

BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 1026173M




This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Tuesday, 20 August 2019

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



Project summary		
Project name	13436	
Street address	309 King Street Newcastle West 2302	
Local Government Area	Newcastle City Council	
Plan type and plan number	deposited 826956	
Lot no.	1	
Section no.	-	
No. of residential flat buildings	2	
No. of units in residential flat buildings	248	
No. of multi-dwelling houses	0	
No. of single dwelling houses	0	
Project score		
Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 20	Target 20

Certificate Prepared by



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Revision of Certificates not lodged within 3 months of the date of issue will incur further BASIX issuing fees.

Description of project

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Lot no.	1
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Project type

No. of residential flat buildings	2
No. of units in residential flat buildings	248
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m²)	6631
Roof area (m²)	1594
Non-residential floor area (m²)	9050.0
Residential car spaces	240
Non-residential car spaces	46

Common area landscape

Common area lawn (m²)	650.0
Common area garden (m²)	1440.0
Area of indigenous or low water use species (m²)	-

Assessor details

Assessor number	BDAV/13/1491
Certificate number	0004139390
Climate zone	15

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 20	Target 20

Description of project

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

Residential flat buildings - Building A, 82 dwellings, 14 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)
A501	3	119.0	0.0	0.0	0.0
A505	2	75.0	0.0	0.0	0.0
A601	3	154.0	0.0	0.0	0.0
A605	2	84.0	0.0	0.0	0.0
A609	2	83.0	0.0	0.0	0.0
A703	3	141.0	0.0	0.0	0.0
A707	2	79.0	0.0	0.0	0.0
A801	3	154.0	0.0	0.0	0.0
A805	2	84.0	0.0	0.0	0.0
A809	2	83.0	0.0	0.0	0.0
A903	3	141.0	0.0	0.0	0.0
A907	2	79.0	0.0	0.0	0.0
A1001	3	154.0	0.0	0.0	0.0
A1005	2	84.0	0.0	0.0	0.0
A1009	2	83.0	0.0	0.0	0.0
A1103	3	141.0	0.0	0.0	0.0
A1107	2	79.0	0.0	0.0	0.0
A1201	3	189.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A502	3	151.0	0.0	0.0	0.0
A506	3	112.0	0.0	0.0	0.0
A602	2	80.0	0.0	0.0	0.0
A606	3	129.0	0.0	0.0	0.0
A610	3	124.0	0.0	0.0	0.0
A704	2	89.0	0.0	0.0	0.0
A708	3	121.0	0.0	0.0	0.0
A802	2	80.0	0.0	0.0	0.0
A806	3	129.0	0.0	0.0	0.0
A810	3	124.0	0.0	0.0	0.0
A904	2	89.0	0.0	0.0	0.0
A908	3	121.0	0.0	0.0	0.0
A1002	2	80.0	0.0	0.0	0.0
A1006	3	129.0	0.0	0.0	0.0
A1010	3	124.0	0.0	0.0	0.0
A1104	2	89.0	0.0	0.0	0.0
A1108	3	121.0	0.0	0.0	0.0
A1202	3	120.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A503	2	101.0	0.0	0.0	0.0
A507	2	83.0	0.0	0.0	0.0
A603	3	141.0	0.0	0.0	0.0
A607	2	79.0	0.0	0.0	0.0
A701	3	154.0	0.0	0.0	0.0
A705	2	84.0	0.0	0.0	0.0
A709	2	83.0	0.0	0.0	0.0
A803	3	141.0	0.0	0.0	0.0
A807	2	79.0	0.0	0.0	0.0
A901	3	154.0	0.0	0.0	0.0
A905	2	84.0	0.0	0.0	0.0
A909	2	83.0	0.0	0.0	0.0
A1003	3	141.0	0.0	0.0	0.0
A1007	2	79.0	0.0	0.0	0.0
A1101	3	154.0	0.0	0.0	0.0
A1105	2	84.0	0.0	0.0	0.0
A1109	2	83.0	0.0	0.0	0.0
A1203	3	173.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A504	2	85.0	0.0	0.0	0.0
A508	3	124.0	0.0	0.0	0.0
A604	2	89.0	0.0	0.0	0.0
A608	3	121.0	0.0	0.0	0.0
A702	2	80.0	0.0	0.0	0.0
A706	3	129.0	0.0	0.0	0.0
A710	3	124.0	0.0	0.0	0.0
A804	2	89.0	0.0	0.0	0.0
A808	3	121.0	0.0	0.0	0.0
A902	2	80.0	0.0	0.0	0.0
A906	3	129.0	0.0	0.0	0.0
A910	3	124.0	0.0	0.0	0.0
A1004	2	89.0	0.0	0.0	0.0
A1008	3	121.0	0.0	0.0	0.0
A1102	2	80.0	0.0	0.0	0.0
A1106	3	129.0	0.0	0.0	0.0
A1110	3	124.0	0.0	0.0	0.0
A1204	3	144.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A1205	3	177.0	0.0	0.0	0.0
A1302	3	120.0	0.0	0.0	0.0
A1306	3	129.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A1206	3	129.0	0.0	0.0	0.0
A1303	3	173.0	0.0	0.0	0.0
A1307	3	178.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A1207	3	178.0	0.0	0.0	0.0
A1304	3	144.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A1301	3	189.0	0.0	0.0	0.0
A1305	3	177.0	0.0	0.0	0.0

