

BASIX™ Certificate

Building Sustainability Index

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

Multi Dwelling

Certificate number: 1849964M

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: Friday, 05 June 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 HR-M09UA8-01.

Project summary

Project name	173-183 Rickard Road (B1,2,3)
Street address	173 RICKARD ROAD LEPPINGTON 2179
Local Government Area	CAMDEN
Plan type and plan number	Deposited Plan 812366
Lot No.	2
Section no.	-
No. of residential flat buildings	3
Residential flat buildings: no. of dwellings	571
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 50	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 70	Target 61
Materials	✓ -100	Target n/a

Certificate Prepared by

Name / Company Name: SLR Consulting Pty Ltd

ABN (if applicable): 29001584612

Description of project

Project address	
Project name	173-183 Rickard Road (B1,2,3)
Street address	173 RICKARD ROAD LEPPINGTON 2179
Local Government Area	CAMDEN
Plan type and plan number	Deposited Plan 812366
Lot No.	2
Section no.	-
Project type	
No. of residential flat buildings	3
Residential flat buildings: no. of dwellings	571
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	32420
Roof area (m²)	2504
Non-residential floor area (m²)	11070
Residential car spaces	695
Non-residential car spaces	163

Common area landscape		
Common area lawn (m²)	496.2	
Common area garden (m²)	1000	
Area of indigenous or low water use species (m²)	180.5	
Assessor details and thermal loads		
Assessor number	101556	
Certificate number	HR-M09UA8-01	
Climate zone	28	
Project score		
Water	50	Target 40
Thermal Performance (Simulation method)	Pass	Target Pass
Energy	70	Target 61
Materials	-100	Target n/a

Description of project

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

Residential flat buildings - Building 1, 144 dwellings, 29 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)
10201	2	87.10	0.00	0.00	0.00
10205	2	83.10	0.00	0.00	0.00
10303	2	89.20	0.00	0.00	0.00
10401	2	87.10	0.00	0.00	0.00
10405	2	83.10	0.00	0.00	0.00
10503	2	89.20	0.00	0.00	0.00
10601	2	87.10	0.00	0.00	0.00
10605	2	83.10	0.00	0.00	0.00
10703	2	89.20	0.00	0.00	0.00
10801	2	87.10	0.00	0.00	0.00
10805	2	83.10	0.00	0.00	0.00
10903	2	89.20	0.00	0.00	0.00
11001	2	87.10	0.00	0.00	0.00
11005	2	83.10	0.00	0.00	0.00
11103	2	89.20	0.00	0.00	0.00
11201	2	87.10	0.00	0.00	0.00
11205	2	83.10	0.00	0.00	0.00
11303	2	89.20	0.00	0.00	0.00
11401	2	87.10	0.00	0.00	0.00
11405	2	83.10	0.00	0.00	0.00
11503	2	89.20	0.00	0.00	0.00
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)
10202	1	69.20	0.00	0.00	0.00
10206	3	106.10	0.00	0.00	0.00
10304	2	79.50	0.00	0.00	0.00
10402	1	69.20	0.00	0.00	0.00
10406	3	106.10	0.00	0.00	0.00
10504	2	79.50	0.00	0.00	0.00
10602	1	69.20	0.00	0.00	0.00
10606	3	106.10	0.00	0.00	0.00
10704	2	79.50	0.00	0.00	0.00
10802	1	69.20	0.00	0.00	0.00
10806	3	106.10	0.00	0.00	0.00
10904	2	79.50	0.00	0.00	0.00
11002	1	69.20	0.00	0.00	0.00
11006	3	106.10	0.00	0.00	0.00
11104	2	79.50	0.00	0.00	0.00
11202	1	69.20	0.00	0.00	0.00
11206	3	106.10	0.00	0.00	0.00
11304	2	79.50	0.00	0.00	0.00
11402	1	69.20	0.00	0.00	0.00
11406	3	106.10	0.00	0.00	0.00
11504	2	79.50	0.00	0.00	0.00
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)
10203	2	89.20	0.00	0.00	0.00
10301	2	87.10	0.00	0.00	0.00
10305	2	83.10	0.00	0.00	0.00
10403	2	89.20	0.00	0.00	0.00
10501	2	87.10	0.00	0.00	0.00
10505	2	83.10	0.00	0.00	0.00
10603	2	89.20	0.00	0.00	0.00
10701	2	87.10	0.00	0.00	0.00
10705	2	83.10	0.00	0.00	0.00
10803	2	89.20	0.00	0.00	0.00
10901	2	87.10	0.00	0.00	0.00
10905	2	83.10	0.00	0.00	0.00
11003	2	89.20	0.00	0.00	0.00
11101	2	87.10	0.00	0.00	0.00
11105	2	83.10	0.00	0.00	0.00
11203	2	89.20	0.00	0.00	0.00
11301	2	87.10	0.00	0.00	0.00
11305	2	83.10	0.00	0.00	0.00
11403	2	89.20	0.00	0.00	0.00
11501	2	87.10	0.00	0.00	0.00
11505	2	83.10	0.00	0.00	0.00
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)
10204	2	79.50	0.00	0.00	0.00
10302	1	69.20	0.00	0.00	0.00
10306	3	106.10	0.00	0.00	0.00
10404	2	79.50	0.00	0.00	0.00
10502	1	69.20	0.00	0.00	0.00
10506	3	106.10	0.00	0.00	0.00
10604	2	79.50	0.00	0.00	0.00
10702	1	69.20	0.00	0.00	0.00
10706	3	106.10	0.00	0.00	0.00
10804	2	79.50	0.00	0.00	0.00
10902	1	69.20	0.00	0.00	0.00
10906	3	106.10	0.00	0.00	0.00
11004	2	79.50	0.00	0.00	0.00
11102	1	69.20	0.00	0.00	0.00
11106	3	106.10	0.00	0.00	0.00
11204	2	79.50	0.00	0.00	0.00
11302	1	69.20	0.00	0.00	0.00
11306	3	106.10	0.00	0.00	0.00
11404	2	79.50	0.00	0.00	0.00
11502	1	69.20	0.00	0.00	0.00
11506	3	106.10	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
11601	2	87.10	0.00	0.00	0.00
11605	2	83.10	0.00	0.00	0.00
11703	2	87.10	0.00	0.00	0.00
11801	2	106.10	0.00	0.00	0.00
11805	2	79.50	0.00	0.00	0.00
11903	2	69.20	0.00	0.00	0.00
12001	2	79.50	0.00	0.00	0.00
12005	2	89.20	0.00	0.00	0.00
12103	2	69.20	0.00	0.00	0.00
12201	2	89.20	0.00	0.00	0.00
12205	2	79.50	0.00	0.00	0.00
12303	2	87.10	0.00	0.00	0.00
12401	2	89.20	0.00	0.00	0.00
12405	2	87.10	0.00	0.00	0.00
12503	2	83.10	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
11602	1	69.20	0.00	0.00	0.00
11606	3	106.10	0.00	0.00	0.00
11704	2	79.50	0.00	0.00	0.00
11802	1	87.10	0.00	0.00	0.00
11806	3	89.20	0.00	0.00	0.00
11904	2	89.20	0.00	0.00	0.00
12002	1	106.10	0.00	0.00	0.00
12006	3	83.10	0.00	0.00	0.00
12104	2	79.50	0.00	0.00	0.00
12202	1	69.20	0.00	0.00	0.00
12206	3	83.10	0.00	0.00	0.00
12304	2	79.50	0.00	0.00	0.00
12402	1	106.10	0.00	0.00	0.00
12406	3	83.10	0.00	0.00	0.00
12504	2	79.50	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
11603	2	89.20	0.00	0.00	0.00
11701	2	106.10	0.00	0.00	0.00
11705	2	89.20	0.00	0.00	0.00
11803	2	69.20	0.00	0.00	0.00
11901	2	87.10	0.00	0.00	0.00
11905	2	83.10	0.00	0.00	0.00
12003	2	87.10	0.00	0.00	0.00
12101	2	87.10	0.00	0.00	0.00
12105	2	106.10	0.00	0.00	0.00
12203	2	87.10	0.00	0.00	0.00
12301	2	106.10	0.00	0.00	0.00
12305	2	83.10	0.00	0.00	0.00
12403	2	69.20	0.00	0.00	0.00
12501	2	87.10	0.00	0.00	0.00
12505	2	89.20	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
11604	2	79.50	0.00	0.00	0.00
11702	1	69.20	0.00	0.00	0.00
11706	3	83.10	0.00	0.00	0.00
11804	2	83.10	0.00	0.00	0.00
11902	1	79.50	0.00	0.00	0.00
11906	3	106.10	0.00	0.00	0.00
12004	2	69.20	0.00	0.00	0.00
12102	1	83.10	0.00	0.00	0.00
12106	3	89.20	0.00	0.00	0.00
12204	2	106.10	0.00	0.00	0.00
12302	1	69.20	0.00	0.00	0.00
12306	3	89.20	0.00	0.00	0.00
12404	2	79.50	0.00	0.00	0.00
12502	1	106.10	0.00	0.00	0.00
12506	3	69.20	0.00	0.00	0.00

Residential flat buildings - Building 2, 210 dwellings, 40 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
20201	3	101.7	0.00	0.00	0.00
20205	1	64	0.00	0.00	0.00
20303	2	76.8	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
20202	1	86.5	0.00	0.00	0.00
20206	2	78.40	0.00	0.00	0.00
20304	2	76	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
20203	2	76.8	0.00	0.00	0.00
20301	3	101.7	0.00	0.00	0.00
20305	1	64	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
20204	2	76	0.00	0.00	0.00
20302	1	86.5	0.00	0.00	0.00
20306	2	78.4	0.00	0.00	0.00

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)
20401	3	101.7	0.00	0.00	0.00
20405	1	64	0.00	0.00	0.00
20503	2	76.80	0.00	0.00	0.00
20601	3	101.70	0.00	0.00	0.00
20605	1	64.00	0.00	0.00	0.00
20703	2	76.80	0.00	0.00	0.00
20801	3	101.70	0.00	0.00	0.00
20805	1	64.00	0.00	0.00	0.00
20903	2	76.80	0.00	0.00	0.00
21001	3	101.70	0.00	0.00	0.00
21005	1	64.00	0.00	0.00	0.00
21103	2	76.80	0.00	0.00	0.00
21201	3	101.70	0.00	0.00	0.00
21205	1	64.00	0.00	0.00	0.00
21303	2	76.80	0.00	0.00	0.00
21401	3	101.70	0.00	0.00	0.00
21405	1	64.00	0.00	0.00	0.00
21503	2	76.80	0.00	0.00	0.00
21601	3	101.70	0.00	0.00	0.00
21605	1	64.00	0.00	0.00	0.00
21703	2	76.80	0.00	0.00	0.00
21801	3	101.70	0.00	0.00	0.00
21805	1	64.00	0.00	0.00	0.00
21903	2	76.80	0.00	0.00	0.00
22001	3	101.70	0.00	0.00	0.00
22005	1	64.00	0.00	0.00	0.00

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)
20402	1	86.5	0.00	0.00	0.00
20406	2	78.4	0.00	0.00	0.00
20504	2	76.00	0.00	0.00	0.00
20602	1	86.50	0.00	0.00	0.00
20606	2	78.40	0.00	0.00	0.00
20704	2	76.00	0.00	0.00	0.00
20802	1	86.50	0.00	0.00	0.00
20806	2	78.40	0.00	0.00	0.00
20904	2	76.00	0.00	0.00	0.00
21002	1	86.50	0.00	0.00	0.00
21006	2	78.40	0.00	0.00	0.00
21104	2	76.00	0.00	0.00	0.00
21202	1	86.50	0.00	0.00	0.00
21206	2	78.40	0.00	0.00	0.00
21304	2	76.00	0.00	0.00	0.00
21402	1	86.50	0.00	0.00	0.00
21406	2	78.40	0.00	0.00	0.00
21504	2	76.00	0.00	0.00	0.00
21602	1	86.50	0.00	0.00	0.00
21606	2	78.40	0.00	0.00	0.00
21704	2	76.00	0.00	0.00	0.00
21802	1	86.50	0.00	0.00	0.00
21806	2	78.40	0.00	0.00	0.00
21904	2	76.00	0.00	0.00	0.00
22002	1	86.50	0.00	0.00	0.00
22006	2	78.40	0.00	0.00	0.00

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)
20403	2	76.8	0.00	0.00	0.00
20501	3	101.7	0.00	0.00	0.00
20505	1	64.00	0.00	0.00	0.00
20603	2	76.80	0.00	0.00	0.00
20701	3	101.70	0.00	0.00	0.00
20705	1	64.00	0.00	0.00	0.00
20803	2	76.80	0.00	0.00	0.00
20901	3	101.70	0.00	0.00	0.00
20905	1	64.00	0.00	0.00	0.00
21003	2	76.80	0.00	0.00	0.00
21101	3	101.70	0.00	0.00	0.00
21105	1	64.00	0.00	0.00	0.00
21203	2	76.80	0.00	0.00	0.00
21301	3	101.70	0.00	0.00	0.00
21305	1	64.00	0.00	0.00	0.00
21403	2	76.80	0.00	0.00	0.00
21501	3	101.70	0.00	0.00	0.00
21505	1	64.00	0.00	0.00	0.00
21603	2	76.80	0.00	0.00	0.00
21701	3	101.70	0.00	0.00	0.00
21705	1	64.00	0.00	0.00	0.00
21803	2	76.80	0.00	0.00	0.00
21901	3	101.70	0.00	0.00	0.00
21905	1	64.00	0.00	0.00	0.00
22003	2	76.80	0.00	0.00	0.00
22101	3	101.70	0.00	0.00	0.00

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)
20404	2	76	0.00	0.00	0.00
20502	1	86.5	0.00	0.00	0.00
20506	2	78.40	0.00	0.00	0.00
20604	2	76.00	0.00	0.00	0.00
20702	1	86.50	0.00	0.00	0.00
20706	2	78.40	0.00	0.00	0.00
20804	2	76.00	0.00	0.00	0.00
20902	1	86.50	0.00	0.00	0.00
20906	2	78.40	0.00	0.00	0.00
21004	2	76.00	0.00	0.00	0.00
21102	1	86.50	0.00	0.00	0.00
21106	2	78.40	0.00	0.00	0.00
21204	2	76.00	0.00	0.00	0.00
21302	1	86.50	0.00	0.00	0.00
21306	2	78.40	0.00	0.00	0.00
21404	2	76.00	0.00	0.00	0.00
21502	1	86.50	0.00	0.00	0.00
21506	2	78.40	0.00	0.00	0.00
21604	2	76.00	0.00	0.00	0.00
21702	1	86.50	0.00	0.00	0.00
21706	2	78.40	0.00	0.00	0.00
21804	2	76.00	0.00	0.00	0.00
21902	1	86.50	0.00	0.00	0.00
21906	2	78.40	0.00	0.00	0.00
22004	2	76.00	0.00	0.00	0.00
22102	1	86.50	0.00	0.00	0.00

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)
22103	2	76.80	0.00	0.00	0.00
22201	3	101.70	0.00	0.00	0.00
22205	1	64.00	0.00	0.00	0.00
22303	2	76.80	0.00	0.00	0.00
22401	3	101.70	0.00	0.00	0.00
22405	1	64.00	0.00	0.00	0.00
22503	2	76.80	0.00	0.00	0.00
22601	3	101.70	0.00	0.00	0.00
22605	1	64.00	0.00	0.00	0.00
22703	2	76.80	0.00	0.00	0.00
22801	3	101.70	0.00	0.00	0.00
22805	1	64.00	0.00	0.00	0.00
22903	2	76.80	0.00	0.00	0.00
23001	3	101.70	0.00	0.00	0.00
23005	1	64.00	0.00	0.00	0.00
23103	2	76.80	0.00	0.00	0.00
23201	3	101.70	0.00	0.00	0.00
23205	1	64.00	0.00	0.00	0.00
23303	2	76.80	0.00	0.00	0.00
23401	3	101.70	0.00	0.00	0.00
23405	1	64.00	0.00	0.00	0.00
23503	2	76.80	0.00	0.00	0.00
23601	3	101.70	0.00	0.00	0.00
23605	1	64.00	0.00	0.00	0.00

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)
22104	2	76.00	0.00	0.00	0.00
22202	1	86.50	0.00	0.00	0.00
22206	2	78.40	0.00	0.00	0.00
22304	2	76.00	0.00	0.00	0.00
22402	1	86.50	0.00	0.00	0.00
22406	2	78.40	0.00	0.00	0.00
22504	2	76.00	0.00	0.00	0.00
22602	1	86.50	0.00	0.00	0.00
22606	2	78.40	0.00	0.00	0.00
22704	2	76.00	0.00	0.00	0.00
22802	1	86.50	0.00	0.00	0.00
22806	2	78.40	0.00	0.00	0.00
22904	2	76.00	0.00	0.00	0.00
23002	1	86.50	0.00	0.00	0.00
23006	2	78.40	0.00	0.00	0.00
23104	2	76.00	0.00	0.00	0.00
23202	1	86.50	0.00	0.00	0.00
23206	2	78.40	0.00	0.00	0.00
23304	2	76.00	0.00	0.00	0.00
23402	1	86.50	0.00	0.00	0.00
23406	2	78.40	0.00	0.00	0.00
23504	2	76.00	0.00	0.00	0.00
23602	1	86.50	0.00	0.00	0.00
23606	2	78.40	0.00	0.00	0.00

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)
22105	1	64.00	0.00	0.00	0.00
22203	2	76.80	0.00	0.00	0.00
22301	3	101.70	0.00	0.00	0.00
22305	1	64.00	0.00	0.00	0.00
22403	2	76.80	0.00	0.00	0.00
22501	3	101.70	0.00	0.00	0.00
22505	1	64.00	0.00	0.00	0.00
22603	2	76.80	0.00	0.00	0.00
22701	3	101.70	0.00	0.00	0.00
22705	1	64.00	0.00	0.00	0.00
22803	2	76.80	0.00	0.00	0.00
22901	3	101.70	0.00	0.00	0.00
22905	1	64.00	0.00	0.00	0.00
23003	2	76.80	0.00	0.00	0.00
23101	3	101.70	0.00	0.00	0.00
23105	1	64.00	0.00	0.00	0.00
23203	2	76.80	0.00	0.00	0.00
23301	3	101.70	0.00	0.00	0.00
23305	1	64.00	0.00	0.00	0.00
23403	2	76.80	0.00	0.00	0.00
23501	3	101.70	0.00	0.00	0.00
23505	2	64.00	0.00	0.00	0.00
23603	2	76.80	0.00	0.00	0.00

