# **BASIX**<sup>°</sup>Certificate

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

# Multi Dwelling

Certificate number: 1250181M\_05

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Thursday, 21 September 2023 To be valid, this certificate must be lodged within 3 months of the date of issue.



Planning, Industry & Environment

Project summary	
Project name	4 Delmar Parade and 812 Pittwater Ro_05
Street address	4 Delmar Parade DEE WHY 2099
Local Government Area	Northern Beaches Council
Plan type and plan number	strata 32071/2
Lot no.	СР
Section no.	-
No. of residential flat buildings	2
No. of units in residential flat buildings	217
No. of multi-dwelling houses	0
No. of single dwelling houses	0
Project score	
Water	V 42 Target 40
Thermal Comfort	V Pass Target Pass
Energy	V 32 Target 25

Name / Company Name: Senica Consultancy Group Pty Ltd

ABN (if applicable): 48612864249

# **Description of project**

### Project address

Project name	4 Delmar Parade and 812 Pittwater Ro_05
Street address	4 Delmar Parade DEE WHY 2099
Local Government Area	Northern Beaches Council
Plan type and plan number	strata 32071/2
Lot no.	СР
Section no.	-
Project type	
No. of residential flat buildings	2
No. of units in residential flat buildings	217
No. of multi-dwelling houses	0
No. of single dwelling houses	0
Site details	
Site area (m²)	7736
Roof area (m <sup>2</sup> )	4706
Non-residential floor area (m <sup>2</sup> )	434.0
Residential car spaces	317
Non-residential car spaces	19
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Common area landscape		
Common area lawn (m²)	162.0	
Common area garden (m <sup>2</sup> )	870.0	
Area of indigenous or low water use species (m <sup>2</sup> )	520.0	
Assessor details		
Assessor number	DMN/14/1658	
Certificate number	HR-9ZAKAY-01	
Climate zone	56	
Ceiling fan in at least one bedroom	No	
Ceiling fan in at least one living room or other conditioned area	No	
Project score		
Water	42	Target 40
Thermal Comfort	V Pass	Target Pass
Energy	<b>v</b> 32	Target 25