Residential flat buildings - Building B, 166 dwellings, 14 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)
B101	1	49.0	0.0	0.0	0.0
B105	1	50.0	0.0	0.0	0.0
B109	1	49.0	0.0	0.0	0.0
B113	1	49.0	0.0	0.0	0.0
B117	1	49.0	0.0	0.0	0.0
B121	1	56.0	7.0	0.0	0.0
B204	1	50.0	0.0	0.0	0.0
B208	1	37.0	0.0	0.0	0.0
B212	1	37.0	0.0	0.0	0.0
B216	1	37.0	0.0	0.0	0.0
B220	1	50.0	0.0	0.0	0.0
B224	1	56.0	7.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B102	1	49.0	0.0	0.0	0.0
B106	1	68.0	0.0	0.0	0.0
B110	1	37.0	0.0	0.0	0.0
B114	1	37.0	0.0	0.0	0.0
B118	1	49.0	0.0	0.0	0.0
B201	1	49.0	0.0	0.0	0.0
B205	1	50.0	0.0	0.0	0.0
B209	1	49.0	0.0	0.0	0.0
B213	1	49.0	0.0	0.0	0.0
B217	1	49.0	0.0	0.0	0.0
B221	1	48.0	0.0	0.0	0.0
B301	1	49.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B103	1	52.0	7.0	0.0	0.0
B107	1	49.0	0.0	0.0	0.0
B111	1	49.0	0.0	0.0	0.0
B115	1	49.0	0.0	0.0	0.0
B119	1	48.0	0.0	0.0	0.0
B202	1	49.0	0.0	0.0	0.0
B206	1	68.0	0.0	0.0	0.0
B210	1	37.0	0.0	0.0	0.0
B214	1	37.0	0.0	0.0	0.0
B218	1	37.0	0.0	0.0	0.0
B222	1	54.0	0.0	0.0	0.0
B302	1	49.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B104	1	50.0	0.0	0.0	0.0
B108	1	37.0	0.0	0.0	0.0
B112	1	37.0	0.0	0.0	0.0
B116	1	37.0	0.0	0.0	0.0
B120	1	48.0	0.0	0.0	0.0
B203	1	54.0	7.0	0.0	0.0
B207	1	49.0	0.0	0.0	0.0
B211	1	49.0	0.0	0.0	0.0
B215	1	49.0	0.0	0.0	0.0
B219	1	49.0	0.0	0.0	0.0
B223	1	48.0	0.0	0.0	0.0
B303	1	54.0	7.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B304	1	50.0	0.0	0.0	0.0
B308	1	37.0	0.0	0.0	0.0
B312	1	37.0	0.0	0.0	0.0
B316	1	37.0	0.0	0.0	0.0
B320	1	50.0	0.0	0.0	0.0
B324	1	56.0	7.0	0.0	0.0
B404	2	93.0	0.0	0.0	0.0
B408	2	74.0	0.0	0.0	0.0
B501	2	91.0	0.0	0.0	0.0
B505	2	91.0	0.0	0.0	0.0
B509	2	90.0	0.0	0.0	0.0
B603	2	91.0	0.0	0.0	0.0
B607	3	133.0	0.0	0.0	0.0
B701	2	91.0	0.0	0.0	0.0
B705	2	91.0	0.0	0.0	0.0
B709	2	90.0	0.0	0.0	0.0
B803	2	91.0	0.0	0.0	0.0
B807	3	133.0	0.0	0.0	0.0
B901	2	91.0	0.0	0.0	0.0
B905	2	91.0	0.0	0.0	0.0
B909	2	90.0	0.0	0.0	0.0
B1003	2	91.0	0.0	0.0	0.0
B1007	3	133.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B305	1	50.0	0.0	0.0	0.0
B309	1	49.0	0.0	0.0	0.0
B313	1	49.0	0.0	0.0	0.0
B317	1	49.0	0.0	0.0	0.0
B321	1	48.0	0.0	0.0	0.0
B401	2	91.0	0.0	0.0	0.0
B405	2	91.0	0.0	0.0	0.0
B409	2	91.0	0.0	0.0	0.0
B502	2	84.0	0.0	0.0	0.0
B506	3	130.0	0.0	0.0	0.0
B510	2	84.0	5.0	0.0	0.0
B604	2	87.0	0.0	0.0	0.0
B608	2	97.0	0.0	0.0	0.0
B702	2	84.0	0.0	0.0	0.0
B706	3	130.0	0.0	0.0	0.0
B710	2	84.0	5.0	0.0	0.0
B804	2	87.0	0.0	0.0	0.0
B808	2	97.0	0.0	0.0	0.0
B902	2	84.0	0.0	0.0	0.0
B906	3	130.0	0.0	0.0	0.0
B910	2	84.0	5.0	0.0	0.0
B1004	2	87.0	0.0	0.0	0.0
B1008	2	97.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B306	1	68.0	0.0	0.0	0.0
B310	1	37.0	0.0	0.0	0.0
B314	1	37.0	0.0	0.0	0.0
B318	1	37.0	0.0	0.0	0.0
B322	1	54.0	0.0	0.0	0.0
B402	2	95.0	0.0	0.0	0.0
B406	3	148.0	0.0	0.0	0.0
B410	2	71.0	0.0	0.0	0.0
B503	2	91.0	0.0	0.0	0.0
B507	3	133.0	0.0	0.0	0.0
B601	2	91.0	0.0	0.0	0.0
B605	2	91.0	0.0	0.0	0.0
B609	2	90.0	0.0	0.0	0.0
B703	2	91.0	0.0	0.0	0.0
B707	3	133.0	0.0	0.0	0.0
B801	2	91.0	0.0	0.0	0.0
B805	2	91.0	0.0	0.0	0.0
B809	2	90.0	0.0	0.0	0.0
B903	2	91.0	0.0	0.0	0.0
B907	3	133.0	0.0	0.0	0.0
B1001	2	91.0	0.0	0.0	0.0
B1005	2	91.0	0.0	0.0	0.0
B1009	2	90.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B307	1	49.0	0.0	0.0	0.0
B311	1	49.0	0.0	0.0	0.0
B315	1	49.0	0.0	0.0	0.0
B319	1	49.0	0.0	0.0	0.0
B323	1	48.0	0.0	0.0	0.0
B403	2	91.0	0.0	0.0	0.0
B407	3	145.0	0.0	0.0	0.0
B411	3	147.0	0.0	0.0	0.0
B504	2	87.0	0.0	0.0	0.0
B508	2	109.0	0.0	0.0	0.0
B602	2	84.0	0.0	0.0	0.0
B606	3	130.0	0.0	0.0	0.0
B610	2	84.0	5.0	0.0	0.0
B704	2	87.0	0.0	0.0	0.0
B708	2	97.0	0.0	0.0	0.0
B802	2	84.0	0.0	0.0	0.0
B806	3	130.0	0.0	0.0	0.0
B810	2	84.0	5.0	0.0	0.0
B904	2	87.0	0.0	0.0	0.0
B908	2	97.0	0.0	0.0	0.0
B1002	2	84.0	0.0	0.0	0.0
B1006	3	130.0	0.0	0.0	0.0
B1010	2	84.0	5.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B1101	2	91.0	0.0	0.0	0.0
B1105	2	91.0	0.0	0.0	0.0
B1109	2	90.0	0.0	0.0	0.0
B1203	3	140.0	0.0	0.0	0.0
B1207	3	133.0	0.0	0.0	0.0
B1303	3	140.0	0.0	0.0	0.0
B1307	3	133.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B1102	2	84.0	0.0	0.0	0.0
B1106	3	130.0	0.0	0.0	0.0
B1110	2	84.0	5.0	0.0	0.0
B1204	2	87.0	0.0	0.0	0.0
B1208	3	97.0	0.0	0.0	0.0
B1304	2	87.0	0.0	0.0	0.0
B1308	3	97.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B1103	2	91.0	0.0	0.0	0.0
B1107	3	133.0	0.0	0.0	0.0
B1201	3	134.0	0.0	0.0	0.0
B1205	3	185.0	0.0	0.0	0.0
B1301	3	134.0	0.0	0.0	0.0
B1305	3	185.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B1104	2	87.0	0.0	0.0	0.0
B1108	2	97.0	0.0	0.0	0.0
B1202	2	84.0	0.0	0.0	0.0
B1206	3	137.0	0.0	0.0	0.0
B1302	2	84.0	0.0	0.0	0.0
B1306	3	137.0	0.0	0.0	0.0