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)
22106	2	78.40	0.00	0.00	0.00
22204	2	76.00	0.00	0.00	0.00
22302	1	86.50	0.00	0.00	0.00
22306	2	78.40	0.00	0.00	0.00
22404	2	76.00	0.00	0.00	0.00
22502	1	86.50	0.00	0.00	0.00
22506	2	78.40	0.00	0.00	0.00
22604	2	76.00	0.00	0.00	0.00
22702	1	86.50	0.00	0.00	0.00
22706	2	78.40	0.00	0.00	0.00
22804	2	76.00	0.00	0.00	0.00
22902	1	86.50	0.00	0.00	0.00
22906	2	78.40	0.00	0.00	0.00
23004	2	76.00	0.00	0.00	0.00
23102	1	86.50	0.00	0.00	0.00
23106	2	78.40	0.00	0.00	0.00
23204	2	76.00	0.00	0.00	0.00
23302	1	86.50	0.00	0.00	0.00
23306	2	78.40	0.00	0.00	0.00
23404	2	76.00	0.00	0.00	0.00
23502	1	86.50	0.00	0.00	0.00
23506	2	78.40	0.00	0.00	0.00
23604	2	76.00	0.00	0.00	0.00

Residential flat buildings - Building 3, 217 dwellings, 35 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)
30201	1	59.2	0.00	0.00	0.00
30205	2	76	0.00	0.00	0.00
30302	1	52.1	0.00	0.00	0.00
30306	1	60.9	0.00	0.00	0.00
30403	1	84.5	0.00	0.00	0.00
30407	2	71.40	0.00	0.00	0.00
30504	2	76.00	0.00	0.00	0.00
30601	1	59.20	0.00	0.00	0.00
30605	2	76.00	0.00	0.00	0.00
30702	1	52.10	0.00	0.00	0.00
30706	1	60.90	0.00	0.00	0.00
30803	1	84.50	0.00	0.00	0.00
30807	2	71.40	0.00	0.00	0.00
30904	2	76.00	0.00	0.00	0.00
31001	1	59.20	0.00	0.00	0.00
31006	1	60.90	0.00	0.00	0.00
31102	1	52.10	0.00	0.00	0.00
31106	1	60.90	0.00	0.00	0.00
31203	1	84.50	0.00	0.00	0.00
31207	2	71.40	0.00	0.00	0.00
31304	2	76.00	0.00	0.00	0.00
31401	1	59.20	0.00	0.00	0.00
31405	2	76.00	0.00	0.00	0.00
31502	1	52.10	0.00	0.00	0.00
31506	1	60.90	0.00	0.00	0.00

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)
30202	1	52.1	0.00	0.00	0.00
30206	1	60.9	0.00	0.00	0.00
30303	1	84.5	0.00	0.00	0.00
30307	2	71.4	0.00	0.00	0.00
30404	2	76	0.00	0.00	0.00
30501	1	59.20	0.00	0.00	0.00
30505	2	76.00	0.00	0.00	0.00
30602	1	52.10	0.00	0.00	0.00
30606	1	60.90	0.00	0.00	0.00
30703	1	84.50	0.00	0.00	0.00
30707	2	71.40	0.00	0.00	0.00
30804	2	76.00	0.00	0.00	0.00
30901	1	59.20	0.00	0.00	0.00
30905	2	76.00	0.00	0.00	0.00
31003	1	84.50	0.00	0.00	0.00
31007	2	71.40	0.00	0.00	0.00
31103	1	84.50	0.00	0.00	0.00
31107	2	71.40	0.00	0.00	0.00
31204	2	76.00	0.00	0.00	0.00
31301	1	59.20	0.00	0.00	0.00
31305	2	76.00	0.00	0.00	0.00
31402	1	52.10	0.00	0.00	0.00
31406	1	60.90	0.00	0.00	0.00
31503	1	84.50	0.00	0.00	0.00
31507	2	71.40	0.00	0.00	0.00

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)
30203	1	84.5	0.00	0.00	0.00
30207	2	71.4	0.00	0.00	0.00
30304	2	76	0.00	0.00	0.00
30401	1	59.2	0.00	0.00	0.00
30405	2	76	0.00	0.00	0.00
30502	1	52.10	0.00	0.00	0.00
30506	1	60.90	0.00	0.00	0.00
30603	1	84.50	0.00	0.00	0.00
30607	2	71.40	0.00	0.00	0.00
30704	2	76.00	0.00	0.00	0.00
30801	1	59.20	0.00	0.00	0.00
30805	2	76.00	0.00	0.00	0.00
30902	1	52.10	0.00	0.00	0.00
30906	1	60.90	0.00	0.00	0.00
31004	2	76.00	0.00	0.00	0.00
31009	1	52.10	0.00	0.00	0.00
31104	2	76.00	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
31603	1	84.50	0.00	0.00	0.00
31607	2	71.40	0.00	0.00	0.00
31704	2	76.00	0.00	0.00	0.00
31801	1	59.20	0.00	0.00	0.00
31805	2	76.00	0.00	0.00	0.00
31902	1	52.10	0.00	0.00	0.00
31906	1	60.90	0.00	0.00	0.00
32003	1	84.50	0.00	0.00	0.00
32007	2	71.40	0.00	0.00	0.00
32104	2	76.00	0.00	0.00	0.00
32201	1	59.20	0.00	0.00	0.00
32205	2	76.00	0.00	0.00	0.00
32303	1	84.50	0.00	0.00	0.00
32307	2	71.40	0.00	0.00	0.00
32403	1	84.50	0.00	0.00	0.00
32407	2	71.40	0.00	0.00	0.00
32504	2	76.00	0.00	0.00	0.00
32601	1	59.20	0.00	0.00	0.00
32605	2	76.00	0.00	0.00	0.00
32702	1	52.10	0.00	0.00	0.00
32706	1	60.90	0.00	0.00	0.00
32803	1	84.50	0.00	0.00	0.00
32807	2	71.40	0.00	0.00	0.00
32904	2	76.00	0.00	0.00	0.00
33001	1	59.20	0.00	0.00	0.00
33005	2	76.00	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
31604	2	76.00	0.00	0.00	0.00
31701	1	59.20	0.00	0.00	0.00
31705	2	76.00	0.00	0.00	0.00
31802	1	52.10	0.00	0.00	0.00
31806	1	60.90	0.00	0.00	0.00
31903	1	84.50	0.00	0.00	0.00
31907	2	71.40	0.00	0.00	0.00
32004	2	76.00	0.00	0.00	0.00
32101	1	59.20	0.00	0.00	0.00
32105	2	76.00	0.00	0.00	0.00
32202	1	52.10	0.00	0.00	0.00
32206	1	60.90	0.00	0.00	0.00
32304	2	76.00	0.00	0.00	0.00
32309	1	52.10	0.00	0.00	0.00
32404	2	76.00	0.00	0.00	0.00
32501	1	59.20	0.00	0.00	0.00
32505	2	76.00	0.00	0.00	0.00
32602	1	52.10	0.00	0.00	0.00
32606	1	60.90	0.00	0.00	0.00
32703	1	84.50	0.00	0.00	0.00
32707	2	71.40	0.00	0.00	0.00
32804	2	76.00	0.00	0.00	0.00
32901	1	59.20	0.00	0.00	0.00
32905	2	76.00	0.00	0.00	0.00
33002	1	52.10	0.00	0.00	0.00
33006	1	60.90	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
31605	2	76.00	0.00	0.00	0.00
31702	1	52.10	0.00	0.00	0.00
31706	1	60.90	0.00	0.00	0.00
31803	1	84.50	0.00	0.00	0.00
31807	2	71.40	0.00	0.00	0.00
31904	2	76.00	0.00	0.00	0.00
32001	1	59.20	0.00	0.00	0.00
32005	2	76.00	0.00	0.00	0.00
32102	1	52.10	0.00	0.00	0.00
32106	1	60.90	0.00	0.00	0.00
32203	1	84.50	0.00	0.00	0.00
32207	2	71.40	0.00	0.00	0.00
32305	2	76.00	0.00	0.00	0.00
32401	1	59.20	0.00	0.00	0.00
32405	2	76.00	0.00	0.00	0.00
32502	1	52.10	0.00	0.00	0.00
32506	1	60.90	0.00	0.00	0.00
32603	1	84.50	0.00	0.00	0.00
32607	2	71.40	0.00	0.00	0.00
32704	2	76.00	0.00	0.00	0.00
32801	1	59.20	0.00	0.00	0.00
32805	2	76.00	0.00	0.00	0.00
32902	1	52.10	0.00	0.00	0.00
32906	1	60.90	0.00	0.00	0.00
33003	1	84.50	0.00	0.00	0.00
33007	2	71.40	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
31606	1	60.90	0.00	0.00	0.00
31703	1	84.50	0.00	0.00	0.00
31707	2	71.40	0.00	0.00	0.00
31804	2	76.00	0.00	0.00	0.00
31901	1	59.20	0.00	0.00	0.00
31905	2	76.00	0.00	0.00	0.00
32002	1	52.10	0.00	0.00	0.00
32006	1	60.90	0.00	0.00	0.00
32103	1	84.50	0.00	0.00	0.00
32107	2	71.40	0.00	0.00	0.00
32204	2	76.00	0.00	0.00	0.00
32301	1	59.20	0.00	0.00	0.00
32306	1	60.90	0.00	0.00	0.00
32402	1	52.10	0.00	0.00	0.00
32406	1	60.90	0.00	0.00	0.00
32503	1	84.50	0.00	0.00	0.00
32507	2	71.40	0.00	0.00	0.00
32604	2	76.00	0.00	0.00	0.00
32701	1	59.20	0.00	0.00	0.00
32705	2	76.00	0.00	0.00	0.00
32802	1	52.10	0.00	0.00	0.00
32806	1	60.90	0.00	0.00	0.00
32903	1	84.50	0.00	0.00	0.00
32907	2	71.40	0.00	0.00	0.00
33004	2	76.00	0.00	0.00	0.00
33101	1	59.20	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
33102	1	52.10	0.00	0.00	0.00
33106	1	60.90	0.00	0.00	0.00
33203	1	84.50	0.00	0.00	0.00
33207	2	71.40	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
33103	1	84.50	0.00	0.00	0.00
33107	2	71.40	0.00	0.00	0.00
33204	2	76.00	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
33104	2	76.00	0.00	0.00	0.00
33201	1	59.20	0.00	0.00	0.00
33205	2	76.00	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
33105	2	76.00	0.00	0.00	0.00
33202	1	52.10	0.00	0.00	0.00
33206	1	60.90	0.00	0.00	0.00

Description of project

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

Common areas of unit building - Building 1

Common area	Floor area (m²)	Common area	Floor area (m²)
Ground floor lobby Building 1	97	Hallway/lobby Building 1	1255.2

Common areas of unit building - Building 2

Common area	Floor area (m²)	Common area	Floor area (m²)
Ground floor lobby Building 2	78	Hallway/lobby Building 2	2242.6

Common areas of unit building - Building 3

Common area	Floor area (m²)	Common area	Floor area (m²)
Ground floor lobby Building 3	88	Hallway/lobby Building 3	1975

Common areas of the development (non-building specific)

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m²)
Undercover car park area B5	6944	Undercover car park area B4	6894	Undercover car park area B3	6894
Undercover car park area B2	6262	Undercover car park area B1	6262	Undercover car park area B1 Retail	1213
Resi Bin Holding Room B1	181	Bin Room B1	20.8	Amenities and COS	1621
Grease Arrestor B1	50	Hydraulic Plant Room B1	12	Fire Water Tank B1	150
Loading Dock + BOH LG	980	Substation GL	180	Amenities GL	331
Amenities UG	190	BOH UG	73		

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building 1

(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 Residential flat buildings - Building 2

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

3. Commitments for Residential flat buildings - Building 3

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

- (ii) Energy
- (iii) Thermal Performance

(c) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

4. Commitments for multi-dwelling housing

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Performance and Materials

5. Commitments for single dwelling houses

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Performance and Materials

6. 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 - Building 1

(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 open subfloor, frame: suspended concrete slab	185	fibreglass batts or roll	-
floors above habitable rooms, frame: suspended concrete slab	12156	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	single skin autoclaved aerated concrete (AAC), frame: light steel frame	3021	-	fibreglass batts or roll
External wall type 2	off form concrete, frame: no frame	1328	none	-

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	7900	-
Internal wall type 2	75 mm AAC panel, frame:light steel frame	4500	fibreglass batts or roll
Internal wall type 3	Concrete, frame:no frame	1623	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	101	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	870	-	fibreglass batts or roll

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)
-	5980	-	5980	-	-	-	-

(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	-	5 star	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: (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 into central duct + VSD	interlocked to light with timer off	individual fan into central duct + VSD	manual switch on/off	individual fan into central duct + VSD	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & electric oven	4.5 star	5 star	yes	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)
10201	20.4	16.5	36.900
10202	59.7	6.8	66.500
10203	59.6	11.8	71.400
10204	53.7	20.8	74.500

	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)
10205	38.5	23.9	62.400
10206	37.1	36.3	73.400
10301	13	16.9	29.900
10302	60.1	6.8	66.900
10303	59.9	11.7	71.600
10304	45.8	26.2	72.000
10305	27.2	24.40	51.600
10306	28.5	39.4	67.900
10401	15.1	15.1	30.200
10402	62.5	6.8	69.300
10403	54.2	9.7	63.900
10404	47.9	20.6	68.500
10405	28.8	23.2	52.000
10406	30.5	36.6	67.100
10501	15.3	15.4	30.700
10502	62.8	6.8	69.600
10503	54.5	9.7	64.200
10504	48.2	20.5	68.700
10505	29.1	23.1	52.200
10506	30.7	36.6	67.300
10601	15.6	15.3	30.900
10602	63.2	6.8	70.000
10603	54.7	9.7	64.400
10604	48.4	20.6	69.000
10605	29.3	22.9	52.200
10606	30.9	36.3	67.200
10701	15.7	15.4	31.100
10702	63.2	6.5	69.700
10703	54.8	9.7	64.500
10704	48.6	20.3	68.900
10705	29.4	22.5	51.900

	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)
10706	31	36.2	67.200
10801	16	15.3	31.300
10802	59.8	6.5	66.300
10803	55	9.5	64.500
10804	48.9	20.2	69.100
10805	29.6	22	51.600
10806	31.3	36.7	68.000
10901	16.1	15.5	31.600
10902	59.2	6.6	65.800
10903	55.1	9.6	64.700
10904	49	20.2	69.200
10906	31.5	36.2	67.700
11001	16	15.4	31.400
11002	59.6	7	66.600
11003	55.2	9.6	64.800
11004	49.1	20.1	69.200
11006	31.5	36	67.500
11101	16.2	15.3	31.500
11102	59.8	6.9	66.700
11103	55.3	9.6	64.900
11104	49.3	20.1	69.400
11105	29.4	22	51.400
11106	31.7	35.8	67.500
11201	16.4	15.4	31.800
11202	60.2	6.9	67.100
11203	55.5	9.7	65.200
11204	49.5	20.2	69.700
11205	29.7	22	51.700
11206	31.9	35.5	67.400
11301	16.4	15.1	31.500
11302	60.1	6.7	66.800

	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)
11303	55.6	9.7	65.300
11304	49.6	20.2	69.800
11306	32	35.4	67.400
11401	16.6	15.3	31.900
11402	60.5	6.9	67.400
11404	49.8	20.1	69.900
11405	29.9	21.8	51.700
11406	32.2	35.4	67.600
11501	16.7	15.3	32.000
11502	60.2	6.8	67.000
11504	49.9	20.1	70.000
11505	29.9	21.6	51.500
11506	32.2	35.2	67.400
11601	13.7	12.5	26.200
11602	56.6	5.8	62.400
11603	56.1	7.9	64.000
11604	49.6	12.3	61.900
11605	29.4	16.9	46.300
11606	27.9	30.1	58.000
11703	56.3	9.6	65.900
11704	50.5	20.1	70.600
11705	30.5	21	51.500
11706	33	34.7	67.700
11801	16.9	14.9	31.800
11802	60.2	6.6	66.800
11804	50.1	19.8	69.900
11805	30.3	20.9	51.200
11806	32.5	35	67.500
11901	16.8	14.8	31.600
11902	60.5	6.7	67.200
11903	55.8	9.6	65.400

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
11904	50.2	19.9	70.100
11905	30.4	20.8	51.200
11906	32.7	35	67.700
12001	17	14.7	31.700
12004	50.3	19.8	70.100
12005	30.6	20.3	50.900
12006	32.7	34.8	67.500
12101	17.1	14.8	31.900
12102	60.9	6.9	67.800
12105	30.6	20.7	51.300
12106	32.8	34.4	67.200
12201	17.2	14.6	31.800
12202	61.2	6.9	68.100
12205	30.8	20.9	51.700
12206	33	34.2	67.200
12302	61	6.8	67.800
12303	55.6	10	65.600
12305	31	20.8	51.800
12306	33	34.3	67.300
12403	55.5	10.1	65.600
12405	30.9	20.7	51.600
12406	33.1	34.3	67.400
12501	24.6	20	44.600
12502	57.2	10.5	67.700
12503	62.9	15.7	78.600
12504	52.8	23.5	76.300
12505	41.3	26.8	68.100
12506	34.3	37.4	71.700
11403, 11503	55.7	9.7	65.400
11803, 12203	55.8	9.8	65.600
12003, 12103	55.8	9.7	65.500

	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)
12104, 12204	50.4	19.8	70.200
12304, 12404	50.3	19.7	70.000
10905, 11005, 11305	29.8	22	51.800
11701, 12301, 12401	17.2	14.9	32.100
All other dwellings	60.6	6.7	67.300

