

# BASIX™ Certificate

Building Sustainability Index

[www.planningportal.nsw.gov.au/development-and-assessment/basix](http://www.planningportal.nsw.gov.au/development-and-assessment/basix)

## Multi Dwelling

Certificate number: 1123393M\_11

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.planningportal.nsw.gov.au/definitions](http://www.planningportal.nsw.gov.au/definitions)

This certificate is a revision of certificate number 1123393M\_02 lodged with the consent authority or certifier on 16 November 2021 with application DA-826/2020.

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 Environment Planning and Assessment Regulation 2000

Secretary

Date of issue: Tuesday, 03 June 2025

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



When submitting this BASIX certificate with a development application or complying development certificate application, it must be accompanied by NatHERS certificate 0011693220.

### Project summary

Project name	143-163 Milton Street, Ashbury NSW 2_02_11
Street address	149-163 MILTON STREET ASHBURY 2193
Local Government Area	CANTERBURY-BANKSTOWN
Plan type and plan number	Deposited Plan 30778
Lot no.	B, C
Section no.	-
No. of residential flat buildings	2
No. of units in residential flat buildings	69
No. of multi-dwelling houses	62
No. of single dwelling houses	0

### Project score

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

### Certificate Prepared by

Name / Company Name: JHA Consulting Engineers (NSW) Pty Ltd

ABN (if applicable):

# Description of project

Project address	
Project name	143-163 Milton Street, Ashbury NSW 2_02_11
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Lot no.	B, C
Section no.	-
Project type	
No. of residential flat buildings	2
No. of units in residential flat buildings	69
No. of multi-dwelling houses	62
No. of single dwelling houses	0
Site details	
Site area (m²)	16220
Roof area (m²)	3609.2
Non-residential floor area (m²)	0
Residential car spaces	251
Non-residential car spaces	0

Common area landscape		
Common area lawn (m²)	394	
Common area garden (m²)	2405	
Area of indigenous or low water use species (m²)	1996.2	
Assessor details and thermal loads		
Assessor number	20647	
Certificate number	0011693220	
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	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 50	Target 50

## Description of project

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

### Residential flat buildings - Building B, 32 dwellings, 6 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B001	3	125.9	0	7	5.8
B101	3	121.7	0	0.00	0.00
B105	3	124.8	0	0.00	0.00
B203	2	71.3	0	0.00	0.00
B301	3	121.7	0	0.00	0.00
B305	3	124.8	0	0.00	0.00
B403	2	71.3	0	0.00	0.00
B501	2	71.3	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B002	3	126.2	0	8	6.6
B102	3	122	0	0.00	0.00
B106	2	73.3	0	0.00	0.00
B204	3	128.1	0	0.00	0.00
B302	3	122	0	0.00	0.00
B306	2	73.3	0	0.00	0.00
B404	3	128.1	0	0.00	0.00
B502	3	128.1	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B003	3	167.5	0	26	21.6
B103	1	50.2	0	0.00	0.00
B201	3	121.7	0	0.00	0.00
B205	3	124.8	0	0.00	0.00
B303	2	71.3	0	0.00	0.00
B401	3	112	0	0.00	0.00
B405	3	124.8	0	0.00	0.00
B503	3	100.2	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B004	1	74.6	0	19	15.8
B104	3	128.1	0	0.00	0.00
B202	3	122	0	0.00	0.00
B206	2	73.3	0	0.00	0.00
B304	3	128.1	0	0.00	0.00
B402	3	117.3	0	0.00	0.00
B406	2	73.3	0	0.00	0.00
B504	2	73.3	0	0.00	0.00

