

BASIX™ Certificate

Building Sustainability Index

www.planningportal.nsw.gov.au/development-and-assessment/basix

Multi Dwelling

Certificate number: 1833441M

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

Secretary

Date of issue: Tuesday, 17 February 2026

To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application 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 X1MMQ9CFNU.

Project summary

Project name	16-20 Old Castle Hill Road, Castle Hill
Street address	16-20 OLD CASTLE HILL ROAD CASTLE HILL 2154
Local Government Area	THE HILLS SHIRE
Plan type and plan number	Deposited Plan -
Lot no.	-
Section no.	-
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	371
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 40	Target 40
Thermal Performance	✓ Pass	Target Pass
Energy	✓ 63	Target 63
Materials	✓ -100	Target n/a





Certificate Prepared by

Name / Company Name: E-LAB Consulting

ABN (if applicable): 84647520634

Description of project

Project address	
Project name	16-20 Old Castle Hill Road, Castle Hill
Street address	16-20 OLD CASTLE HILL ROAD CASTLE HILL 2154
Local Government Area	THE HILLS SHIRE
Plan type and plan number	Deposited Plan -
Lot no.	-
Section no.	-
Project type	
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	371
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m ²)	1380.4
Roof area (m ²)	779.63
Non-residential floor area (m ²)	137.2
Residential car spaces	387
Non-residential car spaces	0

Common area landscape		
Common area lawn (m ²)	229.87	
Common area garden (m ²)	536.37	
Area of indigenous or low water use species (m ²)	0	
Assessor details and thermal loads		
Assessor number	20/1972	
Certificate number	X1MMQ9CFNU	
Climate zone	28	
Project score		
Water	 40	Target 40
Thermal Performance	 Pass	Target Pass
Energy	 63	Target 63
Materials	 -100	Target n/a