Description of project

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

Common areas of unit building - Building A

Common area	Floor area (m²)
Gym/Lounge (A - L05)	141.0
Car park area (A - LG)	1559.0
Substation (A - LG)	87.0
Plant or service rooms (A - B2)	169.0
Gas Meter room (A - L1)	18.0
Hallway/lobby type (A - L6)	76.0
Hallway/lobby type (A - L9)	76.0
Hallway/lobby type (A - L12)	69.0

Common area	Floor area (m²)
Car park area (A - B2)	2666.0
Lift car (No.1)	-
Comms room (A - LG)	11.0
Plant or service room (A - B1)	169.0
Ground floor lobby type (A - L1)	140.0
Hallway/lobby type (A - L7)	76.0
Hallway/lobby type (A - L10)	76.0
Hallway/lobby type (A - L13)	69.0

Common area	Floor area (m²)
Car park area (A - B1)	2666.0
Lift car (No.2)	-
Garbage room (A - LG)	17.0
Water Plant rooms (A - LG)	15.0
Hallway/lobby type (A - L5)	79.0
Hallway/lobby type (A - L8)	76.0
Hallway/lobby type (A - L11)	76.0

Common areas of unit building - Building B

Common area	Floor area (m²)
Car park area (B - B2)	2093.0
Lift car (No.3)	-
Plant or service room (B - B2)	8.0
Irrigation room (B - LG)	7.0
Hallway/lobby type (B - L2)	145.0
Hallway/lobby type (B - L5)	110.0
Hallway/lobby type (B - L8)	111.0
Hallway/lobby type (B - L11)	111.0
Hallway/lobby type (B - L14)	11.0