## **Description of project**

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

### Residential flat buildings - 4 Delmar Parade, 121 dwellings, 6 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms		Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No of bodroome	ומ ב מ	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
101	2	71.3	5.5	0.0	0.0	102	1	47.1	4.5	0.0	0.0	103	1	50.1	4.5	0.0	0.0	104	1	50.1	4.5	0.0	0.0	105	1	50.0	4.5	0.0	0.0
106	3	98.3	5.1	0.0	0.0	108	1	48.2	6.0	0.0	0.0	109	2	80.4	7.0	0.0	0.0	110	3	98.9	7.6	0.0	0.0	111	2	74.2	3.9	0.0	0.0
112	1	49.5	5.5	0.0	0.0	113	2	69.0	6.1	0.0	0.0	114	2	76.9	3.9	0.0	0.0	115	3	106.6	6 4.2	0.0	0.0	116	2	80.3	7.2	0.0	0.0
117	1	45.7	3.8	0.0	0.0	118	3	96.7	4.7	0.0	0.0	119	1	58.5	6.8	0.0	0.0	120	3	100.0	) 3.9	0.0	0.0	121	1	43.6	5.5	0.0	0.0
122	1	43.6	5.5	0.0	0.0	123	1	63.2	3.7	0.0	0.0	124	2	68.2	4.0	0.0	0.0	125	1	44.9	4.1	0.0	0.0	201	2	71.3	5.5	0.0	0.0
202	1	47.1	4.5	0.0	0.0	203	1	50.1	4.5	0.0	0.0	204	1	50.1	4.5	0.0	0.0	205	1	48.1	4.5	0.0	0.0	206	1	59.8	0.0	0.0	0.0
207	2	71.0	4.1	0.0	0.0	208	2	76.5	4.7	0.0	0.0	209	1	48.2	6.0	0.0	0.0	210	2	80.4	7.7	0.0	0.0	211	3	107.2	2 4.0	0.0	0.0
212	2	82.7	3.2	0.0	0.0	213	2	74.2	3.9	0.0	0.0	214	1	49.5	5.5	0.0	0.0	215	2	69.0	6.1	0.0	0.0	216	2	76.9	3.9	0.0	0.0
217	3	106.4	4.2	0.0	0.0	218	2	80.9	7.2	0.0	0.0	219	1	45.7	3.8	0.0	0.0	220	3	96.7	4.7	0.0	0.0	221	1	58.5	6.8	0.0	0.0
222	3	100.0	3.9	0.0	0.0	223	1	46.5	6.0	0.0	0.0	224	1	46.6	6.0	0.0	0.0	225	2	70.3	4.5	0.0	0.0	226	2	68.2	4.0	0.0	0.0
227	1	44.9	4.1	0.0	0.0	301	2	71.3	5.5	0.0	0.0	302	1	47.1	4.5	0.0	0.0	303	1	50.1	4.5	0.0	0.0	304	1	50.1	4.5	0.0	0.0
305	1	48.1	4.5	0.0	0.0	307	2	71.0	4.1	0.0	0.0	308	1	55.3	4.5	0.0	0.0	308	2	76.5	4.7	0.0	0.0	309	1	48.2	6.0	0.0	0.0
310	2	80.4	7.7	0.0	0.0	311	3	107.2	2 4.0	0.0	0.0	312	2	82.7	3.2	0.0	0.0	313	2	74.2	3.9	0.0	0.0	314	1	49.5	5.5	0.0	0.0
315	2	69.0	6.1	0.0	0.0	316	2	76.9	3.9	0.0	0.0	317	3	106.6	6 4.2	0.0	0.0	318	2	80.9	7.2	0.0	0.0	319	1	45.7	3.8	0.0	0.0
320	3	96.7	4.7	0.0	0.0	321	1	58.5	6.8	0.0	0.0	322	3	100.0	3.9	0.0	0.0	323	1	46.5	6.0	0.0	0.0	324	1	46.6	6.0	0.0	0.0
325	2	66.3	8.5	0.0	0.0	326	2	68.2	4.0	0.0	0.0	327	1	44.9	4.1	0.0	0.0	401	2	71.3	5.5	0.0	0.0	402	1	53.7	4.3	0.0	0.0
403	3	95.2	4.6	0.0	0.0	404	3	110.6	5.0	0.0	0.0	405	2	76.0	4.7	0.0	0.0	406	1	48.2	6.0	0.0	0.0	407	2	80.4	7.7	0.0	0.0
408	3	107.2	4.0	0.0	0.0	409	2	82.7	3.2	0.0	0.0	410	2	74.2	3.9	0.0	0.0	411	1	49.5	5.5	0.0	0.0	412	2	69.0	6.1	0.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	in g		Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)		Dwelling no.	No. of bedrooms	ndition ea (m²)	or or	Area of garden & lawn (m²)		Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
413	2	76.9	3.9	0.0	0.0	4	414	3	106.6	4.2	0.0	0.0	415	2	80.9	7.2	0.0	0.0	416	1	45.7	3.8	0.0	0.0	417	3	96.7	4.7	0.0	0.0
418	1	49.3	4.6	0.0	0.0	4	119	2	88.7	3.8	0.0	0.0	420	1	46.6	6.0	0.0	0.0	421	1	46.6	6.0	0.0	0.0	422	2	66.3	8.5	0.0	0.0
423	2	68.2	4.0	0.0	0.0	4	124	1	44.9	4.1	0.0	0.0	501	3	100.3	3 5.7	0.0	0.0	502	3	106.3	3 4.8	0.0	0.0	503	2	70.5	7.3	0.0	0.0
504	2	66.3	8.5	0.0	0.0	5	505	3	98.9	4.8	0.0	0.0	G01	2	64.8	4.0	0.0	0.0	G02	2	91.9	3.8	0.0	0.0	G03	1	58.3	5.5	0.0	0.0
G04	3	102.6	5.5	0.0	0.0	C	G05	2	80.3	7.2	0.0	0.0	G06	1	45.7	3.8	0.0	0.0	G07	3	93.2	4.6	0.0	0.0	G08	2	68.8	5.1	0.0	0.0
G09	3	96.7	4.7	0.0	0.0	C	G10	1	48.9	4.1	0.0	0.0	G11	1	60.8	4.3	0.0	0.0	G12	1	52.5	4.0	0.0	0.0	G13	2	68.2	4.0	0.0	0.0
G14	1	44.9	4.1	0.0	0.0																									