### Residential flat buildings - Building C, 37 dwellings, 6 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C002	4+	184.9	0	31	25.7
C006	3	125.3	0	23	19.1
C101	2	99.9	0	0.00	0.00
C105	3	131.2	0	0.00	0.00
C204	2	111.5	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C003	3	124.2	0	23	19.1
C007	3	143.3	0	24	19.9
C102	1	61.1	0	0.00	0.00
C201	2	99.9	0	0.00	0.00
C205	3	131.2	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C004	3	125.3	0	23	19.1
C008	3	136.9	0	17	14.1
C103	1	59.5	0	0.00	0.00
C202	1	61.1	0	0.00	0.00
C206	1	51.3	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C005	3	125.3	0	23	19.1
C009	2	110	0	0.00	0.00
C104	2	111.5	0	0.00	0.00
C203	1	59.5	0	0.00	0.00
C207	3	134.7	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C208	3	126.9	0	0.00	0.00
C304	1	51.3	0	0.00	0.00
C308	3	128.2	0	0	0
C404	1	51.3	0	0.00	0.00
C502	2	82	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C301	2	99.9	0	0.00	0.00
C305	3	134.7	0	0.00	0.00
C401	2	99.9	0	0.00	0.00
C405	3	134.7	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C302	1	61.1	0	0.00	0.00
C306	3	126.9	0	0.00	0.00
C402	1	61.1	0	0.00	0.00
C406	3	113.7	0	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
C303	1	59.6	0	0.00	0.00
C307	2	111.5	0	0	0
C403	1	59.6	0	0.00	0.00
C501	3	106	4.7	0	0

## Multi-dwelling houses

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
AT01	3	128.2	0	2	1.7
AT05	3	125.9	0	3	2.5
AT09	3	125.9	0	3	2.5
DT03	3	163.2	50.5	49	14.9
DT07	3	163.2	50.5	48	14.1
DT11	3	146.4	39.8	5	4.2
DT15	3	163.2	50.5	48	14.1
DT19	3	163.2	50.5	48	14.1
DT23	3	130.9	40.2	5	4.2
DT27	3	163.2	50.5	48.00	14.1
ET01	3	128.2	0	2	1.7
ET05	3	125.9	0	1	0.8
ET09	3	125.9	0	1	0.8

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
AT02	3	128.2	0	2	1.7
AT06	3	125.90	0	3	2.5
AT10	3	125.9	0	3	2.5
DT04	3	163.2	50.5	48	14.1
DT08	3	130.9	40.2	5	4.2
DT12	3	163.2	50.5	48	14.1
DT16	3	163.2	50.5	48	14.1
DT20	3	130.9	40.2	10	4.2
DT24	3	163.2	50.5	50	14.1
DT28	3	163.2	50.5	48	14.1
ET02	3	128.2	0	2.00	1.7
ET06	3	125.9	0	1	0.8
ET10	3	125.9	6.20	1	0.8

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
AT03	3	128.2	0	2	1.7
AT07	3	125.9	0	3	2.5
DT01	3	163.2	50.2	49	14.9
DT05	3	130.9	40.2	10	4.2
DT09	3	163.2	50.5	48	14.1
DT13	3	163.2	50.5	48	14.1
DT17	3	146.4	39.8	5	4.2
DT21	3	163.2	50.5	48	14.1
DT25	3	163.2	50.5	48	14.1
DT29	3	146.4	39.8	5	4.2
ET03	3	128.2	0	2.00	1.7
ET07	3	125.9	0	1	0.8
FT02	3	123.3	37.8	39	14.9

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
AT04	3	128.2	0	2	1.7
AT08	3	125.9	0	3	2.5
DT02	3	146.4	39.8	5	4.2
DT06	3	163.2	50.5	48	14.2
DT10	3	163.2	50.5	48	14.1
DT14	3	146.4	39.8	5	4.2
DT18	3	163.2	50.5	48	14.1
DT22	3	163.2	50.5	50	14.1
DT26	3	146.4	39.8	5	4.2
DT30	3	163.2	50.5	48	14.1
ET04	3	128.2	0	2.00	1.7
ET08	3	125.9	0	1	0.8
FT03	3	122	37.8	30	21.6

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
FT04	3	124.6	37.2	44	25.7
FT08	3	126	37.2	51	33.2
FT12	3	123.8	37.2	45	26.6

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
FT05	3	122	37.8	31	22.4
FT09	3	124.9	37.2	27	26.6
FT13	3	120.9	37.2	47	30.7

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
FT06	3	122	37.8	30	21.6
FT10	3	122	37.8	26	18.3

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
FT07	3	123.8	37.2	44	25.7
FT11	3	122	37.8	30	21.6

