

BASIX Report

Camden, Affordable Housing State Significant
Development

Prepared for HNSW
Project No. SYD4168
Date 3 July 2026
Revision 03



Project	HNSW - Camden
Location	72 and 82-86 Menangle Road, Camden NSW 2570
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Project No	SYD4168
Revision	03
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Rev	Date	Description	Author	Technical Review	Authorisation & QA
01	22/06/2026	DRAFT SSDA Issue	Max Campbell	Jacob Delailoa	Borris Boschman
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03	3/07/2026	SSDA Issue Rev 2	Max Campbell	Jacob Delailoa	Borris Boschman

Project Team	
Client / Principal	Homes NSW
Architect	DKO
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1 Executive Summary

This BASIX Report has been prepared by ADP Consulting Pty Ltd as part of the Environmental Impact Statement (EIS) for a State Significant Development (SSD) application and concurrent rezoning for a social and affordable housing development at 72 and 82-86 Menangle Road, Camden, NSW 2570.

The site is located at 72 and 82-86 Menangle Road, Camden, in the Camden Local Government Area (LGA) and has a combined site area of 7,184sqm.

The SSDA seeks approval for the construction of two residential flat buildings comprising a total of 95 social and affordable housing dwellings.

This BASIX report has been prepared to support the SSDA submission as a legislative requirement in accordance with the Environmental Planning and Assessment Act (2000) and BASIX (2023).

Based on project specific inputs and the minimum legislative provisions outlined in this report, the proposed development meets the minimum BASIX requirements for **energy, water, thermal performance** and **materials** respectively.

Table 1: BASIX Target Scores

BASIX	Target	Score Achieved	Compliance
Water	40%	40%	Pass
Energy	58%	65%	Pass
Thermal Performance	Pass	Pass	Pass
Materials	NA	98%	Pass
(Reporting only)			

This report has also been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the project SSD-116982991 on 11/05/2026 as detailed in the table below.

Table 2: Relevant SEARs considered

Issue	SEARs requirement	Section reference
15. Ecologically Sustainable Development (ESD)	1. Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development. 2. Where relevant, provide an assessment of the development against the standards for non-residential development set out in Chapter 3 of State Environmental Planning Policy (Sustainable Buildings) 2022.	Section 2.4.1

As the development is purely residential, the project is exempt from the second requirement.

This report concludes that the proposed development appropriately considers ESD Principles subject to implementation of the BASIX energy, water and thermal comfort strategies detailed within this report.

2 Proposed development

The proposed development comprises the construction of a 3 new residential flat building across two sites, 72 and 82-86 Menangle Rd, Camden NSW 2570.

The SSD application seeks consent for the following:

- Site preparation works including excavation.
- Construction of two residential flat buildings containing 95 dwellings for the purpose of social and affordable housing.
- Construction of one level of basement parking for each residential flat building.
- Associated landscaping and communal open space.
- Infrastructure servicing.

72 Menangle Rd will include two six-storey buildings linked by a common basement, providing 31 car parking spaces and accommodating 64 units. 82-86 Menangle Rd will contain one 4-story building holding 32 units and 17 car spaces in the underground carpark. Both sites will have a communal recreation room, meeting room and basement car parking, including new landscaping in shared external spaces.

The proposed development will serve as affordable housing operated by Homes NSW.

A detailed description of the project is included in the EIS.

2.1 Subject Site Context

The site is located at 72 and 82-86 Menangle Road, Camden in the Camden Local Government Area (LGA). The site comprises 9 lots and has a combined site area of 7,184sqm. The lots are legally described as Lot 73-77 in DP21405, Lot 86 in DP21405, and Lots 1-3 in DP24039.

The site is currently occupied by two 1960s brick cottages, the former Camden Nurses' Quarters, and a former NSW Health car park.

The site has frontage to Menangle Road and Gilbulla Avenue. It is located opposite Camden Hospital and is approximately 600 metres from the Camden Town Centre, which provides a range of essential services, retail, and civic facilities.

A bus stop is located directly in front of the site on Menangle Road and Don Moon Memorial Reserve is located less than 250m from the site.

To the south and east, the site is surrounded by low density residential housing.



Figure 1 Subject site (Source DKO)

2.2 Assessment Assumptions and References

This BASIX assessment has been based on the following DA architectural drawings and updates provided periodically by DKO:

- BASIX Issue drawings by DKO issued on 26/06/2026

Revision	Date	Issue
A	26/06/2026	For SSDA

- BASIX RFI regarding Landscaping areas answered by DKO

2.3 BASIX Assessment

The Building Sustainably Index (BASIX) for the state of NSW forms the minimum compliance control for any new residential (Class 1, 2 & SDA) developments as defined by the Department of Planning Industry and Environment.

The BASIX assessment outlines a minimum target of improvement for the proposed development's water, energy, and thermal comfort performance. The minimum benchmark of improvement for each index is based on the location, size, height, and dwelling density of project development.

For this type of development, the following minimum BASIX targets must be achieved as defined by the State of NSW under the SEPP 2004:

- 40% improvement in Water consumption
- 58% Improvement in Energy consumption
- All units to 'pass' the minimum thermal performance requirements for heating and cooling (as defined by the development's climate zone)
- Only the construction material specifications and volumes are required to be reported under BASIX Material reporting - there is no compliance target that needs to be achieved.

