(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)
00.01	19.1	17.5
00.02	15.5	22.4
00.03	13.6	33.1
00.04	18.6	13.9
00.05	16	13.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
00.06	17	13.3
00.07	17.6	18.2
00.08	20.3	15.9
01.01	23.9	17.2
01.02	26	17.8
01.03	28.1	20.5
01.04	24.5	18.2
01.05	11.1	21.8
01.06	15.8	35.2
01.07	14.1	33.9
01.08	23	15.1
01.09	31.8	27.7
01.10	18.5	28.7
01.11	19.4	22.6
01.12	17.2	24.4
01.13	15.9	25.1
01.14	32	21.1
01.15	18.3	32.6
02.01	18.4	18.7
02.02	20.2	19.2
02.03	22.5	22.4
02.04	18.6	19.8
02.05	23.5	18.1
02.06	15.2	25.7
02.07	12.7	28
02.08	14.7	26.1
02.09	10.8	26.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
02.10	16.7	25.8
02.11	16.6	19.9
02.12	17.1	21.2
02.13	18.6	21
02.14	29.8	25
02.15	18.8	28.5
02.16	19.7	22.5
02.17	17.5	24.3
02.18	17.1	25.3
02.19	26.8	22.3
02.20	16	24.2
03.01	18.7	18.6
03.02	20.4	19.3
03.03	22.8	22.3
03.04	18.8	19.6
03.05	18.7	13.8
03.06	15.4	25.6
03.07	13	27.5
03.08	10.2	23.2
03.09	10.5	18.8
03.10	15.7	17.8
03.11	14.1	18.6
03.12	18	19.4
03.13	14.5	15
03.14	30.2	24.5
03.15	19.1	28.7
03.16	19.9	22

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
03.17	17.9	24
03.18	17.4	25.2
03.19	27	22.3
03.20	16.3	23.4
04.01	18.9	18.5
04.02	20.5	19
04.03	23	22.2
04.04	19.1	19.5
04.05	18.9	13.7
04.06	15.7	25.8
04.07	13.3	27
04.08	10.4	22.6
04.09	10.6	18.7
04.10	15.9	17.6
04.11	14.3	18.5
04.12	18	19.3
04.13	14.8	14.8
04.14	30.6	24.5
04.15	19.2	28.6
04.16	20.2	22
04.17	18.1	24
04.18	17.8	24.9
04.19	27.3	22.3
04.20	16.5	23.1
05.01	19.2	18.4
05.02	20.7	19.2
05.03	23.2	22

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
05.04	19.4	19.7
05.05	19.1	13.7
05.06	15.8	25.1
05.07	13.5	26.8
05.08	10.6	22.4
05.09	10.8	18.6
05.10	16.2	17.7
05.11	14.5	18.6
05.12	18.2	19.4
05.13	15.1	14.7
05.14	31	24.2
05.15	19.4	28.6
05.16	20.5	21.5
05.17	18.5	24.3
05.18	18.1	24.9
05.19	27.7	22.3
05.20	16.8	22.9
06.01	19.3	18.5
06.02	20.9	19.4
06.03	23.4	22.1
06.04	19.6	19.4
06.05	19.3	13.5
06.06	16	25.3
06.07	13.7	26.3
06.08	10.7	22.5
06.09	10.9	17.6
06.10	16.4	17.6

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
06.11	14.7	18.6
06.12	18.4	19.3
06.13	15.2	14.7
06.14	31.3	24.1
06.15	19.6	28.6
06.16	20.7	21.4
06.17	18.7	24
06.18	18.3	24.7
06.19	27.9	22.2
06.20	17	22.7
07.01	19.4	18.3
07.02	21	19.2
07.03	23.6	22.2
07.04	19.7	19.4
07.05	19.4	13.3
07.06	16.1	25.2
07.07	13.8	26.3
07.08	16.5	24.6
07.09	16.9	19.9
07.10	17.4	18.4
07.11	15.8	19.8
07.12	18.5	20.5
07.13	17.9	16.2
07.14	35.6	23.8
07.15	18.9	28.9
07.16	23.5	23.4
07.17	18.8	24

