

Thermal Comfort & BASIX Assessment

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Mirvac Projects Pty Ltd

Proposed Residential Development

To be built at:

2 Fig Tree Drive
SYDNEY OLYMPIC PARK NSW 2127

Issue	File Ref	Description	Author	Date
A	9135	Original Thermal and BASIX Assessment [DRAFT]	MF/TMC/HE	29/7/15
B	9135	Original Thermal and BASIX Assessment [FINAL]	MF	11/8/15
C	16-0109	Update to selected units NatHERS & BASIX	EF	16/3/16

This report has been prepared by Efficient Living Pty Ltd on behalf of our client Mirvac Projects. Efficient Living prepares all reports in accordance with the BASIX Thermal Comfort Protocol and is backed by professional indemnity insurance. This report takes into account our client's instructions and preferred building inclusions.



Prepared for Mirvac Projects Pty Ltd
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Introduction Efficient Living has investigated the estimated thermal comfort, water and energy usage of the proposed development to be built at 2 Fig Tree Drive, Sydney Olympic Park.

Heating and cooling loads for the development have been determined using BERS thermal simulation software. The report is based on the architectural drawings provided by BVN Architects. For further details, refer to the individual BASIX certificates and Efficient Living inclusions summary respectively.

Analysis The BASIX assessment is divided into three sections, each independently measuring the efficiency of the development. These are Water, Thermal Comfort and Energy.

BASIX requires a minimum target of 40% for the Water section. A BERS pass or fail is required for the thermal comfort section and a minimum required target of 20% in the energy section.

Water The proposed development has achieved the BASIX Water target of 40%. The water usage of the development is calculated based on the number and efficiency of permanent fixtures and appliances such as taps, showerheads and toilets, the dish washer and clothes washing machine.

The size of the rain tank and number of connections has a huge impact on your water score as does the area of gardens and lawns and whether or not low water plant species are incorporated.

Thermal comfort Thermal Comfort targets are set by the Department of Planning in the form of heating and cooling caps. The buildings thermal physics is measured using BERS thermal performance assessment tools. This equates an expected level of energy consumption to heat and cool each dwelling per annum expressed in MJ (megajoules) per square meter of floor area.

Each unit has individual heating and cooling caps and a weighted average heating and cooling load for the whole development. The weighted average caps are a lot harder to achieve than the individual unit caps.

Energy The proposed development has achieved the energy target of 20% to pass this section. The energy usage of the development is calculated based on the efficiency of fixed appliances that will be used. This includes the air conditioning system, hot water system, lighting, exhaust fans, cook top, oven, and clothes drying facilities.

Inclusions summary The inclusions as outlined in the table below have been incorporated in each unit to allow them to reach their environmental sustainability targets.

Thermal comfort Average heating loads are 11% below all allowable BASIX targets
Average cooling loads are 65% below all allowable BASIX targets

Glazing doors/windows Aluminium framed single clear glazing:
U-Value: **6.57** (equal to or lower than) SHGC: **0.74** ($\pm 10\%$)
Aluminium framed Low-E clear glazing to units, East: 4.10, 6.10, 7.10, 9.10, 10.10, 11.10, 13.10, 15.11, South: 1.03, 10.01, 10.02, 10.03, West: 11.12
U-Value: **4.70** (equal to or lower than) SHGC: **0.63** ($\pm 10\%$)
Given values are NFRC, total window values
Minimum 10% sash operability to facades and 45% operability to balconies
Awning windows consist of one fixed panel and one operable panel from 1200mm (window sill) to 2700mm, in alignment with opening restrictions.
Fixed perforated screens to provide shading and privacy to selected areas of all facades of building North
Winter gardens are not included in the conditioned areas of the apartments

Roof Concrete roof
No insulation
Light colour (SA < 0.475)

Ceiling Plasterboard ceilings, R2.0 insulation affixed to underside of slab where roof above
Plasterboard ceilings, no insulation where neighbouring units are above except R1.1 bulk insulation where a balcony is above
Note: Loss of ceiling insulation due to penetrations from down lights has not been accounted for as allowances in ceiling heights have been made to ensure that any proposed downlights will not affect the insulation zone

External wall Brick veneer, R2.0 insulation, plasterboard lining
90mm concrete block veneer, R2.0 insulation, plasterboard lining
Metal cladding fixed to 90mm concrete block, R2.0 insulation, plasterboard lining
Metal clad sections on lightweight frame, R2.0 insulation, plasterboard lining
Locations as per elevations

	<p>All external walls to have R2.0 bulk insulation except R2.5 to units, East: 4.10, 5.10, 6.10, 7.10, 8.10, 9.10, 10.10, 11.10, 13.10, 15.11, South: 1.03, 7.03, 8.03, 9.03, 10.01, 10.02, 10.03, West: 11.01, 11.12</p> <p>Default colour modelled</p>
Inter tenancy walls	<p>Between units – 75mm Hebel power panel, no insulation</p> <p>Adjacent to hallways – 75mm Hebel power panel, R1.2 insulation to all units and R1.7 to units, East: 3.10, 4.10, 5.10, 6.10, 7.10, 8.10, 9.10, 10.10, 11.10, 13.10, 15.11, South: 4.03, 5.03, 6.03, 7.03, 8.03, 9.03, 10.01, 10.02, 10.03, West: 11.01, 11.12</p> <p>Adjacent to lift shafts and stairs – 100mm insitu concrete, no insulation</p>
Walls within dwellings	Plasterboard on studs, no insulation
Floors	<p>Concrete with no insulation where units or retail are below</p> <p>R1.0 bulk insulation to units directly above enclosed carpark</p> <p>Carpet to bedrooms and living areas, tiles to wet areas and kitchens</p>
BASIX water inclusions	Score 61/40
Fixtures within units	<p>Showerheads: High flow (>7.5L but ≤9 L/min)</p> <p>Toilets: 4.0 star</p> <p>Kitchen taps: 4.0 star</p> <p>Bathroom vanity taps: 5.0 star</p>
Appliances within units	<p>Dishwashers:</p> <p>4.5 star to 1 bedroom units</p> <p>5.0 star to 2 bedroom units</p> <p>5.5 star to 3 bedroom units</p>
Central rainwater storage	<p>Tank size 10,000L</p> <p>Collecting from 500m² of non-trafficable roof</p> <p>Connected to irrigation of all common area landscaping</p>
Reticulated water supply	Sydney Olympic Park Authority, connected to 1 car wash bay and fire sprinkler systems, all toilets within units and all washing machine connections within units



BASIX energy inclusions Score 22/20

Central hot water system Central gas instantaneous
R0.75 (~32mm) insulation to ring main and supply risers

Lift motors All lifts to have gearless traction with VVVF motor

Appliances & other efficiency measures within units Gas cooktop & electric oven
Dishwashers: 3.5 star
Clothes dryers: 2.0 star

Heating & cooling within units All units to have individual, single phase, reverse cycle air conditioning to living areas and bedrooms
An EER or COP of 3.0 – 3.5 in both heating and cooling mode
Day / night zoning has been nominated

Artificial lighting within units At least 80% of all light fittings within each room are to have fluorescent or LED globes in all bathrooms, laundries, hallways and bedrooms. No efficient lighting requirements to kitchens or living spaces.
Please note: The BASIX tools does not allow entry of LED's without an alternative assessment. LED's, if requested will be grouped under the fluorescent selection.

Ventilation within units Bathrooms – Motorised damper into central duct & VSD – interlocked to light
Laundries – Motorised damper into central duct & VSD – interlocked to light
Kitchen range hood – Individual fan, not ducted – manual on/off switch

Artificial Lighting to common areas Car park – Fluorescent lights with zoned switching and motion sensors
Lifts – LED lights connected to lift call button
Service rooms – Fluorescent lights with manual on / manual off switch
Garbage rooms – Fluorescent lights with motion sensors
Plant or service rooms – Fluorescent lights with manual on / manual off switch
Community room – Compact fluorescent lights with manual on / manual off switch
Bicycle storage area – Fluorescent lights with motion sensors
Ground floor lobbies – LEDs to remain on continuously
Hallways – LEDs with zoned switching and motion sensors



Ventilation
to common areas

Car park – Supply & exhaust air with a carbon monoxide monitor & VSD fan

Service rooms – Supply air, thermostatically controlled

Garbage rooms – Exhaust air, running continuously

Plant or service rooms – Supply air, running continuously

Community room – Air conditioning system, time clock or BMS controlled

Bicycle storage area – Low level supply air, running continuously

Ground floor lobbies – No mechanical ventilation, naturally ventilated

Hallways – No mechanical ventilation, naturally ventilated

(Please Note: All air-conditioned common areas must comply with NCC, NSW sub-section Ja glazing and insulation requirements. Independent reports should be requested prior to CC if relevant).