## Description of project

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

### Common areas of the development (non-building specific)

Common area	Floor area (m <sup>2</sup> )
Gym area (Combined)	73.7
Lift car (No. 6)	0.00
Service room (Combined)	412.8
Staircase (Combined)	378.6
Basement Hallway/lobby type (Combined)	44.8

Common area	Floor area (m <sup>2</sup> )
Basement carpark (Combined)	7023.5
Switch room (Combined)	63.8
Common area (Combined)	95.1
Ground floor lobby (Combined)	64.9

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 5)	0.00
Garbage room (Combined)	281.4
BM Office (Combined)	35.7
Other Hallway/lobby (Combined)	672.6

### Common areas of unit building - Building B

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 3)	0.00

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 4)	0.00

### Common areas of unit building - Building C

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 1)	0.00

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 2)	0.00

# Schedule of BASIX commitments

## 1. 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

## 2. 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

## 3. Commitments for single dwelling houses

## 4. Commitments for multi-dwelling houses

### (a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

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

(a) Common areas and central systems/facilities

(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 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: <div style="margin-left: 20px;">(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</div> <div style="margin-left: 20px;">(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.</div>		✓ ✓	✓ ✓
(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.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(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.	✓	✓	✓

	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	5 star	5 star	-	not specified	4 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
All dwellings	No alternative water supply	-	-	-	-	-	-	-

(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.		✓	✓
(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.	✓	✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<p>(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:</p> <p>(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</p> <p>(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.</p>		 	
<p>(h) The applicant must install in the dwelling:</p> <p>(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances &amp; other efficiency measures" column of the table below;</p> <p>(bb) each appliance for which a rating is specified for that dwelling in the "Appliances &amp; other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and</p> <p>(cc) any clothes drying line specified for the dwelling in the "Appliances &amp; other efficiency measures" column of the table.</p>		  	
(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 ventilation 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 (No. 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

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or diningroom	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
B004, B103	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no
B104, B105, B204, B205,	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	4(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or diningroom	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
B304, B305, B404, B405, B502												
B106, B203, B206, B303, B306, B403, B406, B501, B504	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	2(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no
All other dwellings	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	3(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no

	Individual pool		Individual spa		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
B004, B103, B106, B203, B206, B303, B306, B403, B406, B501, B504	-	-	-	-	gas cooktop & electric oven	not specified	no	4 star	not specified	7.0 star	no	no

	Individual pool		Individual spa		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 other dwellings	-	-	-	-	gas cooktop & electric oven	3 star (new rating)	no	4 star	not specified	7.0 star	no	no

(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.	✓	✓	✓
(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/m <sup>2</sup> /yr)	Area adjusted cooling load (in MJ/m <sup>2</sup> /yr)
B001	13.8	12.4
B002	22.9	8.2
B003	32.1	11.4
B004	32.8	21.9
B101	2.8	24.8
B102	12.1	17.6
B103	30.8	24.1
B104	24.8	19.3
B105	30.7	24.6
B106	7.8	22.8
B201	3	23.8
B202	11.7	16.9
B203	17.6	26
B204	20.5	19.1
B205	24.3	24.5
B206	3.4	26.2
B301	4.8	18.6
B302	16.4	13.9
B303	18.3	22.6
B304	23.4	15.7
B305	27.9	17.8
B306	5	21.2
B401	9.1	19
B402	17.3	25.6
B403	18.2	21.8
B404	19.8	19.5
B405	33.4	15.1
B406	5.3	20.7
B501	30.8	20.8
B502	39	14.4
B503	40.1	17.7

	Thermal loads	
Dwelling no.	Area adjusted heating load (in MJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in MJ/m <sup>2</sup> /yr)
All other dwellings	14.5	18.3

**(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) 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	3 star (> 6 but <= 7.5 L/min)	4 star	5 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
Lift car (No. 3)	-	-	light-emitting diode	connected to lift call button	no
Lift car (No. 4)	-	-	light-emitting diode	connected to lift call button	no

Central energy systems	Type	Specification
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 7
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 7

## 2. 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 (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.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(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.	✓	✓	✓

	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	5 star	5 star	-	not specified	4 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
All dwellings	No alternative water supply	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓ ✓	
(h) The applicant must install in the dwelling:			

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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.		    	
(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 ventilation 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 (No. 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

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or diningroom	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
C002	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	4(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no
C102, C202, C206, C302, C304, C402, C404	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no
C009, C101, C103, C104, C201,	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	2(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or diningroom	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
C203, C204, C301, C303, C307, C401, C403, C502												
All other dwellings	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	3(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no

	Individual pool		Individual spa		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
C307, C308, C501, C502	-	-	-	-	gas cooktop & electric oven	3 star (new rating)	no	4 star	not specified	7.0 star	no	no
All other dwellings	-	-	-	-	gas cooktop & electric oven	3 star (new rating)	no	4 star	not specified	7.0 star	no	no

(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.			