Description of project

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

Residential flat buildings - Building1, 371 dwellings, 39 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
0001	3	129.00	0	0	0
0103	2	107	0.00	0	0
0107	1	68	0	0	0
0202	2	79	0	0	0
0206	2	95	0	0	0
0301	3	110	0	0	0
0305	3	126	0	0	0
0309	1	68	0	0	0
0402	2	79	0	0	0
0406	1	65	0	0	0
0410	3	112	0	0	0
0504	2	86	0	0	0
0508	2	78	0	0	0
0602	2	79	0	0	0
0606	1	53	0	0	0
0610	2	80	0	0	0
0704	2	82	0	0	0
0708	2	78	0	0	0
0802	2	79	0	0	0
0806	1	53	0	0	0
0810	2	80	0	0	0
0002	3	113	0	0	0
0104	2	119	0	0	0
0108	1	68	0	0	0
0203	3	127	0	0	0
0207	1	68	0	0	0
0302	2	79	0	0	0
0306	1	65	0	0	0
0310	1	68	0	0	0
0403	3	127	0	0	0
0407	2	90	0	0	0
0501	3	99	0	0	0
0505	2	79	0	0	0
0509	3	117	0	0	0
0603	3	126	0	0	0
0607	2	75	0	0	0
0701	3	99	0	0	0
0705	2	79	0	0	0
0709	3	117	0	0	0
0803	3	126	0	0	0
0807	2	75	0	0	0
0901	3	99	0	0	0
0101	3	109.00	0	0	0
0105	2	89	0	0	0
0109	3	112	0	0	0
0204	3	93	0	0	0
0208	1	68	0	0	0
0303	3	127	0	0	0
0307	2	90	0	0	0
0311	3	112	0	0	0
0404	3	93	0	0	0
0408	2	95	0	0	0
0502	2	79	0	0	0
0506	1	57	0	0	0
0510	2	61	0	0	0
0604	2	82	0	0	0
0608	2	78	0	0	0
0702	2	79	0	0	0
0706	1	53	0	0	0
0710	2	80	0	0	0
0804	2	82	0	0	0
0808	2	78	0	0	0
0902	2	79	0	0	0
0102	3	118	0.00	0	0
0106	2	96	0	0	0
0201	3	110	0	0	0
0205	2	91	0	0	0
0209	3	112	0	0	0
0304	3	93	0	0	0
0308	2	95	0	0	0
0401	3	110	0	0	0
0405	3	126	0	0	0
0409	3	129	0	0	0
0503	3	126	0	0	0
0507	2	75	0	0	0
0601	3	99	0	0	0
0605	2	79	0	0	0
0609	3	117	0	0	0
0703	3	126	0	0	0
0707	2	75	0	0	0
0801	3	99	0	0	0
0805	2	79	0	0	0
0809	3	117	0	0	0
0903	3	126	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
0904	2	82	0	0	0
0908	2	78	0	0	0
1001	3	99	0	0	0
1005	2	79	0	0	0
1009	1	55	0	0	0
1102	2	79	0	0	0
1106	1	53	0	0	0
1110	1	56	0	0	0
1203	3	126	0	0	0
1207	2	75	0	0	0
1211	2	80	0	0	0
1304	2	82	0	0	0
1308	2	78	0	0	0
1401	3	99	0	0	0
1405	2	79	0	0	0
1409	1	55	0	0	0
1502	2	79	0	0	0
1506	1	53	0	0	0
1510	1	56	0	0	0
1603	3	126	0	0	0
1607	2	75	0	0	0
1611	2	80	0	0	0
1704	1	53	0	0	0
1708	1	56	0	0	0
1803	3	126	0	0	0
1807	2	75	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
0905	2	79	0	0	0
0909	1	55	0	0	0
1002	2	79	0	0	0
1006	1	53	0	0	0
1010	1	56	0	0	0
1103	3	126	0	0	0
1107	2	75	0	0	0
1111	2	80	0	0	0
1204	2	82	0	0	0
1208	2	78	0	0	0
1301	3	99	0	0	0
1305	2	79	0	0	0
1309	1	55	0	0	0
1402	2	79	0	0	0
1406	1	53	0	0	0
1410	1	56	0	0	0
1503	3	126	0	0	0
1507	2	75	0	0	0
1511	2	80	0	0	0
1604	2	82	0	0	0
1608	2	78	0	0	0
1701	3	99	0	0	0
1705	2	75	0	0	0
1709	2	80	0	0	0
1804	2	82	0	0	0
1808	2	78	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
0906	1	53	0	0	0
0910	1	56	0	0	0
1003	3	126	0	0	0
1007	2	75	0	0	0
1011	2	80	0	0	0
1104	2	82	0	0	0
1108	2	78	0	0	0
1201	3	99	0	0	0
1205	2	79	0	0	0
1209	1	55	0	0	0
1302	2	79	0	0	0
1306	1	53	0	0	0
1310	1	56	0	0	0
1403	3	126	0	0	0
1407	2	75	0	0	0
1411	2	80	0	0	0
1504	2	82	0	0	0
1508	2	78	0	0	0
1601	3	99	0	0	0
1605	2	79	0	0	0
1609	1	55	0	0	0
1702	2	82	0	0	0
1706	2	78	0	0	0
1801	3	99	0	0	0
1805	2	79	0	0	0
1809	1	55	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
0907	2	75	0	0	0
0911	2	80	0	0	0
1004	2	82	0	0	0
1008	2	78	0	0	0
1101	3	99	0	0	0
1105	2	79	0	0	0
1109	1	55	0	0	0
1202	2	79	0	0	0
1206	1	53	0	0	0
1210	1	56	0	0	0
1303	3	126	0	0	0
1307	2	75	0	0	0
1311	2	80	0	0	0
1404	2	82	0	0	0
1408	2	78	0	0	0
1501	3	99	0	0	0
1505	2	79	0	0	0
1509	1	55	0	0	0
1602	2	79	0	0	0
1606	1	53	0	0	0
1610	1	56	0	0	0
1703	2	79	0	0	0
1707	1	55	0	0	0