### Residential flat buildings - 812 Pittwater Road, 96 dwellings, 8 storeys above ground

Dwelling no.		Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)		Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
126	2	69.8	4.3	0.0	0.0	127	2	79.5	4.3	0.0	0.0	128	1	50.4	3.8	0.0	0.0	129	1	47.3	4.3	0.0	0.0	130	2	71.5	3.9	0.0	0.0
131	2	73.7	4.6	0.0	0.0	132	1	46.4	5.8	0.0	0.0	133	2	70.7	2.5	0.0	0.0	134	2	69.4	4.2	0.0	0.0	135	1	48.2	4.4	0.0	0.0
136	1	49.4	4.7	0.0	0.0	138	1	48.0	3.8	0.0	0.0	139	1	48.1	2.2	0.0	0.0	228	2	72.2	3.8	0.0	0.0	229	2	72.0	3.8	0.0	0.0
230	1	61.0	2.5	0.0	0.0	231	1	45.2	4.1	0.0	0.0	232	2	71.0	4.3	0.0	0.0	233	2	68.9	3.7	0.0	0.0	234	2	70.4	3.8	0.0	0.0
235	2	69.7	7.6	0.0	0.0	236	1	43.7	5.7	0.0	0.0	237	1	48.3	4.3	0.0	0.0	238	1	47.8	8.5	0.0	0.0	239	3	97.2	3.9	0.0	0.0
240	1	44.3	4.6	0.0	0.0	241	1	44.9	4.2	0.0	0.0	242	2	81.9	5.1	0.0	0.0	243	2	79.2	6.3	0.0	0.0	244	3	92.1	5.1	0.0	0.0
328	2	72.2	3.8	0.0	0.0	329	2	72.0	3.8	0.0	0.0	330	1	61.0	2.5	0.0	0.0	331	1	45.2	4.1	0.0	0.0	332	2	71.0	4.3	0.0	0.0
333	2	68.9	3.7	0.0	0.0	334	2	70.4	3.8	0.0	0.0	335	2	69.7	7.6	0.0	0.0	336	1	43.7	5.7	0.0	0.0	337	1	48.3	4.3	0.0	0.0