(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

(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
Ground floor lobby Building 1	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Hallway/lobby Building 1	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Lift bank (No. 1)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 24 number of levels from the bottom of the lift shaft to the top of the lift shaft: 34 number of lifts: 3 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Central hot water system (No. 1)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: $3.5 < \text{COP} \leq 4.0$

2. Commitments for Residential flat buildings - Building 2

(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 open subfloor, frame: suspended concrete slab	185	fibreglass batts or roll	-
floors above habitable rooms, frame: suspended concrete slab	17000	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	single skin autoclaved aerated concrete (AAC), frame: light steel frame	3633	-	fibreglass batts or roll
External wall type 2	off form concrete, frame: no frame	1004	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame: light steel frame	10400	-
Internal wall type 2	75 mm AAC panel, frame: light steel frame	6640	fibreglass batts or roll

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	101	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	841.2	-	fibreglass batts or roll

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)
4132	1451	-	5583	-	-	-	-

(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	-	5 star	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: (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. 2)	individual fan into central duct + VSD	interlocked to light with timer off	individual fan into central duct + VSD	manual switch on/off	individual fan into central duct + VSD	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & electric oven	4.5 star	5 star	yes	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)
20201	20.2	8.2	28.400
20202	47.9	5.8	53.700
20203	55.3	6.4	61.700
20204	60.8	7.8	68.600

	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)
20205	49.7	6.6	56.300
20206	26.7	5.9	32.600
20301	20.4	8.1	28.500
20302	42.7	5.9	48.600
20303	55.6	6.3	61.900
20304	61	7.9	68.900
20305	50	6.3	56.300
20306	26.9	5.8	32.700
20401	22.2	7.2	29.400
20402	44.7	4.8	49.500
20403	57.5	5.9	63.400
20404	63	6.8	69.800
20405	51.9	5.5	57.400
20406	28.8	5.4	34.200
20501	22.3	7.1	29.400
20502	45	4.6	49.600
20503	57.8	5.9	63.700
20504	63.3	6.9	70.200
20505	52.2	5.4	57.600
20506	26.7	5.2	31.900
20601	28.2	6	34.200
20602	45.1	4.6	49.700
20603	58	5.9	63.900
20604	63.6	6.9	70.500
20605	52.4	5.4	57.800
20606	33.2	4.3	37.500
20701	28.4	5.9	34.300
20702	45.2	4.5	49.700
20703	58.1	6	64.100
20704	63.7	6.8	70.500
20706	33.4	4.3	37.700

	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)
20801	28.5	5.9	34.400
20802	45.3	4.4	49.700
20803	58.3	5.8	64.100
20804	63.8	6.9	70.700
20806	33.5	4.3	37.800
20901	28.7	6.1	34.800
20902	45.6	4.3	49.900
20903	58.5	5.8	64.300
20904	64.1	6.9	71.000
20905	52.9	5.3	58.200
20906	33.7	4.3	38.000
21001	28.8	6	34.800
21002	45.7	4.7	50.400
21003	58.6	5.8	64.400
21004	64.2	6.7	70.900
21006	33.9	4.4	38.300
21101	28.9	6	34.900
21102	45.8	4.6	50.400
21103	58.8	5.8	64.600
21104	64.3	6.5	70.800
21106	34	4.3	38.300
21201	29.1	6	35.100
21202	45.9	4.4	50.300
21203	58.9	5.8	64.700
21204	64.4	6.6	71.000
21205	53.1	5.3	58.400
21206	34.1	4.4	38.500
21301	29.2	6	35.200
21302	46.1	4.8	50.900
21303	59	5.9	64.900
21304	64.5	6.6	71.100

	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)
21306	34.2	4.4	38.600
21401	29.3	6	35.300
21402	46.2	4.4	50.600
21403	59.1	6	65.100
21404	64.6	6.5	71.100
21405	53.3	5.5	58.800
21406	34.3	4.4	38.700
21501	29.4	5.7	35.100
21502	46.2	4.5	50.700
21503	59.3	5.8	65.100
21506	34.4	4.5	38.900
21601	29.5	5.7	35.200
21602	46.4	4.4	50.800
21603	59.4	5.7	65.100
21604	64.7	6.6	71.300
21605	53.2	5.8	59.000
21606	34.5	4.7	39.200
21701	29.6	5.8	35.400
21702	46.5	4.2	50.700
21703	59.5	5.5	65.000
21704	64.7	6.8	71.500
21705	52.9	5.8	58.700
21706	34.6	4.6	39.200
21801	29.7	5.7	35.400
21802	46.5	4.4	50.900
21803	59.6	5.5	65.100
21805	52.7	5.7	58.400
21806	34.7	4.5	39.200
21901	32.8	13.7	46.500
21902	47	8.5	55.500
21903	61.6	12.3	73.900

	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)
21904	49.6	13	62.600
21905	53.5	11.8	65.300
21906	38.4	8.4	46.800
22002	47.2	4.3	51.500
22004	48	5.6	53.600
22005	52.8	6.3	59.100
22006	35.3	4.6	39.900
22101	29.9	5.7	35.600
22102	46.7	4.4	51.100
22103	59.8	5.5	65.300
22104	47	5.8	52.800
22105	50.8	6.4	57.200
22106	34.8	4.5	39.300
22201	30	5.7	35.700
22202	46.8	4.6	51.400
22203	59.9	5.5	65.400
22204	45.9	5.7	51.600
22205	48.2	7.4	55.600
22206	34.8	5	39.800
22301	30.1	5.5	35.600
22302	46.8	4.8	51.600
22303	60	5.6	65.600
22304	43.1	5.7	48.800
22305	43	8	51.000
22306	34.7	5.3	40.000
22401	30.2	5.6	35.800
22402	46.9	4.8	51.700
22403	60.1	5.6	65.700
22404	38.5	5.7	44.200
22405	39.1	8.3	47.400
22406	34.3	5.5	39.800

	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)
22501	30.1	5.7	35.800
22502	46.8	5	51.800
22503	60.1	5.7	65.800
22504	38.4	6.2	44.600
22505	33.8	9.2	43.000
22506	34.1	6	40.100
22601	33.9	39	72.900
22602	46.9	5.1	52.000
22603	60.2	5.6	65.800
22604	37.1	6.2	43.300
22605	31.2	9	40.200
22606	33.7	6	39.700
22704	36.6	6.2	42.800
22705	30.4	9.1	39.500
22706	33.6	6	39.600
22802	46.8	5.3	52.100
22803	60.2	5.7	65.900
22804	36.5	6.1	42.600
22805	30.4	9.2	39.600
22806	33.6	5.8	39.400
22903	60.3	5.8	66.100
22904	36.5	6.4	42.900
22905	30.5	9.2	39.700
23001	30.3	5.7	36.000
23002	46.8	5.4	52.200
23003	60.2	5.8	66.000
23004	36.3	6.3	42.600
23005	30.5	9.3	39.800
23102	46.8	5.6	52.400
23103	60.3	5.9	66.200
23104	36.1	6.4	42.500

	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)
23105	30.6	9.1	39.700
23106	33.9	5.9	39.800
23201	30.5	5.7	36.200
23202	46.8	5.5	52.300
23203	60.3	6.1	66.400
23204	35.9	6.6	42.500
23205	30.7	9.1	39.800
23302	46.7	5.6	52.300
23304	35.6	6.5	42.100
23305	30.7	9.2	39.900
23401	30.5	5.8	36.300
23402	46.7	5.7	52.400
23404	35.5	6.5	42.000
23405	30.8	9.1	39.900
23501	30.4	5.9	36.300
23502	46.5	5.9	52.400
23503	60.1	6	66.100
23504	35.5	6.4	41.900
23505	27.9	9.2	37.100
23601	46.5	14.2	60.700
23602	61.6	11.7	73.300
23603	58.2	11.6	69.800
23604	50.9	14.3	65.200
23605	46.7	20.1	66.800
23606	49.7	11.7	61.400
20705, 20805	52.6	5.2	57.800
21005, 21105	53	5.1	58.100
21305, 21505	53.2	5.5	58.700
21504, 21804	64.6	6.8	71.400
22003, 22703	60.3	5.7	66.000
22701, 22801	30.3	5.6	35.900

	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)
22702, 22902	46.9	5	51.900
22906, 23006	33.8	5.9	39.700
23206, 23306	34	5.9	39.900
23303, 23403	60.2	6	66.200
23406, 23506	34.1	5.9	40.000
All other dwellings	30.4	5.7	36.100

(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

(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
Ground floor lobby Building 2	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Hallway/lobby Building 2	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Lift bank (No. 2)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 35 number of levels from the bottom of the lift shaft to the top of the lift shaft: 45 number of lifts: 3 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Central hot water system (No. 2)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: $3.5 < \text{COP} \leq 4.0$

3. Commitments for Residential flat buildings - Building 3

(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 open subfloor, frame: suspended concrete slab	185	fibreglass batts or roll	-
floors above habitable rooms, frame: suspended concrete slab	19000	-	-

External wall types				
External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	single skin autoclaved aerated concrete (AAC), frame: light steel frame	5545	-	fibreglass batts or roll
External wall type 2	off form concrete, frame: no frame	285	none	-

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	75 mm AAC panel, frame: light steel frame	1493	-
Internal wall type 2	plasterboard, frame: light steel frame	7780	-

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 3	75 mm AAC panel, frame:light steel frame	4094	fibreglass batts or roll

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	100	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	874.2	-	fibreglass batts or roll

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)
3018	1685	-	4703	-	-	-	-

(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	-	5 star	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: (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. 3)	individual fan into central duct + VSD	interlocked to light with timer off	individual fan into central duct + VSD	manual switch on/off	individual fan into central duct + VSD	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & electric oven	4.5 star	5 star	yes	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)
30201	33.5	33.1	66.600
30202	24.4	6	30.400
30203	9.1	10.9	20.000
30204	52.2	13.5	65.700

	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)
30205	62.8	11.6	74.400
30206	60.6	6.9	67.500
30207	31.4	28.1	59.500
30301	28.1	33.8	61.900
30302	24.8	5.9	30.700
30303	7.7	10.1	17.800
30304	48.1	13.2	61.300
30305	57.9	12.2	70.100
30306	58.5	8.4	66.900
30307	21.1	29.7	50.800
30401	30.1	32.5	62.600
30402	26.9	5.2	32.100
30403	10.6	10.8	21.400
30404	55.4	12	67.400
30405	60.5	11.3	71.800
30406	61	8.1	69.100
30407	24.7	26.5	51.200
30501	30.5	33.4	63.900
30502	27.2	5.4	32.600
30503	10.9	10.7	21.600
30504	55.7	12.1	67.800
30505	60.9	11.3	72.200
30506	61.4	8.2	69.600
30507	25	26.1	51.100
30601	30.8	32.7	63.500
30602	27.5	5.4	32.900
30603	11.1	10.5	21.600
30604	56	12	68.000
30606	61.7	8.2	69.900
30607	25.3	26	51.300
30701	30.8	33.2	64.000

	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)
30702	27.6	5.4	33.000
30703	11.5	10.7	22.200
30704	56.2	12	68.200
30706	61.6	8.1	69.700
30707	25.4	25.6	51.000
30801	30.9	33.2	64.100
30802	27.8	5.1	32.900
30803	11.7	10.7	22.400
30804	56.4	12	68.400
30805	61.6	11.1	72.700
30806	59.5	8.2	67.700
30807	25.5	25.6	51.100
30901	31.1	32.6	63.700
30902	28.1	5.3	33.400
30903	11.9	10.7	22.600
30904	56.8	11.8	68.600
30905	39.3	8.8	48.100
30906	59.9	8	67.900
30907	25.5	25.5	51.000
31001	31.2	32.9	64.100
31003	12	10.7	22.700
31004	56.9	11.9	68.800
31005	62.2	11.1	73.300
31006	58.2	8	66.200
31007	25.7	25.6	51.300
31009	28.2	5.4	33.600
31101	31.3	32.8	64.100
31102	28.4	5.3	33.700
31103	12.1	10.6	22.700
31104	57.1	11.8	68.900
31105	62.3	11	73.300

	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)
31106	58.5	8.1	66.600
31107	25.8	25.6	51.400
31201	31.4	33.1	64.500
31202	28.5	5.2	33.700
31203	12.2	10.8	23.000
31205	62.5	11	73.500
31206	58.8	8.1	66.900
31207	26	25.1	51.100
31301	31.5	32.9	64.400
31302	28.6	5.1	33.700
31303	12.3	10.9	23.200
31305	62.7	11	73.700
31306	59.1	8.2	67.300
31307	26.1	25.4	51.500
31401	31.6	32.9	64.500
31402	28.7	5.2	33.900
31403	12.4	11.1	23.500
31404	57.6	11.5	69.100
31405	62.9	10.8	73.700
31406	59.6	8.2	67.800
31407	26.3	25.2	51.500
31501	32	33.9	65.900
31502	29	4.9	33.900
31503	12.8	10.9	23.700
31504	58.1	11.6	69.700
31505	63.3	11.2	74.500
31506	60.1	8.2	68.300
31507	26.6	25.2	51.800
31601	33.3	33.6	66.900
31602	29.6	5.2	34.800
31603	11.4	10.3	21.700

	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)
31604	54	10.5	64.500
31605	63.8	11	74.800
31606	61.1	8.1	69.200
31607	25.6	25.6	51.200
31701	31.9	33.5	65.400
31702	29	5	34.000
31703	12.6	11.4	24.000
31704	58.1	11.4	69.500
31705	63.4	10.7	74.100
31706	60.9	8.1	69.000
31707	26.6	24.5	51.100
31801	31.9	34.3	66.200
31802	29	5.2	34.200
31803	12.6	11.5	24.100
31804	58.3	11.3	69.600
31805	63.5	10.8	74.300
31806	61.3	8.1	69.400
31807	26.8	24.7	51.500
31901	31.7	35.2	66.900
31902	28.8	4.9	33.700
31904	58.4	11.3	69.700
31905	63.7	10.8	74.500
31906	61.5	8	69.500
31907	26.9	24.6	51.500
32001	31.1	35	66.100
32002	28.2	4.9	33.100
32004	58.6	11.4	70.000
32006	61.7	8	69.700
32101	29.4	35.5	64.900
32102	24.9	4.9	29.800
32103	12.4	11.3	23.700

	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)
32104	58.6	11.2	69.800
32106	61.8	8	69.800
32201	24.2	35.4	59.600
32202	18.8	5.1	23.900
32203	11.5	11.3	22.800
32204	58.8	11.3	70.100
32205	63.9	10.8	74.700
32206	61.9	8	69.900
32207	27.2	24.4	51.600
32301	20.5	35.8	56.300
32303	11.4	11.3	22.700
32304	59	11.3	70.300
32305	64.1	10.9	75.000
32306	62.4	7.9	70.300
32307	27.3	24.1	51.400
32309	17.5	5.1	22.600
32401	18.7	36.4	55.100
32402	17.4	5	22.400
32403	11.4	11.4	22.800
32405	64.2	11	75.200
32406	62.8	8.2	71.000
32501	18.2	36.5	54.700
32502	17.2	5.3	22.500
32503	11.3	11.4	22.700
32505	64.2	10.9	75.100
32506	62.7	8.2	70.900
32601	17.9	36	53.900
32602	17	5.4	22.400
32603	11.4	11.6	23.000
32605	64.3	11	75.300
32607	27.6	23.9	51.500

	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)
32701	17.9	35.9	53.800
32703	11.4	11.7	23.100
32704	59.2	11.2	70.400
32705	64.4	11.1	75.500
32801	18	36.1	54.100
32803	11.4	11.8	23.200
32805	64.3	11.1	75.400
32806	63.2	8	71.200
32901	17.8	36	53.800
32902	17.1	5.3	22.400
32903	11.5	11.8	23.300
32904	59.1	11.2	70.300
32905	64.3	11.2	75.500
32907	27.8	23.8	51.600
33001	17.8	35.9	53.700
33002	17.1	5.2	22.300
33003	11.5	11.7	23.200
33004	59	11.5	70.500
33005	64.1	11.7	75.800
33007	27.8	23.7	51.500
33101	18	36	54.000
33102	17.2	5.2	22.400
33103	11.6	11.9	23.500
33104	58.8	12.2	71.000
33105	64.2	11.8	76.000
33106	64	8.1	72.100
33107	27.8	23.9	51.700
33201	34.5	43.9	78.400
33202	36.9	11.8	48.700
33203	29.3	21.8	51.100
33204	47	16.9	63.900

	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)
33205	48.1	15.3	63.400
33206	57.3	14.4	71.700
33207	33.9	42.5	76.400
30605, 30705	61.2	11.2	72.400
31204, 31304	57.4	11.5	68.900
31903, 32003	12.6	11.3	23.900
32005, 32105	63.8	10.8	74.600
32007, 32107	27	24.4	51.400
32404, 32504	59.1	11.3	70.400
32407, 32507	27.4	24.1	51.500
32604, 32804	59.1	11.1	70.200
32606, 32706	63	8.1	71.100
32702, 32802	16.9	5.2	22.100
32707, 32807	27.7	23.9	51.600
All other dwellings	63.5	8	71.500

(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

(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 bank (No. 1)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 3)	-	-	light-emitting diode	connected to lift call button	no
Ground floor lobby Building 3	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Hallway/lobby Building 3	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Lift bank (No. 3)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 30 number of levels from the bottom of the lift shaft to the top of the lift shaft: 40 number of lifts: 3 lift load capacity: >= 1001 kg but <= 1500kg
Central hot water system (No. 3)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: 3.5 < COP <= 4.0

4. 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: (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.		✓	

5. 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: (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.		✓	

6. 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
suspended floor above open subfloor, frame: suspended concrete slab	185	fibreglass batts or roll	-
floors above habitable rooms, frame: suspended concrete slab	34000	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	off form concrete,frame:no frame	5900	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
-	-	-	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
-	-	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
-	-	-	

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)
-	-	-	-	-	-	-	-

(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
Undercover car park area B5	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Undercover car park area B4	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Undercover car park area B3	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Undercover car park area B2	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Undercover car park area B1	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Undercover car park area B1 Retail	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Resi Bin Holding Room B1	ventilation exhaust only	-	light-emitting diode	manual on / manual off	no
Bin Room B1	ventilation exhaust only	-	light-emitting diode	manual on / manual off	no
Amenities and COS	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Grease Arrestor B1	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Hydraulic Plant Room B1	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Fire Water Tank B1	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Loading Dock + BOH LG	no mechanical ventilation	-	light-emitting diode	motion sensors	no
Substation GL	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Amenities GL	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Amenities UG	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
BOH UG	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 120 peak kW
Other	Building management system installed?: yes Active power factor correction 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).