The minimum targets required for water and energy (40% and 63% respectively) represent a percentage saving and improvement for the development when compared to that of an average benchmark development for NSW.

The thermal comfort targets are assessed on an individual dwelling basis and are defined by the developments proposed location in NSW. Each dwelling must not exceed the maximum annual predicted heating and cooling load capacities outlined by BASIX; this is assessed using the NatHERS thermal comfort software HERO V4.1.

For the proposed development, the following individual dwelling targets must be achieved:

- Individual dwelling heating load: 65.1 MJ/m². yr
- Individual dwelling cooling load: 50.6 MJ/m². yr
- Individual dwelling total load: 79.0 MJ/m². yr
- Average heating load: 58.0 MJ/m². yr
- Average cooling load: 45.0 MJ/m². yr
- Average total load: 60.0 MJ/m². yr

2.4 Relevant Policies and Guidelines

The following were used to guide the development of the ESD opportunities and recommendations for the proposed development:

- Planning Secretary's Environmental Assessment Requirements (SEARS)
- Sustainable Buildings State Environmental Planning Policy (SEPP) 2022 - NSW Department of Planning
- Section J provisions of the NCC 2022 Building (BCA) Code of Australia
- NSW Land and Housing Corporation (LAHC) Design Requirements
- NSW Government Good Design for Social Housing (2020)

2.4.1 Project-specific SEARs requirements

The report addresses the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 11 May 2026 which identified the following specific assessment requirements:

1. Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.
2. Where relevant, provide an assessment of the development against the standards for non-residential development set out in Chapter 3 of State Environmental Planning Policy (Sustainable Buildings) 2022.

As the development is purely residential, the project is exempt from the second requirement.

The first SEARS requirement refers to section 193 of the EP&A Regulation (Environmental Planning and Assessment Regulation). Here it defines what the principles of a “ecologically sustainable development” are:

1. The precautionary principle
 - Section 3.1-3.2 align with the precautionary principle in relation to protecting humans against future global warming and biodiversity loss, taking action even without absolute certainty to the extent of future harm.
2. Inter-generational equity
 - Section 3.1-3.2 & 4.2 align with intergenerational equity because these measures aim to reduce energy consumption, waste production, and ensure the next generation inherits natural resources no worse off than the current generation.
3. Conservation of biological diversity and ecological integrity
 - Sections 3.2 directly align with conservation of biodiversity and ecological integrity, because saving natural resources such as water places less pressure water resources, which are largely powered by biodiversity.
4. Improved valuation, pricing, and incentive mechanisms
 - Sections 3.1-3.2 & 4.2, align with this as these measures increase convenience for tenants and make the project a more attractive place to live; this bolsters the project value and ensures more social equity as affordable housing.

3 BASIX Compliance

The following section provides a summary of the water, energy and thermal comfort initiatives proposed for development to meet compliance with the minimum BASIX requirements.

3.1 Water Strategies

The following table outlines the water strategy proposed for the development. The project is currently achieving a **40% water efficiency improvement** on the BASIX average benchmark using the current strategy, thus **complying to the BASIX requirements**. The BASIX target is based on a minimum 40% compliance score.

The chart below shows the percentage contribution (%) of each water-consuming system. Showerheads, clothes washing machines, and toilets have the highest impact to the water efficiency of this project.

BASIX compliance is achieved providing the following water commitments are implemented:

Table 3: Water Commitments

BASIX Base Case	Water Conservation Strategies
Common Areas	Fixtures and fittings minimum WELS rating: - No common shower facility 5-star kitchen and bathroom taps 4-star flush toilets Appliances: - No common laundry facility or dryer
Common Landscape Areas	- Area of lawn: 235 m² - Area of vegetated garden excluding lawn: 3191 m² - Area of low water-use species: 3030 m²
Individual Landscape Areas	Nil landscaped areas for individual dwelling units
Individual Dwellings	Fixtures and fittings minimum WELS rating: 5-star showerheads (> 4.5 but ≤ 6 L/min) 5-star kitchen and bathroom taps 4-star flush toilets Appliances minimum WELS rating: - No washing machine provided - No dishwashers provided - No hot water recirculation or diversion
Alternative Water Source	10kL central rainwater tank reused for: - Common landscape irrigation Roof area diverted to tank: 1687.12 m² - No other surfaces (e.g. impervious areas, gardens and lawns, and planters) used to divert rainwater to tank - Overflow will not be diverted
Car washing bays	N/A; no car washing bay

BASIX Base Case	Water Conservation Strategies
Fire Sprinkler Systems	• Closed loop Fire Sprinkler System
Pool and Spa	• No Pool or Spa
BASIX Water Target	40%
BASIX Water Score	40% (pass)

3.2 Energy Strategies

The following table outlines the energy strategy proposed for the development. The project is currently achieving a **65% improvement** on the BASIX average benchmark, i.e. **complying to the BASIX requirements**. The BASIX target is based on a minimum 58% compliance score.

The chart below shows the percentage contribution (%) of each energy-consuming system. Appliances and whitegoods have the highest impact to the energy efficiency of this project.

