BASIX® Certificate

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

Multi Dwelling

Certificate number: 1731404M

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 December 2023
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT

Project summary	
Project name	50 Morisset Street, Queanbeyan
Street address	50 MORISSET STREET QUEANBEYAN 2620
Local Government Area	QUEANBEYAN-PALERANG REGIONAL
Plan type and plan number	Deposited Plan 817801
Lot No.	1
Section no.	-
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	160
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score		
Water	✔ 40	Target 40
Thermal Performance	✔ Pass	Target Pass
Energy	✔ 53	Target 53
Materials	✔ -15	Target n/a

Certificate Prepared by
Name / Company Name: ACT Sustainable Systems
ABN (if applicable): 40836387634

Description of project

Project address	
Project name	50 Morisset Street, Queanbeyan
Street address	50 MORISSET STREET QUEANBEYAN 2620
Local Government Area	QUEANBEYAN-PALERANG REGIONAL
Plan type and plan number	Deposited Plan 817801
Lot No.	1
Section no.	-

Project type	
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	160
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Site details	
Site area (m²)	5940
Roof area (m²)	1920
Non-residential floor area (m²)	627
Residential car spaces	202
Non-residential car spaces	11

Common area landscape	
Common area lawn (m²)	362
Common area garden (m²)	297
Area of indigenous or low water use species (m²)	0

Assessor details and thermal loads	
Assessor number	32313
Certificate number	C0NUDAN0EL
Climate zone	24

Project score			
Water	✔	40	Target 40
Thermal Performance	✔	Pass	Target Pass
Energy	✔	53	Target 53
Materials	✔	-15	Target n/a