1802	2	79	0	0	0
1806	1	53	0	0	0
1810	1	56	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1811	2	80	0	0	0
1904	2	82	0	0	0
1908	2	78	0	0	0
2001	3	99	0	0	0
2005	2	79	0	0	0
2009	1	55	0	0	0
2102	2	79	0	0	0
2106	1	53	0	0	0
2110	1	56	0	0	0
2203	3	126	0	0	0
2207	2	75	0	0	0
2211	2	80	0	0	0
2304	2	82	0	0	0
2308	2	78	0	0	0
2401	3	99	0	0	0
2405	2	79	0	0	0
2409	1	55	0	0	0
2502	2	79	0	0	0
2506	1	53	0	0	0
2510	1	56	0	0.00	0.00
2603	3	126	0	0	0
2607	2	75	0	0	0
2611	2	80	0	0	0
2704	2	82	0	0	0
2708	2	78	0	0	0
2801	3	99	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1901	3	99	0	0	0
1905	2	79	0	0	0
1909	1	55	0	0	0
2002	2	79	0	0	0
2006	1	53	0	0	0
2010	1	56	0	0	0
2103	3	126	0	0	0
2107	2	75	0	0	0
2111	2	80	0	0	0
2204	2	82	0	0	0
2208	2	78	0	0	0
2301	3	99	0	0	0
2305	2	79	0	0	0
2309	1	55	0	0	0
2402	2	79	0	0	0
2406	1	53	0	0	0
2410	1	56	0	0	0
2503	3	126	0	0	0
2507	2	75	0	0	0
2511	2	80	0	0.00	0.00
2604	2	82	0	0	0
2608	2	78	0	0	0
2701	3	99	0	0	0
2705	2	79	0	0	0
2709	1	55	0	0	0
2802	2	79	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1902	2	79	0	0	0
1906	1	53	0	0	0
1910	1	56	0	0	0
2003	3	126	0	0	0
2007	2	75	0	0	0
2011	2	80	0	0	0
2104	2	82	0	0	0
2108	2	78	0	0	0
2201	3	99	0	0	0
2205	2	79	0	0	0
2209	1	55	0	0	0
2302	2	79	0	0	0
2306	1	53	0	0	0
2310	1	56	0	0	0
2403	3	126	0	0	0
2407	2	75	0	0	0
2411	2	80	0	0	0
2504	2	82	0	0	0
2508	2	78	0	0	0
2601	3	99	0	0.00	0.00
2605	2	79	0	0	0
2609	1	55	0	0	0
2702	2	79	0	0	0
2706	1	53	0	0	0
2710	1	56	0	0	0
2803	3	126	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1903	3	126	0	0	0
1907	2	75	0	0	0
1911	2	80	0	0	0
2004	2	82	0	0	0
2008	2	78	0	0	0
2101	3	99	0	0	0
2105	2	79	0	0	0
2109	1	55	0	0	0
2202	2	79	0	0	0
2206	1	53	0	0	0
2210	1	56	0	0	0
2303	3	126	0	0	0
2307	2	75	0	0	0
2311	2	80	0	0	0
2404	2	82	0	0	0
2408	2	78	0	0	0
2501	3	99	0	0	0
2505	2	79	0	0	0
2509	1	55	0	0	0
2602	2	79	0	0.00	0.00
2606	1	53	0	0	0
2610	1	56	0	0	0
2703	3	126	0	0	0
2707	2	75	0	0	0
2711	2	80	0	0	0
2804	2	82	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2805	2	79	0	0	0
2809	1	55	0	0	0
2902	2	79	0	0	0
2906	1	55	0	0	0
3002	2	78	0	0	0
3101	3	99	0	0	0
3105	1	55	0	0	0
3202	2	79	0	0	0
3206	1	56	0	0	0
3303	2	78	4	0	0
3307	2	79	0	0	0
3404	2	78	0	0	0
3501	3	99	0	0	0
3505	1	55	0	0	0
3602	2	79	0	0	0
3606	1	56	0	0	0
3703	2	78	4	0	0
3707	2	79	0	0	0
3804	4+	135	0	0	0
3903	2	82	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2806	1	53	0	0	0
2810	1	56	0	0	0
2903	3	126	0	0	0
2907	1	56	0	0	0
3003	1	55	0	0	0
3102	2	79	0	0	0
3106	1	56	0	0	0
3203	2	78	4	0	0
3207	2	79	0	0	0
3304	2	78	0	0	0
3401	3	99	0	0	0
3405	1	55	0	0	0
3502	2	79	0	0	0
3506	1	56	0	0	0
3603	2	78	4	0	0
3607	2	79	0	0	0
3704	2	78	0	0	0
3801	3	99	0	0	0
3805	4+	128	0	0	0
3904	4+	135	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2807	2	75	0	0	0
2811	2	80	0	0	0
2904	2	75	0	0	0
2908	2	80	0	0	0
3004	1	56	0	0	0
3103	2	78	4	0	0
3107	2	79	0	0	0
3204	2	78	0	0	0
3301	3	99	0	0	0
3305	1	55	0	0	0
3402	2	79	0	0	0
3406	1	56	0	0	0
3503	2	78	4	0	0
3507	2	79	0	0	0
3604	2	78	0	0	0
3701	3	99	0	0	0
3705	1	55	0	0	0
3802	2	79	0	0	0
3901	3	99	0	0	0
3905	4+	128	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2808	2	78	0	0	0
2901	3	99	0	0	0
2905	2	78	0	0	0
3001	3	99	0	0	0
3005	2	80	0	0	0
3104	2	78	0	0	0
3201	3	99	0	0	0
3205	1	55	0	0	0
3302	2	79	0	0	0
3306	1	56	0	0	0
3403	2	78	4	0	0
3407	2	79	0	0	0
3504	2	78	0	0	0
3601	3	99	0	0	0
3605	1	55	0	0	0
3702	2	79	0	0	0
3706	1	56	0	0	0
3803	2	82	0	0	0
3902	2	79	0	0	0