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
07.18	18.5	24.7
07.19	29.3	22.9
07.20	19.1	24.1
08.01	19.7	18.3
08.02	21.2	19.5
08.03	23.7	22.2
08.04	20	19.5
08.05	29.9	30.7
08.06	16.8	24.6
08.07	7.4	40.5
08.08	11.2	15.6
08.11	16	35.4
08.12	29	18.3
08.13	11.6	37.6
09.01	19.9	18.1
09.02	21.3	19.3
09.03	23.8	22.3
09.04	20.2	19.6
09.05	2.6	40.7
09.06	18.7	34.2
09.07	35.6	22
09.08	13	40.1
10.01	8.1	12.9
10.02	8.2	12.5
10.03	9.3	39.9
10.04	22.5	32.4
10.05	33.2	24.7

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
10.06	16.3	38.2
10.07	18	39.3
11.01	5.9	14.7
11.02	5.9	13.4
11.03	12.8	39.9
11.04	33.8	40.2
11.05	22.6	40.7
12.01	15	37.9
12.02	9	39.1
All other dwellings	11.1	15.1

(b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 1)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓

(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 ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park Entry Ramp	no mechanical ventilation	-	metal halide	zoned switching with daylight sensor	No
Car park Aisles & Internal Ramps	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	none	No
Car park Spaces	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	zoned switching with motion sensor	No
Loading Dock	ventilation exhaust only	carbon monoxide monitor + VSD fan	fluorescent	time clocks	No
Lift car (No. 1)		-	compact fluorescent	none	No
Lift car (No. 2)		-	compact fluorescent	none	No
Lift car (No. 3)		-	compact fluorescent	none	No
Switch Room	ventilation supply only	none ie. continuous	fluorescent	manual on / manual off	No
Garbage Room Grd	ventilation exhaust only	-	fluorescent	motion sensors	No
Garbage Rooms L1-L12	ventilation exhaust only	-	fluorescent	motion sensors	No
Lounge	ventilation supply only	none ie. continuous	fluorescent	time clock and motion sensors	No
CW Booster Pump Room	ventilation exhaust only	none ie. continuous	fluorescent	manual on / manual off	No
Grease Arrestors Room	ventilation exhaust only	none ie. continuous	fluorescent	manual on / manual off	No
Rainwater Reuse Pump Room	ventilation exhaust only	none ie. continuous	fluorescent	manual on / manual off	No

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Sewer Overflow	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Heat Transfer Room	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Stormwater Drainage Pit	no mechanical ventilation	-	fluorescent	motion sensors	No
Communications Room	ventilation exhaust only	none ie. continuous	fluorescent	manual on / manual off	No
Fire Services Test Return Tank	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Fire Services Tank Room	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Fire Services Pump Room	ventilation exhaust only	none ie. continuous	fluorescent	manual on / manual off	No
Bathroom Toilet B1	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Lockers / Change Area B1	ventilation exhaust only	none ie. continuous	fluorescent	motion sensors	No
Fire Stairs L1-L12	ventilation supply only	none ie. continuous	fluorescent	none	No
Car park Stairs	ventilation supply only	none ie. continuous	fluorescent	none	No
Storage B1-B3	ventilation (supply + exhaust)	none ie. continuous	fluorescent	zoned switching with motion sensor	No
Ground Floor Lobby	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No
Hallway/lobby L1-L12	ventilation supply only	none ie. continuous	fluorescent	motion sensors	No

Central energy systems	Type	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 15
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 16
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 16

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

(b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central on-site recycled/alternative water supply (No. 1)	To supply at least 1000 litres of recycled water per day to the development (over and above the system's committed capacity, if any)	-	- Irrigation of 199.37 square metres of common landscape area on the site - car washing in 0 car washing bays on the site - use of this water as make-up water by Central cooling system 1, in the building/development

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

Central energy systems	Type	Specification
Central hot water system (No. 1)	cogeneration system	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R0.3 (~13 mm)
Central cooling system (No. 1)	chilled water fan coil units	Energy source: cogeneration heat absorption chiller Heat rejection method: cooling tower Unit efficiency (min): low - COP < 0.7
Alternative energy supply	Cogeneration system	Fuel type: gas Electrical output (min): 220.72kW Efficiency of fuel to electricity conversion (min): 42.45%

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).