Common area	Floor area (m²)
Car park area (B - B1)	2093.0
Lift car (No.4)	-
Plant or service room (B - B1)	8.0
Plant or service room (B - L14)	33.0
Hallway/lobby type (B - L3)	145.0
Hallway/lobby type (B - L6)	111.0
Hallway/lobby type (B - L9)	111.0
Hallway/lobby type (B - L12)	100.0

Common area	Floor area (m²)
Car park area (B - LG)	840.0
Garbage room (B - LG)	26.0
Fire Pump room (B - LG)	40.0
Ground floor lobby type (B - L1)	261.0
Hallway/lobby type (B - L4)	114.0
Hallway/lobby type (B - L7)	111.0
Hallway/lobby type (B - L10)	111.0
Hallway/lobby type (B - L13)	100.0

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building A

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

2. Commitments for Residential flat buildings - Building B

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

3. Commitments for multi-dwelling houses

4. Commitments for single dwelling houses

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

- (i) Water
- (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - Building A

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(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	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	no	-	-	-	-	-	-	-	-	-

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

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(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 1	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
A1302	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no
A1303	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	yes
A508, A610, A710, A810, A910, A1010, A1110, A1203, A1301, A1304, A1305, A1306, A1307	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
A501, A502, A506, A601, A603, A606, A701, A703, A706, A708, A801, A803, A806, A808, A901, A903, A906, A908, A1001, A1003, A1006, A1008, A1101, A1103, A1106, A1108, A1201, A1202, A1204, A1205, A1206, A1207	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

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

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

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
A501	16.0	12.0
A502	46.0	25.0
A503	35.0	13.0
A504	53.0	27.0
A505	59.0	23.0
A507	41.0	19.0
A508	44.0	34.0
A601	46.0	23.0
A602	50.0	19.0
A603	60.0	35.0
A604	52.0	15.0
A606	16.0	11.0
A610	45.0	34.0
A702	37.0	20.0
A703	49.0	35.0
A710	46.0	34.0
A802	37.0	19.0
A803	49.0	34.0
A807	56.0	20.0
A810	47.0	34.0
A901	48.0	23.0
A903	50.0	34.0
A907	57.0	21.0
A910	47.0	33.0
A1104	55.0	14.0
A1201	29.0	35.0
A1202	36.0	21.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
A1203	61.0	34.0
A1204	46.0	18.0
A1206	50.0	15.0
A1207	30.0	28.0
A1301	36.0	36.0
A1302	39.0	23.0
A1303	61.0	36.0
A1304	53.0	23.0
A1305	31.0	15.0
A1306	57.0	18.0
A1307	37.0	28.0
A605, A705	54.0	28.0
A607, A707	55.0	21.0
A608, A708	20.0	11.0
A609, A709	49.0	15.0
A701, A801	47.0	23.0
A704, A804	53.0	15.0
A805, A905	55.0	27.0
A808, A908	21.0	11.0
A809, A909	50.0	14.0
A506, A1205	21.0	12.0
A904, A1004	54.0	15.0
A1001, A1101	49.0	23.0
A1003, A1103	51.0	34.0
A1005, A1105	56.0	27.0
A1006, A1106	18.0	11.0
A1007, A1107	57.0	20.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
A1008, A1108	22.0	11.0
A1009, A1109	51.0	14.0
A1010, A1110	48.0	33.0
A706, A806, A906	17.0	11.0
All other dwellings	38.0	19.0

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Pool (No. 2)	Volume: 12.25 kLs	Location: Building A Pool shaded: no	-
Spa (No. 1)	Volume: 10.5 kLs	Location: Building A Spa shaded: no Spa cover: yes	-

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

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Gym/Lounge (A - L05)	air conditioning system	time clock or BMS controlled	light-emitting diode	daylight sensors	No
Car park area (A - B2)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	No
Car park area (A - B1)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	No
Car park area (A - LG)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	No
Lift car (No.1)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.2)	-	-	light-emitting diode	connected to lift call button	No
Substation (A - LG)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Comms room (A - LG)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Garbage room (A - LG)	ventilation exhaust only	-	light-emitting diode	motion sensors	No
Plant or service rooms (A - B2)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Plant or service room (A - B1)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Water Plant rooms (A - LG)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Gas Meter room (A - L1)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Ground floor lobby type (A - L1)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L5)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L6)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L7)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L8)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L9)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L10)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L11)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L12)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (A - L13)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas instantaneous	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 16
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 16
Pool (No. 2)	Heating source: solar (gas boosted)	Solar collector area (minimum, in square metres): 7.1 Pump controlled by timer: yes

Central energy systems	Type	Specification
Spa (No. 1)	Heating system: electric resistance	Pump controlled by timer: yes

2. Commitments for Residential flat buildings - Building B

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install: (aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and (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	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	no	-	-	-	-	-	-	-	-	-

