communents	s, "applicant" means the person carrying out the development.
specifications accom	lentify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and npanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or n to that dwelling, building or common area in this certificate.
residential and non-	re 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 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 lopment to be used for residential purposes.
	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 e installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating	g is specified in a commitment, this is a minimum rating.
NSW Health does no	systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: ot 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 in areas with potable water supply.
egend	

development application is to be lodged for the proposed development).

2. Commitments identified with a " right" 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 fulfilment it is required to monitor in relation to the building or part, has been fulfilled).