Description of project

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

Residential flat buildings - North/South Tower, 160 dwellings, 10 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)
201	2	73.7	3	0	0
205	1	47.3	2.3	0	0
209	1	44.9	4.2	0	0
213	1	44.9	4.2	0	0
217	1	47.4	3.2	0	0
301	2	73.7	3	0	0
305	1	47.3	2.3	0	0
309	1	44.9	4.2	0	0
313	1	44.9	4.2	0	0
317	1	47.4	3.2	0	0
401	2	73.7	3	0	0
405	1	47.3	2.3	0	0
409	1	44.9	4.2	0	0
413	1	44.9	4.2	0	0
417	1	47.4	3.2	0	0
501	2	73.7	3	0	0
505	1	47.3	2.3	0	0
509	1	44.9	4.2	0	0
513	1	44.9	4.2	0	0
517	1	47.4	3.2	0	0
601	2	73.7	3	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
202	2	80.2	3.1	0	0
206	1	47.1	4.1	0	0
210	2	79.2	4	0	0
214	2	73	5.6	0	0
218	2	74.4	4.4	0	0
302	2	80.2	3.1	0	0
306	1	47.1	4.1	0	0
310	2	79.2	4	0	0
314	2	73	5.6	0	0
318	2	74.4	4.4	0	0
402	2	80.2	3.1	0	0
406	1	47.1	4.1	0	0
410	2	79.2	4	0	0
414	2	73	5.6	0	0
418	2	74.4	4.4	0	0
502	2	80.2	3.1	0	0
506	1	47.1	4.1	0	0
510	2	79.2	4	0	0
514	2	73	5.6	0	0
518	2	74.4	4.4	0	0
602	2	80.2	3.1	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
203	1	44.9	4.2	0	0
207	1	47.4	3.2	0	0
211	2	73.7	3	0	0
215	1	47.3	2.3	0	0
219	1	44.9	4.2	0	0
303	1	44.9	4.2	0	0
307	1	47.4	3.2	0	0
311	2	73.7	3	0	0
315	1	47.3	2.3	0	0
319	1	44.9	4.2	0	0
403	1	44.9	4.2	0	0
407	1	47.4	3.2	0	0
411	2	73.7	3	0	0
415	1	47.3	2.3	0	0
419	1	44.9	4.2	0	0
503	1	44.9	4.2	0	0
507	1	47.4	3.2	0	0
511	2	73.7	3	0	0
515	1	47.3	2.3	0	0
519	1	44.9	4.2	0	0
603	1	44.9	4.2	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
204	2	73	5.6	0	0
208	2	74.4	4.4	0	0
212	2	80.2	3.1	0	0
216	1	47.1	4.1	0	0
220	2	79.2	4	0	0
304	2	73	5.6	0	0
308	2	74.4	4.4	0	0
312	2	80.2	3.1	0	0
316	1	47.1	4.1	0	0
320	2	79.2	4	0	0
404	2	73	5.6	0	0
408	2	74.4	4.4	0	0
412	2	80.2	3.1	0	0
416	1	47.1	4.1	0	0
420	2	79.2	4	0	0
504	2	73	5.6	0	0
508	2	74.4	4.4	0	0
512	2	80.2	3.1	0	0
516	1	47.1	4.1	0	0
520	2	79.2	4	0	0
604	2	73	5.6	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
605	1	47.3	2.3	0	0
609	1	44.9	4.2	0	0
613	1	44.9	4.2	0	0
617	1	47.4	3.2	0	0
701	2	73.7	3	0	0
705	1	47.3	2.3	0	0
709	1	44.9	4.2	0	0
713	1	44.9	4.2	0	0
717	1	47.4	3.2	0	0
801	2	73.7	3	0	0
805	1	47.3	2.3	0	0
809	1	44.9	4.2	0	0
813	1	44.9	4.2	0	0
817	1	47.4	3.2	0	0
901	2	73.7	3	0	0
905	1	47.3	2.3	0	0
909	1	44.9	4.2	0	0
913	1	44.9	4.2	0	0
917	1	47.4	3.2	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
606	1	47.1	4.1	0	0
610	2	79.2	4	0	0
614	2	73	5.6	0	0
618	2	74.4	4.4	0	0
702	2	80.2	3.1	0	0
706	1	47.1	4.1	0	0
710	2	79.2	4	0	0
714	2	73	5.6	0	0
718	2	74.4	4.4	0	0
802	2	80.2	3.1	0	0
806	1	47.1	4.1	0	0
810	2	79.2	4	0	0
814	2	73	5.6	0	0
818	2	74.4	4.4	0	0
902	2	80.2	3.1	0	0
906	1	47.1	4.1	0	0
910	2	79.2	4	0	0
914	2	73	5.6	0	0
918	2	74.4	4.4	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
607	1	47.4	3.2	0	0
611	2	73.7	3	0	0
615	1	47.3	2.3	0	0
619	1	44.9	4.2	0	0
703	1	44.9	4.2	0	0
707	1	47.4	3.2	0	0
711	2	73.7	3	0	0
715	1	47.3	2.3	0	0
719	1	44.9	4.2	0	0
803	1	44.9	4.2	0	0
807	1	47.4	3.2	0	0
811	2	73.7	3	0	0
815	1	47.3	2.3	0	0
819	1	44.9	4.2	0	0
903	1	44.9	4.2	0	0
907	1	47.4	3.2	0	0
911	2	73.7	3	0	0
915	1	47.3	2.3	0	0
919	1	44.9	4.2	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
608	2	74.4	4.4	0	0
612	2	80.2	3.1	0	0
616	1	47.1	4.1	0	0
620	2	79.2	4	0	0
704	2	73	5.6	0	0
708	2	74.4	4.4	0	0
712	2	80.2	3.1	0	0
716	1	47.1	4.1	0	0
720	2	79.2	4	0	0
804	2	73	5.6	0	0
808	2	74.4	4.4	0	0
812	2	80.2	3.1	0	0
816	1	47.1	4.1	0	0
820	2	79.2	4	0	0
904	2	73	5.6	0	0
908	2	74.4	4.4	0	0
912	2	80.2	3.1	0	0
916	1	47.1	4.1	0	0
920	2	79.2	4	0	0