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

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(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 2	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
B1207, B1307	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no
B103, B203, B303	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	yes
B121, B224, B324	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no
B106, B206, B222, B306, B322	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
B510, B610, B710, B810, B910, B1010, B1110	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	yes
B706, B806, B906, B1006, B1106, B1205, B1206, B1305, B1306	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
B407, B411, B507, B607, B707, B807, B907, B1007, B1107, B1201, B1203, B1208, B1301, B1303, B1308	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
B401, B403, B405, B409, B501, B503, B505, B601, B603, B605, B701, B703, B705, B801, B803, B805, B901, B903, B905, B1001, B1003, B1005, B1101, B1103, B1105	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
B402, B404, B408, B410, B502, B504, B508, B509, B602, B604, B608, B609, B702, B704, B708, B709, B802, B804, B808, B809, B902, B904, B908, B909, B1002, B1004, B1008, B1009, B1102, B1104, B1108, B1109, B1202, B1204, B1302, B1304	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
All other dwellings	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

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

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
B102	19.0	13.0
B103	60.0	34.0
B104	34.0	17.0
B105	26.0	18.0
B106	56.0	36.0
B108	30.0	26.0
B116	31.0	29.0
B119	31.0	15.0
B121	61.0	35.0
B202	19.0	12.0
B203	56.0	34.0
B204	23.0	18.0
B205	20.0	18.0
B206	43.0	35.0
B208	17.0	27.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
B216	19.0	27.0
B218	27.0	33.0
B224	56.0	32.0
B302	20.0	12.0
B303	59.0	33.0
B304	25.0	16.0
B305	21.0	16.0
B306	46.0	33.0
B315	21.0	22.0
B316	20.0	26.0
B318	21.0	31.0
B322	61.0	36.0
B324	58.0	32.0
B402	25.0	32.0
B404	22.0	24.0
B406	23.0	36.0
B407	20.0	36.0
B408	31.0	14.0
B410	56.0	22.0
B504	28.0	17.0
B507	39.0	33.0
B508	53.0	36.0
B510	37.0	35.0
B604	29.0	17.0
B607	40.0	33.0
B704	30.0	17.0
B706	43.0	34.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
B707	41.0	32.0
B708	52.0	32.0
B806	44.0	34.0
B807	41.0	33.0
B808	52.0	31.0
B906	45.0	34.0
B907	42.0	33.0
B1006	45.0	35.0
B1010	40.0	35.0
B1106	46.0	35.0
B1109	23.0	16.0
B1110	40.0	34.0
B1201	24.0	14.0
B1203	17.0	13.0
B1204	29.0	13.0
B1205	30.0	25.0
B1206	43.0	32.0
B1207	52.0	34.0
B1208	52.0	28.0
B1301	38.0	13.0
B1302	43.0	14.0
B1303	31.0	12.0
B1304	40.0	12.0
B1305	43.0	23.0
B1306	51.0	29.0
B1307	61.0	32.0
B1308	60.0	25.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
B221, B223	19.0	17.0
B222, B608	51.0	32.0
B321, B323	20.0	17.0
B502, B804	30.0	16.0
B506, B606	42.0	35.0
B610, B710	38.0	36.0
B810, B910	39.0	35.0
B411, B1108	54.0	30.0
B908, B1008	53.0	31.0
B1007, B1107	43.0	33.0
B1102, B1202	33.0	16.0
B110, B112, B114	31.0	27.0
B115, B117, B118	27.0	22.0
B310, B312, B314	19.0	26.0
B401, B403, B405	23.0	14.0
B802, B902, B1002	32.0	16.0
B210, B212, B214, B308	18.0	27.0
B501, B503, B505, B509	20.0	15.0
B901, B903, B905, B909	22.0	16.0
B101, B107, B109, B111, B113	28.0	24.0
B320, B601, B603, B605, B609, B709	21.0	15.0
B120, B602, B702, B904, B1004, B1104	31.0	16.0
B301, B307, B309, B311, B313, B317, B319	18.0	23.0
B201, B207, B209, B211, B213, B215, B217, B219	17.0	24.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
B220, B701, B703, B705, B801, B803, B805, B809	22.0	15.0
All other dwellings	23.0	15.0

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Pool (No. 1)	Volume: 105.0 kLs	Location: Building B Pool shaded: no	-

(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.		✓	✓

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

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area (B - B2)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	No
Car park area (B - B1)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	No
Car park area (B - LG)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	No
Lift car (No.3)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.4)	-	-	light-emitting diode	connected to lift call button	No
Garbage room (B - LG)	ventilation exhaust only	-	light-emitting diode	motion sensors	No
Plant or service room (B - B2)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Plant or service room (B - B1)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Fire Pump room (B - LG)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Irrigation room (B - LG)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	No
Plant or service room (B - L14)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	No
Ground floor lobby type (B - L1)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L2)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Hallway/lobby type (B - L3)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L4)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L5)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L6)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L7)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L8)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L9)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L10)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L11)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L12)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L13)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No
Hallway/lobby type (B - L14)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	No

Central energy systems	Type	Specification
Central hot water system (No. 2)	gas instantaneous	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 16

Central energy systems	Type	Specification
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 16
Pool (No. 1)	Heating source: solar (gas boosted)	Solar collector area (minimum, in square metres): 59.5 Pump controlled by timer: yes

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

(b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	10000.0	To collect run-off from at least: - 500.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 2090.0 square metres of common landscaped area on the site

(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.	✓	✓	✓

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 65.0 peak kW

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).