BASIX™ Certificate

Building Sustainability Index

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

Multi Dwelling

Certificate number: 1849998M

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: Friday, 05 June 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 HR-2QWVJR-01.

Project summary

Project name	173-183 Rickard Road Leppington (B4,5,6)
Street address	173 RICKARD ROAD LEPPINGTON 2179
Local Government Area	CAMDEN
Plan type and plan number	Deposited Plan 812366
Lot No.	2
Section no.	-
No. of residential flat buildings	3
Residential flat buildings: no. of dwellings	510
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 50	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 69	Target 61
Materials	✓ -100	Target n/a

Certificate Prepared by

Name / Company Name: SLR Consulting Pty Ltd

ABN (if applicable): 29001584612

Description of project

Project address	
Project name	173-183 Rickard Road Leppington (B4,5,6)
Street address	173 RICKARD ROAD LEPPINGTON 2179
Local Government Area	CAMDEN
Plan type and plan number	Deposited Plan 812366
Lot No.	2
Section no.	-
Project type	
No. of residential flat buildings	3
Residential flat buildings: no. of dwellings	510
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	32420
Roof area (m²)	2682
Non-residential floor area (m²)	0
Residential car spaces	628
Non-residential car spaces	131

Common area landscape		
Common area lawn (m²)	200	
Common area garden (m²)	600	
Area of indigenous or low water use species (m²)	300	
Assessor details and thermal loads		
Assessor number	101556	
Certificate number	HR-2QWVJR-01	
Climate zone	28	
Project score		
Water	✓ 50	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 69	Target 61
Materials	✓ -100	Target n/a

Description of project

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

Residential flat buildings - Building 4, 168 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)
41301	3	101.20	0.00	0.00	0.00
41305	2	90.50	0.00	0.00	0.00
41402	3	101.20	0.00	0.00	0.00
41406	2	82.20	0.00	0.00	0.00
41503	2	79.10	0.00	0.00	0.00
41507	2	79.00	0.00	0.00	0.00
41604	2	82.20	0.00	0.00	0.00
41701	3	101.20	0.00	0.00	0.00
41705	3	110.90	0.00	0.00	0.00
41802	3	101.20	0.00	0.00	0.00
41806	2	82.20	0.00	0.00	0.00
41903	2	79.10	0.00	0.00	0.00
41907	2	79.00	0.00	0.00	0.00
42004	2	82.50	0.00	0.00	0.00
42101	3	101.20	0.00	0.00	0.00
42105	3	110.90	0.00	0.00	0.00
42202	3	101.20	0.00	0.00	0.00
42206	2	82.20	0.00	0.00	0.00
42303	2	79.10	0.00	0.00	0.00
42307	2	79.00	0.00	0.00	0.00
42404	2	82.50	0.00	0.00	0.00
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)
41302	3	101.20	0.00	0.00	0.00
41306	2	87.30	0.00	0.00	0.00
41403	2	79.10	0.00	0.00	0.00
41407	2	79.00	0.00	0.00	0.00
41504	2	82.10	0.00	0.00	0.00
41601	3	101.20	0.00	0.00	0.00
41605	3	110.90	0.00	0.00	0.00
41702	3	101.20	0.00	0.00	0.00
41706	2	82.10	0.00	0.00	0.00
41803	2	79.10	0.00	0.00	0.00
41807	2	79.00	0.00	0.00	0.00
41904	2	82.50	0.00	0.00	0.00
42001	3	101.20	0.00	0.00	0.00
42005	3	110.90	0.00	0.00	0.00
42102	3	101.20	0.00	0.00	0.00
42106	2	82.20	0.00	0.00	0.00
42203	2	79.10	0.00	0.00	0.00
42207	2	79.00	0.00	0.00	0.00
42304	2	82.50	0.00	0.00	0.00
42401	3	101.20	0.00	0.00	0.00
42405	3	110.90	0.00	0.00	0.00
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)
41303	2	79.10	0.00	0.00	0.00
41307	2	79.00	0.00	0.00	0.00
41404	2	82.40	0.00	0.00	0.00
41501	3	101.20	0.00	0.00	0.00
41505	3	110.90	0.00	0.00	0.00
41602	3	101.20	0.00	0.00	0.00
41606	2	82.10	0.00	0.00	0.00
41703	2	79.10	0.00	0.00	0.00
41707	2	79.00	0.00	0.00	0.00
41804	2	82.50	0.00	0.00	0.00
41901	3	101.20	0.00	0.00	0.00
41905	3	110.90	0.00	0.00	0.00
42002	3	101.20	0.00	0.00	0.00
42006	2	82.20	0.00	0.00	0.00
42103	2	79.10	0.00	0.00	0.00
42107	2	79.00	0.00	0.00	0.00
42204	2	82.50	0.00	0.00	0.00
42301	3	101.20	0.00	0.00	0.00
42305	3	110.90	0.00	0.00	0.00
42402	3	101.20	0.00	0.00	0.00
42406	2	82.20	0.00	0.00	0.00
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)
41304	2	87.30	0.00	0.00	0.00
41401	3	101.20	0.00	0.00	0.00
41405	3	110.90	0.00	0.00	0.00
41502	3	101.20	0.00	0.00	0.00
41506	2	82.20	0.00	0.00	0.00
41603	2	79.10	0.00	0.00	0.00
41607	2	79.00	0.00	0.00	0.00
41704	2	82.20	0.00	0.00	0.00
41801	3	101.20	0.00	0.00	0.00
41805	3	110.90	0.00	0.00	0.00
41902	3	101.20	0.00	0.00	0.00
41906	2	82.20	0.00	0.00	0.00
42003	2	79.10	0.00	0.00	0.00
42007	2	79.00	0.00	0.00	0.00
42104	2	82.50	0.00	0.00	0.00
42201	3	101.20	0.00	0.00	0.00
42205	3	110.90	0.00	0.00	0.00
42302	3	101.20	0.00	0.00	0.00
42306	2	82.20	0.00	0.00	0.00
42403	2	79.10	0.00	0.00	0.00
42407	2	79.00	0.00	0.00	0.00

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)
42501	3	101.20	0.00	0.00	0.00
42505	3	110.90	0.00	0.00	0.00
42602	3	101.20	0.00	0.00	0.00
42606	2	82.20	0.00	0.00	0.00
42703	2	79.10	0.00	0.00	0.00
42707	2	79.00	0.00	0.00	0.00
42804	2	82.20	0.00	0.00	0.00
42901	3	101.20	0.00	0.00	0.00
42905	3	110.90	0.00	0.00	0.00
43002	3	101.20	0.00	0.00	0.00
43006	2	82.20	0.00	0.00	0.00
43103	2	79.10	0.00	0.00	0.00
43107	2	79.00	0.00	0.00	0.00
43204	2	82.50	0.00	0.00	0.00
43301	3	101.20	0.00	0.00	0.00
43305	3	110.90	0.00	0.00	0.00
43402	3	101.20	0.00	0.00	0.00
43406	2	82.20	0.00	0.00	0.00
43503	2	79.10	0.00	0.00	0.00
43507	2	79.00	0.00	0.00	0.00
43604	2	82.50	0.00	0.00	0.00

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)
42502	3	101.20	0.00	0.00	0.00
42506	2	82.20	0.00	0.00	0.00
42603	2	79.10	0.00	0.00	0.00
42607	2	79.00	0.00	0.00	0.00
42704	2	82.10	0.00	0.00	0.00
42801	3	101.20	0.00	0.00	0.00
42805	3	110.90	0.00	0.00	0.00
42902	3	101.20	0.00	0.00	0.00
42906	2	82.10	0.00	0.00	0.00
43003	2	79.10	0.00	0.00	0.00
43007	2	79.00	0.00	0.00	0.00
43104	2	82.50	0.00	0.00	0.00
43201	3	101.20	0.00	0.00	0.00
43205	3	110.90	0.00	0.00	0.00
43302	3	101.20	0.00	0.00	0.00
43306	2	82.20	0.00	0.00	0.00
43403	2	79.10	0.00	0.00	0.00
43407	2	79.00	0.00	0.00	0.00
43504	2	82.50	0.00	0.00	0.00
43601	3	101.20	0.00	0.00	0.00
43605	3	110.90	0.00	0.00	0.00

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)
42503	2	79.10	0.00	0.00	0.00
42507	2	79.00	0.00	0.00	0.00
42604	2	82.30	0.00	0.00	0.00
42701	3	101.20	0.00	0.00	0.00
42705	3	110.90	0.00	0.00	0.00
42802	3	101.20	0.00	0.00	0.00
42806	2	82.10	0.00	0.00	0.00
42903	2	79.10	0.00	0.00	0.00
42907	2	79.00	0.00	0.00	0.00
43004	2	82.50	0.00	0.00	0.00
43101	3	101.20	0.00	0.00	0.00
43105	3	110.90	0.00	0.00	0.00
43202	3	101.20	0.00	0.00	0.00
43206	2	82.20	0.00	0.00	0.00
43303	2	79.10	0.00	0.00	0.00
43307	2	79.00	0.00	0.00	0.00
43404	2	82.50	0.00	0.00	0.00
43501	3	101.20	0.00	0.00	0.00
43505	3	110.90	0.00	0.00	0.00
43602	3	101.20	0.00	0.00	0.00
43606	2	82.20	0.00	0.00	0.00

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)
42504	2	82.50	0.00	0.00	0.00
42601	3	101.20	0.00	0.00	0.00
42605	3	110.90	0.00	0.00	0.00
42702	3	101.20	0.00	0.00	0.00
42706	2	82.20	0.00	0.00	0.00
42803	2	79.10	0.00	0.00	0.00
42807	2	79.00	0.00	0.00	0.00
42904	2	82.20	0.00	0.00	0.00
43001	3	101.20	0.00	0.00	0.00
43005	3	110.90	0.00	0.00	0.00
43102	3	101.20	0.00	0.00	0.00
43106	2	82.20	0.00	0.00	0.00
43203	2	79.10	0.00	0.00	0.00
43207	2	79.00	0.00	0.00	0.00
43304	2	82.50	0.00	0.00	0.00
43401	3	101.20	0.00	0.00	0.00
43405	3	110.90	0.00	0.00	0.00
43502	3	101.20	0.00	0.00	0.00
43506	2	82.20	0.00	0.00	0.00
43603	2	79.10	0.00	0.00	0.00
43607	2	79.00	0.00	0.00	0.00

Residential flat buildings - Building 5, 204 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)
50301	2	82.80	0.00	0.00	0.00
50305	1	69.30	0.00	0.00	0.00
50403	3	96.40	0.00	0.00	0.00
50501	2	82.80	0.00	0.00	0.00
50505	1	69.30	0.00	0.00	0.00
50603	3	96.40	0.00	0.00	0.00
50701	2	82.80	0.00	0.00	0.00
50705	1	69.30	0.00	0.00	0.00
50803	3	96.40	0.00	0.00	0.00
50901	2	82.80	0.00	0.00	0.00
50905	1	69.30	0.00	0.00	0.00
51003	3	96.40	0.00	0.00	0.00
51101	2	82.80	0.00	0.00	0.00
51105	1	69.30	0.00	0.00	0.00
51203	3	96.40	0.00	0.00	0.00
51301	2	82.80	0.00	0.00	0.00
51305	1	69.30	0.00	0.00	0.00
51403	3	96.40	0.00	0.00	0.00
51501	2	82.80	0.00	0.00	0.00
51505	1	69.30	0.00	0.00	0.00
51603	3	96.40	0.00	0.00	0.00
51701	2	82.80	0.00	0.00	0.00
51705	1	69.30	0.00	0.00	0.00
51803	3	96.40	0.00	0.00	0.00
51901	2	82.80	0.00	0.00	0.00

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)
50302	2	76.30	0.00	0.00	0.00
50306	3	109.80	0.00	0.00	0.00
50404	2	80.60	0.00	0.00	0.00
50502	2	76.30	0.00	0.00	0.00
50506	3	109.80	0.00	0.00	0.00
50604	2	80.60	0.00	0.00	0.00
50702	2	76.30	0.00	0.00	0.00
50706	3	109.80	0.00	0.00	0.00
50804	2	80.60	0.00	0.00	0.00
50902	2	76.30	0.00	0.00	0.00
50906	3	109.80	0.00	0.00	0.00
51004	2	80.60	0.00	0.00	0.00
51102	2	76.30	0.00	0.00	0.00
51106	3	109.80	0.00	0.00	0.00
51204	2	80.60	0.00	0.00	0.00
51302	2	76.30	0.00	0.00	0.00
51306	3	109.80	0.00	0.00	0.00
51404	2	80.60	0.00	0.00	0.00
51502	2	76.30	0.00	0.00	0.00
51506	3	109.80	0.00	0.00	0.00
51604	2	80.60	0.00	0.00	0.00
51702	2	76.30	0.00	0.00	0.00
51706	3	109.80	0.00	0.00	0.00
51804	2	80.60	0.00	0.00	0.00
51902	2	76.30	0.00	0.00	0.00

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)
50303	3	96.40	0.00	0.00	0.00
50401	2	82.80	0.00	0.00	0.00
50405	1	69.30	0.00	0.00	0.00
50503	3	96.40	0.00	0.00	0.00
50601	2	82.80	0.00	0.00	0.00
50605	1	69.30	0.00	0.00	0.00
50703	3	96.40	0.00	0.00	0.00
50801	2	82.80	0.00	0.00	0.00
50805	1	69.30	0.00	0.00	0.00
50903	3	96.40	0.00	0.00	0.00
51001	2	82.80	0.00	0.00	0.00
51005	1	69.30	0.00	0.00	0.00
51103	3	96.40	0.00	0.00	0.00
51201	2	82.80	0.00	0.00	0.00
51205	1	69.30	0.00	0.00	0.00
51303	3	96.40	0.00	0.00	0.00
51401	2	82.80	0.00	0.00	0.00
51405	1	69.30	0.00	0.00	0.00
51503	3	96.40	0.00	0.00	0.00
51601	2	82.80	0.00	0.00	0.00
51605	1	69.30	0.00	0.00	0.00
51703	3	96.40	0.00	0.00	0.00
51801	2	82.80	0.00	0.00	0.00
51805	1	69.30	0.00	0.00	0.00
51903	3	96.40	0.00	0.00	0.00

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)
50304	2	80.60	0.00	0.00	0.00
50402	2	76.30	0.00	0.00	0.00
50406	3	109.80	0.00	0.00	0.00
50504	2	80.60	0.00	0.00	0.00
50602	2	76.30	0.00	0.00	0.00
50606	3	109.80	0.00	0.00	0.00
50704	2	80.60	0.00	0.00	0.00
50802	2	76.30	0.00	0.00	0.00
50806	3	109.80	0.00	0.00	0.00
50904	2	80.60	0.00	0.00	0.00
51002	2	76.30	0.00	0.00	0.00
51006	3	109.80	0.00	0.00	0.00
51104	2	80.60	0.00	0.00	0.00
51202	2	76.30	0.00	0.00	0.00
51206	3	109.80	0.00	0.00	0.00
51304	2	80.60	0.00	0.00	0.00
51402	2	76.30	0.00	0.00	0.00
51406	3	109.80	0.00	0.00	0.00
51504	2	80.60	0.00	0.00	0.00
51602	2	76.30	0.00	0.00	0.00
51606	3	109.80	0.00	0.00	0.00
51704	2	80.60	0.00	0.00	0.00
51802	2	76.30	0.00	0.00	0.00
51806	3	109.80	0.00	0.00	0.00
51904	2	80.60	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
51905	1	69.30	0.00	0.00	0.00
52003	3	96.40	0.00	0.00	0.00
52101	2	82.80	0.00	0.00	0.00
52105	1	69.30	0.00	0.00	0.00
52203	3	96.40	0.00	0.00	0.00
52301	2	82.80	0.00	0.00	0.00
52305	1	69.30	0.00	0.00	0.00
52403	3	96.40	0.00	0.00	0.00
52501	2	82.80	0.00	0.00	0.00
52505	1	69.30	0.00	0.00	0.00
52603	3	96.40	0.00	0.00	0.00
52701	2	82.80	0.00	0.00	0.00
52705	1	69.30	0.00	0.00	0.00
52803	3	96.40	0.00	0.00	0.00
52901	2	82.80	0.00	0.00	0.00
52905	1	69.30	0.00	0.00	0.00
53003	3	96.40	0.00	0.00	0.00
53101	2	82.80	0.00	0.00	0.00
53105	1	69.30	0.00	0.00	0.00
53203	3	96.40	0.00	0.00	0.00
53301	2	82.80	0.00	0.00	0.00
53305	1	69.30	0.00	0.00	0.00
53403	3	96.40	0.00	0.00	0.00
53501	2	82.80	0.00	0.00	0.00
53505	1	69.30	0.00	0.00	0.00
53603	3	96.40	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
51906	3	109.80	0.00	0.00	0.00
52004	2	80.60	0.00	0.00	0.00
52102	2	76.30	0.00	0.00	0.00
52106	3	109.80	0.00	0.00	0.00
52204	2	80.60	0.00	0.00	0.00
52302	2	76.30	0.00	0.00	0.00
52306	3	109.80	0.00	0.00	0.00
52404	2	80.60	0.00	0.00	0.00
52502	2	76.30	0.00	0.00	0.00
52506	3	109.80	0.00	0.00	0.00
52604	2	80.60	0.00	0.00	0.00
52702	2	76.30	0.00	0.00	0.00
52706	3	109.80	0.00	0.00	0.00
52804	2	80.60	0.00	0.00	0.00
52902	2	76.30	0.00	0.00	0.00
52906	3	109.80	0.00	0.00	0.00
53004	2	80.60	0.00	0.00	0.00
53102	2	76.30	0.00	0.00	0.00
53106	3	109.80	0.00	0.00	0.00
53204	2	80.60	0.00	0.00	0.00
53302	2	76.30	0.00	0.00	0.00
53306	3	109.80	0.00	0.00	0.00
53404	2	80.60	0.00	0.00	0.00
53502	2	76.30	0.00	0.00	0.00
53506	3	109.80	0.00	0.00	0.00
53604	2	80.60	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
52001	2	82.80	0.00	0.00	0.00
52005	1	69.30	0.00	0.00	0.00
52103	3	96.40	0.00	0.00	0.00
52201	2	82.80	0.00	0.00	0.00
52205	1	69.30	0.00	0.00	0.00
52303	3	96.40	0.00	0.00	0.00
52401	2	82.80	0.00	0.00	0.00
52405	1	69.30	0.00	0.00	0.00
52503	3	96.40	0.00	0.00	0.00
52601	2	82.80	0.00	0.00	0.00
52605	1	69.30	0.00	0.00	0.00
52703	3	96.40	0.00	0.00	0.00
52801	2	82.80	0.00	0.00	0.00
52805	1	69.30	0.00	0.00	0.00
52903	3	96.40	0.00	0.00	0.00
53001	2	82.80	0.00	0.00	0.00
53005	1	69.30	0.00	0.00	0.00
53103	3	96.40	0.00	0.00	0.00
53201	2	82.80	0.00	0.00	0.00
53205	1	69.30	0.00	0.00	0.00
53303	3	96.40	0.00	0.00	0.00
53401	2	82.80	0.00	0.00	0.00
53405	1	69.30	0.00	0.00	0.00
53503	3	96.40	0.00	0.00	0.00
53601	2	82.80	0.00	0.00	0.00
53605	1	69.30	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
52002	2	76.30	0.00	0.00	0.00
52006	3	109.80	0.00	0.00	0.00
52104	2	80.60	0.00	0.00	0.00
52202	2	76.30	0.00	0.00	0.00
52206	3	109.80	0.00	0.00	0.00
52304	2	80.60	0.00	0.00	0.00
52402	2	76.30	0.00	0.00	0.00
52406	3	109.80	0.00	0.00	0.00
52504	2	80.60	0.00	0.00	0.00
52602	2	76.30	0.00	0.00	0.00
52606	3	109.80	0.00	0.00	0.00
52704	2	80.60	0.00	0.00	0.00
52802	2	76.30	0.00	0.00	0.00
52806	3	109.80	0.00	0.00	0.00
52904	2	80.60	0.00	0.00	0.00
53002	2	76.30	0.00	0.00	0.00
53006	3	109.80	0.00	0.00	0.00
53104	2	80.60	0.00	0.00	0.00
53202	2	76.30	0.00	0.00	0.00
53206	3	109.80	0.00	0.00	0.00
53304	2	80.60	0.00	0.00	0.00
53402	2	76.30	0.00	0.00	0.00
53406	3	109.80	0.00	0.00	0.00
53504	2	80.60	0.00	0.00	0.00
53602	2	76.30	0.00	0.00	0.00
53606	3	109.80	0.00	0.00	0.00