Dwelling no.	No. of hedrooms	nditioned sa (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms		Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	<u>No. of hedrooms</u>		Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	of g (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms		Unconditioned floor area (m²)	of ga (m²)	Indigenous species (min area m²)
338	1	47.8	8.5	0.0	0.0	339	3	97.2	3.9	0.0	0.0	340	1	44.3	4.6	0.0	0.0	341	1	44.9	4.2	0.0	0.0	342	2	81.9	5.1	0.0	0.0
343	2	79.2	6.3	0.0	0.0	344	3	92.1	5.1	0.0	0.0	425	2	72.2	3.8	0.0	0.0	426	2	72.0	3.8	0.0	0.0	427	1	61.0	2.5	0.0	0.0
428	1	45.2	4.1	0.0	0.0	429	2	71.0	4.3	0.0	0.0	430	2	68.9	3.7	0.0	0.0	431	2	70.4	3.8	0.0	0.0	432	2	69.7	7.6	0.0	0.0
433	1	43.7	5.7	0.0	0.0	434	1	48.3	4.3	0.0	0.0	435	1	47.8	8.5	0.0	0.0	436	3	97.2	3.9	0.0	0.0	437	1	44.3	4.6	0.0	0.0
438	1	44.9	4.2	0.0	0.0	439	2	81.9	5.1	0.0	0.0	440	2	79.2	6.3	0.0	0.0	441	3	92.1	5.1	0.0	0.0	506	3	90.7	5.4	0.0	0.0
507	1	45.2	4.0	0.0	0.0	508	2	70.9	4.2	0.0	0.0	509	2	68.9	3.8	0.0	0.0	510	2	70.0	3.8	0.0	0.0	511	2	69.7	7.6	0.0	0.0
512	1	43.6	5.8	0.0	0.0	513	1	47.4	3.8	0.0	0.0	514	1	48.4	9.3	0.0	0.0	515	3	98.9	3.7	0.0	0.0	516	1	44.7	4.5	0.0	0.0
517	2	81.9	4.3	0.0	0.0	518	2	78.0	6.3	0.0	0.0	519	2	87.9	3.7	0.0	0.0	601	3	98.9	3.7	0.0	0.0	602	1	44.7	4.5	0.0	0.0
603	2	81.9	4.3	0.0	0.0	604	3	100.3	3 5.3	0.0	0.0	605	3	104.3	5.5	0.0	0.0	701	3	98.9	3.7	0.0	0.0	702	1	44.7	4.5	0.0	0.0
703	2	81.9	4.3	0.0	0.0	704	3	121.5	5.2	0.0	0.0	705	3	104.3	5.5	0.0	0.0	G15	2	68.3	4.7	0.0	0.0	G16	2	71.5	3.8	0.0	0.0
G17	2	74.1	3.8	0.0	0.0	G18	2	74.3	3.8	0.0	0.0	G19	1	43.9	7.0	0.0	0.0	G20	1	52.6	0.0	0.0	0.0	G21	1	49.4	4.8	0.0	0.0
E.20	52	71.5	3.9	0.0	0.0																								

### **Description of project**

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

### Common areas of unit building - 4 Delmar Parade

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m²)
Lift car (No.1)	-	Lift car (No.2)	-	Lift car (No.3)	-
Lift car (No.4)	-	Commercial Bin Room	42.0	Bin Compactor Room 2	17.0
Bin Compactor Room 1	15.0	Bin Compactor Room 3	32.0	Bulky Storage Room	44.0

### Common areas of unit building - 812 Pittwater Road

Common area	Floor area (m <sup>2</sup> )	Common area	Floor area (m <sup>2</sup> )	Common area	Floor area (m²)
Lift car (No.5)	-	Lift car (No.6)	-	Storage 9	115.0
Storage 10	34.7	Storage 11	34.7	Storage 12	50.2
Storage 13	22.7	L	<u></u>		

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

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m²)
Basement 1	4122.2	Basement 2	4729.0	Comms Room	5.8
Main Switch Room 01	11.8	Sub Board Switch Room 01	6.1	Sub Board Switch Room 02	4.1
Comms Room 02	4.1	Substation	12.4	Bin Compactor Room 4	12.5
Bin Compactor Room 5	12.5	Waste Collection Room	12.5	Garbage room (No. 9)	12.5
Garbage room (No. 10)	12.5	Garbage room (No. 11)	12.5	CP Supply 01	15.2
Carpark Exhaust 1	15.4	Carpark Supply 1	13.2	Cold Water Pump Room	11.9
Fire Pump Room 01	16.4	CP Supply 02	15.2	Carpark Exhaust 2	15.4
Carpark Supply 02	13.2	Grease Arrestor 01	7.6	Grease Arrestor 02	8.1
Storage 1	77.2	Storage 2	75.2	Storage 3	75.2
Storage 4	110.0	Storage 5	34.5	Storage 6	45.1

Com	nmon area	Floor area (m <sup>2</sup> )	Common area	Floor area (m²)	Common area	Floor area (m²)
Stor	age 7	44.0	Storage 8	75.2		
L		1				
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# **Schedule of BASIX commitments**