Description of project

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

Common areas of unit building - Building1

Common area	Floor area (m ²)	Common area	Floor area (m ²)	Common area	Floor area (m ²)
Chute	71.37	Communal Room	503.1	Corridor	1016.86
Lobby	172.35	Lift bank (No. 1)	-		

Common areas of the development (non-building specific)

Common area	Floor area (m ²)	Common area	Floor area (m ²)	Common area	Floor area (m ²)
Car Park	13526.72	Plant	98.43	Substation	88.41
Bin Room	279.34	Waste	112.23	Cold Water Pump	91.09
Hot Water Pump	185.98	Main Switch room	54.49	Services Storage	543.8
Firestair	596.87	Store	59.34		

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building1

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

2. Commitments for multi-dwelling housing

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance and Materials

3. Commitments for single dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance and Materials

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

(a) Buildings 'Other'

(i) Materials

(b) 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 - Building1

(a) Buildings

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) 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 "Floor types", "External wall types", "Internal wall types", "Ceiling and roof types", "Frames" and "Glazing" tables below.			✓
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✓	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the "Frames" and "Glazing" tables is permitted.	✓	✓	✓
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✓

Floor types

Floor type	Area (m2)	Insulation	Low emissions option
suspended floor above enclosed subfloor, frame: suspended concrete slab	68543.68	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	framed (fibre cement sheet or boards), frame: light steel frame	26715.6	-	fibreglass batts or roll

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame: light steel frame	30752.19	-

Reinforcement concrete frames/columns

Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
no	-	-

Ceiling and roof types

Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: light steel frame	779.63	-	-

Glazing types

Frame types

Single glazing (m²)	Double glazing (m²)	Triple glazing (m²)	Aluminium frames (m²)	Timber frames (m²)	uPVC frames (m²)	Steel frames (m²)	Composite frames (m²)
-	15771.21	-	15771.21	-	-	-	-

(b) 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	2 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: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✓	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All dwellings	1-phase airconditioning - ducted / EER 3.5 - 4.0	1-phase airconditioning - ducted / EER 3.5 - 4.0	1-phase airconditioning - ducted / EER 3.5 - 4.0	1-phase airconditioning - ducted / EER 3.5 - 4.0	0	no

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	-	electric cooktop & electric oven	4 star	2 star	no	no

(iii) Thermal Performance	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.	✔	✔	✔
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