Alternative energy

None required

Documents referenced

BVN Architects: Project No. S1502006. Drawings: DA-2101, DA-2102, DA-2103, DA-2104, DA-2105, DA-2106, DA-2107, DA-2108, DA-2109, DA-2110, DA-2111, DA-2112, DA-2113, DA-2114, DA-2115, DA-2116, DA-2117, DA-2118, DA-2119, DA-3000, DA-3001, DA-3002, DA-3003, DA-3100, DA-3101

Report contact

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Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280					Accreditation #			VIC/BDAV/12/1473	
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				

North Building

1.01	2	80	0	64	21	4	0	No	None
1.02	2	72	0	52	29	4	0	No	None
1.03	2	72	0	41	15	5.5	0	No	None
1.04	2	72	0	44	15	5	0	No	None
1.06	2	72	0	31	46	4	0	No	None
1.07	2	80	0	48	22	4.5	0	No	None
2.01	2	80	0	43	19	5	0	No	None
2.02	2	72	0	44	41	4	0	No	None
2.03	2	72	0	29	17	6	0	No	None
2.04	2	72	0	32	17	6	0	No	None
2.06	2	72	0	25	43	4.5	0	No	None
2.07	2	80	0	37	21	5.5	0	No	None
3.01	2	80	0	49	12	5	0	No	None
3.02	2	72	0	46	17	5	0	No	None
3.03	2	72	0	40	12	5.5	0	No	None
3.04	2	72	0	40	12	5.5	0	No	None
3.06	2	72	0	32	29	5	0	No	None
3.07	2	80	0	49	12	5	0	No	None
4.01	2	80	0	57	12	4.5	0	No	None
4.02	2	72	0	46	17	5	0	No	None
4.03	2	72	0	37	11	6	0	No	None
4.04	2	72	0	41	11	5.5	0	No	None
4.06	2	72	0	32	31	5	0	No	None
4.07	2	80	0	49	13	5	0	No	None
5.01	2	80	0	62	15	4	0	No	None
5.02	2	72	0	66	13	4	0	No	None
5.03	2	72	0	51	10	5	0	No	None
5.04	2	72	0	54	11	5	0	No	None
5.06	2	72	0	46	32	4	0	No	None
5.07	2	80	0	64	13	4	0	No	None

East Building

1.01	2	82	0	35	19	5.5	0	No	None
1.02	2	73	0	36	21	5.5	0	No	None
1.04	1	47	0	38	19	5.5	0	No	None
1.05	1	47	0	41	20	5	0	No	None

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Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
1.06	1	47	0	37	20	5.5	0	No	None
1.07	1	47	0	35	20	5.5	0	No	None
1.08	2	75	0	22	32	5.5	0	No	None
1.09	3	97	0	32	36	4.5	0	No	None
1.10	2	72	0	52	19	4.5	0	No	None
1.11	2	72	0	52	19	4.5	0	No	None
1.12	3	95	0	52	17	4.5	0	No	None
2.01	2	82	0	26	22	6	0	No	None
2.02	2	73	0	29	27	5.5	0	No	None
2.04	1	47	0	37	20	5.5	0	No	None
2.05	1	47	0	35	20	5.5	0	No	None
2.06	1	47	0	36	20	5.5	0	No	None
2.07	1	47	0	34	20	5.5	0	No	None
2.08	2	75	0	24	35	5	0	No	None
2.09	3	97	0	36	52	4	0	Yes	None
2.10	2	72	0	58	19	4	0	No	None
2.11	2	72	0	50	21	4.5	0	No	None
2.12	3	95	0	47	17	5	0	No	None
3.01	2	82	0	31	15	6	0	No	None
3.02	1	48	0	34	14	6	0	No	None
3.03	1	48	0	36	14	6	0	No	None
3.04	1	47	0	42	11	5.5	0	No	None
3.05	1	47	0	39	11	6	0	No	None
3.06	1	47	0	41	11	5.5	0	No	None
3.07	2	47	0	41	11	5.5	0	No	None
3.08	1	75	0	33	18	6	0	No	None
3.09	3	97	0	46	23	4.5	0	Yes	None
3.10	2	72	0	64	13	4	0	No	R1.7 walls to halls
3.11	2	72	0	56	13	4.5	0	No	None
3.12	3	95	0	54	11	5	0	No	None
4.01	2	82	0	31	15	6	0	No	None
4.02	1	48	0	32	14	6	0	No	None
4.03	1	48	0	35	13	6	0	No	None
4.04	1	47	0	42	11	5.5	0	No	None
4.05	1	47	0	38	11	6	0	No	None
4.06	1	47	0	40	11	6	0	No	None

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Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
4.07	1	47	0	40	11	6	0	No	None
4.08	2	75	0	33	18	5.5	0	No	None
4.09	3	97	0	48	25	4.5	0	Yes	None
4.10	2	72	0	61	12	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen
4.11	2	72	0	60	13	4.5	0	No	None
4.12	3	95	0	56	11	4.5	0	No	None
5.01	2	82	0	34	14	6	0	No	None
5.02	1	48	0	33	13	6	0	No	None
5.03	1	48	0	35	13	6	0	No	None
5.04	1	47	0	42	11	5.5	0	No	None
5.05	1	47	0	38	11	6	0	No	None
5.06	1	47	0	40	11	6	0	No	None
5.07	1	47	0	40	11	6	0	No	None
5.08	2	75	0	34	17	5.5	0	No	None
5.09	3	97	0	49	25	4.5	0	Yes	None
5.10	2	72	0	64	12	4	0	No	R1.7 wall to hall R2.5 to external walls
5.11	2	72	0	56	13	4.5	0	No	None
5.12	3	95	0	53	13	4.5	0	No	None
6.01	2	82	0	32	14	6	0	No	None
6.02	1	48	0	33	13	6	0	No	None
6.03	1	48	0	35	13	6	0	No	None
6.04	1	47	0	42	11	5.5	0	No	None
6.05	1	47	0	38	11	6	0	No	None
6.06	1	47	0	40	11	6	0	No	None
6.07	1	47	0	40	11	6	0	No	None
6.08	2	75	0	34	17	5.5	0	No	None
6.09	3	97	0	49	24	4.5	0	No	None
6.10	2	72	0	61	11	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen
6.11	2	72	0	61	13	4.5	0	No	None
6.12	3	95	0	54	14	4.5	0	No	None
7.01	2	82	0	32	14	6	0	No	None
7.02	1	48	0	33	13	6	0	No	None

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Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
7.03	1	47	0	39	11	6	0	No	None
7.04	1	47	0	43	11	5.5	0	No	None
7.05	1	47	0	39	11	6	0	No	None
7.06	1	47	0	41	11	5.5	0	No	None
7.07	1	47	0	41	11	5.5	0	No	None
7.08	2	75	0	30	16	6	0	No	None
7.09	3	97	0	49	24	4.5	0	No	None
7.10	2	72	0	62	11	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen
7.11	2	72	0	57	12	4.5	0	No	None
7.12	3	95	0	56	13	4.5	0	No	None
8.01	2	82	0	32	15	6	0	No	None
8.02	1	48	0	34	13	6	0	No	None
8.03	1	48	0	36	13	6	0	No	None
8.04	1	47	0	43	11	5.5	0	No	None
8.05	1	47	0	39	11	6	0	No	None
8.06	1	47	0	41	11	5.5	0	No	None
8.07	1	47	0	41	11	5.5	0	No	None
8.08	2	75	0	35	17	5.5	0	No	None
8.09	3	97	0	50	24	4.5	0	No	None
8.10	2	72	0	62	11	4.5	0	No	R.17 walls to hall R2.5 to external walls
8.11	2	72	0	62	12	4.5	0	No	None
8.12	3	95	0	54	14	4.5	0	No	None
9.01	2	82	0	32	15	6	0	No	None
9.02	1	48	0	34	13	6	0	No	None
9.03	1	48	0	36	13	6	0	No	None
9.04	1	47	0	44	11	5.5	0	No	None
9.05	1	47	0	39	11	6	0	No	None
9.06	1	47	0	41	11	5.5	0	No	None
9.07	1	47	0	41	11	5.5	0	No	None
9.08	2	75	0	31	16	6	0	No	None
9.09	3	97	0	50	23	4.5	0	No	None
9.10	2	72	0	62	11	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen

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Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
9.11	2	72	0	58	12	4.5	0	No	None
9.12	3	95	0	55	13	4.5	0	No	None
10.01	2	82	0	33	14	6	0	No	None
10.02	1	48	0	36	12	6	0	No	None
10.03	1	48	0	39	13	5.5	0	No	None
10.04	1	47	0	46	10	5.5	0	No	None
10.05	1	47	0	41	10	5.5	0	No	None
10.06	1	47	0	43	10	5.5	0	No	None
10.07	1	47	0	43	10	5.5	0	No	None
10.08	2	75	0	37	15	5.5	0	No	None
10.09	3	97	0	50	23	4.5	0	No	None
10.10	2	72	0	61	8	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen
10.11	2	72	0	60	10	4.5	0	No	None
10.12	3	95	0	57	12	4.5	0	No	None
11.01	2	82	0	33	14	6	0	No	None
11.02	1	48	0	36	12	6	0	No	None
11.03	1	48	0	39	13	5.5	0	No	None
11.04	1	47	0	46	10	5.5	0	No	None
11.05	1	47	0	41	10	5.5	0	No	None
11.06	1	47	0	43	10	5.5	0	No	None
11.07	1	47	0	43	10	5.5	0	No	None
11.08	2	75	0	37	15	5.5	0	No	None
11.09	3	97	0	52	21	4.5	0	No	None
11.10	2	72	0	63	11	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen
11.11	2	72	0	64	10	4.5	0	No	None
11.12	3	95	0	57	12	4.5	0	No	None
12.01	2	82	0	33	14	6	0	No	None
12.02	1	48	0	36	12	6	0	No	None
12.03	1	48	0	39	13	5.5	0	No	None
12.04	1	47	0	46	10	5.5	0	No	None
12.05	1	47	0	42	10	5.5	0	No	None
12.06	1	47	0	43	10	5.5	0	No	None
12.07	1	47	0	48	10	5.5	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
12.08	2	75	0	37	15	5.5	0	No	None
12.09	3	97	0	52	21	4.5	0	No	None
12.10	2	72	0	61	8	4.5	0	No	None
12.11	2	72	0	64	10	4.5	0	No	None
12.12	3	95	0	58	12	4.5	0	No	None
13.01	2	82	0	33	14	6	0	No	None
13.02	1	48	0	36	12	6	0	No	None
13.03	1	48	0	39	13	5.5	0	No	None
13.04	1	47	0	46	10	5.5	0	No	None
13.05	1	47	0	42	10	5.5	0	No	None
13.06	3	102	0	43	10	5.5	0	No	None
13.08	2	75	0	39	16	5.5	0	No	None
13.09	3	97	0	52	21	4.5	0	No	None
13.10	2	72	0	63	11	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen
13.11	2	72	0	60	10	4.5	0	No	None
13.12	3	95	0	58	12	4.5	0	No	None
14.01	2	82	0	34	14	6	0	No	None
14.02	1	48	0	36	12	6	0	No	None
14.03	1	48	0	39	13	5.5	0	No	None
14.04	1	47	0	47	10	5.5	0	No	None
14.05	1	47	0	42	10	5.5	0	No	None
14.06	3	102	0	43	10	5.5	0	No	None
14.08	2	75	0	33	15	6	0	No	None
14.09	3	97	0	52	21	4.5	0	No	None
14.10	2	72	0	63	11	4.5	0	No	None
14.11	2	72	0	65	11	4	0	No	None
14.12	3	95	0	58	12	4.5	0	No	None
15.01	2	82	0	48	14	5	0	No	None
15.02	1	48	0	49	11	5	0	No	None
15.03	1	48	0	51	11	5	0	No	None
15.04	1	47	0	59	10	4.5	0	No	None
15.05	1	47	0	55	10	5	0	No	None
15.07	3	102	0	40	11	6	0	No	None
15.08	2	75	0	33	15	6	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #				VIC/BDAV/12/1473	
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
15.09	3	97	0	63	20	4	0	No	None
15.10	2	72	0	66	8	4.5	0	No	None
15.11	2	72	0	63	9	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen
15.12	3	95	0	64	13	4	0	No	None