1. Commitments for Residential flat buildings - 4 Delmar Parade

- (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 812 Pittwater Road
  - (a) Dwellings
    - (i) Water
    - (ii) Energy
    - (iii) Thermal Comfort
  - (b) Common areas and central systems/facilities
    - (i) Water
    - (ii) Energy
- 3. Commitments for multi-dwelling houses
- 4. Commitments for single dwelling houses
- 5. Commitments for common areas and central systems/facilities for the development (non-building specific)
  - (i) Water
  - (ii) Energy

### Schedule of BASIX commitments

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

### 1. Commitments for Residential flat buildings - 4 Delmar Parade

#### (a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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		<ul> <li>Image: A set of the set of the</li></ul>	~
(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.		<ul> <li>Image: A set of the set of the</li></ul>	~
(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.	~	<b>v</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<ul> <li>Image: A set of the set of the</li></ul>	
(g) The pool or spa must be located as specified in the table.	~	<ul> <li>Image: A set of the set of the</li></ul>	
(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			Fixtures Appliances Individual pool			Individual spa							
Dwelling no.	All shower- heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish- washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	3.5 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
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		<b>~</b>	
(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.		<b>~</b>	
(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;		<b>~</b>	
(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		<b>~</b>	~
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		<b>~</b>	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		<b>_</b>	

	Hot water	Bathroom ventilation system Kitchen ventilation system			Laundry ventilation system		
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

	Coo	ling	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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitche
G14	1-phase airconditioning EER 3.0 - 3.5	-	1-phase airconditioning EER 3.0 - 3.5	-	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
All other dwellings	1-phase airconditioning EER 3.0 - 3.5	-	1-phase airconditioning EER 3.0 - 3.5	-	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes

	Individual p	ool	Individual s	ра	Applianc			es & other efficiency measures				
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	2.5 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.	~		

iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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.	~	<b>~</b>	~

		Thermal loads						
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)						
101	25.2	11.2						
102	12.2	17.4						
103	13.1	19.1						
104	15.2	13.5						
105	16.2	18.9						
106	20.0	14.5						
108	42.9	15.9						
109	15.2	17.3						
110	25.7	18.4						
111	22.9	13.7						
112	35.5	21.4						

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
113	33.0	14.5
114	18.3	14.2
115	20.7	9.5
116	1.3	21.7
117	40.5	18.1
118	20.1	12.2
119	33.6	27.2
120	44.5	14.3
121	43.5	19.5
122	25.1	17.2
123	43.8	13.6
124	5.7	11.9
125	0.2	14.5
201	15.6	11.5
202	9.0	17.5
203	7.6	20.1
204	7.3	14.0
205	8.1	21.0
206	11.2	17.8
207	10.5	21.3
208	16.8	16.7
209	35.6	21.4
210	11.1	18.1
211	30.2	12.0
212	28.0	17.7
213	14.1	15.0
214	17.6	21.3

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
215	29.2	17.1
216	9.6	16.0
217	19.1	9.4
218	10.1	18.3
219	32.0	20.6
220	19.4	13.2
221	13.3	29.5
222	23.8	16.9
223	19.6	16.1
224	18.6	17.7
225	43.2	17.1
226	3.8	13.0
227	0.1	14.0
301	20.4	9.0
302	12.4	12.8
303	12.5	7.7
304	12.6	9.4
305	8.4	12.0
307	5.7	20.5
308	8.1	10.1
308	19.2	10.6
309	43.4	15.4
310	16.6	14.7
311	22.6	9.6
312	32.7	10.6
313	21.9	12.2
314	24.7	15.7

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
315	34.3	12.5
316	14.9	12.4
317	25.4	7.4
318	15.2	11.7
319	41.6	16.6
320	23.0	11.2
321	16.5	20.6
322	29.4	10.8
323	21.7	10.8
324	19.3	11.9
325	44.8	13.9
326	6.6	9.6
327	2.0	11.0
401	26.7	8.0
402	28.1	22.3
403	25.7	10.1
404	39.8	10.0
405	29.1	10.2
406	27.7	14.4
407	23.2	13.7
408	27.3	8.9
409	36.9	10.2
410	22.0	16.3
411	23.6	10.5
412	26.3	16.3
413	19.4	14.4
414	23.1	10.8