Thermal loads			
Dwelling no.	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
0001	20.4	8.7	29.100
0002	14.4	19.3	33.700
0101	33.6	9.8	43.400
0102	52	14.5	66.500

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
0103	38.6	6.2	44.800
0104	33.9	6.1	40.000
0105	25.7	32.6	58.300
0106	20.2	8.9	29.100
0107	6	7.3	13.300
0108	7.1	7.1	14.200
0109	16.8	17.00	33.800
0201	27.8	10.5	38.300
0202	24.2	35.5	59.700
0203	5.3	6.2	11.500
0204	17.5	29.8	47.300
0205	25.5	31.4	56.900
0206	15.5	9.1	24.600
0207	6.7	7.4	14.100
0208	7.8	6.7	14.500
0209	17.1	16.7	33.800
0301	30.2	8.7	38.900
0302	29.3	7	36.300
0303	6.6	4.9	11.500
0304	20.2	24.2	44.400
0305	33.5	11.9	45.400
0306	28.4	8.5	36.900
0307	28.4	26.3	54.700
0308	17.7	6.5	24.200
0309	10.2	5.7	15.900
0310	9.7	5.60	15.300
0311	20.2	14.8	35.000
0401	31.4	9	40.400
0402	29.7	6.8	36.500
0403	6.8	4.7	11.500
0404	22.8	26.8	49.600

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
0405	36.6	14.7	51.300
0406	29.7	8.7	38.400
0407	30.4	28.4	58.800
0408	19.7	7.5	27.200
0409	15.1	3.9	19.000
0410	24.4	16.8	41.200
0501	44.3	15.7	60.000
0502	30.1	6.8	36.900
0503	9.8	4.7	14.500
0504	31.1	33.1	64.200
0505	45.4	19.80	65.200
0506	28.8	9.9	38.700
0507	36.8	22.8	59.600
0508	41.3	10.4	51.700
0509	20.1	20.7	40.800
0510	42.6	22.3	64.900
0601	39	8.8	47.800
0602	30.1	5.4	35.500
0603	12.2	4.1	16.300
0604	30.7	11.6	42.300
0605	42.9	9.4	52.300
0606	30.4	9	39.400
0607	33.4	8.9	42.300
0608	28.8	7	35.800
0609	17.4	9.3	26.700
0610	28.2	8.4	36.600
0701	39.4	8.8	48.200
0702	30.4	5.5	35.900
0703	12.4	4.1	16.500
0704	31.1	11.3	42.400
0705	43.3	9	52.300

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
0706	30.8	8.9	39.700
0707	33.7	8.8	42.500
0708	29.1	6.8	35.900
0709	17.7	9.3	27.000
0710	28.6	8.2	36.800
0801	39.5	8.6	48.100
0802	30.6	5.4	36.000
0803	12.6	4.1	16.700
0804	31.3	11.2	42.500
0805	43.5	9	52.500
0806	31.1	8.9	40.000
0807	34	8.8	42.800
0808	29.3	6.8	36.100
0809	18.3	9.20	27.500
0810	28.9	8.2	37.100
0901	38.1	8.5	46.600
0902	32.2	4.8	37.000
0903	13.4	3.5	16.900
0904	33	10.3	43.300
0905	50.3	9.1	59.400
0906	32.8	8.1	40.900
0907	35.6	7.80	43.400
0908	30.8	6.10	36.900
0909	15.4	7.5	22.900
0910	18.7	8.2	26.900
0911	30.6	7.50	38.100
1001	38.2	8.9	47.100
1002	32.3	4.9	37.200
1003	13.5	3.5	17.000
1004	33.8	11.6	45.400
1005	50.1	9.4	59.500