South Building

1.02	2	72	0	53	20	4.5	0	No	None
1.03	2	72	0	65	15	4	0	No	R2.5 to external walls Low-e glazing to living only
1.04	2	74	0	63	24	4	0	No	None
1.05	2	72	0	38	17	5.5	0	No	None
1.06	1	48	0	47	21	4.5	0	No	None
1.07	1	48	0	48	20	4.5	0	No	None
1.08	2	72	0	44	14	5.5	0	No	None
2.01	2	72	0	63	24	4	0	No	None
2.02	2	72	0	46	23	4.5	0	No	None
2.03	2	72	0	59	22	4	0	No	None
2.04	2	74	0	49	29	4	0	No	None
2.05	2	72	0	27	21	6	0	No	None
2.06	1	48	0	29	22	6	0	No	None
2.07	1	48	0	36	25	5	0	No	None
2.08	1	48	0	50	27	4	0	No	None
2.09	1	48	0	49	24	4.5	0	No	None
2.10	3	106	0	46	13	5	0	No	None
3.01	2	72	0	57	16	4.5	0	No	None
3.02	2	72	0	52	14	4.5	0	No	None
3.03	2	72	0	65	13	4	0	No	None
3.04	2	74	0	56	19	4	0	No	None
3.05	2	72	0	32	12	6.5	0	No	None
3.06	1	47	0	30	16	6	0	No	None
3.07	1	48	0	40	16	5.5	0	No	None
3.08	2	72	0	48	10	5	0	No	None
3.09	1	48	0	39	17	5.5	0	No	None
3.10	3	106	0	29	15	6.5	0	No	None
4.01	2	72	0	53	18	4.5	0	No	None
4.02	2	72	0	53	16	4.5	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
4.03	2	72	0	66	16	4	0	No	R1.7 wall to halls
4.04	2	74	0	56	19	4	0	No	None
4.05	2	72	0	32	12	6.5	0	No	None
4.06	1	47	0	30	15	6	0	No	None
4.07	1	48	0	41	15	5.5	0	No	None
4.08	2	72	0	49	10	5	0	No	None
4.09	1	48	0	39	17	5.5	0	No	None
4.10	3	106	0	29	15	6.5	0	No	None
5.01	2	72	0	58	15	4.5	0	No	None
5.02	2	72	0	53	16	4.5	0	No	None
5.03	2	72	0	64	13	4	0	No	R1.7 wall to halls
5.04	2	74	0	57	19	4	0	No	None
5.05	2	72	0	33	13	6	0	No	None
5.06	1	47	0	30	15	6	0	No	None
5.07	1	48	0	41	15	5.5	0	No	None
5.08	2	72	0	49	10	5	0	No	None
5.09	1	48	0	39	17	5.5	0	No	None
5.10	3	106	0	29	15	6.5	0	No	None
6.01	2	72	0	54	17	4.5	0	No	None
6.02	2	72	0	56	14	4.5	0	No	None
6.03	2	72	0	66	14	4	0	No	R1.7 wall to halls
6.04	2	74	0	57	19	4	0	No	None
6.05	2	72	0	33	13	6	0	No	None
6.06	1	47	0	30	15	6	0	No	None
6.07	1	48	0	41	15	5.5	0	No	None
6.08	2	72	0	49	10	5	0	No	None
6.09	1	48	0	40	16	5.5	0	No	None
6.10	3	106	0	29	15	6.5	0	No	None
7.01	2	72	0	54	17	4.5	0	No	None
7.02	2	72	0	55	14	4.5	0	No	None
7.03	2	72	0	66	14	4	0	No	R1.7 walls to halls R2.5 to external walls
7.04	2	74	0	56	19	4	0	No	None
7.05	2	72	0	33	13	6	0	No	None
7.06	1	47	0	31	16	6	0	No	None
7.07	1	48	0	42	15	5.5	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #			VIC/BDV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
7.08	2	72	0	49	10	5	0	No	None
7.09	1	48	0	40	16	5.5	0	No	None
7.10	3	106	0	29	15	6.5	0	No	None
8.01	2	72	0	58	15	4.5	0	No	None
8.02	2	72	0	57	14	4.5	0	No	None
8.03	2	72	0	66	14	4	0	No	R1.7 walls to halls R2.5 to external walls
8.04	2	74	0	56	19	4	0	No	None
8.05	2	72	0	32	13	6.5	0	No	None
8.06	1	47	0	31	16	6	0	No	None
8.07	1	48	0	42	15	5.5	0	No	None
8.08	2	72	0	48	11	5	0	No	None
8.09	1	48	0	40	16	5.5	0	No	None
8.10	3	106	0	28	15	6.5	0	No	None
9.01	2	72	0	55	17	4.5	0	No	None
9.02	2	72	0	55	14	4.5	0	No	None
9.03	2	72	0	66	14	4	0	No	R1.7 walls to halls R2.5 to external walls
9.04	2	74	0	56	19	4	0	No	None
9.05	2	72	0	31	13	6.5	0	No	None
9.06	1	47	0	31	16	6	0	No	None
9.07	1	48	0	42	15	5.5	0	No	None
9.08	2	72	0	48	11	5	0	No	None
9.09	1	48	0	40	16	5.5	0	No	None
9.10	3	106	0	28	15	6.5	0	No	None
10.01	2	72	0	61	15	4	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen sliding door
10.02	2	72	0	62	13	4.5	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living/kitchen sliding door
10.03	2	72	0	65	12	4	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing throughout
10.04	2	74	0	66	19	4	0	No	None
10.05	2	72	0	38	13	6	0	No	None
10.06	1	47	0	44	15	5	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M²)		Predict. loads (MJ/M²/y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
10.07	1	48	0	54	14	4.5	0	No	None
10.08	2	72	0	59	11	4.5	0	No	None
10.09	1	48	0	56	14	4.5	0	No	None
10.10	3	106	0	37	15	5.5	0	No	None