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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.	✓	✓	✓
(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/m <sup>2</sup> /yr)	Area adjusted cooling load (in MJ/m <sup>2</sup> /yr)
C002	20.2	11.2
C003	34	9.8
C004	44.5	10.6
C005	44.9	10.4
C006	32.9	10.7
C007	44.9	11.1
C008	18.4	13.9
C009	19	8.8
C101	3.1	27.5
C103	13.3	19.2
C104	5.4	23.9
C105	8.4	21.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in MJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in MJ/m <sup>2</sup> /yr)
C201	2.6	27
C203	6.3	19.4
C204	5.5	23.7
C205	8.4	20.8
C206	19.9	21.9
C207	13.6	19.7
C208	19.2	11.2
C301	3	25.2
C302	1.4	23.3
C303	4.8	20.8
C304	20.7	21.4
C305	28.8	25.7
C306	19.2	10.4
C307	14.2	21.2
C308	19.60	20.4
C401	8.5	16.7
C402	2.8	19.3
C403	7	16.9
C404	31.1	15.1
C405	27.6	22.2
C406	27.9	22.8
C501	24.9	15.3
C502	26.4	13.1
All other dwellings	1.2	23.9

**(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) 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	3 star (> 6 but <= 7.5 L/min)	4 star	5 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
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

Central energy systems	Type	Specification
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

## 4. Commitments for multi-dwelling houses









### (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 (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.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(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.	✓	✓	✓

	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	5 star	5 star	-	not specified	4 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
All dwellings	Central water tank (No. 1)	See central systems	See central systems	no	yes	yes	no	no

(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.		✓	✓
(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.		✓ ✓	
(h) The applicant must install in the dwelling:			

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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.		    	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".			
(j) The applicant must install the photovoltaic system specified for the dwelling under the "Photovoltaic system" heading of the "Alternative energy" column of the table below, and connect the system to that dwelling's electrical system.			

	Hot water	Bathroom ventilation system		Kitchen ventilation 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 (No. 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

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or diningroom	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
All dwellings	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	1-phase airconditioning / EER 3.5 - 4.0	3(dedicated)	1(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	yes(dedicated)	0	no

	Individual pool		Individual spa		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	not specified	no	4 star	not specified	7.0 star	no	no

	Alternative energy
Dwelling no.	Photovoltaic system (min rated electrical output in peak kW)
All dwellings	-

(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.	✓	✓	✓

<b>(iii) Thermal Comfort</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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/m <sup>2</sup> /yr)	Area adjusted cooling load (in MJ/m <sup>2</sup> /yr)
AT01	40	15.6
AT04	37.3	14.2
AT05	24.4	14.7
DT01	24.8	17.3
DT02	39.3	15.5
DT11	37.9	13.9
DT12	23.8	16.9
DT13	24.8	17.7
DT14	38.1	15.8
DT17	38.1	14.2
DT20	37.5	22.1
DT23	37.5	21.7
DT26	38.1	14.3
DT29	39.1	16.3
DT30	22.7	16.7
ET01	40	15.5
ET04	36.3	14.2
ET05	25	14.6
FT02	26.1	22.1
FT03	35.2	25.6
FT04	35.4	25.9
FT05	32.5	22.7
FT06	35.2	24
FT07	38.4	24.6
FT08	38.9	23.7
FT09	39.8	25.8