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
1006	32.9	8.2	41.100
1007	35.7	7.7	43.400
1008	30.9	6.1	37.000
1009	15.6	7.5	23.100
1010	18.8	8.1	26.900
1011	30.8	7.5	38.300
1101	38.3	8.8	47.100
1102	32.5	4.9	37.400
1103	13.6	3.6	17.200
1104	34.1	11.9	46.000
1105	50.3	9.5	59.800
1106	33.1	8.1	41.200
1107	35.9	7.6	43.500
1108	31	5.9	36.900
1109	15.8	7.4	23.200
1111	27.3	11.1	38.400
1201	41.3	8.2	49.500
1202	33	4.6	37.600
1203	12.3	3.6	15.900
1204	39.3	18.6	57.900
1205	56.7	19.8	76.500
1206	32.2	9.4	41.600
1207	38.4	17.50	55.900
1208	31.3	6	37.300
1209	15.9	7.20	23.100
1211	27.4	11.2	38.600
1301	41.3	8.3	49.600
1302	32.8	4.9	37.700
1303	12.5	3.5	16.000
1304	39.7	18.3	58.000
1305	57.6	19.1	76.700

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
1306	32.5	9.2	41.700
1308	31.5	5.9	37.400
1309	16.2	7.3	23.500
1311	27.5	11.5	39.000
1401	41	8.4	49.400
1403	12.6	3.5	16.100
1404	39.9	18.3	58.200
1405	57.7	19	76.700
1406	32.6	9	41.600
1407	38.8	17.3	56.100
1408	31.5	6	37.500
1409	16.3	7.2	23.500
1410	19.3	7.8	27.100
1411	27.4	11.1	38.500
1501	39	10	49.000
1503	12.7	3.6	16.300
1504	40	18.3	58.300
1505	57.9	19	76.900
1506	32.7	9.3	42.000
1508	31.6	5.9	37.500
1509	16.4	6.9	23.300
1511	28.9	11.8	40.700
1601	39.8	20.4	60.200
1602	46.3	10.2	56.500
1603	24.9	6	30.900
1604	38.6	22.9	61.500
1605	58	18.8	76.800
1606	32.8	8.8	41.600
1607	39	17.3	56.300
1608	27.6	17.8	45.400
1609	16.2	12.8	29.000

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
1610	17.9	13	30.900
1611	34.6	22.9	57.500
1701	42	23.7	65.700
1702	38.7	22.7	61.400
1703	58.1	18.7	76.800
1704	32.9	8.8	41.700
1705	39.1	17	56.100
1707	16.3	12.5	28.800
1708	18	13.1	31.100
1709	33.4	22.9	56.300
1801	31.2	21	52.200
1802	55.1	6.6	61.700
1803	31.7	3.3	35.000
1804	38.8	23.1	61.900
1805	58.3	18.7	77.000
1806	33.1	8.5	41.600
1807	39.3	17.1	56.400
1809	16.5	12.6	29.100
1810	18.2	13.3	31.500
1811	29.7	22.4	52.100
1901	26	21	47.000
1902	36.3	7	43.300
1904	39.1	22.8	61.900
1905	58.4	18.4	76.800
1906	33.2	8.7	41.900
1907	39.4	17.00	56.400
1908	27.8	17.8	45.600
1909	16.6	13	29.600
1910	18.4	13.3	31.700
1911	24.5	22.1	46.600
2001	21.6	21.2	42.800

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
2002	36.5	6.8	43.300
2004	38.9	22.9	61.800
2005	58.5	18.9	77.400
2006	33.3	8.7	42.000
2007	39.5	16.6	56.100
2008	28	17.3	45.300
2009	16.7	11.7	28.400
2010	18.3	13.2	31.500
2011	20.1	22.9	43.000
2101	17.7	24.9	42.600
2102	36.6	6.8	43.400
2103	13.1	3.5	16.600
2104	39.2	22.9	62.100
2105	58.7	18.90	77.600
2106	33.4	8.7	42.100
2107	39.4	18.3	57.700
2108	28.2	17.6	45.800
2109	16.7	11.8	28.500
2110	18.6	13	31.600
2111	14.7	25.6	40.300
2201	15	25.6	40.600
2202	36.6	7	43.600
2203	13.1	3.6	16.700
2204	39.2	22.6	61.800
2205	59.1	18.4	77.500
2206	33.5	8.7	42.200
2207	39.5	18.3	57.800
2208	28.1	17.5	45.600
2209	16.9	11.7	28.600
2210	18.7	12.9	31.600
2211	12.1	25.2	37.300