Residential flat buildings - Building 6, 138 dwellings, 28 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)
60301	2	75.00	0.00	0.00	0.00
60305	2	78.10	0.00	0.00	0.00
60403	3	104.00	0.00	0.00	0.00
60501	2	75.00	0.00	0.00	0.00
60505	2	78.10	0.00	0.00	0.00
60603	3	104.00	0.00	0.00	0.00
60701	2	75.00	0.00	0.00	0.00
60705	2	78.10	0.00	0.00	0.00
60803	3	104.00	0.00	0.00	0.00
60901	2	75.00	0.00	0.00	0.00
60905	2	78.10	0.00	0.00	0.00
61003	3	104.00	0.00	0.00	0.00
61101	2	75.00	0.00	0.00	0.00
61105	2	78.10	0.00	0.00	0.00
61203	3	104.00	0.00	0.00	0.00
61301	2	75.00	0.00	0.00	0.00
61305	2	78.10	0.00	0.00	0.00
61403	3	104.00	0.00	0.00	0.00
61501	2	75.00	0.00	0.00	0.00
61505	2	78.10	0.00	0.00	0.00
61603	3	104.00	0.00	0.00	0.00
61701	2	75.00	0.00	0.00	0.00
61705	2	78.10	0.00	0.00	0.00
61803	3	104.00	0.00	0.00	0.00
61901	2	75.00	0.00	0.00	0.00

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)
60302	1	65.00	0.00	0.00	0.00
60306	3	101.30	0.00	0.00	0.00
60404	2	79.90	0.00	0.00	0.00
60502	1	65.00	0.00	0.00	0.00
60506	3	101.30	0.00	0.00	0.00
60604	2	79.90	0.00	0.00	0.00
60702	1	65.00	0.00	0.00	0.00
60706	3	101.30	0.00	0.00	0.00
60804	2	79.90	0.00	0.00	0.00
60902	1	65.00	0.00	0.00	0.00
60906	3	101.30	0.00	0.00	0.00
61004	2	79.90	0.00	0.00	0.00
61102	1	65.00	0.00	0.00	0.00
61106	3	101.30	0.00	0.00	0.00
61204	2	79.90	0.00	0.00	0.00
61302	1	65.00	0.00	0.00	0.00
61306	3	101.30	0.00	0.00	0.00
61404	2	79.90	0.00	0.00	0.00
61502	1	65.00	0.00	0.00	0.00
61506	3	101.30	0.00	0.00	0.00
61604	2	79.90	0.00	0.00	0.00
61702	1	65.00	0.00	0.00	0.00
61706	3	101.30	0.00	0.00	0.00
61804	2	79.90	0.00	0.00	0.00
61902	1	65.00	0.00	0.00	0.00

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)
60303	3	104.00	0.00	0.00	0.00
60401	2	75.00	0.00	0.00	0.00
60405	2	78.10	0.00	0.00	0.00
60503	3	104.00	0.00	0.00	0.00
60601	2	75.00	0.00	0.00	0.00
60605	2	78.10	0.00	0.00	0.00
60703	3	104.00	0.00	0.00	0.00
60801	2	75.00	0.00	0.00	0.00
60805	2	78.10	0.00	0.00	0.00
60903	3	104.00	0.00	0.00	0.00
61001	2	75.00	0.00	0.00	0.00
61005	2	78.10	0.00	0.00	0.00
61103	3	104.00	0.00	0.00	0.00
61201	2	75.00	0.00	0.00	0.00
61205	2	78.10	0.00	0.00	0.00
61303	3	104.00	0.00	0.00	0.00
61401	2	75.00	0.00	0.00	0.00
61405	2	78.10	0.00	0.00	0.00
61503	3	104.00	0.00	0.00	0.00
61601	2	75.00	0.00	0.00	0.00
61605	2	78.10	0.00	0.00	0.00
61703	3	104.00	0.00	0.00	0.00
61801	2	75.00	0.00	0.00	0.00
61805	2	78.10	0.00	0.00	0.00
61903	3	104.00	0.00	0.00	0.00

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)
60304	2	79.90	0.00	0.00	0.00
60402	1	65.00	0.00	0.00	0.00
60406	3	101.30	0.00	0.00	0.00
60504	2	79.90	0.00	0.00	0.00
60602	1	65.00	0.00	0.00	0.00
60606	3	101.30	0.00	0.00	0.00
60704	2	79.90	0.00	0.00	0.00
60802	1	65.00	0.00	0.00	0.00
60806	3	101.30	0.00	0.00	0.00
60904	2	79.90	0.00	0.00	0.00
61002	1	65.00	0.00	0.00	0.00
61006	3	101.30	0.00	0.00	0.00
61104	2	79.90	0.00	0.00	0.00
61202	1	65.00	0.00	0.00	0.00
61206	3	101.30	0.00	0.00	0.00
61304	2	79.90	0.00	0.00	0.00
61402	1	65.00	0.00	0.00	0.00
61406	3	101.30	0.00	0.00	0.00
61504	2	79.90	0.00	0.00	0.00
61602	1	65.00	0.00	0.00	0.00
61606	3	101.30	0.00	0.00	0.00
61704	2	79.90	0.00	0.00	0.00
61802	1	65.00	0.00	0.00	0.00
61806	3	101.30	0.00	0.00	0.00
61904	2	79.90	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
61905	2	78.10	0.00	0.00	0.00
62003	3	104.00	0.00	0.00	0.00
62101	2	75.00	0.00	0.00	0.00
62105	2	78.10	0.00	0.00	0.00
62203	3	104.00	0.00	0.00	0.00
62301	2	75.00	0.00	0.00	0.00
62305	2	78.10	0.00	0.00	0.00
62403	3	104.00	0.00	0.00	0.00
62501	2	75.00	0.00	0.00	0.00
62505	2	78.10	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
61906	3	101.30	0.00	0.00	0.00
62004	2	79.90	0.00	0.00	0.00
62102	1	65.00	0.00	0.00	0.00
62106	3	101.30	0.00	0.00	0.00
62204	2	79.90	0.00	0.00	0.00
62302	1	65.00	0.00	0.00	0.00
62306	3	101.30	0.00	0.00	0.00
62404	2	79.90	0.00	0.00	0.00
62502	1	65.00	0.00	0.00	0.00
62506	3	101.30	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
62001	2	75.00	0.00	0.00	0.00
62005	2	78.10	0.00	0.00	0.00
62103	3	104.00	0.00	0.00	0.00
62201	2	75.00	0.00	0.00	0.00
62205	2	78.10	0.00	0.00	0.00
62303	3	104.00	0.00	0.00	0.00
62401	2	75.00	0.00	0.00	0.00
62405	2	78.10	0.00	0.00	0.00
62503	3	104.00	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
62002	1	65.00	0.00	0.00	0.00
62006	3	101.30	0.00	0.00	0.00
62104	2	79.90	0.00	0.00	0.00
62202	1	65.00	0.00	0.00	0.00
62206	3	101.30	0.00	0.00	0.00
62304	2	79.90	0.00	0.00	0.00
62402	1	65.00	0.00	0.00	0.00
62406	3	101.30	0.00	0.00	0.00
62504	2	79.90	0.00	0.00	0.00

Description of project

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

Common areas of unit building - Building 4

Common area	Floor area (m²)
Ground floor lobby (B4)	81

Common area	Floor area (m²)
Hallway/lobby (B4)	1608

Common areas of unit building - Building 5

Common area	Floor area (m²)
B5 Amenity/COS	550
Hallway/lobby (B5)	1428

Common area	Floor area (m²)
Amenities B5 UG	166

Common area	Floor area (m²)
Ground floor lobby (B5)	96

Common areas of unit building - Building 6

Common area	Floor area (m²)
B6 Amenity/COS	530

Common area	Floor area (m²)
Ground floor lobby (B6)	72

Common areas of the development (non-building specific)

Common area	Floor area (m²)
Undercover car park area (B1)	5662
Undercover car park area (B4)	6234
Chute Discharge Room B4	95.8
Bulky Waste	74.4

Common area	Floor area (m²)
Undercover car park area (B2)	5662
Undercover car park area (B5)	6279
Chute Discharge Room B5	121.3
Fogo	50.3

Common area	Floor area (m²)
Undercover car park area (B3)	6234
Residential Bin Room	449
Chute Discharge Room B6	107.4
Plant Rooms	80

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building 4

(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 Residential flat buildings - Building 5

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

3. Commitments for Residential flat buildings - Building 6

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

- (ii) Energy
- (iii) Thermal Performance

(c) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

4. Commitments for multi-dwelling housing

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Performance and Materials

5. Commitments for single dwelling houses

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Performance and Materials

6. 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 - Building 4

(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
concrete slab on ground, frame:	19000	-	none
suspended floor above enclosed subfloor, frame: suspended concrete slab	560	fibreglass batts or roll	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	single skin autoclaved aerated concrete (AAC), frame: light steel frame	3633	-	fibreglass batts or roll
External wall type 2	off form concrete, frame: no frame	1004	none	-

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	10400	-
Internal wall type 2	75 mm AAC panel, frame:light steel frame	6640	fibreglass batts or roll

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	101	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	894	-	fibreglass batts or roll

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)
4016	1567	-	5583	-	-	-	-

(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	-	5 star	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: (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	interlocked to light with timer off	individual fan, ducted to façade	manual switch on/off	individual fan, ducted to façade	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & gas oven	4.5 star	5 star	yes	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)
41301	28.7	15.1	43.800
41302	36.1	13.3	49.400
41303	28.2	10.7	38.900
41304	64.6	6.9	71.500

	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)
41305	64.4	9.1	73.500
41306	64.4	8.8	73.200
41307	25.1	11.2	36.300
41401	17.2	15.9	33.100
41402	23.4	13.6	37.000
41403	19.7	11.5	31.200
41404	54.5	7.4	61.900
41405	43.7	7.1	50.800
41406	57.3	10.1	67.400
41407	17.6	11.7	29.300
41501	17.4	15.8	33.200
41502	23.5	13.5	37.000
41503	19.9	11.5	31.400
41504	54.7	7.4	62.100
41505	43.7	6.9	50.600
41506	57.4	10.4	67.800
41507	17.7	11.7	29.400
41601	17.5	15.6	33.100
41602	23.7	13.7	37.400
41603	19.9	11.4	31.300
41604	54.8	7.2	62.000
41605	43.9	6.9	50.800
41606	57.5	10.4	67.900
41607	17.8	12	29.800
41701	17.7	15.5	33.200
41702	23.8	13.6	37.400
41703	20	11.3	31.300
41704	55	7.3	62.300
41705	44	6.7	50.700
41706	57.7	10.7	68.400
41707	17.8	11.8	29.600

	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)
41801	17.8	15.4	33.200
41802	24	13.5	37.500
41803	20.1	11.2	31.300
41804	54.9	7.2	62.100
41805	44.1	6.7	50.800
41806	57.8	10.8	68.600
41807	18	11.8	29.800
41901	18	15.3	33.300
41902	24.1	13.4	37.500
41903	20.2	11.3	31.500
41905	44.3	6.8	51.100
41906	57.9	10.4	68.300
41907	18.1	11.7	29.800
42003	20.3	11.3	31.600
42004	55.2	7.2	62.400
42006	58	10.9	68.900
42007	18.1	11.6	29.700
42103	20.3	11.2	31.500
42106	58	10.5	68.500
42107	18.1	11.5	29.600
42201	18.2	15	33.200
42202	24.4	13.4	37.800
42203	20.4	11.1	31.500
42204	55.2	7.3	62.500
42205	44.5	6.8	51.300
42206	58.1	10.1	68.200
42301	18.3	15	33.300
42302	24.5	13.4	37.900
42304	55.3	7.4	62.700
42305	44.7	6.8	51.500
42306	58.1	10	68.100

	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)
42401	18.5	14.9	33.400
42402	24.7	13.3	38.000
42404	55.4	7.6	63.000
42405	44.8	6.7	51.500
42406	58.2	9.8	68.000
42407	18.3	12	30.300
42501	18.7	14.9	33.600
42502	24.9	13.3	38.200
42503	20.7	11.4	32.100
42504	55.6	8.1	63.700
42505	45.1	6.9	52.000
42506	58.3	9.8	68.100
42507	18.5	11.8	30.300
42601	19.5	14.7	34.200
42602	25.4	13.2	38.600
42603	21.3	11.2	32.500
42604	55.7	7.2	62.900
42605	45.3	6.8	52.100
42606	58.4	9.8	68.200
42607	19	12.1	31.100
42701	18.9	15.1	34.000
42703	20.5	11.1	31.600
42704	55.4	7.5	62.900
42706	57.8	9.2	67.000
42707	18.4	12.1	30.500
42801	18.9	15	33.900
42804	55.3	7.5	62.800
42806	57.2	9.1	66.300
42807	18.3	12.2	30.500
42901	19	15	34.000
42904	55.2	7.5	62.700

	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)
42906	56.7	9	65.700
42907	18.3	13.1	31.400
43001	19	14.9	33.900
43004	54.9	7.8	62.700
43006	55.6	8.9	64.500
43007	18.1	13.6	31.700
43101	19.1	14.8	33.900
43102	25	12.9	37.900
43103	20.6	12.2	32.800
43104	54.8	8.2	63.000
43105	45.3	6.7	52.000
43106	53.8	9.1	62.900
43107	18.1	14.3	32.400
43201	19.2	14.7	33.900
43203	20.4	12.5	32.900
43204	54.7	8.5	63.200
43205	45.5	6.7	52.200
43206	51.6	9.2	60.800
43207	17.9	14.7	32.600
43301	19.2	14.5	33.700
43303	20.4	12.8	33.200
43304	54.3	8.9	63.200
43305	45.5	6.8	52.300
43306	50.1	9.1	59.200
43307	17.3	14.7	32.000
43401	19.4	14.6	34.000
43403	20.4	13.1	33.500
43404	54	9	63.000
43406	49.7	9.1	58.800
43501	19.4	14.5	33.900
43503	20.2	13	33.200

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
43504	53.5	9.1	62.600
43506	49.7	9	58.700
43601	40.2	22.4	62.600
43602	42.2	21.1	63.300
43603	36	25	61.000
43604	51.1	12	63.100
43605	63.9	11.2	75.100
43606	52.7	12.6	65.300
43607	36	26.1	62.100
41904, 42104	55.1	7.2	62.300
42001, 42101	18.1	15.1	33.200
42002, 42102	24.2	13.4	37.600
42005, 42105	44.4	6.8	51.200
42207, 42307	18.2	11.8	30.000
42303, 43003	20.4	11.3	31.700
42702, 42802	24.7	13.1	37.800
42705, 42805	45.1	6.7	51.800
42902, 43002	24.9	13	37.900
42905, 43005	45.2	6.7	51.900
43202, 43302	25.1	12.8	37.900
43402, 43502	25.3	12.8	38.100
43405, 43505	45.6	6.7	52.300
43407, 43507	17.2	14.8	32.000
All other dwellings	20.5	11.3	31.800