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
415	32.5	18.2
416	21.2	12.2
417	28.6	12.3
418	27.8	18.1
419	39.6	12.4
420	29.3	11.0
421	20.7	17.9
422	35.8	18.7
423	6.7	9.7
424	2.5	10.1
501	6.1	14.8
502	35.8	10.0
503	40.9	16.8
504	44.8	16.1
505	16.1	10.3
G01	25.8	16.5
G02	35.2	17.7
G03	32.8	22.7
G04	23.6	9.7
G05	2.4	23.4
G06	43.8	16.4
G07	33.5	11.1
G08	19.5	18.7
G09	19.4	13.4
G10	18.9	25.3
G11	10.5	25.1
G12	16.9	17.8

	Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
G13	6.8	1.1				
All other dwellings	0.6	14.2				

### (b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

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

	Common area	ventilation system		Common area lighting				
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS			
Lift car (No.1)	-	-	compact fluorescent	connected to lift call button	No			
Lift car (No.2)	-	-	compact fluorescent	connected to lift call button	No			
Lift car (No.3)	-	-	compact fluorescent	connected to lift call button	No			
Lift car (No.4)	-	-	compact fluorescent	connected to lift call button	No			
Commercial Bin Room	ventilation exhaust only	-	fluorescent	motion sensors	No			
Bin Compactor Room 2	ventilation exhaust only	-	fluorescent	motion sensors	No			
Bin Compactor Room 1	ventilation exhaust only	-	fluorescent	motion sensors	No			
Bin Compactor Room 3	ventilation exhaust only	-	fluorescent	motion sensors	No			
Bulky Storage Room	ventilation exhaust only	-	fluorescent	motion sensors	No			

Central energy systems	Туре	Specification
Central hot water system (No. 1)	gas instantaneous	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 1)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 7
Lift (No. 2)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 7
Lift (No. 3)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 7
Lift (No. 4)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 8

### 2. Commitments for Residential flat buildings - 812 Pittwater Road

### (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		<b>~</b>	~
(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.		<ul> <li>Image: A set of the set of the</li></ul>	~
(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.	~	<b>~</b>	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		<b>~</b>	
(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 Individu			vidual pool	dual pool Individual spa					
Dwelling no.	All shower- heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish- washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 4.5 but <= 6 L/min)	4 star	4 star	5 star	no	-	3.5 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	
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.		<b>~</b>	
(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;		<b>~</b>	
(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		<ul> <li>Image: A set of the set of the</li></ul>	~
(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 ven	tilation system	Kitchen venti	lation system	Laundry vent	ilation system
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 2	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

	Coo	ling	Hea	ting			Artificial	lighting			Natural lig	ghting
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
All dwellings	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	-	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes

	Individual p	ool	Individual s	ра			Appliance	es & other effici	ency meas	ures		
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	2.5 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.		~	

ii) 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:	~	<ul> <li></li> </ul>	~
(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.	~	<b>~</b>	~

	Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
126	14.9	16.1				
127	28.2	20.0				
128	25.9	17.0				
129	30.2	22.3				
130	25.5	21.1				
131	26.9	19.7				
132	34.9	19.3				
133	37.0	11.9				
134	18.1	10.7				
135	24.5	26.4				
136	6.8	15.8				
138	15.1	26.8				
139	33.0	26.2				
228	24.3	12.9				

Thermal loads						
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
229	34.6	15.1				
230	43.3	16.6				
231	29.9	18.5				
232	31.4	21.5				
233	20.4	18.3				
234	21.0	17.2				
235	8.5	13.8				
236	1.04	17.0				
237	15.8	20.0				
238	9.5	14.0				
240	18.8	14.0				
241	17.1	15.4				
242	9.1	12.3				
243	13.9	10.6				
244	30.7	16.8				
328	23.6	13.2				
329	35.4	14.6				
330	44.1	16.3				
331	30.6	17.3				
332	32.3	20.8				
333	21.1	17.9				
334	21.6	16.7				
336	10.8	16.5				
337	16.0	19.6				
338	9.7	13.4				
340	19.5	13.1				
341	17.6	15.1				