West Building									None
1.09	1	52	0	54	23	4	0	No	None
1.10	2	73	0	44	20	5	0	No	None
1.11	2	72	0	49	20	4.5	0	No	None
2.01	2	74	0	58	18	4	0	No	None
2.02	2	71	0	36	26	5	0	No	None
2.03	1	47	0	44	15	5	0	No	None
2.04	1	47	0	44	15	5	0	No	None
2.05	1	47	0	44	15	5	0	No	None
2.06	1	47	0	44	15	5	0	No	None
2.07	1	54	0	41	29	4.5	0	No	None
2.08	2	77	0	26	26	5.5	0	No	None
2.09	1	52	0	36	27	5	0	No	None
2.10	2	73	0	28	23	5.5	0	No	None
2.11	2	71	0	50	35	4	0	No	None
3.01	2	74	0	52	13	5	0	No	None
3.02	2	71	0	30	17	6	0	No	None
3.03	1	47	0	36	10	6	0	No	None
3.04	1	47	0	38	10	6	0	No	None
3.05	1	47	0	38	10	6	0	No	None
3.06	1	47	0	38	10	6	0	No	None
3.07	1	54	0	36	19	5.5	0	No	None
3.08	2	77	0	24	18	6.5	0	No	None
3.09	2	73	0	42	13	5.5	0	No	None
3.10	2	73	0	31	14	6	0	No	None
3.11	2	74	0	50	20	4.5	0	No	None
3.12	2	73	0	56	11	4.5	0	No	None
4.01	2	74	0	52	12	5	0	No	None
4.02	2	71	0	32	17	6	0	No	None
4.03	1	47	0	37	9	6	0	No	None
4.04	1	47	0	39	9	6	0	No	None
4.05	1	47	0	39	9	6	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
4.06	1	47	0	41	10	5.5	0	No	None
4.07	1	54	0	37	19	5.5	0	No	None
4.08	2	77	0	24	18	6.5	0	No	None
4.09	2	73	0	37	13	6	0	No	None
4.10	2	73	0	35	14	6	0	No	None
4.11	2	74	0	50	20	4.5	0	No	None
4.12	2	73	0	57	11	4.5	0	No	None
5.01	2	74	0	53	13	5	0	No	None
5.02	2	71	0	32	17	6	0	No	None
5.03	1	47	0	37	9	6	0	No	None
5.04	1	47	0	39	9	6	0	No	None
5.05	1	47	0	39	9	6	0	No	None
5.06	1	47	0	41	10	5.5	0	No	None
5.07	1	54	0	37	19	5.5	0	No	None
5.08	2	77	0	25	17	6.5	0	No	None
5.09	2	73	0	34	13	6	0	No	None
5.10	2	73	0	35	15	6	0	No	None
5.11	2	74	0	51	19	4.5	0	No	None
5.12	2	73	0	57	11	4.5	0	No	None
6.01	2	74	0	53	13	5	0	No	None
6.02	2	71	0	31	16	6	0	No	None
6.03	1	47	0	37	9	6	0	No	None
6.04	1	47	0	39	9	6	0	No	None
6.05	1	47	0	39	9	6	0	No	None
6.06	1	47	0	41	10	5.5	0	No	None
6.07	1	54	0	37	19	5.5	0	No	None
6.08	2	77	0	25	17	6.5	0	No	None
6.09	2	73	0	34	13	6	0	No	None
6.10	2	73	0	36	14	6	0	No	None
6.11	2	74	0	51	19	4.5	0	No	None
6.12	2	73	0	58	11	4.5	0	No	None
7.01	2	74	0	54	13	4.5	0	No	None
7.02	2	71	0	33	16	6	0	No	None
7.03	1	47	0	38	9	6	0	No	None
7.04	1	47	0	40	9	6	0	No	None
7.05	1	47	0	40	9	6	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
7.06	1	47	0	42	10	5.5	0	No	None
7.07	1	54	0	39	18	5.5	0	No	None
7.08	2	77	0	25	17	6.5	0	No	None
7.09	2	73	0	34	13	6	0	No	None
7.10	2	73	0	36	14	6	0	No	None
7.11	2	74	0	52	18	4.5	0	No	None
7.12	2	73	0	58	11	4.5	0	No	None
8.01	2	74	0	54	12	4.5	0	No	None
8.02	2	71	0	31	15	6	0	No	None
8.03	1	47	0	38	9	6	0	No	None
8.04	1	47	0	40	9	6	0	No	None
8.05	1	47	0	40	9	6	0	No	None
8.06	1	47	0	42	10	5.5	0	No	None
8.07	1	54	0	39	18	5.5	0	No	None
8.08	2	77	0	26	16	6.5	0	No	None
8.09	2	73	0	35	13	6	0	No	None
8.10	2	73	0	36	14	6	0	No	None
8.11	2	74	0	52	18	4.5	0	No	None
8.12	2	73	0	58	11	4.5	0	No	None
9.01	2	74	0	54	12	4.5	0	No	None
9.02	2	71	0	34	16	5.5	0	No	None
9.03	1	47	0	38	9	6	0	No	None
9.04	1	47	0	40	9	6	0	No	None
9.05	1	47	0	40	9	6	0	No	None
9.06	1	47	0	44	10	5.5	0	No	None
9.07	1	54	0	39	18	5.5	0	No	None
9.08	2	77	0	26	16	6.5	0	No	None
9.09	2	73	0	35	13	6	0	No	None
9.10	2	73	0	36	14	6	0	No	None
9.11	2	74	0	53	18	4.5	0	No	None
9.12	2	73	0	59	10	4.5	0	No	None
10.01	2	74	0	56	10	4.5	0	No	None
10.02	2	71	0	33	13	6	0	No	None
10.03	1	47	0	41	9	6	0	No	None
10.04	1	47	0	42	9	6	0	No	None
10.05	3	101	0	45	7	5.5	0	No	None

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate # 14733280				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
10.07	1	54	0	45	16	5	0	No	None
10.08	2	77	0	27	16	6.5	0	No	None
10.09	2	73	0	37	11	6	0	No	None
10.10	2	73	0	38	13	6	0	No	None
10.11	2	74	0	54	15	4.5	0	No	None
10.12	2	73	0	60	9	4.5	0	No	None
11.01	2	74	0	65	12	4	0	No	R1.7 walls to halls R2.5 to external walls
11.02	2	71	0	46	14	5	0	No	None
11.03	1	47	0	44	10	5.5	0	No	None
11.04	1	47	0	55	9	5	0	No	None
11.05	3	101	0	48	10	5.5	0	No	None
11.07	1	54	0	54	14	4.5	0	No	None
11.08	2	77	0	36	15	6	0	No	None
11.09	2	73	0	49	12	5	0	No	None
11.10	2	73	0	49	12	5	0	No	None
11.11	2	74	0	66	17	4	0	No	None
11.12	2	73	0	66	11	4	0	No	R1.7 walls to halls R2.5 to external walls Low-e glazing to living sliding door



NatHERS Certificate

New Dwelling



5.0 Stars

Simulation Software

Software Name BERS Pro 4.2
Software Version Release 110811/A
Engine Version CHENATH V2.13

Simulation Details

Project Name I-40- Unit N4.07_1
Date 27/07/2015
Location HOMEBUSH BAY PC 2127
Climate file climat56.TXT
Adjusted Star Rating 5.0 Stars
Conditioned Area 80.22 m²
Unconditioned Area 0.00 m²
Adjusted Cooling 12.5 MJ/m²
Adjusted Heating 49.0 MJ/m²
Adjusted Total 61.4 MJ/m²

Dwelling Address



DP Number 787402
Unit Number N407
Lot Number 22
House Number 2
Street Name Figtree Drive
Development Name Site 53 - Figtree Drive, Sydney Olympic Park
Suburb Sydney Olympic Park NSW 2127

Client Details

Name Mirvac Design Pty Ltd
Phone 02 9080 8937 Fax 02 9080 8181
Email
Postal Address Level 26, 60 Margaret Street, Sydney NSW 2000
Street Details Level 26, 60 Margaret Street, Sydney NSW 2000

Assessor Details

Name Tracey Cools
Phone 02 9970 6181 Fax 02 9970 6181
Email admin@efficientliving.com.au
Postal Address
Street Details 13/13 Lagoon Street, Narrabeen NSW 2101

		Energy Rating		Certificate Number <u>14733280</u>	
<input type="checkbox"/>	single-dwelling rating			5.0 stars	
<input checked="" type="checkbox"/>	multi-unit development (attach listing of ratings)			heating	45 MJ/m ²
<small>If selected, data specified is the average across the entire development</small>				cooling	15 MJ/m ²
Recessed downlights confirmation:		<input checked="" type="checkbox"/> Rated with	<input type="checkbox"/> Rated without		
Assessor Name/Number		<u>Tracey Cools VIC/BDAV/12/1473</u>			
Assessor Signature				Date	<u>16/3/16</u>

Signed by the Assessor..........Date.....16/3/2016.....

*Tilted roof windows with blinds cannot be modelled using this version of BERSPro.
All windows are modelled with Holland Blinds for regulatory purposes.*

Building Element Details

Project I-40- Unit N4.07 Run 1
HOMEBUSH BAY PC 2127 Lat -33.90 Long 151.10 Climate File climat56.TXT

Summary
Conditioned Area 80.2 m²
Unconditioned Area 0.0 m²
Total Floor Area 80.2 m²
Total Glazed Area 25.9 m²
Total External Solid door Area 1.7 m²
Glass to Floor Area 32.3 %
Gross External Wall Area 103.7 m²
Net External Wall Area 76.0 m²

Window
25.9 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74
Glass Single Glazed Clear
Frame Aluminium


External Wall
34.3 m² Brick Veneer Bulk Insulation R 2.0
0.3 m² Concrete block, lined Bulk Insulation R 2.0
10.7 m² PowerPanel Bulk Insulation R 1.2
17.6 m² PowerPanel to neighbour No Insulation
13.2 m² Tilt up concrete, lined No Insulation

Internal Wall
56.4 m² Cavity Panel 70mm gap No Insulation

External Floor
43.3 m² Concrete Slab, Unit Below 80/20 Carpet 10mm/Ceramic No Insulation
28.1 m² Concrete Slab, Unit Below Carpet 10mm No Insulation
8.8 m² Concrete Slab, Unit Below Ceramic Tiles 8mm No Insulation

External Ceiling
80.2 m² Plasterboard No Insulation Apartment above

Roof (Horizontal area)
80.2 m² Concrete No Insulation, Only an Air Gap 0° slope Skillion roof



Energy Rating

Certificate Number 14733280

☐ single-dwelling rating

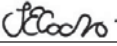
☒ multi-unit development (attach listing of ratings)
If selected, data specified is the average across the entire development

heating 45 MJ/m²

cooling 15 MJ/m²

Recessed downlights confirmation: ☒ Rated with ☐ Rated without

Assessor Name/Number Tracey Cools VIC/BDAV/12/1473

Assessor Signature  Date 16/3/16

BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 650643M_04

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 18/09/2014 published by the Department. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number 650643M_03 lodged with the consent authority or certifier on 24 September 2015 with application SSD 7033.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environmental Planning and Assessment Regulation 2000

Secretary

Date of issue: Wednesday, 16 March 2016

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



Project summary

Project name	2 Fig Tree Drive, Sydney Olympic Park_04
Street address	2 Fig Tree Drive Sydney Olympic Park 2127
Local Government Area	Auburn Council
Plan type and plan number	deposited 787402
Lot no.	22
Section no.	-
No. of residential flat buildings	4
No. of units in residential flat buildings	422
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score

Water	✓ 61	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 23	Target 20

Water score comprises:

- Sydney Olympic Park Authority reticulated alternative water: 27.1
- Other water efficiency commitments: 33.9

Certificate Prepared by

Name / Company Name: Efficient Living Pty Ltd

ABN (if applicable): 82 116 346 082

Description of project

Project address

Project name	2 Fig Tree Drive, Sydney Olympic Park_04
Street address	2 Fig Tree Drive Sydney Olympic Park 2127
Local Government Area	Auburn Council
Plan type and plan number	deposited 787402
Lot no.	22
Section no.	-

Project type

No. of residential flat buildings	4
No. of units in residential flat buildings	422
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m ²)	12697
Roof area (m ²)	3721
Non-residential floor area (m ²)	1699.0
Residential car spaces	457
Non-residential car spaces	44

Common area landscape

Common area lawn (m ²)	1007.0
Common area garden (m ²)	2538.0
Area of indigenous or low water use species (m ²)	0.0

Assessor details

Assessor number	BDAV/12/1473
Certificate number	14733280
Climate zone	56

Project score

Water	✓ 61	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 23	Target 20

Water score comprises:

- Sydney Olympic Park Authority reticulated alternative water: 27.1
- Other water efficiency commitments: 33.9

Description of project

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

Residential flat buildings - Building West, 120 dwellings, 11 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)
109	1	52.0	0.0	0.0	0.0
202	2	71.0	0.0	31.0	0.0
206	1	47.0	0.0	11.0	0.0
210	2	73.0	0.0	7.0	0.0
303	1	47.0	0.0	0.0	0.0
307	1	54.0	0.0	0.0	0.0
311	2	74.0	0.0	0.0	0.0
403	1	47.0	0.0	0.0	0.0
407	1	54.0	0.0	0.0	0.0
411	2	74.0	0.0	0.0	0.0
503	1	47.0	0.0	0.0	0.0
507	1	54.0	0.0	0.0	0.0
511	2	74.0	0.0	0.0	0.0
603	1	47.0	0.0	0.0	0.0
607	1	54.0	0.0	0.0	0.0
611	2	74.0	0.0	0.0	0.0
703	1	47.0	0.0	0.0	0.0
707	1	54.0	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)
110	2	73.0	0.0	0.0	0.0
203	1	47.0	0.0	13.0	0.0
207	1	47.0	0.0	9.0	0.0
211	2	71.0	0.0	7.0	0.0
304	1	47.0	0.0	0.0	0.0
308	2	77.0	0.0	0.0	0.0
312	2	73.0	0.0	0.0	0.0
404	1	47.0	0.0	0.0	0.0
408	2	77.0	0.0	0.0	0.0
412	2	73.0	0.0	0.0	0.0
504	1	47.0	0.0	0.0	0.0
508	2	77.0	0.0	0.0	0.0
512	2	74.0	0.0	0.0	0.0
604	1	47.0	0.0	0.0	0.0
608	2	77.0	0.0	0.0	0.0
612	2	73.0	0.0	0.0	0.0
704	1	47.0	0.0	0.0	0.0
708	2	77.0	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)
111	2	72.0	0.0	0.0	0.0
204	1	47.0	0.0	11.0	0.0
208	2	77.0	0.0	0.0	0.0
301	2	74.0	0.0	0.0	0.0
305	1	47.0	0.0	0.0	0.0
309	2	73.0	0.0	0.0	0.0
401	2	74.0	0.0	0.0	0.0
405	1	47.0	0.0	0.0	0.0
409	2	73.0	0.0	0.0	0.0
501	2	74.0	0.0	0.0	0.0
505	1	47.0	0.0	0.0	0.0
509	2	73.0	0.0	0.0	0.0
601	2	74.0	0.0	0.0	0.0
605	1	47.0	0.0	0.0	0.0
609	2	73.0	0.0	0.0	0.0
701	2	74.0	0.0	0.0	0.0
705	1	47.0	0.0	0.0	0.0
709	2	73.0	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)
201	2	74.0	0.0	0.0	0.0
205	1	47.0	0.0	9.0	0.0
209	1	52.0	0.0	4.0	0.0
302	2	71.0	0.0	0.0	0.0
306	1	47.0	0.0	0.0	0.0
310	2	73.0	0.0	0.0	0.0
402	2	71.0	0.0	0.0	0.0
406	1	47.0	0.0	0.0	0.0
410	2	73.0	0.0	0.0	0.0
502	2	71.0	0.0	0.0	0.0
506	1	47.0	0.0	0.0	0.0
510	2	73.0	0.0	0.0	0.0
602	2	71.0	0.0	0.0	0.0
606	1	47.0	0.0	0.0	0.0
610	2	73.0	0.0	0.0	0.0
702	2	71.0	0.0	0.0	0.0
706	1	47.0	0.0	0.0	0.0
710	2	73.0	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)
711	2	74.0	0.0	0.0	0.0
803	1	47.0	0.0	0.0	0.0
807	1	54.0	0.0	0.0	0.0
811	2	74.0	0.0	0.0	0.0
903	1	47.0	0.0	0.0	0.0
907	1	54.0	0.0	0.0	0.0
911	2	74.0	0.0	0.0	0.0
1003	1	47.0	0.0	0.0	0.0
1008	2	77.0	0.0	0.0	0.0
1012	2	73.0	0.0	0.0	0.0
1104	1	47.0	0.0	0.0	0.0
1109	2	73.0	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)
712	2	73.0	0.0	0.0	0.0
804	1	47.0	0.0	0.0	0.0
808	2	77.0	0.0	0.0	0.0
812	2	73.0	0.0	0.0	0.0
904	2	47.0	0.0	0.0	0.0
908	2	77.0	0.0	0.0	0.0
912	2	73.0	0.0	0.0	0.0
1004	1	47.0	0.0	0.0	0.0
1009	2	73.0	0.0	0.0	0.0
1101	2	74.0	0.0	0.0	0.0
1105	3	101.0	0.0	0.0	0.0
1110	2	73.0	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)
801	2	74.0	0.0	0.0	0.0
805	1	47.0	0.0	0.0	0.0
809	2	73.0	0.0	0.0	0.0
901	2	74.0	0.0	0.0	0.0
905	1	47.0	0.0	0.0	0.0
909	2	73.0	0.0	0.0	0.0
1001	2	74.0	0.0	0.0	0.0
1005	3	101.0	0.0	0.0	0.0
1010	2	73.0	0.0	0.0	0.0
1102	2	71.0	0.0	0.0	0.0
1107	1	54.0	0.0	0.0	0.0
1111	2	74.0	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)
802	2	71.0	0.0	0.0	0.0
806	1	47.0	0.0	0.0	0.0
810	2	73.0	0.0	0.0	0.0
902	2	71.0	0.0	0.0	0.0
906	1	47.0	0.0	0.0	0.0
910	2	73.0	0.0	0.0	0.0
1002	2	71.0	0.0	0.0	0.0
1007	1	54.0	0.0	0.0	0.0
1011	2	74.0	0.0	0.0	0.0
1103	1	47.0	0.0	0.0	0.0
1108	2	77.0	0.0	0.0	0.0
1112	2	73.0	0.0	0.0	0.0

Residential flat buildings - Building North , 30 dwellings, 6 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)
101	2	80.0	0.0	0.0	0.0
106	2	72.0	0.0	13.0	0.0
203	2	72.0	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)
102	2	72.0	0.0	16.0	0.0
107	2	80.0	0.0	0.0	0.0
204	2	72.0	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)
103	2	72.0	0.0	23.0	0.0
201	2	80.0	0.0	0.0	0.0
206	2	72.0	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)
104	2	72.0	0.0	23.0	0.0
202	2	72.0	0.0	0.0	0.0
207	2	80.0	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)
301	2	80.0	0.0	0.0	0.0
306	2	72.0	0.0	0.0	0.0
403	2	72.0	0.0	0.0	0.0
501	2	80.0	0.0	0.0	0.0
506	2	72.0	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)
302	2	72.0	0.0	0.0	0.0
307	2	80.0	0.0	0.0	0.0
404	2	72.0	0.0	0.0	0.0
502	2	72.0	0.0	0.0	0.0
507	2	80.0	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)
303	2	72.0	0.0	0.0	0.0
401	2	80.0	0.0	0.0	0.0
406	2	72.0	0.0	0.0	0.0
503	2	72.0	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)
304	2	72.0	0.0	0.0	0.0
402	2	72.0	0.0	0.0	0.0
407	2	80.0	0.0	0.0	0.0
504	2	72.0	0.0	0.0	0.0