(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...)
Fire sprinkler system (No. 3)	-	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 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
Ground floor lobby (B4)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	yes
Hallway/lobby (B4)	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Lift bank (No. 2)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 34 number of levels from the bottom of the lift shaft to the top of the lift shaft: 46 number of lifts: 3 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Central hot water system (No. 2)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: $3.5 < COP \leq 4.0$

2. Commitments for Residential flat buildings - Building 5

(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
concrete slab on ground, frame:	19000	-	none
suspended floor above enclosed subfloor, frame: suspended concrete slab	560	fibreglass batts or roll	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	single skin autoclaved aerated concrete (AAC), frame: light steel frame	3633	-	fibreglass batts or roll
External wall type 2	off form concrete, frame: no frame	1004	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame: light steel frame	10400	-
Internal wall type 2	75 mm AAC panel, frame: light steel frame	6640	fibreglass batts or roll

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	101	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	876	-	fibreglass batts or roll

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)
4132	1451	-	5583	-	-	-	-

(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
50301, 50302, 50303, 50304, 50305, 50306,	4 star (> 6 but ≤ 7.5 L/min)	4 star	5 star	5 star	-	5 star	4 star	-	-	-	-	-	-	-

	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
50401, 50402, 50403, 50404, 50405, 50406, 50501, 50502, 50503														
All other dwellings	4 star (> 6 but ≤ 7.5 L/min)	4 star	5 star	5 star	-	5 star	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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (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".		✓	

	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. 2)	individual fan, ducted to façade	interlocked to light with timer off	individual fan, ducted to façade	manual switch on/off	individual fan, ducted to façade	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & gas oven	4.5 star	5 star	yes	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:	✓	✓	✓

(iii) Thermal Performance	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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)
50301	21.1	14.3	35.400
50302	36.7	8.4	45.100
50303	41.7	6.7	48.400
50304	51	22.4	73.400
50305	44.3	15.7	60.000
50306	17.2	15.3	32.500
50401	19	14.9	33.900
50402	35.7	8.3	44.000
50403	41.5	6.7	48.200
50404	51.4	22.1	73.500
50405	48.5	15.1	63.600
50406	14.1	15.4	29.500
50501	21.1	12.8	33.900
50502	37.5	7.5	45.000
50503	43.6	6.4	50.000
50504	53.9	19.7	73.600
50505	47.7	14.7	62.400
50506	16.1	14.3	30.400
50601	21.4	12.5	33.900
50602	37.7	7.3	45.000

	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)
50603	43.9	6.3	50.200
50604	54.2	19.3	73.500
50605	48.1	14.2	62.300
50606	16.3	14.3	30.600
50701	21.5	12.4	33.900
50702	37.8	7.3	45.100
50703	44	6.3	50.300
50704	54.4	19.1	73.500
50705	48.3	14.3	62.600
50706	16.4	14.6	31.000
50801	21.8	12.3	34.100
50802	38	7.4	45.400
50803	44.2	6.4	50.600
50804	54.7	19.1	73.800
50805	48.6	14.1	62.700
50806	16.7	14.6	31.300
50901	21.9	12.3	34.200
50902	38.1	7.4	45.500
50903	44.3	6.4	50.700
50904	55	19.1	74.100
50905	48.8	14.1	62.900
50906	16.8	14.6	31.400
51001	22.2	12.3	34.500
51002	38.3	7.7	46.000
51003	44.5	6.4	50.900
51004	55.3	19	74.300
51005	49.3	14	63.300
51006	17.1	14.7	31.800
51101	22.3	12.3	34.600
51102	38.2	7.9	46.100
51103	44	6.6	50.600

	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)
51104	55.2	18.9	74.100
51105	48.4	14.5	62.900
51106	17.1	14.8	31.900
51201	20.3	9	29.300
51202	37.9	6.9	44.800
51203	38.6	5.9	44.500
51204	50.7	13.3	64.000
51205	39.4	10.9	50.300
51206	14.5	11.2	25.700
51301	23	11.9	34.900
51302	38.6	8.8	47.400
51303	45	6.8	51.800
51304	56	19.1	75.100
51305	50.2	16.3	66.500
51401	22.7	11.8	34.500
51403	44.9	6.8	51.700
51404	55.8	18.7	74.500
51405	53.6	16.6	70.200
51406	17.5	15.1	32.600
51501	22.8	11.7	34.500
51502	38.5	9	47.500
51503	44.9	6.9	51.800
51504	55.9	19	74.900
51505	49.9	17	66.900
51506	17.6	15.5	33.100
51601	22.9	11.9	34.800
51604	56.1	19.1	75.200
51605	50	17.1	67.100
51606	17.7	15.2	32.900
51701	23	11.6	34.600
51702	38.5	11	49.500

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
51704	56.2	18.8	75.000
51705	50.1	17.2	67.300
51801	23.1	11.7	34.800
51802	38.5	12.3	50.800
51803	45	7.4	52.400
51804	56.3	18.9	75.200
51805	50.1	17.8	67.900
51806	17.9	15	32.900
51901	23.1	12	35.100
51902	38.4	13	51.400
51903	45	7.6	52.600
51904	56.4	18.8	75.200
51905	50.2	18.1	68.300
51906	18	15.2	33.200
52002	38.4	13.8	52.200
52003	44.9	7.7	52.600
52005	50.2	17.9	68.100
52006	18.2	15.6	33.800
52101	23.3	12	35.300
52102	38.3	14.5	52.800
52103	44.8	7.6	52.400
52104	56.1	18.4	74.500
52105	50.2	19.6	69.800
52106	18.2	16.2	34.400
52201	23.3	11.9	35.200
52202	38.2	14.9	53.100
52203	44.7	7.8	52.500
52204	56	18.5	74.500
52205	50.2	19.5	69.700
52206	18.3	16.6	34.900
52302	37.8	15.6	53.400

	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)
52303	43.9	7.8	51.700
52304	55.7	18.6	74.300
52305	49.1	20.1	69.200
52306	18.2	16.5	34.700
52401	21.1	9.8	30.900
52402	37.2	13.5	50.700
52403	38.5	6.8	45.300
52404	51	12.8	63.800
52405	39.9	14.5	54.400
52406	15.4	12.9	28.300
52501	23.8	12.7	36.500
52502	37.8	16.2	54.000
52503	44.4	7.8	52.200
52505	50.5	21.5	72.000
52506	18.8	18.7	37.500
52601	23.4	12.7	36.100
52602	37.5	16.3	53.800
52603	44.1	7.7	51.800
52604	50.3	18.8	69.100
52605	46.7	23.8	70.500
52606	17.1	20.8	37.900
52701	23.4	12.6	36.000
52702	37.5	16.4	53.900
52703	44	7.8	51.800
52704	55	18.5	73.500
52705	48.4	22.1	70.500
52706	18.2	19.1	37.300
52801	23.5	12.2	35.700
52802	37.6	16.3	53.900
52804	54.2	18.8	73.000
52805	47.6	21.9	69.500

	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)
52806	18.3	19.4	37.700
52904	53.1	18.8	71.900
52905	47.1	22.1	69.200
52906	18.3	20	38.300
53004	52.1	18.8	70.900
53005	46.8	22.9	69.700
53006	18.1	20.5	38.600
53101	23.7	12.1	35.800
53104	51.6	18.9	70.500
53105	46.1	22.8	68.900
53106	18	20.9	38.900
53201	23.7	11.9	35.600
53203	43.5	7.8	51.300
53204	50.9	19	69.900
53205	44.8	23.3	68.100
53206	17.7	20.8	38.500
53301	23.9	12	35.900
53302	37.9	15.8	53.700
53303	43.3	7.9	51.200
53304	50.4	18.9	69.300
53305	43.9	23.7	67.600
53306	19.3	21.1	40.400
53401	23.9	11.9	35.800
53402	38	15.8	53.800
53403	43	8.1	51.100
53404	50.4	19	69.400
53405	44.1	23.3	67.400
53406	17.7	21	38.700
53501	24	11.8	35.800
53502	38	15.9	53.900
53503	41.9	8.6	50.500

	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)
53504	50.2	19.2	69.400
53505	43.2	23.7	66.900
53506	17.6	21	38.600
53601	38.2	19.5	57.700
53602	52.5	21.5	74.000
53603	54.7	14.7	69.400
53604	43.3	24	67.300
53605	32.4	33.4	65.800
53606	32.8	36.1	68.900
51306, 51706	17.8	15.2	33.000
51402, 51602	38.5	9.1	47.600
51603, 51703	45	7	52.000
52001, 52301	23.2	12.2	35.400
52004, 52504	56.4	18.7	75.100
52803, 52903	44	7.7	51.700
52901, 53001	23.7	12.2	35.900
52902, 53002	37.7	16.2	53.900
53003, 53103	43.8	7.7	51.500
All other dwellings	37.8	16.4	54.200

(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...)
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 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
B5 Amenity/COS	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
Amenities B5 UG	no mechanical ventilation	-	light-emitting diode	motion sensors	yes
Ground floor lobby (B5)	ventilation supply only	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	yes
Hallway/lobby (B5)	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Lift bank (No. 1)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 24 number of levels from the bottom of the lift shaft to the top of the lift shaft: 35 number of lifts: 3 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Central hot water system (No. 1)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: $3.5 < COP \leq 4.0$

3. Commitments for Residential flat buildings - Building 6

(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
concrete slab on ground, frame:	19000	-	none
suspended floor above enclosed subfloor, frame: suspended concrete slab	560	fibreglass batts or roll	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	single skin autoclaved aerated concrete (AAC), frame: light steel frame	5545	-	fibreglass batts or roll
External wall type 2	off form concrete, frame: no frame	285	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	75 mm AAC panel, frame: light steel frame	1493	-
Internal wall type 2	plasterboard, frame: light steel frame	7780	-
Internal wall type 3	75 mm AAC panel, frame: light steel frame	4094	fibreglass batts or roll

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	100	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	720	-	fibreglass batts or roll

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)
3018	1685	-	4703	-	-	-	-

(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	-	5 star	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: (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. 3)	individual fan, ducted to façade	interlocked to light with timer off	individual fan, ducted to façade	manual switch on/off	individual fan, ducted to façade	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & gas oven	4.5 star	5 star	yes	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)
60301	29.8	18.7	48.500
60302	21.1	19.5	40.600
60303	44.2	20	64.200
60304	47.8	12.7	60.500

	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)
60305	24.5	10	34.500
60402	18.5	20.1	38.600
60406	10.8	9.5	20.300
61406	14.5	7.8	22.300
61501	26.3	16.7	43.000
61502	23.8	17.6	41.400
61504	49.2	11.9	61.100
61601	26.5	16.7	43.200
61603	52.5	16.2	68.700
61606	14.6	30	44.600
61701	26.6	16.6	43.200
61705	29.2	9.1	38.300
61803	52.7	15.7	68.400
61902	24.7	17.6	42.300
62405	25.1	30	55.100
62406	15.4	7.8	23.200
62502	37.3	25.2	62.500
62504	51.3	17.1	68.400
62506	31.8	15	46.800
61505, 61605	29.1	8.9	38.000
61904, 61905	29.5	9.2	38.700
All other dwellings	30	30	60.000

(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...)
Fire sprinkler system (No. 4)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-
Fire sprinkler system (No. 5)	-	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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 bank (No. 1)	-	-	light-emitting diode	connected to lift call button	yes
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	yes
Lift bank (No. 3)	-	-	light-emitting diode	connected to lift call button	yes
B6 Amenity/COS	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
Ground floor lobby (B6)	ventilation supply only	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	yes
Hallway/lobby (B6)	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Lift bank (No. 3)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 23 number of levels from the bottom of the lift shaft to the top of the lift shaft: 46 number of lifts: 3 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Central hot water system (No. 3)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: $3.5 < \text{COP} \leq 4.0$

4. 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: (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.		✓	

5. 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: (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.		✓	

6. 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:	30568	-	none

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	off form concrete,frame:no frame	5900	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
-	-	-	-

Reinforcement concrete frames/columns

Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
-	-	-

Ceiling and roof types

Ceiling and roof type	Area (m ²)	Roof Insulation	Ceiling Insulation
-	-	-	

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)
-	-	-	-	-	-	-	-

(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
Undercover car park area (B1)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
Undercover car park area (B2)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
Undercover car park area (B3)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
Undercover car park area (B4)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
Undercover car park area (B5)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
Residential Bin Room	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Chute Discharge Room B4	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Chute Discharge Room B5	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Chute Discharge Room B6	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Bulky Waste	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Fogo	ventilation exhaust only	-	light-emitting diode	motion sensors	yes
Plant Rooms	no mechanical ventilation	-	light-emitting diode	manual on / manual off	yes

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 120 peak kW
Other	Active power factor correction 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).

BASIX™ Certificate

Building Sustainability Index

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

Multi Dwelling

Certificate number: 1849955M

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: Friday, 05 June 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 HR-OW50JL-01.

Project summary

Project name	173-183 Rickard Road (B7&8)
Street address	173 RICKARD ROAD LEPPINGTON 2179
Local Government Area	CAMDEN
Plan type and plan number	Deposited Plan 812366
Lot No.	2
Section no.	-
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	412
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 50	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 68	Target 61
Materials	✓ -100	Target n/a

Certificate Prepared by

Name / Company Name: SLR Consulting Pty Ltd

ABN (if applicable): 29001584612

Description of project

Project address	
Project name	173-183 Rickard Road (B7&8)
Street address	173 RICKARD ROAD LEPPINGTON 2179
Local Government Area	CAMDEN
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Lot No.	2
Section no.	-
Project type	
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	412
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	32420
Roof area (m²)	1550
Non-residential floor area (m²)	1100
Residential car spaces	507
Non-residential car spaces	106

Common area landscape		
Common area lawn (m²)	200	
Common area garden (m²)	450	
Area of indigenous or low water use species (m²)	225	
Assessor details and thermal loads		
Assessor number	101556	
Certificate number	HR-OW50JL-01	
Climate zone	28	
Project score		
Water	✓ 50	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 68	Target 61
Materials	✓ -100	Target n/a

Description of project

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

Residential flat buildings - Building7, 238 dwellings, 38 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)
70301	1	58.90	0.00	0.00	0.00
70305	2	78.20	0.00	0.00	0.00
70402	1	51.40	0.00	0.00	0.00
70406	1	61.50	0.00	0.00	0.00
70503	1	85.90	0.00	0.00	0.00
70507	2	69.80	0.00	0.00	0.00
70604	2	79.70	0.00	0.00	0.00
70701	1	58.90	0.00	0.00	0.00
70705	2	78.20	0.00	0.00	0.00
70802	1	51.40	0.00	0.00	0.00
70806	1	61.50	0.00	0.00	0.00
70903	1	85.90	0.00	0.00	0.00
70907	2	69.80	0.00	0.00	0.00
71004	2	79.70	0.00	0.00	0.00
71101	1	58.90	0.00	0.00	0.00
71105	2	78.20	0.00	0.00	0.00
71202	1	51.40	0.00	0.00	0.00
71206	1	61.50	0.00	0.00	0.00
71303	1	85.90	0.00	0.00	0.00
71307	2	69.80	0.00	0.00	0.00
71404	2	79.70	0.00	0.00	0.00

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)
70302	1	51.40	0.00	0.00	0.00
70306	1	61.50	0.00	0.00	0.00
70403	1	85.90	0.00	0.00	0.00
70407	2	69.80	0.00	0.00	0.00
70504	2	79.70	0.00	0.00	0.00
70601	1	58.90	0.00	0.00	0.00
70605	2	78.20	0.00	0.00	0.00
70702	1	51.40	0.00	0.00	0.00
70706	1	61.50	0.00	0.00	0.00
70803	1	85.90	0.00	0.00	0.00
70807	2	69.80	0.00	0.00	0.00
70904	2	79.70	0.00	0.00	0.00
71001	1	58.90	0.00	0.00	0.00
71005	2	78.20	0.00	0.00	0.00
71102	1	51.40	0.00	0.00	0.00
71106	1	61.50	0.00	0.00	0.00
71203	1	85.90	0.00	0.00	0.00
71207	2	69.80	0.00	0.00	0.00
71304	2	79.70	0.00	0.00	0.00
71401	1	58.90	0.00	0.00	0.00
71405	2	78.20	0.00	0.00	0.00

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)
70303	1	85.90	0.00	0.00	0.00
70307	2	69.80	0.00	0.00	0.00
70404	2	79.70	0.00	0.00	0.00
70501	1	58.90	0.00	0.00	0.00
70505	2	78.20	0.00	0.00	0.00
70602	1	51.40	0.00	0.00	0.00
70606	1	61.50	0.00	0.00	0.00
70703	1	85.90	0.00	0.00	0.00
70707	2	69.80	0.00	0.00	0.00
70804	2	79.70	0.00	0.00	0.00
70901	1	58.90	0.00	0.00	0.00
70905	2	78.20	0.00	0.00	0.00
71002	1	51.40	0.00	0.00	0.00
71006	1	61.50	0.00	0.00	0.00
71103	1	85.90	0.00	0.00	0.00
71107	2	69.80	0.00	0.00	0.00
71204	2	79.70	0.00	0.00	0.00
71301	1	58.90	0.00	0.00	0.00
71305	2	78.20	0.00	0.00	0.00
71402	1	51.40	0.00	0.00	0.00
71406	1	61.50	0.00	0.00	0.00