Assessor Certificate

Multiple Dwellings

Assessed and issued in accordance with the BASIX
Thermal Comfort Protocol for the Simulation Method



Date:	20 August 2019	BSA File ref:	13436
Assessor			
Name:	Gavin Chambers	Company:	Building Sustainability Assessments
Assessor #:	BDAV/13/1491		
Address:	7 William Street, HAMILTON NSW 2303		
Phone:	(02) 4962 3439	Email:	enquiries@buildingsustainability.net.au
Declaration of interest in the project design:	None		
Project			
Address:	309 King Street NEWCASTLE WEST NSW 2302		
Climate Zone:	15		

Assessment	
Software:	BERS Pro 4.3
	Affix assessor stamp

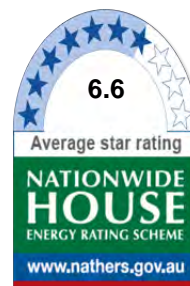
Documentation
All details, upon which this assessment has been based, are included in the project documentation that has been stamped and signed by the Assessor issuing this certificate, as identified below:

Drawings used for this assessment:

(Title, Ref.#, Revision, Issue date, etc)

Fender Katsalidis Job No. 17121 19.08.2019

Thermal Performance Specification (copy on page 2)



Certificate no.: 0004139390
Assessor Name: Gavin Chambers
Accreditation no.: VIC/BDAV/13/1491
Certificate date: 20 August 2019

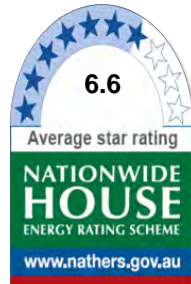
Dwelling Address:
309 King Street
Newcastle West, NSW
2302



www.nathers.gov.au

Attached to the drawings and is on page: 97

Thermal performance specifications					Certificate # 0004139390	Page 1 of 8
Unit No.	Floor Areas		Predict. loads (MJ/M ² /y)		Star Rating	Basix Floor Type and Area m ²
	Cond.	Uncond.	Heat	Cool		
A501	119	0	16	12	8.4	
A502	151	0	46	25	5.8	
A503	101	0	35	13	7.2	
A504	85	0	53	27	5.3	
A505	75	0	59	23	5.2	
A506	112	0	21	12	8.2	
A507	83	0	41	19	6.4	
A508	124	0	44	34	5.4	
A601	154	0	46	23	5.9	
A602	80	0	50	19	5.9	
A603	141	0	60	35	4.7	
A604	89	0	52	15	6.0	
A605	84	0	54	28	5.3	
A606	129	0	16	11	8.4	
A607	79	0	55	21	5.5	



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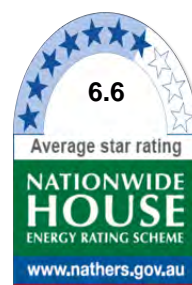
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July 2019		BSA Reference: 13436		
Building Sustainability Assessments		Ph: (02) 4962 3439		
enquiries@buildingsustainability.net.au		www. buildingsustainability.net.au		
Important Note				
The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate and takes precedence over any other specification.				
If different construction elements are applied then the Assessor Certificate is no longer valid.				
Thermal Performance Specifications (does not apply to garage)				
External Wall Construction		Added Insulation		
Concrete + studs + Plasterboard		R2.0		
Internal Wall Construction		Added Insulation		
Plasterboard on studs (internal to units)		none		
75mm AAC + studs + Plasterboard (adjacent to common areas)		R2.0		
Plasterboard + studs + Plasterboard (party walls between units)		R2.0		
Concrete + studs + Plasterboard (adjacent to lift and stair cores)		R2.0		
Ceiling Construction		Added Insulation		
Plasterboard (A1303 & B303 only)		R3.0 to ceilings adjacent to roof and decks above		
Plasterboard (all other units)		R2.0 to ceilings adjacent to roof and decks above		
Roof Construction	Colour	Added Insulation		
Concrete	Any	none		
Floor Construction	Covering	Added Insulation		
Concrete	As drawn	R1.0 to units A603, B106 & B222 Only		
Concrete	As drawn	R2.5 to unit B121 Only		
Windows	Glass and frame type	U Value	SHGC Range	Area sq m
Performance glazing system with the values		2.90	0.30 - 0.36	To the following units
		B222, B224, B324, B510, B608, B610, B708, B710, B808, B810, B908, B910, B1008, B1010, B1108, B1110, B1208 & B1308 Only		
Performance glazing system with the values		4.90	0.30 - 0.36	All other units
Skylights	Glass and frame type			
Double Glazed, areas as noted on plans				
U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower and the SHGC is within the range specified				
External Window Shading		(eaves, verandahs, pergolas, awnings etc)		
All shade elements modelled as drawn				
Ceiling Penetrations		(downlights, exhaust fans, flues etc)		
No adjustment has been made for losses to insulation arising from ceiling penetrations.				