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
2301	14.6	26.3	40.900
2302	36.9	6.7	43.600
2303	13.2	3.5	16.700
2304	39.3	22.7	62.000
2305	59.2	18.1	77.300
2306	33.6	8.7	42.300
2307	39.6	18.2	57.800
2308	28.2	17.1	45.300
2309	16.9	11.8	28.700
2310	18.6	12.7	31.300
2311	11.4	25.4	36.800
2401	15.3	22	37.300
2402	36.9	7	43.900
2403	13.2	3.6	16.800
2404	39.7	22.6	62.300
2406	33.7	8.6	42.300
2407	39.7	18	57.700
2408	28.4	17.3	45.700
2409	17	12.2	29.200
2410	18.7	12.4	31.100
2411	10.9	24.9	35.800
2501	15.4	21.7	37.100
2502	36.8	7.2	44.000
2503	13.3	3.6	16.900
2504	39.8	22.7	62.500
2505	59.5	18.1	77.600
2506	33.9	8.4	42.300
2507	39.9	17.7	57.600
2509	17.1	11.9	29.000
2510	19	12.5	31.500
2511	10.8	20.9	31.700

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
2601	15.4	21.6	37.000
2602	36.9	6.8	43.700
2603	13.3	3.4	16.700
2604	39.7	22.3	62.000
2606	33.9	8.3	42.200
2607	40.1	16.3	56.400
2608	28.4	16.9	45.300
2609	17.1	12.3	29.400
2610	18.9	12.6	31.500
2701	14.8	26.3	41.100
2702	37	6.8	43.800
2703	13.4	3.4	16.800
2704	39.9	22.2	62.100
2705	59.4	18.1	77.500
2706	44.7	14.6	59.300
2707	40.2	16.1	56.300
2709	17.1	12.1	29.200
2710	19	12.6	31.600
2802	37.3	6.7	44.000
2803	13.5	3.4	16.900
2804	50	28.1	78.100
2805	52.6	17.3	69.900
2806	34.1	8.5	42.600
2807	50.4	26.6	77.000
2808	28.6	16.7	45.300
2809	17.2	12.4	29.600
2810	19.1	12.6	31.700
2902	37.2	6.7	43.900
2903	20	5.2	25.200
2904	50	28.7	78.700
2905	28.3	16.8	45.100

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
2906	17.3	12.4	29.700
2907	19.1	12.7	31.800
3001	14.1	23	37.100
3002	30.6	19.7	50.300
3004	19	14.6	33.600
3005	13.2	22.3	35.500
3101	15.7	24.2	39.900
3103	56.2	8.5	64.700
3104	30.8	19.4	50.200
3106	19.2	14.5	33.700
3107	12.6	26.9	39.500
3201	15.8	23.9	39.700
3202	34	8.5	42.500
3203	63.2	13.8	77.000
3204	30.8	19.3	50.100
3205	18.8	14.8	33.600
3206	19.2	14.4	33.600
3207	12.6	26.8	39.400
3301	14.7	28.4	43.100
3302	34.2	8.5	42.700
3303	63.3	13.7	77.000
3306	19.1	14.6	33.700
3401	14.8	28	42.800
3402	34.3	8.4	42.700
3403	63.6	13.7	77.300
3405	19.1	14.7	33.800
3406	19.2	14.1	33.300
3501	14.8	28.2	43.000
3502	34.2	8.4	42.600
3503	63.7	13.8	77.500
3504	30.9	19.2	50.100