Description of project

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

Common areas of unit building - North/South Tower

Common area	Floor area (m²)
Lift bank (No. 1)	-
Undercover car park area (No. 2)	2400
Waste Holding Room	18
South Ground floor lobby type (No. 2)	23
Hallway/lobby type (No. 11)	68
Hallway/lobby type (No. 14)	68

Common area	Floor area (m²)
Lift bank (No. 2)	-
Garbage room (No. 1)	76
Plant or service room (No. 1)	8
Hallway/lobby type (No. 9)	68
Hallway/lobby type (No. 12)	68
Hallway/lobby type (No. 15)	68

Common area	Floor area (m²)
Undercover car park area (No. 1)	2700
Garbage room (No. 2)	21
North Ground floor lobby type (No. 1)	52
Hallway/lobby type (No. 10)	68
Hallway/lobby type (No. 13)	68
Hallway/lobby type (No. 16)	68

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - North/South Tower

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

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

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carriedout. 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 - North/South Tower

(a) Buildings

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the “Floor types”, “External wall types”, “Internal wall types”, “Ceiling and roof types”, “Frames” and “Glazing” tables below.			✔
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✔	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the “Frames” and “Glazing” tables is permitted.	✔	✔	✔
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✔

Floor types			
Floor type	**Area (m2)**	**Insulation**	**Low emissions option**
concrete slab on ground, frame:	2898	-	none
suspended floor above garage, frame: suspended concrete slab	3836.4	-	none
floors above habitable rooms, frame: suspended concrete slab	10054.8	-	none

External wall types				
External wall type	**Construction type**	**Area (m2)**	**Low emissions option**	**Insulation**
External wall type 1	concrete panel/ plasterboard,frame:timber - H2 treated softwood	6216	none	rockwool batts, roll or pump-in
External wall type 2	framed (metal clad),frame:timber - H2 treated softwood	586	none	rockwool batts, roll or pump-in

Internal wall types			
Internal wall type	**Construction type**	**Area (m2)**	**Insulation**
Internal wall type 1	plasterboard, frame:timber - H2 treated softwood	6720	-
Internal wall type 2	plasterboard, frame:timber - H2 treated softwood	9769.6	rockwool batts, roll or pump-in

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	**Volume (m^3)**	**Low emissions option**
yes	2000	-

Ceiling and roof types			
Ceiling and roof type	**Area (m^2)**	**Roof Insulation**	**Ceiling Insulation**
concrete - plasterboard internal, frame: no frame	1920	foil/sarking	rockwool batts, roll or pump-in

Glazing types			Frame types				
Single glazing (m^2)	**Double glazing (m^2)**	**Triple glazing (m^2)**	**Aluminium frames (m^2)**	**Timber frames (m^2)**	**uPVC frames (m^2)**	**Steel frames (m^2)**	**Composite frames (m^2)**
-	200	-	200	-	-	-	-

(b) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 4.5 but <= 6 L/min)	4 star	4 star	4 star	-	not specified	not specified	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	**Alternative water supply systems**	**Size**	**Configuration**	**Landscape connection**	**Toilet connection (s)**	**Laundry connection**	**Pool top-up**	**Spa top-up**
All dwellings	No alternative water supply	-	-	-	-	-	-	-
All dwellings	No alternative water supply	-	-	-	-	-	-	-

(ii) Energy	**Show on DA plans**	**Show on CC/CDC plans & specs**	**Certifier check**
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling:			

(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	electric instantaneous	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
210, 220, 310, 320, 410, 420, 510, 520, 610, 620, 710, 720, 810, 820, 910, 920	1-phase airconditioning - non ducted / 5 star (cold zone)	1-phase airconditioning - non ducted / 5 star (cold zone)	1-phase airconditioning - non ducted / 5 star (cold zone)	1-phase airconditioning - non ducted / 5 star (cold zone)	0	yes