The current energy strategy is as follows:

Table 4: Energy Commitments

BASIX Base Case	Energy Conservation Strategies
Central heating and cooling system	• No central heating and cooling system
Central hot water system	• No central hot water system
Central alternative energy supply	• 35 kW peak array photovoltaic (PV) system
Central vertical transportation (VT) system	Gearless traction with VVVF motor and regenerative drive • $\geq 1001\text{kg}$ but $\leq 1500\text{kg}$
Common area ventilation system	• Underground carpark area: No mechanical ventilation • Carpark lobby: No mechanical ventilation • Fire Stairs: No mechanical ventilation • Waste Rooms: Ventilation exhaust only; continuous • Fire Pump Room: Ventilation supply + exhaust; interlocked to light • LG02 Communal Room: No mechanical ventilation • GL Meeting Room: Air conditioning system; time clock or BMS controlled • GL Recreation space: Air conditioning system; time clock or BMS controlled • Accessible W/C:: Ventilation exhaust only; time clock or BMS controlled • MSR: Ventilation supply only; interlocked to light • PCW+RW Pump Room: Ventilation supply only; interlocked to light • Comms Rooms: Air conditioning system; continuous

	• LG01-L4 Lobbies/Hallways: Ventilation supply only; continuous • GL-L4 Breezeway: No mechanical ventilation
Common area lighting system	• Underground carpark area: LED lighting; zoned switching with motion sensor • Carpark lobby: LED lighting; time clock and motion sensor • Fire Stairs: LED lighting; controlled by motion sensors • Waste Rooms: LED lighting; controlled by motion sensors • Fire Pump Room: LED lighting; controlled by motion sensors • LG02 Communal Room: LED lighting; time clock and motion sensor • GL Meeting Room: LED lighting; controlled by motion sensors • GL Recreation space: LED lighting; time clock and motion sensor • Accessible W/C: LED lighting; controlled by motion sensors • MSR: LED lighting; controlled by motion sensors • PCW+RW Pump Room: LED lighting; controlled by motion sensors • Comms Rooms: LED lighting; controlled by motion sensors • LG01-L4 Lobbies/Hallways: LED lighting; time clock and motion sensor • GL-L4 Breezeway: LED lighting; time clock and motion sensor
Common areas - others	• No common area clothes dryer or clothes drying line • No common area clothes washing machine
Individual Dwelling Heating, Ventilation, and Cooling system – applicable to all units	Ventilation system • Bathroom exhaust: individual fan, ducted to façade or roof; interlocked to light with timer off • Kitchen exhaust: individual fan, ducted to façade or roof; manual switch on/off • Laundry exhaust: individual fan, ducted to façade or roof; interlocked to light Cooling system • No central system • All living rooms: 1-phase air-conditioning (EER 3.0-3.5) Heating system • No central system • All living rooms: 1-phase air-conditioning (EER 3.0-3.5)
Individual Dwelling Hot water system	Individual heat pump hot water system for all apartments • Heat pump performance not specified
Individual Dwelling Lighting system	• All kitchens are naturally lit. Bathrooms and toilets are primarily lit by LED lighting. • All rooms, laundry, and hallways lit by dedicated LED lamps and fittings • All downlights to be sealed

Individual Dwelling Appliances**Efficient appliances for each apartment as follows:**

- Induction Cooktop & Electric Oven
- Dishwasher: Not provided
- Clothes Dryer: Not provided
- Private outdoor clothes drying line supplied to each unit

Individual Dwelling Swimming Pool and Spa

- No Pool or spa

BASIX Energy Target**58%**

BASIX Energy Score**65% (pass)**

4 Thermal Performance & Material Index

This section outlines the thermal performance modelling and associated material selections used in the BASIX assessment. The thermal performance has been assessed using NatHERS accredited software, considering project-specific building fabric, glazing, ventilation, and operational conditions to meet BASIX energy and comfort requirements.

4.1 National House Energy Rating Scheme (NatHERS) Assessment

Thermal comfort for each dwelling has been assessed in accordance with the BASIX Thermal Comfort Protocol as defined by the Department of Planning Industry and Environment.

Thermal comfort levels for the assessed dwellings (Class 2) have been calculated using the HERO v4.1 thermal modelling software. This approach has been approved by the National House Energy Rating Scheme (NatHERS) and aims to predict annual heating and cooling loads of each dwelling.

To satisfy the BASIX thermal comfort requirements, the following objectives must be achieved:

- The individual heating and cooling loads for each dwelling must not exceed the limit specified in the BASIX scheme
 - Individual cooling load limit – 50.6 (MJ/m²yr)
 - Individual heating load limit – 65.1 (MJ/m²yr)
- The average heating and cooling loads of all dwellings in a development must not exceed the specified average limit
 - Average cooling load limit – 45.0 (MJ/m²yr)
 - Average heating load limit – 58.0 (MJ/m²yr)

4.2 Materials Used for Thermal Modelling & BASIX Material Index

Thermal comfort modelling has been carried out in accordance with the requirements outlined in *Section 4.1* to demonstrate compliance with BASIX thermal performance criteria. This assessment incorporates project-specific building envelope specifications, with the resulting average heating and cooling loads for the proposed development summarised in *Table 5*.