Thermal loads						
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
342	9.3	12.3				
343	14.5	10.4				
344	31.3	15.8				
425	30.9	12.8				
426	40.1	16.0				
427	39.7	17.9				
428	24.3	20.7				
429	32.3	21.5				
430	21.4	17.1				
431	21.8	15.7				
433	9.5	15.5				
434	14.3	19.1				
435	6.9	13.5				
436	27.9	21.1				
437	19.7	12.6				
438	17.7	14.5				
439	26.8	16.6				
440	14.0	10.2				
441	29.1	15.8				
506	20.7	21.5				
507	18.5	27.8				
508	42.5	11.6				
509	37.7	16.2				
510	35.7	14.3				
511	12.0	9.7				
512	12.4	16.5				
513	26.8	17.8				

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
514	18.0	10.7
515	37.9	15.9
516	28.8	17.7
517	9.4	14.0
518	12.5	9.2
519	34.3	19.4
601	37.8	15.8
602	28.4	17.3
603	9.2	13.8
604	18.8	9.6
605	44.7	14.0
701	45.1	18.3
702	31.9	20.3
703	11.8	15.2
704	33.7	12.5
705	39.6	20.4
G15	21.8	17.3
G16	44.3	17.9
G17	24.0	25.5
G18	43.5	9.1
G19	14.0	28.7
G20	14.6	24.1
G21	13.0	15.6
E.205	41.3	14.2
239, 339	27.9	22.1
All other dwellings	8.9	13.7

### (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

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

	Common area	ventilation system	Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No.5)	-	-	compact fluorescent	connected to lift call button	No
Lift car (No.6)	-	-	compact fluorescent	connected to lift call button	No
Storage 9	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 10	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 11	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 12	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 13	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No

Central energy systems	Туре	Specification
Central hot water system (No. 2)	gas instantaneous	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 5)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 8
Lift (No. 6)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 10

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

#### (b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		<b>~</b>	~
(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.		<b>~</b>	
(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

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

	Common area	ventilation system		Common area lighting	
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Basement 1	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	zoned switching with motion sensor	No
Basement 2	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	zoned switching with motion sensor	No
Comms Room	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No
Main Switch Room 01	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No
Sub Board Switch Room 01	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No
Sub Board Switch Room 02	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No
Comms Room 02	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No
Substation	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No
Bin Compactor Room 4	ventilation exhaust only	-	fluorescent	motion sensors	No
Bin Compactor Room 5	ventilation exhaust only	-	fluorescent	motion sensors	No
Waste Collection Room	ventilation exhaust only	-	fluorescent	motion sensors	No
Garbage room (No. 9)	ventilation exhaust only	-	fluorescent	motion sensors	No
Garbage room (No. 10)	ventilation exhaust only	-	fluorescent	motion sensors	No
Garbage room (No. 11)	ventilation exhaust only	-	fluorescent	motion sensors	No
CP Supply 01	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Carpark Exhaust 1	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Carpark Supply 1	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Cold Water Pump Room	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Fire Pump Room 01	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
CP Supply 02	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Carpark Exhaust 2	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Carpark Supply 02	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Grease Arrestor 01	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Grease Arrestor 02	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 1	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No

	Common area	ventilation system	Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Storage 2	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 3	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 4	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 5	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 6	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 7	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Storage 8	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No

1. In these commitments, "applicant" means the	e person carrying out the development
2. The applicant must identify each dwelling, bu	uilding and common area listed in this certificate, on the plans accompanying any development application, and on the plans and of or a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or
	nt involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both 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 esidential purposes.
	ommitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a comm	itment, this is a minimum rating.
	under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: mwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for vater supply.

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).