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All other dwellings	1-phase airconditioning - non ducted / 5 star (cold zone)	1-phase airconditioning - non ducted / 5 star (cold zone)	1-phase airconditioning - non ducted / 5 star (cold zone)	1-phase airconditioning - non ducted / 5 star (cold zone)	0	no

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	-	induction cooktop & electric oven	-	-	no	no

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

(iii) Thermal Performance	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.			
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
201	120.5	9.2	129.700
202	85.8	7.6	93.400
203	48.9	13.9	62.800
204	40.8	17	57.800
205	53.5	18.7	72.200
206	63.4	21.7	85.100
207	58.1	22.5	80.600
208	69.6	18.6	88.200
209	108.6	29.9	138.500
210	142	15.1	157.100
211	113.10	9.7	122.800
212	77.4	8.9	86.300
213	35.9	22.3	58.200
214	59	15.2	74.200
215	93.7	15.7	109.400
216	61.2	24.3	85.500
217	67	24.8	91.800
218	102	19.1	121.100
219	62.5	19	81.500
220	135.6	19.1	154.700

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
301	91.6	9.4	101.000
302	115.7	13.1	128.800
303	88.8	23	111.800
304	75.4	28.7	104.100
305	96.6	31.9	128.500
306	75.2	30.2	105.400
307	66.9	30.3	97.200
308	55.3	14.3	69.600
309	80.7	16.5	97.200
310	118.9	16	134.900
311	108.4	12	120.400
312	105.10	14.5	119.600
313	73.40	29.8	103.200
314	96.8	25.9	122.700
315	132.6	27.8	160.400
316	73.8	31.4	105.200
317	68.7	31.3	100.000
318	73.6	23.1	96.700
319	81.6	14.6	96.200
320	110.00	17.3	127.300
401	99.5	8.9	108.400
402	127.4	11.4	138.800
403	103.8	20.9	124.700
404	91.00	24	115.000
405	111.00	28.2	139.200
406	88.60	28.8	117.400
407	109.10	31.1	140.200
408	62.9	21.6	84.500
409	90.9	14.8	105.700
410	128.3	14.9	143.200
411	93.2	9.4	102.600

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
412	119.4	13	132.400
413	86	30.5	116.500
414	109.9	22.5	132.400
415	106.5	21.8	128.300
416	85.3	29.6	114.900
417	115.2	29.7	144.900
418	75.3	20.7	96.000
419	92.5	12.7	105.200
420	119.9	16.6	136.500
501	128.6	10.8	139.400
502	128.6	12.1	140.700
503	106	20.5	126.500
504	92.9	23.6	116.500
505	113.2	28.4	141.600
506	97.3	28.3	125.600
507	111.20	30.3	141.500
508	63.9	21.1	85.000
509	92.7	14.8	107.500
510	129.20	14.7	143.900
511	122.2	11.2	133.400
512	121.6	12.9	134.500
513	87.9	30.2	118.100
514	109.10	22.4	131.500
515	100	22.6	122.600
516	84.10	31.1	115.200
517	115.1	30.7	145.800
518	70.5	20.4	90.900
519	92.6	12.9	105.500
520	121.7	16.4	138.100
601	104.9	8.6	113.500
602	136.6	11.3	147.900

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
603	116.7	19.7	136.400
604	103.6	21.2	124.800
605	122.40	26	148.400
606	98.40	28	126.400
607	120.50	28.8	149.300
608	69.5	17.3	86.800
609	99.4	13.5	112.900
610	134.9	14.9	149.800
611	100.20	8.8	109.000
612	130.60	12.1	142.700
613	96.40	28.7	125.100
614	115.10	20.2	135.300
615	98.9	21.3	120.200
616	89.8	29.8	119.600
617	117.4	30.5	147.900
618	73.1	16.5	89.600
619	96.2	12.3	108.500
620	128.6	15.4	144.000
701	137.5	10.2	147.700
702	96.6	10.4	107.000
703	118.3	19.9	138.200
704	104.2	20.8	125.000
705	123.8	26.3	150.100
706	99.9	28.1	128.000
707	121.4	28.2	149.600
708	70.10	17	87.100
709	95.9	17.2	113.100
710	134.4	15.1	149.500
711	133.3	10.3	143.600
712	131.7	12.2	143.900
713	97.9	28.6	126.500