Table 5: Building Fabric Construction Details

Construction & shading	As indicated on the architectural drawings. Balconies have been included in the assessment as shading.
Floor slabs	Floors between neighbouring conditioned spaces: 250 mm concrete slab + no insulation Floors exposed to unconditioned space or external air below: 250mm concrete slab + R2.0 insulation
Floor Coverings	- Carpet in Living Room, Bedrooms and Walk-in Closets - Tiles for Kitchen and Laundry/Toilet.
Ceiling and Roof	Ceilings exposed between neighbouring conditioned spaces: 250 mm concrete slab + no insulation Ceilings exposed to external air above: - Roof: 250mm concrete + R3.57 insulation + plasterboard ceiling - Solar absorptance <0.45
External Walls	- Brick Veneer Stud Wall + R2.5 Bulk Insulation (Steel Framing) - Fibre-Cement Clad Stud Wall 2.5 Bulk Insulation (Steel Framing) – Building B L2 and Building A1 & A2 L4 only
Internal Walls	Internal Wall - within dwellings: - Plasterboard on studs + no bulk insulation Between adjacent dwellings: - Hebel Concrete Stud Wall + R1.5 Bulk Insulation Internal Wall - Between dwellings and corridors or between dwellings and unconditioned service area: - Hebel Concrete Stud Wall + R1.5 Bulk Insulation
Glazing	Levels LG01-L4 - Awnings: U-value $\leq 4.30 \text{ W/m}^2\text{k}$, SHGC 0.47 $\pm 5\%$ - Fixed window: U-value $\leq 4.30 \text{ W/m}^2\text{k}$, SHGC 0.53 $\pm 5\%$ - Sliding doors: U-value $\leq 4.30 \text{ W/m}^2\text{k}$, SHGC 0.53 $\pm 5\%$ Unit 2001 - Awnings: U-value $\leq 4.30 \text{ W/m}^2\text{k}$, SHGC 0.47 $\pm 5\%$ - Sliding doors: U-value $\leq 3.10 \text{ W/m}^2\text{k}$, SHGC 0.49 $\pm 5\%$
Ceiling fans	Installed to all living rooms and bedrooms 1200mm diameter ceiling fans

Please note: glazing values quoted above are based on AFRC figures and are values for the total glazing system including frame.

For all apartments, the following assumptions have been made:

- All windows and doors are weather stripped
- Window openings have been calculated as per the BASIX protocol based on input from the architectural team for fixed windows, awnings windows and sliding doors.

Appendix A: NatHERS Group Certificate

Appendix B: Stamped Drawings

Appendix C: BASIX Certificate



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Nationwide House Energy Rating Scheme® Class 2 Summary

NatHERS® Certificate No. #HR-5JIXSL-02

Generated on 01 Jul 2026 using Hero 4.1

Property

Address 72 & 82-86 Menangle Rd , Camden , NSW, 2570
Lot/DP
NatHERS climate zone 28 - Richmond



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To verify this certificate, scan the QR code or visit <http://www.hero-software.com.au/pdf/HR-5JIXSL-02>.
When using either link, ensure you are visiting <http://www.hero-software.com.au>



National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

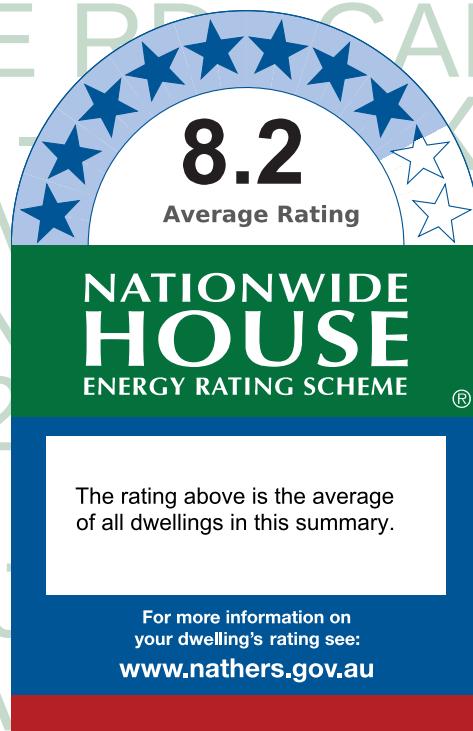
The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-GLHOY3-02	1101	13.4 (65)	15.2 (51)	28.6	8.7	n/a
HR-UK1R5C-02	1102	2.5 (65)	16.7 (51)	19.2	9.2	n/a
HR-MX8QJ4-02	1103	20.6 (65)	13.5 (51)	34.1	8.4	n/a

Thermal performance Star rating



NATIONWIDE
HOUSE
ENERGY RATING SCHEME®

The rating above is the average of all dwellings in this summary.

For more information on your dwelling's rating see:
www.nathers.gov.au

NCC heating and cooling maximum loads MJ/m².yr

Limits taken from ABCB Standard 2022

	Heating	Cooling
Average load	21.6	15.6
Maximum load	51.5	39.1
Average limit	63.6	49.3
Maximum limit	69.7	54.2

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate or not completed for all dwellings.



Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m ² .yr)	Cooling load (load limit) (MJ/m ² .yr)	Total load (MJ/m ² .yr)	Star Rating	Whole of Home Rating
HR-AII9G4-02	1104	51.2 (65)	7.3 (51)	58.6	7.1	n/a
HR-FJ9R0W-02	1105	38.2 (65)	6.7 (51)	44.9	7.8	n/a
HR-1V53EG-02	1107	19.3 (65)	15.7 (51)	35.1	8.4	n/a
HR-5W65R4-02	1108	39.3 (65)	6.6 (51)	45.9	7.8	n/a
HR-26MM6P-02	1301	13.5 (65)	15.2 (51)	28.6	8.7	n/a
HR-GA0FD6-02	1303	17.3 (65)	13.3 (51)	30.6	8.6	n/a
HR-ZUR2M2-02	1304	34.9 (65)	8.7 (51)	43.6	7.9	n/a
HR-KOWGQ3-02	1305	17.5 (65)	8.4 (51)	25.9	8.9	n/a
HR-DS6M7L-02	1306	4.1 (65)	26.2 (51)	30.3	8.6	n/a
HR-FTG8R3-02	1308	9.7 (65)	9.8 (51)	19.4	9.2	n/a
HR-1XETIP-02	1309	6.2 (65)	5.6 (51)	11.7	9.8	n/a
HR-CV36IO-02	1310	13.5 (65)	16.8 (51)	30.3	8.6	n/a
HR-TKJ4UF-02	1311	15.5 (65)	6.6 (51)	22.0	9.1	n/a
HR-X9XTLL-02	1312	21.9 (65)	12.1 (51)	34.0	8.4	n/a
HR-M3YBN4-02	1314	25.0 (65)	24.9 (51)	49.9	7.6	n/a
HR-2MIV7T-02	1401	13.7 (65)	15.9 (51)	29.6	8.7	n/a
HR-WS9FZY-02	1402	2.9 (65)	15.1 (51)	18.1	9.3	n/a
HR-JN1MW1-02	1403	16.2 (65)	13.4 (51)	29.6	8.7	n/a
HR-PEFL9I-02	1404	35.3 (65)	8.7 (51)	44.0	7.8	n/a
HR-B8BCME-02	1405	17.7 (65)	8.2 (51)	25.9	8.9	n/a
HR-B0E6U7-02	1407	9.0 (65)	16.6 (51)	25.6	8.9	n/a
HR-WUZEZV-02	1408	7.3 (65)	9.8 (51)	17.1	9.4	n/a
HR-A4YW0Y-02	1409	2.6 (65)	5.9 (51)	8.5	10.0	n/a
HR-VV3DO7-02	1410	13.9 (65)	16.6 (51)	30.5	8.6	n/a
HR-WH5HW9-02	1411	15.9 (65)	6.5 (51)	22.4	9.0	n/a
HR-IHT8F2-02	1412	22.5 (65)	12.0 (51)	34.5	8.4	n/a
HR-8QHQ54-02	1414	25.5 (65)	24.7 (51)	50.2	7.5	n/a
HR-COK5WS-01	2106	13.2 (70)	19.2 (54)	32.4	8.5	n/a
HR-S4QLME-01	2107	9.9 (70)	20.4 (54)	30.3	8.6	n/a



Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m ² .yr)	Cooling load (load limit) (MJ/m ² .yr)	Total load (MJ/m ² .yr)	Star Rating	Whole of Home Rating
HR-BHNYC6-01	2201	26.5 (70)	16.8 (54)	43.3	7.9	n/a
HR-VKNAS9-01	2202	12.7 (70)	26.3 (54)	39.0	8.1	n/a
HR-3BD2WM-01	2203	15.7 (70)	13.1 (54)	28.8	8.7	n/a
HR-NQKZZF-01	2204	9.3 (70)	18.5 (54)	27.8	8.8	n/a
HR-BQBFED-01	2205	4.3 (70)	10.8 (54)	15.2	9.4	n/a
HR-O9VF76-01	2206	12.0 (70)	18.7 (54)	30.8	8.6	n/a
HR-OAT2MZ-01	2207	10.1 (70)	20.2 (54)	30.3	8.6	n/a
HR-REBMH3-01	2208	14.8 (70)	7.8 (54)	22.7	9.0	n/a
HR-0Z301Z-02	1001	15.1 (65)	11.3 (51)	26.4	8.8	n/a
HR-HKVZF5-02	1002	7.9 (65)	5.8 (51)	13.7	9.6	n/a
HR-1PEHLJ-02	1003	31.5 (65)	6.4 (51)	38.0	8.2	n/a
HR-APKJ6H-02	1106	19.1 (65)	23.9 (51)	43.0	7.9	n/a
HR-8HX4QU-02	1109	32.4 (65)	15.2 (51)	47.6	7.7	n/a
HR-6NYP0F-02	1110	39.9 (65)	6.3 (51)	46.2	7.7	n/a
HR-JPH7GH-02	1111	51.5 (65)	20.6 (51)	72.0	6.4	n/a
HR-RNWWQM-02	1112	40.8 (65)	22.5 (51)	63.3	6.8	n/a
HR-O5NGNS-02	1201	13.3 (65)	15.5 (51)	28.8	8.7	n/a
HR-SSHLOY-02	1202	2.6 (65)	16.1 (51)	18.7	9.3	n/a
HR-VM9RDD-02	1203	16.7 (65)	13.8 (51)	30.5	8.6	n/a
HR-YY4HFJ-02	1204	34.5 (65)	8.7 (51)	43.2	7.9	n/a
HR-OUQJJ5-02	1205	17.3 (65)	8.5 (51)	25.9	8.9	n/a
HR-YWOB8Y-02	1206	3.8 (65)	27.4 (51)	31.2	8.6	n/a
HR-OA97D3-02	1207	8.4 (65)	17.7 (51)	26.1	8.8	n/a
HR-K19FCE-02	1208	12.7 (65)	10.5 (51)	23.2	8.9	n/a
HR-4U3AZW-02	1209	38.1 (65)	6.2 (51)	44.4	7.8	n/a
HR-UEE5US-02	1210	14.2 (65)	17.1 (51)	31.2	8.6	n/a
HR-TNQ9RR-02	1211	15.1 (65)	6.9 (51)	21.9	9.1	n/a
HR-JS9J79-02	1212	22.3 (65)	12.3 (51)	34.5	8.4	n/a
HR-SP0V0E-02	1213	25.1 (65)	22.3 (51)	47.4	7.7	n/a



Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m ² .yr)	Cooling load (load limit) (MJ/m ² .yr)	Total load (MJ/m ² .yr)	Star Rating	Whole of Home Rating
HR-HF9L7Y-02	1214	25.7 (65)	25.6 (51)	51.2	7.4	n/a
HR-2HB8BN-02	1302	2.8 (65)	15.2 (51)	17.9	9.3	n/a
HR-G7HB1H-02	1307	8.5 (65)	17.0 (51)	25.5	8.9	n/a
HR-NR7ODQ-02	1313	25.7 (65)	22.3 (51)	48.0	7.6	n/a
HR-A3IQWG-02	1406	4.5 (65)	25.8 (51)	30.3	8.6	n/a
HR-TTJ9GI-02	1413	21.8 (65)	24.1 (51)	45.8	7.8	n/a
HR-6KK1QL-02	1501	23.8 (65)	17.4 (51)	41.1	7.9	n/a
HR-819T6X-02	1502	37.5 (65)	6.2 (51)	43.7	7.9	n/a
HR-EW3WKY-02	1503	33.0 (65)	25.9 (51)	58.9	7.1	n/a
HR-89X681-02	1504	22.5 (65)	22.1 (51)	44.5	7.8	n/a
HR-CVFB LH-02	1505	22.5 (65)	24.6 (51)	47.1	7.7	n/a
HR-K9TY80-02	1506	17.3 (65)	9.5 (51)	26.9	8.8	n/a
HR-AIFA65-02	1507	38.9 (65)	8.8 (51)	47.8	7.7	n/a
HR-U5RLB5-02	1508	33.4 (65)	15.8 (51)	49.2	7.6	n/a
HR-90M4ZJ-02	1509	31.8 (65)	25.5 (51)	57.3	7.2	n/a
HR-1O8KRI-01	2001	51.3 (70)	24.4 (54)	75.8	6.2	n/a
HR-217UF4-01	2002	48.6 (70)	24.4 (54)	73.0	6.3	n/a
HR-JZXNG8-01	2003	51.5 (70)	23.0 (54)	74.5	6.3	n/a
HR-OEV3PQ-01	2004	17.0 (70)	10.1 (54)	27.0	8.8	n/a
HR-0VK9R8-01	2005	36.4 (70)	16.0 (54)	52.4	7.4	n/a
HR-S6ONXV-01	2006	33.3 (70)	17.9 (54)	51.2	7.4	n/a
HR-QTIUVS-01	2007	39.2 (70)	7.1 (54)	46.4	7.7	n/a
HR-8WRICV-01	2101	40.3 (70)	16.7 (54)	57.0	7.2	n/a
HR-SZZD65-01	2102	11.8 (70)	21.9 (54)	33.7	8.4	n/a
HR-LMG TBL-01	2103	21.9 (70)	12.2 (54)	34.1	8.4	n/a
HR-5ANH MV-01	2104	20.0 (70)	16.7 (54)	36.7	8.3	n/a
HR-U9V5QY-01	2105	2.8 (70)	11.0 (54)	13.8	9.6	n/a
HR-9MZE GM-01	2108	10.7 (70)	8.1 (54)	18.9	9.3	n/a
HR-TJ8OHK-01	2301	39.3 (70)	21.9 (54)	61.2	6.9	n/a



Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m ² .yr)	Cooling load (load limit) (MJ/m ² .yr)	Total load (MJ/m ² .yr)	Star Rating	Whole of Home Rating
HR-Z4V25C-01	2302	34.8 (70)	39.1 (54)	74.0	6.3	n/a
HR-US4PFG-01	2303	38.3 (70)	31.6 (54)	69.9	6.5	n/a
HR-JMX1KR-01	2304	12.6 (70)	14.1 (54)	26.7	8.8	n/a
HR-XUDS8V-01	2305	24.0 (70)	15.6 (54)	39.6	8.1	n/a
HR-MYJOZP-01	2306	31.7 (70)	12.6 (54)	44.4	7.8	n/a
Averages	95x (Total)	21.6	15.6	37.2	8.2	n/a
Maximum Loads and Minimum Ratings		51.5	39.1	75.8	6.2	n/a

Explanatory notes

About the ratings

The thermal performance star rating in this Certificate is the average rating of all NCC Class 2 dwellings in an apartment block. The Whole of Home performance rating in this Certificate is the lowest rating for the apartment block. Individual unit ratings are listed in the 'Summary of all dwellings' section of this Certificate.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the homes societal cost. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

For high quality NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Licensed assessors in the Australian Capital Territory (ACT) can produce assessments for regulatory purposes only, using endorsed software, as listed on the ACT licensing register.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in certificates is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy use, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

BASIX™ Certificate

Building Sustainability Index

www.planningportal.nsw.gov.au/development-and-assessment/basix

Multi Dwelling

Certificate number: 1854176M

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.planningportal.nsw.gov.au/definitions

Secretary

Date of issue: Wednesday, 01 July 2026

To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application within 3 months of the date of issue.