Dwelling no.	Thermal loads		
	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
3506	19.2	14	33.200
3507	12.8	26.7	39.500
3601	16.1	24	40.100
3603	63.8	13.7	77.500
3604	31	19.1	50.100
3605	19.2	14.7	33.900
3606	19.3	14.1	33.400
3607	14.6	23.9	38.500
3701	16.1	23.8	39.900
3702	34.5	8.3	42.800
3703	63.8	13.8	77.600
3704	31	19	50.000
3705	19.2	14.9	34.100
3706	19.3	14	33.300
3707	15.6	24.8	40.400
3801	16.3	23.8	40.100
3802	34.7	8.3	43.000
3803	64	13.8	77.800
3804	22.4	21.8	44.200
3805	21.6	26.3	47.900
3901	29.9	33.9	63.800
3902	44.9	12.3	57.200
3903	57.4	16.3	73.700
3904	37.7	32.4	70.100
3905	41.2	36.7	77.900
1110, 1510	19	7.7	26.700
1210, 1310	19.2	7.7	26.900
1307, 1507	38.7	17.50	56.200
1402, 1502	32.9	4.7	37.600
1706, 1808	27.7	17.6	45.300
1903, 2003	13	3.6	16.600

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
2405, 2605	59.3	18.3	77.600
2508, 2708	28.5	16.8	45.300
2611, 2711	13	22.7	35.700
2801, 2901	14.9	26	40.900
2811, 2908	13.1	22.4	35.500
3003, 3105	18.8	14.7	33.500
3102, 3602	34.4	8.5	42.900
3304, 3404	30.9	19.3	50.200
3305, 3505	19	14.8	33.800
All other dwellings	12.7	26.8	39.500

(c) 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	4 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: 114 kLs	Location: Building1 Pool shaded: no	-
Central water tank - rainwater or stormwater (No. 1)	10000	To collect run-off from at least: - 500 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 766 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 2)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(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
Chute	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Communal Room	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
Corridor	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
Lobby	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
Lift bank (No. 1)	-	-	light-emitting diode	connected to lift call button	yes

Central energy systems	Type	Specification
Swimming pool (No. 1)	Heating source: electric heat pump	Pump controlled by timer: yes
Lift bank (No. 1)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 39 number of levels from the bottom of the lift shaft to the top of the lift shaft: 46 number of lifts: 4 lift load capacity: <1001 kg
Central hot water system (No. 1)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm) (c) Unit Efficiency: 3.0 < COP <= 3.5

2. Commitments for multi-dwelling housing

(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: <ul style="list-style-type: none"> (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.	✔	✔	✔
(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.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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: (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".		✓	
(iii) Thermal Performance and Materials	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 Performance and Materials	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.	✔	✔	✔
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

3. Commitments for single 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: <ul style="list-style-type: none"> (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.	✔	✔	✔
(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.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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: (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".		✓	
(iii) Thermal Performance and Materials	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 Performance and Materials	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.	✓	✓	✓
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✓		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✓	

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

(a) Buildings 'Other'

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) 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 "Floor types", "External wall types", "Internal wall types", "Ceiling and roof types", "Frames" and "Glazing" tables below.			✓
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✓	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the "Frames" and "Glazing" tables is permitted.	✓	✓	✓
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✓

Floor types

Floor type	Area (m2)	Insulation	Low emissions option
concrete slab on ground, frame:	2268	-	none
suspended floor above enclosed subfloor, frame: suspended concrete slab	13411.54	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	concrete block/ plasterboard,frame:light steel frame	3740.76	-	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	single skin masonry, frame:light steel frame	1566	-

Reinforcement concrete frames/columns

Building has reinforced concrete frame/columns?	Volume (m ³)	Low emissions option
no	-	-

Ceiling and roof types

Ceiling and roof type	Area (m ²)	Roof Insulation	Ceiling Insulation
concrete - bare internal, frame: light steel frame	15679.54	-	-

Glazing types

Frame types

Single glazing (m ²)	Double glazing (m ²)	Triple glazing (m ²)	Aluminium frames (m ²)	Timber frames (m ²)	uPVC frames (m ²)	Steel frames (m ²)	Composite frames (m ²)
0	0	0	0	0	0	-	0

(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	4 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
Car Park	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
Plant	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	yes
Substation	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
Bin Room	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Waste	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Cold Water Pump	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
Hot Water Pump	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
Main Switch room	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	yes
Services Storage	ventilation supply only	time clock or BMS controlled	light-emitting diode	manual on / manual off	yes
Firestair	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
Store	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 20 peak kW
Other	Building management system installed?: yes	-

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).