Residential flat buildings - Building East, 175 dwellings, 16 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)
101	2	81.0	0.0	0.0	0.0
106	1	47.0	0.0	0.0	0.0
110	2	72.0	0.0	0.0	0.0
202	2	73.0	0.0	7.0	0.0
207	1	47.0	0.0	3.0	0.0
211	2	72.0	0.0	12.0	0.0
303	1	48.0	0.0	0.0	0.0
307	2	47.0	0.0	0.0	0.0
311	2	72.0	0.0	0.0	0.0
403	1	48.0	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)
102	2	73.0	0.0	0.0	0.0
107	1	47.0	0.0	0.0	0.0
111	2	72.0	0.0	0.0	0.0
204	1	47.0	0.0	2.0	0.0
208	2	75.0	0.0	0.0	0.0
212	3	95.0	0.0	0.0	0.0
304	1	47.0	0.0	0.0	0.0
308	1	75.0	0.0	0.0	0.0
312	3	95.0	0.0	0.0	0.0
404	1	47.0	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)
104	1	47.0	0.0	0.0	0.0
108	2	75.0	0.0	0.0	0.0
112	3	95.0	0.0	0.0	0.0
205	1	47.0	0.0	2.0	0.0
209	3	97.0	0.0	6.0	0.0
301	2	81.0	0.0	0.0	0.0
305	1	47.0	0.0	0.0	0.0
309	3	97.0	0.0	0.0	0.0
401	2	81.0	0.0	0.0	0.0
405	1	47.0	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)
105	1	47.0	0.0	0.0	0.0
109	3	97.0	0.0	0.0	0.0
201	2	81.0	0.0	7.0	0.0
206	1	47.0	0.0	3.0	0.0
210	2	72.0	0.0	13.0	0.0
302	1	48.0	0.0	0.0	0.0
306	1	47.0	0.0	0.0	0.0
310	2	72.0	0.0	0.0	0.0
402	1	48.0	0.0	0.0	0.0
406	1	47.0	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)
407	1	47.0	0.0	0.0	0.0
411	2	72.0	0.0	0.0	0.0
503	1	48.0	0.0	0.0	0.0
507	1	47.0	0.0	0.0	0.0
511	2	72.0	0.0	0.0	0.0
603	1	48.0	0.0	0.0	0.0
607	1	47.0	0.0	0.0	0.0
611	2	72.0	0.0	0.0	0.0
703	1	47.0	0.0	0.0	0.0
707	1	47.0	0.0	0.0	0.0
711	2	72.0	0.0	0.0	0.0
803	1	48.0	0.0	0.0	0.0
807	1	47.0	0.0	0.0	0.0
811	2	72.0	0.0	0.0	0.0
903	1	48.0	0.0	0.0	0.0
907	1	47.0	0.0	0.0	0.0
911	2	72.0	0.0	0.0	0.0
1003	1	48.0	0.0	0.0	0.0
1007	1	47.0	0.0	0.0	0.0
1011	2	72.0	0.0	0.0	0.0
1103	1	48.0	0.0	0.0	0.0
1107	1	47.0	0.0	0.0	0.0
1111	2	72.0	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)
408	2	47.0	0.0	0.0	0.0
412	3	95.0	0.0	0.0	0.0
504	1	47.0	0.0	0.0	0.0
508	2	75.0	0.0	0.0	0.0
512	3	95.0	0.0	0.0	0.0
604	1	47.0	0.0	0.0	0.0
608	2	75.0	0.0	0.0	0.0
612	3	95.0	0.0	0.0	0.0
704	1	47.0	0.0	0.0	0.0
708	2	75.0	0.0	0.0	0.0
712	3	95.0	0.0	0.0	0.0
804	1	47.0	0.0	0.0	0.0
808	2	75.0	0.0	0.0	0.0
812	3	95.0	0.0	0.0	0.0
904	1	47.0	0.0	0.0	0.0
908	2	75.0	0.0	0.0	0.0
912	3	95.0	0.0	0.0	0.0
1004	1	47.0	0.0	0.0	0.0
1008	2	75.0	0.0	0.0	0.0
1012	3	95.0	0.0	0.0	0.0
1104	1	47.0	0.0	0.0	0.0
1108	2	75.0	0.0	0.0	0.0
1112	3	95.0	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)
409	3	97.0	0.0	0.0	0.0
501	2	81.0	0.0	0.0	0.0
505	1	47.0	0.0	0.0	0.0
509	3	97.0	0.0	0.0	0.0
601	2	81.0	0.0	0.0	0.0
605	1	47.0	0.0	0.0	0.0
609	3	97.0	0.0	0.0	0.0
701	2	81.0	0.0	0.0	0.0
705	1	47.0	0.0	0.0	0.0
709	3	97.0	0.0	0.0	0.0
801	2	81.0	0.0	0.0	0.0
805	1	47.0	0.0	0.0	0.0
809	3	97.0	0.0	0.0	0.0
901	3	81.0	0.0	0.0	0.0
905	1	47.0	0.0	0.0	0.0
909	3	97.0	0.0	0.0	0.0
1001	2	81.0	0.0	0.0	0.0
1005	1	47.0	0.0	0.0	0.0
1009	3	97.0	0.0	0.0	0.0
1101	2	81.0	0.0	0.0	0.0
1105	1	47.0	0.0	0.0	0.0
1109	3	97.0	0.0	0.0	0.0
1201	2	81.0	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)
410	2	72.0	0.0	0.0	0.0
502	1	48.0	0.0	0.0	0.0
506	1	47.0	0.0	0.0	0.0
510	2	72.0	0.0	0.0	0.0
602	1	48.0	0.0	0.0	0.0
606	1	47.0	0.0	0.0	0.0
610	2	72.0	0.0	0.0	0.0
702	1	48.0	0.0	0.0	0.0
706	1	47.0	0.0	0.0	0.0
710	2	72.0	0.0	0.0	0.0
802	3	48.0	0.0	0.0	0.0
806	1	47.0	0.0	0.0	0.0
810	2	72.0	0.0	0.0	0.0
902	1	48.0	0.0	0.0	0.0
906	1	47.0	0.0	0.0	0.0
910	2	72.0	0.0	0.0	0.0
1002	1	48.0	0.0	0.0	0.0
1006	1	47.0	0.0	0.0	0.0
1010	2	72.0	0.0	0.0	0.0
1102	1	48.0	0.0	0.0	0.0
1106	1	47.0	0.0	0.0	0.0
1110	2	72.0	0.0	0.0	0.0
1202	1	48.0	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)
1203	1	48.0	0.0	0.0	0.0
1207	1	47.0	0.0	0.0	0.0
1211	2	72.0	0.0	0.0	0.0
1303	1	48.0	0.0	0.0	0.0
1308	2	75.0	0.0	0.0	0.0
1312	3	95.0	0.0	0.0	0.0
1404	1	47.0	0.0	0.0	0.0
1409	3	97.0	0.0	0.0	0.0
1501	2	81.0	0.0	0.0	0.0
1506	1	47.0	0.0	0.0	0.0
1510	2	72.0	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)
1204	1	47.0	0.0	0.0	0.0
1208	2	75.0	0.0	0.0	0.0
1212	3	95.0	0.0	0.0	0.0
1304	1	47.0	0.0	0.0	0.0
1309	3	97.0	0.0	0.0	0.0
1401	2	81.0	0.0	0.0	0.0
1405	1	47.0	0.0	0.0	0.0
1410	2	72.0	0.0	0.0	0.0
1502	1	48.0	0.0	0.0	0.0
1507	3	102.0	0.0	0.0	0.0
1511	2	72.0	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)
1205	1	47.0	0.0	0.0	0.0
1209	3	97.0	0.0	0.0	0.0
1301	2	81.0	0.0	0.0	0.0
1305	1	47.0	0.0	0.0	0.0
1310	2	72.0	0.0	0.0	0.0
1402	1	48.0	0.0	0.0	0.0
1406	3	102.0	0.0	0.0	0.0
1411	2	72.0	0.0	0.0	0.0
1503	1	48.0	0.0	0.0	0.0
1508	2	75.0	0.0	0.0	0.0
1512	3	95.0	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)
1206	1	47.0	0.0	0.0	0.0
1210	2	72.0	0.0	0.0	0.0
1302	1	48.0	0.0	0.0	0.0
1306	3	102.0	0.0	0.0	0.0
1311	2	72.0	0.0	0.0	0.0
1403	1	48.0	0.0	0.0	0.0
1408	2	75.0	0.0	0.0	0.0
1412	3	95.0	0.0	0.0	0.0
1504	1	47.0	0.0	0.0	0.0
1509	3	97.0	0.0	0.0	0.0

Residential flat buildings - Building South, 97 dwellings, 11 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)
102	2	72.0	0.0	0.0	0.0
106	1	48.0	0.0	0.0	0.0
202	2	72.0	0.0	0.0	0.0
206	1	48.0	0.0	4.0	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)
103	2	72.0	0.0	0.0	0.0
107	1	48.0	0.0	0.0	0.0
203	2	72.0	0.0	0.0	0.0
207	1	48.0	0.0	4.0	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)
104	2	74.0	0.0	0.0	0.0
108	2	72.0	0.0	0.0	0.0
204	2	74.0	0.0	0.0	0.0
208	1	48.0	0.0	5.0	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)
105	2	72.0	0.0	0.0	0.0
201	2	72.0	0.0	0.0	0.0
205	2	72.0	0.0	6.0	0.0
209	1	48.0	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)
210	3	106.0	0.0	0.0	0.0
304	2	74.0	0.0	0.0	0.0
308	2	72.0	0.0	0.0	0.0
402	2	72.0	0.0	0.0	0.0
406	1	47.0	0.0	0.0	0.0
410	3	106.0	0.0	0.0	0.0
504	2	74.0	0.0	0.0	0.0
508	2	72.0	0.0	0.0	0.0
602	2	72.0	0.0	0.0	0.0
606	1	47.0	0.0	0.0	0.0
610	3	106.0	0.0	0.0	0.0
704	2	74.0	0.0	0.0	0.0
708	2	72.0	0.0	0.0	0.0
802	2	72.0	0.0	0.0	0.0
806	1	47.0	0.0	0.0	0.0
810	3	106.0	0.0	0.0	0.0
904	2	74.0	0.0	0.0	0.0
908	2	72.0	0.0	0.0	0.0
1002	2	72.0	0.0	0.0	0.0
1006	1	47.0	0.0	0.0	0.0
1010	3	106.0	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)
301	2	72.0	0.0	0.0	0.0
305	2	72.0	0.0	0.0	0.0
309	1	48.0	0.0	0.0	0.0
403	2	72.0	0.0	0.0	0.0
407	1	48.0	0.0	0.0	0.0
501	2	72.0	0.0	0.0	0.0
505	2	72.0	0.0	0.0	0.0
509	1	48.0	0.0	0.0	0.0
603	2	72.0	0.0	0.0	0.0
607	1	48.0	0.0	0.0	0.0
701	2	72.0	0.0	0.0	0.0
705	2	72.0	0.0	0.0	0.0
709	1	48.0	0.0	0.0	0.0
803	2	72.0	0.0	0.0	0.0
807	1	48.0	0.0	0.0	0.0
901	2	72.0	0.0	0.0	0.0
905	2	72.0	0.0	0.0	0.0
909	1	48.0	0.0	0.0	0.0
1003	2	72.0	0.0	0.0	0.0
1007	1	48.0	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)
302	2	72.0	0.0	0.0	0.0
306	1	47.0	0.0	0.0	0.0
310	3	106.0	0.0	0.0	0.0
404	2	74.0	0.0	0.0	0.0
408	2	72.0	0.0	0.0	0.0
502	2	72.0	0.0	0.0	0.0
506	1	47.0	0.0	0.0	0.0
510	3	106.0	0.0	0.0	0.0
604	2	74.0	0.0	0.0	0.0
608	2	72.0	0.0	0.0	0.0
702	2	72.0	0.0	0.0	0.0
706	1	47.0	0.0	0.0	0.0
710	3	106.0	0.0	0.0	0.0
804	2	74.0	0.0	0.0	0.0
808	2	72.0	0.0	0.0	0.0
902	2	72.0	0.0	0.0	0.0
906	1	47.0	0.0	0.0	0.0
910	3	106.0	0.0	0.0	0.0
1004	2	74.0	0.0	0.0	0.0
1008	2	72.0	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)
303	2	72.0	0.0	0.0	0.0
307	1	48.0	0.0	0.0	0.0
401	2	72.0	0.0	0.0	0.0
405	2	72.0	0.0	0.0	0.0
409	1	48.0	0.0	0.0	0.0
503	2	72.0	0.0	0.0	0.0
507	1	48.0	0.0	0.0	0.0
601	2	72.0	0.0	0.0	0.0
605	2	72.0	0.0	0.0	0.0
609	1	48.0	0.0	0.0	0.0
703	2	72.0	0.0	0.0	0.0
707	1	48.0	0.0	0.0	0.0
801	2	72.0	0.0	0.0	0.0
805	2	72.0	0.0	0.0	0.0
809	1	48.0	0.0	0.0	0.0
903	2	72.0	0.0	0.0	0.0
907	1	48.0	0.0	0.0	0.0
1001	2	72.0	0.0	0.0	0.0
1005	2	72.0	0.0	0.0	0.0
1009	1	48.0	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 West