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)
70304	2	79.70	0.00	0.00	0.00
70401	1	58.90	0.00	0.00	0.00
70405	2	78.20	0.00	0.00	0.00
70502	1	51.40	0.00	0.00	0.00
70506	1	61.50	0.00	0.00	0.00
70603	1	85.90	0.00	0.00	0.00
70607	2	69.80	0.00	0.00	0.00
70704	2	79.70	0.00	0.00	0.00
70801	1	58.90	0.00	0.00	0.00
70805	2	78.20	0.00	0.00	0.00
70902	1	51.40	0.00	0.00	0.00
70906	1	61.50	0.00	0.00	0.00
71003	1	85.90	0.00	0.00	0.00
71007	2	69.80	0.00	0.00	0.00
71104	2	79.70	0.00	0.00	0.00
71201	1	58.90	0.00	0.00	0.00
71205	2	78.20	0.00	0.00	0.00
71302	1	51.40	0.00	0.00	0.00
71306	1	61.50	0.00	0.00	0.00
71403	1	85.90	0.00	0.00	0.00
71407	2	69.80	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
71501	1	58.90	0.00	0.00	0.00
71505	2	78.20	0.00	0.00	0.00
71602	1	51.40	0.00	0.00	0.00
71606	1	61.50	0.00	0.00	0.00
71703	1	85.90	0.00	0.00	0.00
71707	2	69.80	0.00	0.00	0.00
71804	2	79.70	0.00	0.00	0.00
71901	1	58.90	0.00	0.00	0.00
71905	2	78.20	0.00	0.00	0.00
72002	1	51.40	0.00	0.00	0.00
72006	1	61.50	0.00	0.00	0.00
72103	1	85.90	0.00	0.00	0.00
72107	2	69.80	0.00	0.00	0.00
72204	2	79.70	0.00	0.00	0.00
72301	1	58.90	0.00	0.00	0.00
72305	2	78.20	0.00	0.00	0.00
72402	1	51.40	0.00	0.00	0.00
72406	1	61.50	0.00	0.00	0.00
72503	1	85.90	0.00	0.00	0.00
72507	2	69.80	0.00	0.00	0.00
72604	2	79.70	0.00	0.00	0.00
72701	1	58.90	0.00	0.00	0.00
72705	2	78.20	0.00	0.00	0.00
72802	1	51.40	0.00	0.00	0.00
72806	1	61.50	0.00	0.00	0.00
72903	1	85.90	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
71502	1	51.40	0.00	0.00	0.00
71506	1	61.50	0.00	0.00	0.00
71603	1	85.90	0.00	0.00	0.00
71607	2	69.80	0.00	0.00	0.00
71704	2	79.70	0.00	0.00	0.00
71801	1	58.90	0.00	0.00	0.00
71805	2	78.20	0.00	0.00	0.00
71902	1	51.40	0.00	0.00	0.00
71906	1	61.50	0.00	0.00	0.00
72003	1	85.90	0.00	0.00	0.00
72007	2	69.80	0.00	0.00	0.00
72104	2	79.70	0.00	0.00	0.00
72201	1	58.90	0.00	0.00	0.00
72205	2	78.20	0.00	0.00	0.00
72302	1	51.40	0.00	0.00	0.00
72306	1	61.50	0.00	0.00	0.00
72403	1	85.90	0.00	0.00	0.00
72407	2	69.80	0.00	0.00	0.00
72504	2	79.70	0.00	0.00	0.00
72601	1	58.90	0.00	0.00	0.00
72605	2	78.20	0.00	0.00	0.00
72702	1	51.40	0.00	0.00	0.00
72706	1	61.50	0.00	0.00	0.00
72803	1	85.90	0.00	0.00	0.00
72807	2	69.80	0.00	0.00	0.00
72904	2	79.70	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
71503	1	85.90	0.00	0.00	0.00
71507	2	69.80	0.00	0.00	0.00
71604	2	79.70	0.00	0.00	0.00
71701	1	58.90	0.00	0.00	0.00
71705	2	78.20	0.00	0.00	0.00
71802	1	51.40	0.00	0.00	0.00
71806	1	61.50	0.00	0.00	0.00
71903	1	85.90	0.00	0.00	0.00
71907	2	69.80	0.00	0.00	0.00
72004	2	79.70	0.00	0.00	0.00
72101	1	58.90	0.00	0.00	0.00
72105	2	78.20	0.00	0.00	0.00
72202	1	51.40	0.00	0.00	0.00
72206	1	61.50	0.00	0.00	0.00
72303	1	85.90	0.00	0.00	0.00
72307	2	69.80	0.00	0.00	0.00
72404	2	79.70	0.00	0.00	0.00
72501	1	58.90	0.00	0.00	0.00
72505	2	78.20	0.00	0.00	0.00
72602	1	51.40	0.00	0.00	0.00
72606	1	61.50	0.00	0.00	0.00
72703	1	85.90	0.00	0.00	0.00
72707	2	69.80	0.00	0.00	0.00
72804	2	79.70	0.00	0.00	0.00
72901	1	58.90	0.00	0.00	0.00
72905	2	78.20	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
71504	2	79.70	0.00	0.00	0.00
71601	1	58.90	0.00	0.00	0.00
71605	2	78.20	0.00	0.00	0.00
71702	1	51.40	0.00	0.00	0.00
71706	1	61.50	0.00	0.00	0.00
71803	1	85.90	0.00	0.00	0.00
71807	2	69.80	0.00	0.00	0.00
71904	2	79.70	0.00	0.00	0.00
72001	1	58.90	0.00	0.00	0.00
72005	2	78.20	0.00	0.00	0.00
72102	1	51.40	0.00	0.00	0.00
72106	1	61.50	0.00	0.00	0.00
72203	1	85.90	0.00	0.00	0.00
72207	2	69.80	0.00	0.00	0.00
72304	2	79.70	0.00	0.00	0.00
72401	1	58.90	0.00	0.00	0.00
72405	2	78.20	0.00	0.00	0.00
72502	1	51.40	0.00	0.00	0.00
72506	1	61.50	0.00	0.00	0.00
72603	1	85.90	0.00	0.00	0.00
72607	2	69.80	0.00	0.00	0.00
72704	2	79.70	0.00	0.00	0.00
72801	1	58.90	0.00	0.00	0.00
72805	2	78.20	0.00	0.00	0.00
72902	1	51.40	0.00	0.00	0.00
72906	1	61.50	0.00	0.00	0.00

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)
72907	2	69.80	0.00	0.00	0.00
73004	2	79.70	0.00	0.00	0.00
73101	1	58.90	0.00	0.00	0.00
73105	2	78.20	0.00	0.00	0.00
73202	1	51.40	0.00	0.00	0.00
73206	1	61.50	0.00	0.00	0.00
73303	1	85.90	0.00	0.00	0.00
73307	2	69.80	0.00	0.00	0.00
73404	2	79.70	0.00	0.00	0.00
73501	1	58.90	0.00	0.00	0.00
73505	2	78.20	0.00	0.00	0.00
73602	1	51.40	0.00	0.00	0.00
73606	1	61.50	0.00	0.00	0.00

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)
73001	1	58.90	0.00	0.00	0.00
73005	2	78.20	0.00	0.00	0.00
73102	1	51.40	0.00	0.00	0.00
73106	1	61.50	0.00	0.00	0.00
73203	1	85.90	0.00	0.00	0.00
73207	2	69.80	0.00	0.00	0.00
73304	2	79.70	0.00	0.00	0.00
73401	1	58.90	0.00	0.00	0.00
73405	2	78.20	0.00	0.00	0.00
73502	1	51.40	0.00	0.00	0.00
73506	1	61.50	0.00	0.00	0.00
73603	1	85.90	0.00	0.00	0.00
73607	2	69.80	0.00	0.00	0.00

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)
73002	1	51.40	0.00	0.00	0.00
73006	1	61.50	0.00	0.00	0.00
73103	1	85.90	0.00	0.00	0.00
73107	2	69.80	0.00	0.00	0.00
73204	2	79.70	0.00	0.00	0.00
73301	1	58.90	0.00	0.00	0.00
73305	2	78.20	0.00	0.00	0.00
73402	1	51.40	0.00	0.00	0.00
73406	1	61.50	0.00	0.00	0.00
73503	1	85.90	0.00	0.00	0.00
73507	2	69.80	0.00	0.00	0.00
73604	2	79.70	0.00	0.00	0.00

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)
73003	1	85.90	0.00	0.00	0.00
73007	2	69.80	0.00	0.00	0.00
73104	2	79.70	0.00	0.00	0.00
73201	1	58.90	0.00	0.00	0.00
73205	2	78.20	0.00	0.00	0.00
73302	1	51.40	0.00	0.00	0.00
73306	1	61.50	0.00	0.00	0.00
73403	1	85.90	0.00	0.00	0.00
73407	2	69.80	0.00	0.00	0.00
73504	2	79.70	0.00	0.00	0.00
73601	1	58.90	0.00	0.00	0.00
73605	2	78.20	0.00	0.00	0.00

Residential flat buildings - Building8, 174 dwellings, 34 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)
80301	3	101.20	0.00	0.00	0.00
80305	1	62.70	0.00	0.00	0.00
80403	2	86.50	0.00	0.00	0.00
80501	3	101.20	0.00	0.00	0.00
80505	1	62.70	0.00	0.00	0.00

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)
80302	2	82.80	0.00	0.00	0.00
80306	2	79.30	0.00	0.00	0.00
80404	2	81.30	0.00	0.00	0.00
80502	2	82.80	0.00	0.00	0.00
80506	2	79.30	0.00	0.00	0.00

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)
80303	2	86.50	0.00	0.00	0.00
80401	3	101.20	0.00	0.00	0.00
80405	1	62.70	0.00	0.00	0.00
80503	2	86.50	0.00	0.00	0.00
80601	3	101.20	0.00	0.00	0.00

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)
80304	2	81.30	0.00	0.00	0.00
80402	2	82.80	0.00	0.00	0.00
80406	2	79.30	0.00	0.00	0.00
80504	2	81.30	0.00	0.00	0.00
80602	2	82.80	0.00	0.00	0.00

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)
80603	2	86.50	0.00	0.00	0.00
80701	3	101.20	0.00	0.00	0.00
80705	1	62.70	0.00	0.00	0.00
80803	2	86.50	0.00	0.00	0.00
80901	3	101.20	0.00	0.00	0.00
80905	1	62.70	0.00	0.00	0.00
81003	2	86.50	0.00	0.00	0.00
81101	3	101.20	0.00	0.00	0.00
81105	1	62.70	0.00	0.00	0.00
81203	2	86.50	0.00	0.00	0.00
81301	3	101.20	0.00	0.00	0.00
81305	1	62.70	0.00	0.00	0.00
81403	2	86.50	0.00	0.00	0.00
81501	3	101.20	0.00	0.00	0.00
81505	1	62.70	0.00	0.00	0.00
81603	2	86.50	0.00	0.00	0.00
81701	3	101.20	0.00	0.00	0.00
81705	1	62.70	0.00	0.00	0.00
81803	2	86.50	0.00	0.00	0.00
81901	3	101.20	0.00	0.00	0.00
81905	1	62.70	0.00	0.00	0.00
82003	2	86.50	0.00	0.00	0.00
82101	3	101.20	0.00	0.00	0.00
82105	1	62.70	0.00	0.00	0.00
82203	2	86.50	0.00	0.00	0.00
82301	3	101.20	0.00	0.00	0.00

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)
80604	2	81.30	0.00	0.00	0.00
80702	2	82.80	0.00	0.00	0.00
80706	2	79.30	0.00	0.00	0.00
80804	2	81.30	0.00	0.00	0.00
80902	2	82.80	0.00	0.00	0.00
80906	2	79.30	0.00	0.00	0.00
81004	2	81.30	0.00	0.00	0.00
81102	2	82.80	0.00	0.00	0.00
81106	2	79.30	0.00	0.00	0.00
81204	2	81.30	0.00	0.00	0.00
81302	2	82.80	0.00	0.00	0.00
81306	2	79.30	0.00	0.00	0.00
81404	2	81.30	0.00	0.00	0.00
81502	2	82.80	0.00	0.00	0.00
81506	2	79.30	0.00	0.00	0.00
81604	2	81.30	0.00	0.00	0.00
81702	2	82.80	0.00	0.00	0.00
81706	2	79.30	0.00	0.00	0.00
81804	2	81.30	0.00	0.00	0.00
81902	2	82.80	0.00	0.00	0.00
81906	2	79.30	0.00	0.00	0.00
82004	2	81.30	0.00	0.00	0.00
82102	2	82.80	0.00	0.00	0.00
82106	2	79.30	0.00	0.00	0.00
82204	2	81.30	0.00	0.00	0.00
82302	2	82.80	0.00	0.00	0.00

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)
80605	1	62.70	0.00	0.00	0.00
80703	2	86.50	0.00	0.00	0.00
80801	3	101.20	0.00	0.00	0.00
80805	1	62.70	0.00	0.00	0.00
80903	2	86.50	0.00	0.00	0.00
81001	3	101.20	0.00	0.00	0.00
81005	1	62.70	0.00	0.00	0.00
81103	2	86.50	0.00	0.00	0.00
81201	3	101.20	0.00	0.00	0.00
81205	1	62.70	0.00	0.00	0.00
81303	2	86.50	0.00	0.00	0.00
81401	3	101.20	0.00	0.00	0.00
81405	1	62.70	0.00	0.00	0.00
81503	2	86.50	0.00	0.00	0.00
81601	3	101.20	0.00	0.00	0.00
81605	1	62.70	0.00	0.00	0.00
81703	2	86.50	0.00	0.00	0.00
81801	3	101.20	0.00	0.00	0.00
81805	1	62.70	0.00	0.00	0.00
81903	2	86.50	0.00	0.00	0.00
82001	3	101.20	0.00	0.00	0.00
82005	1	62.70	0.00	0.00	0.00
82103	2	86.50	0.00	0.00	0.00
82201	3	101.20	0.00	0.00	0.00
82205	1	62.70	0.00	0.00	0.00
82303	2	86.50	0.00	0.00	0.00

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)
80606	2	79.30	0.00	0.00	0.00
80704	2	81.30	0.00	0.00	0.00
80802	2	82.80	0.00	0.00	0.00
80806	2	79.30	0.00	0.00	0.00
80904	2	81.30	0.00	0.00	0.00
81002	2	82.80	0.00	0.00	0.00
81006	2	79.30	0.00	0.00	0.00
81104	2	81.30	0.00	0.00	0.00
81202	2	82.80	0.00	0.00	0.00
81206	2	79.30	0.00	0.00	0.00
81304	2	81.30	0.00	0.00	0.00
81402	2	82.80	0.00	0.00	0.00
81406	2	79.30	0.00	0.00	0.00
81504	2	81.30	0.00	0.00	0.00
81602	2	82.80	0.00	0.00	0.00
81606	2	79.30	0.00	0.00	0.00
81704	2	81.30	0.00	0.00	0.00
81802	2	82.80	0.00	0.00	0.00
81806	2	79.30	0.00	0.00	0.00
81904	2	81.30	0.00	0.00	0.00
82002	2	82.80	0.00	0.00	0.00
82006	2	79.30	0.00	0.00	0.00
82104	2	81.30	0.00	0.00	0.00
82202	2	82.80	0.00	0.00	0.00
82206	2	79.30	0.00	0.00	0.00
82304	2	81.30	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
82305	1	62.70	0.00	0.00	0.00
82403	2	86.50	0.00	0.00	0.00
82501	3	101.20	0.00	0.00	0.00
82505	1	62.70	0.00	0.00	0.00
82603	2	86.50	0.00	0.00	0.00
82701	3	101.20	0.00	0.00	0.00
82705	1	62.70	0.00	0.00	0.00
82803	2	86.50	0.00	0.00	0.00
82901	3	101.20	0.00	0.00	0.00
82905	1	62.70	0.00	0.00	0.00
83003	2	86.50	0.00	0.00	0.00
83101	3	101.20	0.00	0.00	0.00
83105	1	62.70	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
82306	2	79.30	0.00	0.00	0.00
82404	2	81.30	0.00	0.00	0.00
82502	2	82.80	0.00	0.00	0.00
82506	2	79.30	0.00	0.00	0.00
82604	2	81.30	0.00	0.00	0.00
82702	2	82.80	0.00	0.00	0.00
82706	2	79.30	0.00	0.00	0.00
82804	2	81.30	0.00	0.00	0.00
82902	2	82.80	0.00	0.00	0.00
82906	2	79.30	0.00	0.00	0.00
83004	2	81.30	0.00	0.00	0.00
83102	2	82.80	0.00	0.00	0.00
83106	2	79.30	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
82401	3	101.20	0.00	0.00	0.00
82405	1	62.70	0.00	0.00	0.00
82503	2	86.50	0.00	0.00	0.00
82601	3	101.20	0.00	0.00	0.00
82605	1	62.70	0.00	0.00	0.00
82703	2	86.50	0.00	0.00	0.00
82801	3	101.20	0.00	0.00	0.00
82805	1	62.70	0.00	0.00	0.00
82903	2	86.50	0.00	0.00	0.00
83001	3	101.20	0.00	0.00	0.00
83005	1	62.70	0.00	0.00	0.00
83103	2	86.50	0.00	0.00	0.00

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
82402	2	82.80	0.00	0.00	0.00
82406	2	79.30	0.00	0.00	0.00
82504	2	81.30	0.00	0.00	0.00
82602	2	82.80	0.00	0.00	0.00
82606	2	79.30	0.00	0.00	0.00
82704	2	81.30	0.00	0.00	0.00
82802	2	82.80	0.00	0.00	0.00
82806	2	79.30	0.00	0.00	0.00
82904	2	81.30	0.00	0.00	0.00
83002	2	82.80	0.00	0.00	0.00
83006	2	79.30	0.00	0.00	0.00
83104	2	81.30	0.00	0.00	0.00

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 (m²)
Undercover car park area (B7&8)	24300

Common area	Floor area (m²)
Substation (Nat vent)	180

Common area	Floor area (m²)
Plant or service room (Shared)	215

Common areas of unit building - Building7

Common area	Floor area (m²)
Garbage room (B7)	555
Ground floor lobby (B7)	101

Common area	Floor area (m²)
Amenities (B7)	680
Corridor(B7)	2210

Common area	Floor area (m²)
Nat vent Plant (B7)	456

Common areas of unit building - Building8

Common area	Floor area (m²)
Lift bank (No. 1)	-
Amenities (B8)	410
Corridor (B8)	1500

Common area	Floor area (m²)
Lift bank (No. 2)	-
Nat vent Plant (B8)	451

Common area	Floor area (m²)
Garbage room (B8)	372
Ground floor lobby (B8)	115

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building7

(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 Residential flat buildings - Building8