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
714	116.4	20.4	136.800
715	134.1	25.4	159.500
716	89.6	29.4	119.000
717	123.1	29.5	152.600
718	72.5	16.2	88.700
719	101.40	25	126.400
720	129.5	15	144.500
801	137.80	10.2	148.000
802	137.9	11.5	149.400
803	119.5	17.3	136.800
804	105	20.9	125.900
805	124.7	27.4	152.100
806	100.70	28.3	129.000
807	122.50	28.5	151.000
808	70.7	16.6	87.300
809	93.2	30.3	123.500
810	133.7	15.3	149.000
811	133.7	10.2	143.900
812	132.8	12.3	145.100
813	119.2	19.7	138.900
814	109.5	20.8	130.300
815	128.7	25.6	154.300
816	90.5	29.2	119.700
817	122.30	31.1	153.400
818	72.30	16	88.300
819	98.10	27	125.100
820	130.3	15.3	145.600
901	126.8	16.2	143.000
902	92	12.9	104.900
903	75.1	18.9	94.000
904	74.1	18.4	92.500

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
905	82.7	23.8	106.500
906	93.1	29	122.100
907	88.2	24.3	112.500
908	97.9	22.3	120.200
909	120.4	31.6	152.000
910	139.4	20.4	159.800
911	125.2	14.9	140.100
912	90.4	13.5	103.900
913	68.6	20.1	88.700
914	75.8	18.4	94.200
915	81.60	22.90	104.500
916	83.60	28.2	111.800
917	88.5	24.8	113.300
918	99	22.5	121.500
919	117.30	29.8	147.100
All other dwellings	132.80	8.7	141.500

(c) Common areas and central systems/facilities

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

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

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	20000	To collect run-off from at least: - 200 square metres of roof area of buildings in the development - 0 square metres of impervious area in the development - 0 square metres of garden/lawn area in the development - 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 659 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

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

(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
Lift bank (No. 1)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	no
Undercover car park area (No. 1)	ventilation exhaust only	carbon monoxide monitor + VSD fan	light-emitting diode	daylight sensor and motion sensor	no
Undercover car park area (No. 2)	ventilation exhaust only	carbon monoxide monitor + VSD fan	light-emitting diode	daylight sensor and motion sensor	no
Garbage room (No. 1)	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	no
Garbage room (No. 2)	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	no
Waste Holding Room	no mechanical ventilation	-	light-emitting diode	motion sensors	no
Plant or service room (No. 1)	no mechanical ventilation	none i.e., continuous	light-emitting diode	manual on / manual off	no
North Ground floor lobby type (No. 1)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensors	no
South Ground floor lobby type (No. 2)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensors	no
Hallway/lobby type (No. 1)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 2)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 3)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 4)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no

	Common area ventilation system		Common area lighting		
Common area	**Ventilation system type**	**Ventilation efficiency measure**	**Primary type of artificial lighting**	**Lighting efficiency measure**	**Lighting control system/ BMS**
Hallway/lobby type (No. 5)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 6)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 7)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 8)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 9)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 10)	ventilation exhaust only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 11)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 12)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 13)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 14)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 15)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no
Hallway/lobby type (No. 16)	ventilation supply only	none i.e., continuous	light-emitting diode	daylight sensor and motion sensor	no

Central energy systems	Type	Specification
Lift bank (No. 1)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 8 number of levels from the bottom of the lift shaft to the top of the lift shaft: 10 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg
Lift bank (No. 2)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 8 number of levels from the bottom of the lift shaft to the top of the lift shaft: 10 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg

2. 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	no common facility	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.	✔	✔	✔

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 20 peak kW
Other	-	-

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✔" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✔" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✔" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).