Common area	Floor area (m ²)
Lift car (No. 6)	-
Bicycle Storage Area	412.0

Common area	Floor area (m ²)
Lift car (No. 7)	-

Common area	Floor area (m ²)
Community Room	64.0

Common areas of unit building - Building North

Common area	Floor area (m ²)
Lift car (No. 1)	-

Common areas of unit building - Building East

Common area	Floor area (m ²)
Lift car (No. 2)	-

Common area	Floor area (m ²)
Lift car (No. 3)	-

Common areas of unit building - Building South

Common area	Floor area (m ²)
Lift car (No. 4)	-

Common area	Floor area (m ²)
Lift car (No. 5)	-

Common areas of the development (non-building specific)

Common area	Floor area (m ²)
Car park area	17790.0
Plant or service rooms	701.0

Common area	Floor area (m ²)
Service rooms	267.0
Ground floor lobbies	213.0

Common area	Floor area (m ²)
Garbage room	290.0
Hallways	3281.0

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building West

(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 North

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

3. Commitments for Residential flat buildings - Building East

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

4. Commitments for Residential flat buildings - Building South

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

5. Commitments for multi-dwelling houses

6. Commitments for single dwelling houses

7. 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 West

(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
1005, 1105	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	5.5 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
109, 203, 204, 205, 206, 207, 209, 303, 304, 305, 306, 307, 403, 404, 405, 406, 407, 503, 504, 505, 506, 507, 603, 604, 605, 606, 607, 703, 704, 705, 706, 707, 803, 804, 805, 806, 807, 903, 905, 906,	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	4.5 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
907, 1003, 1004, 1007, 1103, 1104, 1107														

	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
110, 111, 201, 202, 208, 210, 211, 301, 302, 308, 309, 310, 311, 312, 401, 402, 408, 409, 410, 411, 412, 501, 502, 508, 509, 510, 511, 512, 601, 602, 608, 609, 610, 611, 612, 701, 702, 708, 709, 710,	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	5 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
711, 712, 801, 802, 808, 809, 810, 811, 812, 901, 902, 904, 908, 909, 910, 911, 912, 1001, 1002, 1008, 1009, 1010, 1011, 1012, 1101, 1102, 1108, 1109, 1110, 1111, 1112														

Dwelling no.	Alternative water source							
	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no
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.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling:			

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✓	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✓	✓
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan into central duct + VSD	manual switch on/off	individual fan, not ducted	manual switch on/off	individual fan into central duct + VSD	manual switch on/off

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
1005, 1105	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	3	0	no	yes	yes	yes	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
109, 203, 204, 205, 206, 207, 209, 303, 304, 305, 306, 307, 403, 404, 405, 406, 407, 503, 504, 505, 506, 507, 603, 604, 605, 606, 607, 703, 704, 705, 706, 707, 803, 804, 805, 806, 807, 903, 905,	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1	0	no	yes	yes	yes	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
906, 907, 1003, 1004, 1007, 1103, 1104, 1107												

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
110, 111, 201, 202, 208, 210, 211, 301, 302, 308, 309, 310, 311, 312, 401, 402, 408, 409, 410, 411, 412, 501, 502, 508, 509, 510, 511, 512, 601, 602, 608, 609, 610, 611, 612, 701, 702, 708, 709,	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	0	no	yes	yes	yes	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
710, 711, 712, 801, 802, 808, 809, 810, 811, 812, 901, 902, 904, 908, 909, 910, 911, 912, 1001, 1002, 1008, 1009, 1010, 1011, 1012, 1101, 1102, 1108, 1109, 1110, 1111, 1112												

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	-	no	3.5 star	-	2 star	no	no

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

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
109	54.0	23.0
110	44.0	20.0
111	49.0	20.0
201	58.0	18.0
202	36.0	26.0
207	41.0	29.0
208	26.0	26.0
209	36.0	27.0
210	28.0	23.0
211	50.0	35.0
301	52.0	13.0
302	30.0	17.0
303	36.0	10.0
307	36.0	19.0
309	42.0	13.0
310	31.0	14.0
312	56.0	11.0
401	52.0	12.0
409	37.0	13.0
410	35.0	14.0
510	35.0	15.0
602	31.0	16.0
701	54.0	13.0
702	33.0	16.0
802	31.0	15.0
902	34.0	16.0
911	53.0	18.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
912	59.0	10.0
1001	56.0	10.0
1002	33.0	13.0
1003	41.0	9.0
1004	42.0	9.0
1005	45.0	7.0
1007	45.0	16.0
1008	27.0	16.0
1009	37.0	11.0
1010	38.0	13.0
1011	54.0	15.0
1012	60.0	9.0
1101	65.0	12.0
1102	46.0	14.0
1104	55.0	9.0
1105	48.0	10.0
1107	54.0	14.0
1108	36.0	15.0
1111	66.0	17.0
1112	66.0	11.0
308, 408	24.0	18.0
311, 411	50.0	20.0
402, 502	32.0	17.0
412, 512	57.0	11.0
501, 601	53.0	13.0
511, 611	51.0	19.0
706, 806	42.0	10.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
711, 811	52.0	18.0
801, 901	54.0	12.0
808, 908	26.0	16.0
809, 909	35.0	13.0
906, 1103	44.0	10.0
1109, 1110	49.0	12.0
304, 305, 306	38.0	10.0
403, 503, 603	37.0	9.0
406, 506, 606	41.0	10.0
407, 507, 607	37.0	19.0
508, 608, 708	25.0	17.0
509, 609, 709	34.0	13.0
612, 712, 812	58.0	11.0
703, 803, 903	38.0	9.0
707, 807, 907	39.0	18.0
203, 204, 205, 206	44.0	15.0
610, 710, 810, 910	36.0	14.0
404, 405, 504, 505, 604, 605	39.0	9.0
All other dwellings	40.0	9.0

(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	no common facility	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 4)	-	-	-

(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
Lift car (No. 6)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No. 7)	-	-	light-emitting diode	connected to lift call button	No
Community Room	air conditioning system	time clock or BMS controlled	compact fluorescent	manual on / manual off	No
Bicycle Storage Area	ventilation supply only	time clock or BMS controlled	fluorescent	motion sensors	No

Central energy systems	Type	Specification
Lift (No. 6)	gearless traction with V V V F motor	Number of levels (including basement): 14
Lift (No. 7)	gearless traction with V V V F motor	Number of levels (including basement): 14

2. Commitments for Residential flat buildings - Building North

(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 (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	5 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no
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 into central duct + VSD	manual switch on/off	individual fan, not ducted	manual switch on/off	individual fan into central duct + VSD	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
All dwellings	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	0	no	yes	yes	yes	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	-	no	3.5 star	-	2 star	no	no

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

(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)
101	60.0	17.0
102	54.0	34.0
103	41.0	15.0
104	44.0	15.0
106	31.0	46.0
107	48.0	22.0
201	49.0	22.0
202	44.0	41.0
203	29.0	17.0
204	32.0	17.0
206	25.0	43.0
207	37.0	21.0
302	48.0	19.0
306	32.0	29.0
401	57.0	13.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
402	48.0	18.0
403	37.0	11.0
404	41.0	11.0
406	32.0	31.0
407	49.0	13.0
501	63.0	15.0
502	66.0	13.0
503	51.0	10.0
504	54.0	11.0
506	46.0	32.0
507	64.0	13.0
301, 307	49.0	12.0
All other dwellings	40.0	12.0

(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	no common facility	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 5)	-	-	-

(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
Lift car (No. 1)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 7

3. Commitments for Residential flat buildings - Building East

(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
109, 112, 209, 212, 309, 312, 409, 412, 509, 512, 609, 612, 709, 712, 802, 809, 812, 901, 909, 912, 1009, 1012, 1109, 1112, 1209, 1212, 1306, 1309, 1312, 1406, 1409, 1412, 1507, 1509, 1512	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	4 star	no	-	5.5 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
101, 102, 108, 110, 111, 201, 202, 208, 210, 211, 301, 307, 310, 311, 401, 408, 410, 411, 501, 508, 510, 511, 601, 608, 610, 611, 701, 708, 710, 711, 801, 808, 810, 811, 908, 910, 911, 1001, 1008, 1010,	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	5 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
1011, 1101, 1108, 1110, 1111, 1201, 1208, 1210, 1211, 1301, 1308, 1310, 1311, 1401, 1408, 1410, 1411, 1501, 1508, 1510, 1511														

	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
104, 105, 106, 107, 204, 205, 206, 207, 302, 303, 304, 305, 306, 308, 402, 403, 404, 405, 406, 407, 502, 503, 504, 505, 506, 507, 602, 603, 604, 605, 606, 607, 702, 703, 704, 705, 706, 707, 803, 804,	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	4.5 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
805, 806, 807, 902, 903, 904, 905, 906, 907, 1002, 1003, 1004, 1005, 1006, 1007, 1102, 1103, 1104, 1105, 1106, 1107, 1202, 1203, 1204, 1205, 1206, 1207, 1302, 1303, 1304, 1305, 1402, 1403, 1404, 1405, 1502, 1503, 1504, 1506														