	Thermal loads	
Dwelling no.	Area adjusted heating load (in MJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in MJ/m <sup>2</sup> /yr)
FT10	28.4	24.6
FT11	35.2	24.1
FT12	37.1	25.3
FT13	38.9	23.2
AT02, AT03	36.7	12.2
AT06, ET06	21	13.8
AT07, ET07	21.1	13.8
AT08, ET08	21.1	13.9
AT09, ET09	21	14.2
AT10, ET10	26.4	15.7
DT05, DT08	40	21
ET02, ET03	35.4	12
DT03, DT06, DT09	19.6	15.5
DT04, DT07, DT10	18.8	15.7
DT15, DT18, DT21, DT24, DT27	19.5	15.3
All other dwellings	18.8	15.4

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground (m <sup>2</sup> )	Suspended floor with open subfloor (m <sup>2</sup> )	Suspended floor with enclosed subfloor (m <sup>2</sup> )	Suspended floor above garage (m <sup>2</sup> )	Primarily rammed earth or mudbrick walls
DT01	-	-	-	38.8	no
DT06	-	-	-	39.5	no
DT11	-	-	-	12.3	no
DT23	-	-	-	11.3	no
DT26	-	-	-	11.5	no
FT04	1.6	-	-	36.2	no
FT07	1.6	-	-	35.1	no
FT08	2	-	-	35.1	no
FT12	1.7	-	-	35.1	no
DT09, DT19	-	-	-	39	no
DT16, DT22	-	-	-	39.1	no

	Construction of floors and walls				
Dwelling no.	Concrete slab on ground (m²)	Suspended floor with open subfloor (m²)	Suspended floor with enclosed subfloor (m²)	Suspended floor above garage (m²)	Primarily rammed earth or mudbrick walls
DT18, DT25	-	-	-	39.7	no
DT27, DT30	-	-	-	39.8	no
FT02, FT03	12.6	-	-	42.6	no
FT05, FT06	12.7	-	-	42.6	no
FT09, FT13	1.7	-	-	36	no
FT10, FT11	13.1	-	-	42.6	no
DT04, DT07, DT10	-	-	-	38.9	no
DT14, DT17, DT29	-	-	-	11.4	no
DT15, DT21, DT24	-	-	-	39.3	no
DT02, DT05, DT08, DT20	-	-	-	11.7	no
DT03, DT12, DT13, DT28	-	-	-	39.2	no
AT01, AT02, AT03, AT04, ET01, ET02, ET03, ET04, ET05	-	-	-	46.4	no
All other dwellings	-	-	-	44.3	no



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

### (a) 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) 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	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Swimming pool (No. 1)	Volume: 103 kLs	Location: Other Pool shaded: yes	-
Central water tank - rainwater or stormwater (No. 1)	10000	To collect run-off from at least: - 620 square metres of roof area of buildings in the development - 0 square metres of impervious area in the development - 0 square metres of garden/lawn area in the development - 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).	- irrigation of 755 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 2)	10000	To collect run-off from at least: - 620 square metres of roof area of buildings in the development - 0 square metres of impervious area in the development - 0 square metres of garden/lawn area in the development - 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).	- irrigation of 755 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
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.		✓	✓
(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	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/ BMS
Gym area (Combined)	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	no
Basement carpark (Combined)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	time clock and motion sensors	no
Lift car (No. 5)	-	-	light-emitting diode	connected to lift call button	no
Lift car (No. 6)	-	-	light-emitting diode	connected to lift call button	no
Switch room (Combined)	air conditioning system	thermostatically controlled	light-emitting diode	motion sensors	no
Garbage room (Combined)	ventilation exhaust only	-	light-emitting diode	motion sensors	no
Service room (Combined)	ventilation supply only	thermostatically controlled	light-emitting diode	motion sensors	no
Common area (Combined)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
BM Office (Combined)	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	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
Staircase (Combined)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Ground floor lobby (Combined)	air conditioning system	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	no
Other Hallway/lobby (Combined)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Basement Hallway/lobby type (Combined)	ventilation supply only	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Swimming pool (No. 1)	Heating source: electric heat pump	Pump controlled by timer: yes
Lift (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 2
Lift (No. 6)	gearless traction with V V V F motor	Number of levels (including basement): 2
Central hot water system (No. 1)	gas instantaneous	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm)
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 107 peak kW
Other	-	-

## 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 fulfilment it is required to monitor in relation to the building or part, has been fulfilled).