When submitting this BASIX certificate with a development application or complying development certificate application, it must be accompanied by NatHERS certificate HR-5JIXSL-01.

Project summary

Project name	HNSW Camden
Street address	70-78 & 82-86 MENANGLE RD CAMDEN 2570
Local Government Area	CAMDEN
Plan type and plan number	Deposited Plan DP21405 & 1,2,3/-/DP24039
Lot no.	73, 74, 75, 76, 77, 86
Section no.	-/DP21405 & 1,2,3/-
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	95
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 40	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 65	Target 58
Materials	✓ -100	Target n/a

Certificate Prepared by

Name / Company Name: ADP CONSULTANTS PTY LTD

ABN (if applicable): 68610202198

Description of project

Project address	
Project name	HNSW Camden
Street address	70-78 & 82-86 MENANGLE RD CAMDEN 2570
Local Government Area	CAMDEN
Plan type and plan number	Deposited Plan DP21405 & 1,2,3/-/DP24039
Lot no.	73, 74, 75, 76, 77, 86
Section no.	-/DP21405 & 1,2,3/-
Project type	
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	95
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	7071
Roof area (m²)	1687.12
Non-residential floor area (m²)	-
Residential car spaces	46
Non-residential car spaces	2

Common area landscape		
Common area lawn (m²)	235	
Common area garden (m²)	3191	
Area of indigenous or low water use species (m²)	3030	
Assessor details and thermal loads		
Assessor number	HERA10210	
Certificate number	HR-5JIXSL-01	
Climate zone	28	
Project score		
Water	✓ 40	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 65	Target 58
Materials	✓ -100	Target n/a

Description of project

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

Residential flat buildings - Building B, 29 dwellings, 4 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2001	1	51.2	0	0	0
2005	1	51.2	0	0	0
2102	2	72.6	0	0	0
2106	1	51.2	0	0	0
2202	2	72.6	0	0	0
2206	1	51.2	0	0	0
2302	1	51.1	0	0	0
2306	2	83.2	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2002	1	51.2	0	0	0
2006	1	51.2	0	0	0
2103	2	77.5	0	0	0
2107	1	51.2	0	0	0
2203	2	77.5	0	0	0
2207	1	51.2	0	0	0
2303	1	52.3	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2003	1	51.2	0	0	0
2007	1	63.2	0	0	0
2104	1	52.6	0	0	0
2108	1	63.2	0	0	0
2204	1	52.6	0	0	0
2208	1	63.2	0	0	0
2304	2	78.5	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2004	2	77.4	0	0	0
2101	2	75	0	0	0
2105	1	77.4	0	0	0
2201	2	75	0	0	0
2205	1	77.4	0	0	0
2301	1	52.1	0	0	0
2305	1	52.8	0	0	0

Residential flat buildings - Building A1 & A2, 66 dwellings, 6 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1001	1	51.2	0	0	0
1102	2	75	0	0	0
1106	1	51.6	0	0	0
1110	2	79	0	0	0
1202	2	75	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1002	2	75	0	0	0
1103	1	51.2	0	0	0
1107	2	70.1	0	0	0
1111	1	51.5	0	0	0
1203	1	51.2	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1003	2	77.9	0	0	0
1104	2	75	0	0	0
1108	3	95.7	0	0	0
1112	1	51.5	0	0	0
1204	2	75	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1101	1	51.2	0	0	0
1105	1	70.3	0	0	0
1109	1	51.2	0	0	0
1201	1	51.2	0	0	0
1205	1	70.3	0	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)
1206	1	51.6	0	0	0
1210	1	51.5	0	0	0
1214	1	51.5	0	0	0
1304	2	75	0	0	0
1308	3	95.7	0	0	0
1312	2	73.3	0	0	0
1402	2	75	0	0	0
1406	1	51.6	0	0	0
1410	1	51.5	0	0	0
1414	1	51.5	0	0	0
1504	1	51.8	0	0	0
1508	3	105.9	0	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)
1207	2	70.1	0	0	0
1211	2	79	0	0	0
1301	1	51.2	0	0	0
1305	1	70.3	0	0	0
1309	2	73.9	0	0	0
1313	1	51.5	0	0	0
1403	1	51.2	0	0	0
1407	2	70.1	0	0	0
1411	2	79	0	0	0
1501	1	51.2	0	0	0
1505	1	52.9	0	0	0
1509	1	52.2	0	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)
1208	3	95.7	0	0	0
1212	2	73.3	0	0	0
1302	2	75	0	0	0
1306	1	51.6	0	0	0
1310	1	51.5	0	0	0
1314	1	51.5	0	0	0
1404	2	75	0	0	0
1408	3	95.7	0	0	0
1412	2	73.3	0	0	0
1502	3	95.7	0	0	0
1506	3	97.2	0	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)
1209	2	73.9	0	0	0
1213	1	51.5	0	0	0
1303	1	51.2	0	0	0
1307	2	70.1	0	0	0
1311	2	79	0	0	0
1401	1	51.2	0	0	0
1405	1	70.3	0	0	0
1409	2	73.9	0	0	0
1413	1	51.5	0	0	0
1503	1	59.4	0	0	0
1507	1	51	0	0	0