Dwelling no.	Alternative water source							
	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no
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.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling:			

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✓	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✓	✓
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan into central duct + VSD	manual switch on/off	individual fan, not ducted	manual switch on/off	individual fan into central duct + VSD	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
109, 112, 209, 212, 309, 312, 409, 412, 509, 512, 609, 612, 709, 712, 802, 809, 812, 901, 909, 912, 1009, 1012, 1109, 1112, 1209, 1212, 1306, 1309, 1312, 1406, 1409, 1412, 1507, 1509, 1512	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	3	0	no	yes	yes	yes	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
101, 102, 108, 110, 111, 201, 202, 208, 210, 211, 301, 307, 310, 311, 401, 408, 410, 411, 501, 508, 510, 511, 601, 608, 610, 611, 701, 708, 710, 711, 801, 808, 810, 811, 908, 910, 911, 1001, 1008,	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	0	no	yes	yes	yes	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
1010, 1011, 1101, 1108, 1110, 1111, 1201, 1208, 1210, 1211, 1301, 1308, 1310, 1311, 1401, 1408, 1410, 1411, 1501, 1508, 1510, 1511												

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
104, 105, 106, 107, 204, 205, 206, 207, 302, 303, 304, 305, 306, 308, 402, 403, 404, 405, 406, 407, 502, 503, 504, 505, 506, 507, 602, 603, 604, 605, 606, 607, 702, 703, 704, 705, 706, 707, 803,	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1	0	no	yes	yes	yes	0	no

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
804, 805, 806, 807, 902, 903, 904, 905, 906, 907, 1002, 1003, 1004, 1005, 1006, 1007, 1102, 1103, 1104, 1105, 1106, 1107, 1202, 1203, 1204, 1205, 1206, 1207, 1302, 1303, 1304, 1305, 1402, 1403, 1404, 1405, 1502, 1503, 1504,												

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
1506												

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	-	no	3.5 star	-	2 star	no	no

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

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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)
101	35.0	19.0
102	36.0	21.0
104	38.0	19.0
105	41.0	20.0
108	22.0	32.0
109	32.0	36.0
112	55.0	15.0
201	26.0	22.0
202	29.0	27.0
206	36.0	20.0
207	34.0	20.0
208	24.0	35.0
209	36.0	52.0
210	58.0	19.0
211	50.0	21.0
212	47.0	17.0
303	36.0	14.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
309	46.0	23.0
312	54.0	11.0
409	48.0	25.0
410	61.0	12.0
411	60.0	13.0
412	56.0	11.0
509	49.0	25.0
510	64.0	12.0
512	53.0	13.0
610	61.0	11.0
611	61.0	13.0
704	43.0	13.0
708	30.0	16.0
804	46.0	11.0
805	49.0	11.0
808	35.0	17.0
809	50.0	24.0
811	62.0	12.0
904	44.0	11.0
908	31.0	16.0
912	55.0	13.0
1207	48.0	10.0
1209	52.0	12.0
1308	39.0	16.0
1404	47.0	10.0
1410	36.0	11.0
1411	35.0	11.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
1501	48.0	14.0
1502	49.0	12.0
1503	51.0	11.0
1504	59.0	10.0
1506	55.0	10.0
1509	63.0	20.0
1510	66.0	8.0
1511	63.0	9.0
106, 204	37.0	20.0
107, 205	35.0	20.0
110, 111	52.0	19.0
301, 401	31.0	15.0
308, 408	33.0	18.0
508, 608	34.0	17.0
609, 709	49.0	24.0
612, 812	54.0	14.0
801, 901	32.0	15.0
802, 902	34.0	13.0
803, 903	36.0	13.0
310, 1512	64.0	13.0
909, 1009	50.0	23.0
1005, 1105	41.0	10.0
1010, 1210	61.0	8.0
1011, 1311	60.0	10.0
1110, 1310	63.0	11.0
1111, 1211	64.0	10.0
1408, 1508	33.0	15.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
311, 511, 712	56.0	13.0
402, 601, 701	32.0	14.0
403, 503, 603	35.0	13.0
405, 505, 605	38.0	11.0
502, 602, 702	33.0	13.0
710, 810, 910	62.0	11.0
302, 501, 1401	34.0	14.0
711, 1012, 1112	57.0	12.0
1008, 1108, 1208	37.0	15.0
1109, 1309, 1409	52.0	21.0
1205, 1305, 1405	42.0	10.0
304, 404, 504, 604	42.0	11.0
305, 703, 705, 905	39.0	11.0
911, 1212, 1312, 1412	58.0	12.0
1001, 1101, 1201, 1301	33.0	14.0
1004, 1104, 1204, 1304	46.0	10.0
1002, 1102, 1202, 1302, 1402	36.0	12.0
1003, 1103, 1203, 1303, 1403	39.0	13.0
406, 407, 506, 507, 606, 607, 1507	40.0	11.0
306, 307, 706, 707, 806, 807, 906, 907	41.0	11.0
All other dwellings	43.0	10.0

(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	no common facility	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 2)	-	-	-

(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
Lift car (No. 2)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No. 3)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 18
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 18

4. Commitments for Residential flat buildings - Building South

(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
210, 310, 410, 510, 610, 710, 810, 910, 1010	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	5.5 star	-	-	-	-	-	-	-
106, 107, 206, 207, 208, 209, 306, 307, 309, 406, 407, 409, 506, 507, 509, 606, 607, 609, 706, 707, 709, 806, 807, 809, 906, 907, 909, 1006, 1007, 1009	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	4.5 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
102, 103, 104, 105, 108, 201, 202, 203, 204, 205, 301, 302, 303, 304, 305, 308, 401, 402, 403, 404, 405, 408, 501, 502, 503, 504, 505, 508, 601, 602, 603, 604, 605, 608, 701, 702, 703, 704, 705, 708,	3 star (> 7.5 but <= 9 L/min)	4 star	4 star	5 star	no	-	5 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
801, 802, 803, 804, 805, 808, 901, 902, 903, 904, 905, 908, 1001, 1002, 1003, 1004, 1005, 1008														

	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	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no
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.	✓	✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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; (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 into central duct + VSD	manual switch on/off	individual fan, not ducted	manual switch on/off	individual fan into central duct + VSD	manual switch on/off

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
210, 310, 410, 510, 610, 710, 810, 910, 1010	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	3	0	no	yes	yes	yes	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
106, 107, 206, 207, 208, 209, 306, 307, 309, 406, 407, 409, 506, 507, 509, 606, 607, 609, 706, 707, 709, 806, 807, 809, 906, 907, 909, 1006, 1007, 1009	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1	0	no	yes	yes	yes	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
102, 103, 104, 105, 108, 201, 202, 203, 204, 205, 301, 302, 303, 304, 305, 308, 401, 402, 403, 404, 405, 408, 501, 502, 503, 504, 505, 508, 601, 602, 603, 604, 605, 608, 701, 702, 703, 704, 705,	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	0	no	yes	yes	yes	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
708, 801, 802, 803, 804, 805, 808, 901, 902, 903, 904, 905, 908, 1001, 1002, 1003, 1004, 1005, 1008												

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	-	no	3.5 star	-	2 star	no	no

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

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
102	53.0	20.0
103	65.0	15.0
105	38.0	17.0
106	47.0	21.0
107	47.0	20.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
108	44.0	14.0
202	46.0	23.0
203	59.0	22.0
204	49.0	29.0
205	27.0	21.0
206	29.0	22.0
207	36.0	25.0
208	50.0	27.0
209	49.0	24.0
210	46.0	13.0
301	57.0	16.0
302	52.0	25.0
303	65.0	13.0
306	30.0	16.0
308	48.0	10.0
401	53.0	18.0
403	66.0	16.0
503	64.0	13.0
802	57.0	14.0
805	32.0	13.0
901	55.0	17.0
905	31.0	13.0
1001	61.0	15.0
1002	62.0	13.0
1003	65.0	12.0
1004	66.0	19.0
1005	38.0	13.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
1006	44.0	15.0
1007	54.0	14.0
1008	59.0	11.0
1010	37.0	15.0
104, 201	63.0	24.0
305, 405	32.0	12.0
402, 502	53.0	16.0
501, 801	58.0	15.0
504, 604	57.0	19.0
601, 701	54.0	17.0
702, 902	55.0	14.0
807, 907	42.0	15.0
808, 908	48.0	11.0
810, 910	28.0	15.0
602, 1009	56.0	14.0
309, 409, 509	39.0	17.0
406, 506, 606	30.0	15.0
505, 605, 705	33.0	13.0
706, 806, 906	31.0	16.0
407, 507, 607, 707	41.0	15.0
408, 508, 608, 708	49.0	10.0
603, 703, 803, 903	66.0	14.0
304, 404, 704, 804, 904	56.0	19.0
307, 609, 709, 809, 909	40.0	16.0
All other dwellings	29.0	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	no common facility	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 3)	-	-	-

(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
Lift car (No. 4)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No. 5)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 13
Lift (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 13

7. 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	no common facility	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	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 3545.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

Central systems	Size	Configuration	Connection (to allow for...)
Reticulated alternative water supply	-	Installation of plumbing to make provision for connection to Sydney Olympic Park Authority reticulated alternative water supply.	- irrigation of 0.0 square metres of common landscaped area on the site - car washing in 1 car washing bays on the site
Fire sprinkler system (No. 1)	-	-	-

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

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	zoned switching with motion sensor	No
Service rooms	ventilation supply only	thermostatically controlled	fluorescent	manual on / manual off	No
Garbage room	ventilation exhaust only	-	fluorescent	motion sensors	No
Plant or service rooms	ventilation supply only	none ie. continuous	fluorescent	manual on / manual off	No
Ground floor lobbies	no mechanical ventilation	-	light-emitting diode	none	No
Hallways	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas instantaneous	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.75 (~32 mm); (b) Piping internal to building: R0.75 (~32 mm)

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).