Unit No.	Floor Areas		Predict. loads (MJ/M ² /y)		Star Rating	Basix Floor Type and Area m ²
	Cond.	Uncond.	Heat	Cool		
A608	121	0	20	11	8.2	
A609	83	0	49	15	6.3	
A610	124	0	45	34	5.4	
A701	154	0	47	23	5.9	
A702	80	0	37	20	6.7	
A703	141	0	49	35	5.2	
A704	89	0	53	15	5.9	
A705	84	0	54	28	5.3	
A706	129	0	17	11	8.4	
A707	79	0	55	21	5.4	
A708	121	0	20	11	8.2	
A709	83	0	49	15	6.2	
A710	124	0	46	34	5.4	
A801	154	0	47	23	5.9	
A802	80	0	37	19	6.7	
A803	141	0	49	34	5.2	
A804	89	0	53	15	5.9	
A805	84	0	55	27	5.3	
A806	129	0	17	11	8.4	
A807	79	0	56	20	5.4	
A808	121	0	21	11	8.2	
A809	83	0	50	14	6.2	
A810	124	0	47	34	5.3	
A901	154	0	48	23	5.8	
A902	80	0	38	19	6.6	
A903	141	0	50	34	5.1	
A904	89	0	54	15	5.9	
A905	84	0	55	27	5.3	
A906	129	0	17	11	8.4	
A907	79	0	57	21	5.4	
A908	121	0	21	11	8.2	
A909	83	0	50	14	6.2	
A910	124	0	47	33	5.3	
A1001	154	0	49	23	5.8	
A1002	80	0	38	19	6.6	
A1003	141	0	51	34	5.1	
A1004	89	0	54	15	5.9	
A1005	84	0	56	27	5.2	
A1006	129	0	18	11	8.4	
A1007	79	0	57	20	5.4	
A1008	121	0	22	11	8.1	
A1009	83	0	51	14	6.2	
A1010	124	0	48	33	5.3	
A1101	154	0	49	23	5.8	



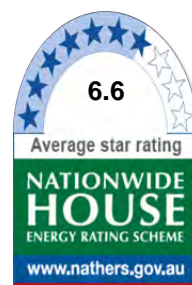
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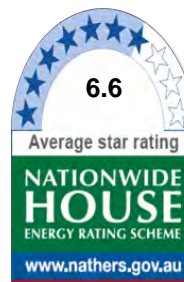
Assessor Certificate			Assessor # BDAV/13/1491			Issued:	20 August 2019
Thermal performance specifications			Certificate # 0004139390			Page 4 of 8	
Unit No.	Floor Areas		Predict. loads (MJ/M ² /y)		Star Rating	Basix Floor Type and Area m ²	
	Cond.	Uncond.	Heat	Cool			
A1102	80	0	38	19	6.6		
A1103	141	0	51	34	5.1		
A1104	89	0	55	14	5.9		
A1105	84	0	56	27	5.2		
A1106	129	0	18	11	8.4		
A1107	79	0	57	20	5.4		
A1108	121	0	22	11	8.1		
A1109	83	0	51	14	6.1		
A1110	124	0	48	33	5.3		
A1201	189	0	29	35	6.2		
A1202	120	0	36	21	6.6		
A1203	173	0	61	34	4.7		
A1204	144	0	46	18	6.2		
A1205	177	0	21	12	8.1		
A1206	129	0	50	15	6.1		
A1207	178	0	30	28	6.4		
A1301	189	0	36	36	5.8		
A1302	120	0	39	23	6.3		
A1303	173	0	61	36	4.5		
A1304	144	0	53	23	5.4		
A1305	177	0	31	15	7.3		
A1306	129	0	57	18	5.6		
A1307	178	0	37	28	6.1		
B101	49	0	28	24	6.9		
B102	49	0	19	13	8.2		
B103	52	7	60	34	4.7		
B104	50	0	34	17	6.9		
B105	50	0	26	18	7.4		
B106	68	0	56	36	4.8		
B107	49	0	28	24	6.9		
B108	37	0	30	26	6.7		
B109	49	0	28	24	6.9		
B110	37	0	31	27	6.6		
B111	49	0	28	24	6.9		
B112	37	0	31	27	6.6		
B113	49	0	28	24	6.9		
B114	37	0	31	27	6.6		
B115	49	0	27	22	7.1		
B116	37	0	31	29	6.4		
B117	49	0	27	22	7.1		
B118	49	0	27	22	7.1		
B119	48	0	31	15	7.3		
B120	48	0	31	16	7.3		
B121	56	7	61	35	4.6		



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Assessor Certificate			Assessor # BDAV/13/1491			Issued:	20 August 2019
Thermal performance specifications			Certificate # 0004139390			Page 5 of 8	
Unit No.	Floor Areas		Predict. loads (MJ/M ² /y)		Star Rating	Basix Floor Type and Area m ²	
	Cond.	Uncond.	Heat	Cool			
B201	49	0	17	24	7.7		
B202	49	0	19	12	8.2		
B203	54	7	56	34	4.9		
B204	50	0	23	18	7.7		
B205	50	0	20	18	7.8		
B206	68	0	43	35	5.4		
B207	49	0	17	24	7.7		
B208	37	0	17	27	7.4		
B209	49	0	17	24	7.7		
B210	37	0	18	27	7.4		
B211	49	0	17	24	7.7		
B212	37	0	18	27	7.4		
B213	49	0	17	24	7.7		
B214	37	0	18	27	7.4		
B215	49	0	17	24	7.7		
B216	37	0	19	27	7.3		
B217	49	0	17	24	7.7		
B218	37	0	27	33	6.4		
B219	49	0	17	24	7.7		
B220	50	0	22	15	7.9		
B221	48	0	19	17	7.9		
B222	54	0	51	32	5.2		
B223	48	0	19	17	7.9		
B224	56	7	56	32	4.9		
B301	49	0	18	23	7.6		
B302	49	0	20	12	8.2		
B303	54	7	59	33	4.8		
B304	50	0	25	16	7.6		
B305	50	0	21	16	7.8		
B306	68	0	46	33	5.4		
B307	49	0	18	23	7.6		
B308	37	0	18	27	7.4		
B309	49	0	18	23	7.6		
B310	37	0	19	26	7.4		
B311	49	0	18	23	7.6		
B312	37	0	19	26	7.4		
B313	49	0	18	23	7.6		
B314	37	0	19	26	7.4		
B315	49	0	21	22	7.4		
B316	37	0	20	26	7.3		
B317	49	0	18	23	7.6		
B318	37	0	21	31	6.9		
B319	49	0	18	23	7.6		
B320	50	0	21	15	7.9		