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

3. Commitments for multi-dwelling housing

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance and Materials

4. Commitments for single dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance and Materials

5. 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 - Building7

(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 open subfloor, frame: suspended concrete slab	162	expanding foam	-
floors above habitable rooms, frame: suspended concrete slab	16970	-	-
suspended floor above enclosed subfloor, frame: suspended concrete slab	3374	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	off form concrete, frame: no frame	1555	none	fibreglass batts or roll
External wall type 2	single skin autoclaved aerated concrete (AAC), frame: light steel frame	6045	-	fibreglass batts or roll

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	7750	-
Internal wall type 2	75 mm AAC panel, frame:light steel frame	3556	fibreglass batts or roll
Internal wall type 3	75 mm AAC panel, frame:light steel frame	2182.70	-
Internal wall type 4	Concrete, frame:no frame	3065	-

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: no frame	900	-	fibreglass batts or roll

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)
3141.60	4560.60	0	7702.20	0	0	0	0

(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	-	5 star	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: (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 into central duct + VSD	interlocked to light with timer off	individual fan into central duct + VSD	manual switch on/off	individual fan into central duct + VSD	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & electric oven	4.5 star	5 star	yes	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)
70301	60.4	12.2	72.600
70302	30.3	9.2	39.500
70303	19.7	16.5	36.200
70304	44.1	9.4	53.500

	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)
70305	57	9.5	66.500
70306	62.2	10.4	72.600
70307	56.4	20.4	76.800
70401	45.8	12.9	58.700
70402	30.8	9	39.800
70403	19.7	16.6	36.300
70404	44.5	9.1	53.600
70405	50.7	10.1	60.800
70406	47.1	11	58.100
70407	44.1	21.3	65.400
70501	46.2	13.1	59.300
70502	31.4	9.2	40.600
70503	20	16.7	36.700
70504	45	9	54.000
70505	51.2	10.3	61.500
70506	47.5	11.1	58.600
70507	44.5	21.9	66.400
70601	46.6	13.4	60.000
70602	31.7	9.3	41.000
70603	20.5	16.6	37.100
70604	45.4	8.9	54.300
70605	51.5	10	61.500
70606	47.8	11.3	59.100
70607	44.8	21.3	66.100
70701	48.8	13.2	62.000
70702	34.4	8.5	42.900
70703	22.1	16.5	38.600
70704	48.1	8.6	56.700
70705	53.6	9.1	62.700
70706	49.9	11.4	61.300
70707	46.6	19.6	66.200

	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)
70801	49	13.4	62.400
70802	34.6	8.4	43.000
70803	22.3	16.6	38.900
70804	48.3	8.7	57.000
70805	53.8	9.1	62.900
70806	50	11.3	61.300
70807	46.8	19.4	66.200
70901	49.3	13.5	62.800
70902	34.9	8.5	43.400
70903	22.6	16.7	39.300
70904	48.6	8.7	57.300
70905	54	9.1	63.100
70906	50.3	11.3	61.600
70907	47	19.5	66.500
71001	49.4	13.3	62.700
71002	35	8.7	43.700
71003	22.8	16.9	39.700
71004	48.8	8.6	57.400
71005	54.2	9	63.200
71006	50.4	11.4	61.800
71007	47.1	19.3	66.400
71101	49.7	13.4	63.100
71102	35.4	8.6	44.000
71103	23	16.7	39.700
71104	49.1	8.9	58.000
71105	54.5	8.9	63.400
71106	50.7	11.3	62.000
71107	47.3	19.4	66.700
71201	49.8	13.6	63.400
71202	35.5	8.5	44.000
71203	23.3	16.6	39.900

	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)
71204	49.2	8.6	57.800
71205	54.6	8.9	63.500
71206	50.8	11.4	62.200
71207	47.4	19.4	66.800
71301	49.9	13.7	63.600
71302	35.7	8.6	44.300
71303	23.5	16.1	39.600
71304	49.4	8.7	58.100
71305	54.7	8.8	63.500
71306	50.9	11.4	62.300
71307	47.6	19.4	67.000
71401	50.2	13.3	63.500
71402	36.1	8.2	44.300
71403	23.8	16.1	39.900
71404	49.7	8.5	58.200
71405	55	8.8	63.800
71406	51.2	11.7	62.900
71407	47.8	19.4	67.200
71501	50	13.4	63.400
71502	36	8.3	44.300
71503	23.8	16.3	40.100
71504	49.8	8.6	58.400
71505	55.1	8.8	63.900
71506	51.2	11.4	62.600
71507	47.7	19.6	67.300
71601	52.7	23	75.700
71602	39.2	15.3	54.500
71603	31.1	28.5	59.600
71604	56.5	13	69.500
71605	57.7	14.3	72.000
71606	50.2	19.8	70.000

	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)
71607	45.5	33.5	79.000
71701	51.2	13.1	64.300
71702	38.7	8.4	47.100
71703	25.1	16.2	41.300
71704	51.8	8.5	60.300
71705	56	9	65.000
71706	52	11.4	63.400
71707	48.4	20.2	68.600
71801	50.6	13.4	64.000
71802	36.8	8.3	45.100
71803	24.5	16.4	40.900
71804	50.3	8.5	58.800
71805	55.5	8.8	64.300
71806	51.7	11.6	63.300
71807	48.2	20.1	68.300
71902	36.9	8.3	45.200
71903	24.6	16.4	41.000
71904	50.4	8.7	59.100
71905	55.6	8.8	64.400
71906	51.9	11.3	63.200
71907	48.3	20	68.300
72002	37.1	8.3	45.400
72003	24.6	16.2	40.800
72004	50.5	8.7	59.200
72005	55.7	8.9	64.600
72006	52	11.3	63.300
72007	48.4	20.1	68.500
72101	50.9	13.6	64.500
72103	24.8	16	40.800
72107	48.5	20	68.500
72201	50.9	14	64.900

	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)
72203	24.8	16.4	41.200
72207	48.4	20.6	69.000
72301	50.9	14.4	65.300
72302	37.4	8.3	45.700
72303	24.9	16.4	41.300
72304	50.5	8.5	59.000
72306	52.2	11.3	63.500
72307	48.5	20.6	69.100
72401	50.9	14.8	65.700
72402	37.5	8.3	45.800
72403	25.1	16.5	41.600
72404	50.3	8.7	59.000
72406	52.4	11.4	63.800
72501	50.9	15.1	66.000
72504	48.9	8.8	57.700
72505	56	8.5	64.500
72507	48.6	20.6	69.200
72601	50.8	15.3	66.100
72604	47.1	9.2	56.300
72605	55.8	8.5	64.300
72701	50.8	15.5	66.300
72702	37.7	8.3	46.000
72703	25.1	16.9	42.000
72704	46.3	9.3	55.600
72705	55.7	8.7	64.400
72706	52.6	11.4	64.000
72707	48.4	20.9	69.300
72801	50.3	16.2	66.500
72802	37.8	8.3	46.100
72803	25.2	17	42.200
72804	46.3	9.4	55.700

	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)
72805	55.6	9.1	64.700
72807	47.8	20.9	68.700
72901	49.9	17.5	67.400
72903	25.1	17.2	42.300
72904	46.1	10.3	56.400
72905	55.3	9.7	65.000
72907	46.8	21.9	68.700
73001	47.1	14.9	62.000
73002	35.2	7.1	42.300
73003	20.3	14.2	34.500
73004	41.7	8.8	50.500
73005	53.4	7.7	61.100
73006	51.3	8.7	60.000
73007	42.1	19.8	61.900
73101	49.1	19.8	68.900
73102	37.4	8.5	45.900
73103	25.1	17.1	42.200
73104	46.3	11.3	57.600
73105	53.9	10.1	64.000
73106	53.3	11.3	64.600
73107	45.5	22.1	67.600
73201	46.3	21.9	68.200
73202	34.8	8.4	43.200
73203	23.1	17.2	40.300
73204	45.7	11.6	57.300
73205	52.8	9.9	62.700
73207	44.3	22.2	66.500
73301	39.6	23.2	62.800
73302	30.2	8.4	38.600
73303	20.6	16.9	37.500
73304	45.3	11.8	57.100

	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)
73305	52.5	9.7	62.200
73307	41.7	23	64.700
73401	32.3	24	56.300
73402	29.4	8.6	38.000
73403	20.5	17.4	37.900
73404	45.4	11.8	57.200
73405	52.6	9.8	62.400
73407	38.6	23.4	62.000
73501	29.2	25.6	54.800
73502	28.9	8.8	37.700
73503	20.3	17.7	38.000
73504	45.2	11.8	57.000
73505	52.3	10	62.300
73506	52.8	11.4	64.200
73507	35.5	24	59.500
73601	39.1	34	73.100
73602	44	16.5	60.500
73603	35.1	29.3	64.400
73604	61.2	16.7	77.900
73605	56.3	15.2	71.500
73606	58	19.3	77.300
73607	37.4	39	76.400
71901, 72001	50.8	13.6	64.400
72102, 72202	37.2	8.3	45.500
72104, 72204	50.6	8.7	59.300
72105, 72205	55.8	8.9	64.700
72106, 72206	52.1	11.4	63.500
72305, 72405	55.9	8.6	64.500
72407, 72607	48.5	20.7	69.200
72503, 72603	25.2	16.7	41.900
72506, 72606	52.5	11.4	63.900

	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)
72806, 72906	52.7	11.5	64.200
72502, 72602, 72902	37.6	8.3	45.900
All other dwellings	53.1	11.3	64.400

(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...)
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 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
Garbage room (B7)	ventilation exhaust only	-	light-emitting diode	motion sensors	no
Amenities (B7)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Nat vent Plant (B7)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Ground floor lobby (B7)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Corridor(B7)	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	no

Central energy systems	Type	Specification
Lift bank (No. 1)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 36 number of levels from the bottom of the lift shaft to the top of the lift shaft: 46 number of lifts: 3 lift load capacity: >= 1001 kg but <= 1500kg
Central hot water system (No. 1)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: 3.5 < COP <= 4.0

2. Commitments for Residential flat buildings - Building8

(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 open subfloor, frame: suspended concrete slab	165	expanding foam	-
floors above habitable rooms, frame: suspended concrete slab	14905	-	-
suspended floor above enclosed subfloor, frame: suspended concrete slab	2099	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	off form concrete,frame:no frame	999.10	none	-
External wall type 2	framed (metal clad),frame:light steel frame	217.70	-	fibreglass batts or roll
External wall type 3	single skin autoclaved aerated concrete (AAC),frame:light steel frame	6275	-	fibreglass batts or roll

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	9613.90	-
Internal wall type 2	75 mm AAC panel, frame:light steel frame	3767	-
Internal wall type 3	75 mm AAC panel, frame:light steel frame	1020	fibreglass batts or roll
Internal wall type 4	Concrete, frame:no frame	1500	-

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: no frame	866	-	fibreglass batts or roll

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)
3898.50	63	0	3961.50	0	0	0	0

(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	-	5 star	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: (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. 2)	individual fan into central duct + VSD	interlocked to light with timer off	individual fan into central duct + VSD	manual switch on/off	individual fan into central duct + VSD	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 / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	1-phase airconditioning - ducted / 4.5 star (average zone)	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	-	-	-	-	-	gas cooktop & electric oven	4.5 star	5 star	yes	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)
80301	30.1	6.4	36.500
80302	18.8	6.3	25.100
80303	33.9	8.9	42.800
80304	60.3	13.4	73.700

	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)
80305	64.2	4.9	69.100
80306	56.2	6	62.200
80401	25.9	8	33.900
80402	19.2	6.3	25.500
80403	24.2	10	34.200
80404	46.2	14.5	60.700
80405	57.5	7.3	64.800
80406	49.9	5.7	55.600
80501	26.2	8	34.200
80502	19.6	6.4	26.000
80503	24.6	9.9	34.500
80504	46.7	14.6	61.300
80505	58.1	7.2	65.300
80506	50.3	5.7	56.000
80601	26.5	7.9	34.400
80602	19.8	6.4	26.200
80603	24.9	9.9	34.800
80604	47	14.6	61.600
80605	58.4	7.1	65.500
80606	50.6	5.7	56.300
80701	28.5	7.1	35.600
80702	21.9	5.9	27.800
80703	26.9	8.8	35.700
80704	49.2	12.7	61.900
80705	61.1	6.8	67.900
80706	52.6	5.2	57.800
80801	28.6	7.1	35.700
80802	22	5.9	27.900
80803	27	8.9	35.900
80804	49.4	12.5	61.900
80805	61.2	6.8	68.000

	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)
80806	52.7	5.1	57.800
80901	28.8	7	35.800
80902	22.2	5.9	28.100
80903	27.3	8.9	36.200
80904	49.7	12.7	62.400
80905	61.6	6.4	68.000
80906	53	5.1	58.100
81001	28.9	7.1	36.000
81002	22.4	5.9	28.300
81004	49.8	12.8	62.600
81005	61.8	6.4	68.200
81006	53.1	5.1	58.200
81101	29.2	7.1	36.300
81102	22.6	5.9	28.500
81103	27.7	8.9	36.600
81104	50.1	12.7	62.800
81105	62.1	6.5	68.600
81106	53.4	5.1	58.500
81201	29.3	7	36.300
81202	22.7	6	28.700
81203	27.8	8.9	36.700
81204	50.2	12.6	62.800
81205	62.3	6.5	68.800
81206	53.5	5.1	58.600
81301	29.4	6.9	36.300
81302	21.8	5.9	27.700
81303	27.9	8.8	36.700
81304	50.4	12.6	63.000
81305	62.4	6.4	68.800
81306	53.6	5.2	58.800
81402	22	6	28.000

	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)
81403	28.1	8.8	36.900
81404	50.7	12.5	63.200
81405	62.8	6.4	69.200
81406	53.9	5.1	59.000
81502	22	6.2	28.200
81503	28.2	8.6	36.800
81504	50.8	12.5	63.300
81505	62.7	6.5	69.200
81506	53.8	5.1	58.900
81601	28.3	6.1	34.400
81602	20.7	5.5	26.200
81603	26.5	7.3	33.800
81604	51.3	11	62.300
81605	62.2	5.6	67.800
81606	50.9	4.4	55.300
81701	30	7	37.000
81702	22.6	6.2	28.800
81703	28.8	8.7	37.500
81704	51.4	12.4	63.800
81705	63.5	6.5	70.000
81706	54.5	5.1	59.600
81801	29.9	7.2	37.100
81802	22.3	6.1	28.400
81803	28.6	8.6	37.200
81804	51.3	12.2	63.500
81805	63.4	6.6	70.000
81806	54.4	4.9	59.300
81901	29.8	7.2	37.000
81902	22.1	6.2	28.300
81903	28.6	8.7	37.300
81904	51.4	12.2	63.600

	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)
81905	63.6	6.5	70.100
81906	54.5	4.9	59.400
82001	29.6	7.3	36.900
82002	21.9	6.3	28.200
82004	51.6	12.3	63.900
82006	54.6	5.1	59.700
82101	29	7.3	36.300
82102	21.2	6.3	27.500
82104	51.7	12.3	64.000
82106	54.8	5	59.800
82201	27.4	7.5	34.900
82202	18.7	6.3	25.000
82203	28.3	8.6	36.900
82204	51.7	12.2	63.900
82205	63.8	6.5	70.300
82301	22.9	7.7	30.600
82302	13.5	6.4	19.900
82304	51.8	12.1	63.900
82305	64	6.5	70.500
82306	54.9	5.1	60.000
82401	19.9	7.9	27.800
82402	13	6.4	19.400
82403	27.3	8.6	35.900
82404	51.9	12.1	64.000
82405	64.1	6.5	70.600
82501	19.4	8	27.400
82502	13.1	6.6	19.700
82504	52	12	64.000
82601	19.1	8.6	27.700
82602	12.8	6.8	19.600
82603	27.3	8.5	35.800

	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)
82604	52.1	12	64.100
82606	55	5	60.000
82701	19	8.7	27.700
82702	12.7	7	19.700
82703	27.4	8.5	35.900
82704	52.2	11.8	64.000
82705	64.5	6.4	70.900
82706	55.1	5	60.100
82801	18.9	9	27.900
82802	12.6	7.1	19.700
82805	64.6	6.4	71.000
82806	55.2	5	60.200
82901	19	9.1	28.100
82902	12.7	7.1	19.800
82904	52.5	11.8	64.300
82905	64.8	6.5	71.300
82906	55.2	5.1	60.300
83001	18.8	9	27.800
83002	12.6	7.4	20.000
83005	64.5	6.5	71.000
83101	33.4	16.5	49.900
83102	26	15.2	41.200
83103	44	14.8	58.800
83104	51.1	15.1	66.200
83105	58.6	8.7	67.300
83106	64	10.8	74.800
81003, 82803	27.4	8.7	36.100
81401, 81501	29.6	6.8	36.400
82003, 82103	28.7	8.6	37.300
82005, 82105	63.8	6.6	70.400
82206, 83006	54.8	5.1	59.900

	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)
82303, 82503	27.4	8.6	36.000
82406, 82506	55	5.1	60.100
82505, 82605	64.3	6.5	70.800
82804, 83004	52.4	11.9	64.300
All other dwellings	27.5	8.6	36.100

(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...)
Fire sprinkler system (No. 3)	-	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 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 bank (No. 1)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	no
Garbage room (B8)	ventilation exhaust only	-	light-emitting diode	motion sensors	no
Amenities (B8)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Nat vent Plant (B8)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Ground floor lobby (B8)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Corridor (B8)	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	no

Central energy systems	Type	Specification
Lift bank (No. 2)	gearless traction with V V V F motor and regenerative drive	Number of levels with apartments served by a lift: 29 number of levels from the bottom of the lift shaft to the top of the lift shaft: 39 number of lifts: 3 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Central hot water system (No. 2)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: $3.5 < \text{COP} \leq 4.0$

3. 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: (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 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: (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.		✓	

5. 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
garage floor, frame: suspended concrete slab	25000	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	off form concrete,frame:no frame	5900	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	1000	-

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 (m ²)	Roof Insulation	Ceiling Insulation
concrete - bare internal, frame: no frame	100	-	-

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	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
Undercover car park area (B7&8)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Substation (Nat vent)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	no
Plant or service room (Shared)	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	no

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 80 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).