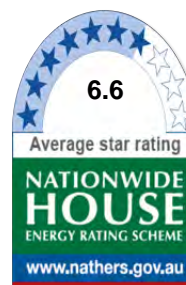
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	Cond.	Uncond.	Heat	Cool		
B321	48	0	20	17	7.9	
B322	54	0	61	36	4.5	
B323	48	0	20	17	7.9	
B324	56	7	58	32	4.9	
B401	91	0	23	14	7.9	
B402	95	0	25	32	6.5	
B403	91	0	23	14	7.9	
B404	93	0	22	24	7.3	
B405	91	0	23	14	7.9	
B406	148	0	23	36	6.4	
B407	145	0	20	36	6.7	
B408	74	0	31	14	7.3	
B409	91	0	23	15	7.9	
B410	71	0	56	22	5.4	
B411	147	0	54	30	5.2	
B501	91	0	20	15	7.9	
B502	84	0	30	16	7.3	
B503	91	0	20	15	7.9	
B504	87	0	28	17	7.3	
B505	91	0	20	15	7.9	
B506	130	0	42	35	5.4	
B507	133	0	39	33	5.8	
B508	109	0	53	36	4.9	
B509	90	0	20	15	7.9	
B510	84	5	37	35	5.8	
B601	91	0	21	15	7.9	
B602	84	0	31	16	7.3	
B603	91	0	21	15	7.9	
B604	87	0	29	17	7.3	
B605	91	0	21	15	7.9	
B606	130	0	42	35	5.4	
B607	133	0	40	33	5.7	
B608	97	0	51	32	5.2	
B609	90	0	21	15	7.9	
B610	84	5	38	36	5.7	
B701	91	0	22	15	7.9	
B702	84	0	31	16	7.2	
B703	91	0	22	15	7.9	
B704	87	0	30	17	7.3	
B705	91	0	22	15	7.9	
B706	130	0	43	34	5.4	
B707	133	0	41	32	5.7	
B708	97	0	52	32	5.2	
B709	90	0	21	15	7.9	

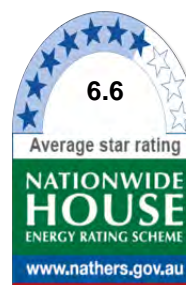


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Assessor Certificate			Assessor # BDAV/13/1491			Issued:	20 August 2019
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Unit No.	Floor Areas		Predict. loads (MJ/M ² /y)		Star Rating	Basix Floor Type and Area m ²	
	Cond.	Uncond.	Heat	Cool			
B710	84	5	38	36	5.7		
B801	91	0	22	15	7.9		
B802	84	0	32	16	7.2		
B803	91	0	22	15	7.9		
B804	87	0	30	16	7.3		
B805	91	0	22	15	7.9		
B806	130	0	44	34	5.4		
B807	133	0	41	33	5.7		
B808	97	0	52	31	5.2		
B809	90	0	22	15	7.9		
B810	84	5	39	35	5.7		
B901	91	0	22	16	7.8		
B902	84	0	32	16	7.2		
B903	91	0	22	16	7.8		
B904	87	0	31	16	7.3		
B905	91	0	22	16	7.8		
B906	130	0	45	34	5.4		
B907	133	0	42	33	5.6		
B908	97	0	53	31	5.2		
B909	90	0	22	16	7.8		
B910	84	5	39	35	5.6		
B1001	91	0	23	15	7.8		
B1002	84	0	32	16	7.2		
B1003	91	0	23	15	7.8		
B1004	87	0	31	16	7.2		
B1005	91	0	23	15	7.8		
B1006	130	0	45	35	5.4		
B1007	133	0	43	33	5.6		
B1008	97	0	53	31	5.1		
B1009	90	0	23	15	7.8		
B1010	84	5	40	35	5.6		
B1101	91	0	23	15	7.8		
B1102	84	0	33	16	7.1		
B1103	91	0	23	15	7.8		
B1104	87	0	31	16	7.2		
B1105	91	0	23	15	7.8		
B1106	130	0	46	35	5.3		
B1107	133	0	43	33	5.5		
B1108	97	0	54	30	5.2		
B1109	90	0	23	16	7.8		
B1110	84	5	40	34	5.7		
B1201	134	0	24	14	7.8		
B1202	84	0	33	16	7.1		
B1203	140	0	17	13	8.3		



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