Description of project

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

Common areas of unit building - Building B

Common area	Floor area (m²)
Underground carpark area	608.95
LG02 Communal Room	33
LG02 Comms	7.88
LG02 Carpark lobby	22.04
GL-L2: Breezeway	83.55

Common area	Floor area (m²)
LG02 MSR	11.93
LG02 PCW Pump Room	10.64
LG02 Accessible W/C	7.73
LG01 Lobby/Hallway/Mail room	93.95

Common area	Floor area (m²)
LG02 Waste Room	23
LG02 Fire Pump Room	22.4
Fire Stairs	65
GL-L2: Lobby/Hallway	119.58

Common areas of unit building - Building A1 & A2

Common area	Floor area (m²)
Lift bank (No. 1)	-
Underground carpark area	1194.68
GL Waste Hold	43.89
GL Meeting Room	12
LG01 Comms	8.44
Fire Stairs	154.49
GL-L4 Lobbies/Hallways	365.91

Common area	Floor area (m²)
Lift bank (No. 2)	-
LG01 MSR	19.25
GL Bulky Waste	19
LG01 Fire Pump Room	24.2
LG01 Airlock	5.63
LG01 Carpark Lobbies	56.23
L1-L4 Breezeway:	229.72

Common area	Floor area (m²)
Lift bank (No. 3)	-
LG01 waste rooms	50
GL Recreation space	52
LG01 PCW+RW Pump	13.42
GL Acc W/C	6.9
LG01 Hallways/lobbies	11

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building B

(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 Residential flat buildings - Building A1 & A2

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

3. 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 carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - Building B

(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:	740	-	none
suspended floor above enclosed subfloor, frame: suspended concrete slab	2177.65	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	brick veneer, frame: light steel frame	954.5	-	fibreglass batts or roll
External wall type 2	framed (fibre cement sheet or boards), frame: light steel frame	246.7	-	fibreglass batts or roll

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	75 mm AAC panel, frame:light steel frame	1258	fibreglass batts or roll
Internal wall type 2	plasterboard, frame:light steel frame	1097	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	52	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: light steel frame	530	foil/sarking	fibreglass batts or roll
concrete - plasterboard internal, frame: no frame	1380	-	fibreglass batts or roll

Glazing types			Frame types				
Single glazing (m²)	Double glazing (m²)	Triple glazing (m²)	Aluminium frames (m²)	Timber frames (m²)	uPVC frames (m²)	Steel frames (m²)	Composite frames (m²)
-	503	-	503	-	-	-	-

(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	5 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 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	-	-	-	-	-	-	-

(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: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✓	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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	heat pump - not specified	individual fan, ducted to façade	interlocked to light with timer off	individual fan, ducted to façade	manual switch on/off	individual fan, ducted to façade	interlocked to light

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All dwellings	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	0	yes

	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	yes

(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: (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/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
2001	51.3	24.4	75.700
2002	48.6	24.4	73.000
2003	51.5	23	74.500
2004	17	10.1	27.100

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
2005	36.4	16	52.400
2006	33.3	17.9	51.200
2007	39.2	7.1	46.300
2101	40.3	16.7	57.000
2102	11.8	21.9	33.700
2103	21.9	12.2	34.100
2104	20	16.7	36.700
2105	2.8	11	13.800
2106	13.2	19.2	32.400
2107	9.9	20.4	30.300
2108	10.7	8.1	18.800
2201	26.5	16.8	43.300
2202	12.7	26.3	39.000
2203	15.7	13.1	28.800
2204	9.3	18.5	27.800
2205	4.3	10.8	15.100
2206	12	18.7	30.700
2207	10.1	20.2	30.300
2208	14.8	7.8	22.600
2301	39.3	21.9	61.200
2302	34.8	39.1	73.900
2303	38.3	31.6	69.900
2304	12.6	14.1	26.700
2305	24	15.6	39.600
All other dwellings	31.7	12.6	44.300

(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	4 star	5 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
Underground carpark area	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	no
LG02 MSR	ventilation supply only	interlocked to light	light-emitting diode	motion sensors	no
LG02 Waste Room	ventilation exhaust only	-	light-emitting diode	motion sensors	no
LG02 Communal Room	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
LG02 PCW Pump Room	ventilation supply only	interlocked to light	light-emitting diode	motion sensors	no
LG02 Fire Pump Room	ventilation (supply + exhaust)	interlocked to light	light-emitting diode	motion sensors	no
LG02 Comms	air conditioning system	none i.e., continuous	light-emitting diode	motion sensors	no
LG02 Accessible W/C	ventilation exhaust only	time clock or BMS controlled	light-emitting diode	motion sensors	no
Fire Stairs	no mechanical ventilation	-	light-emitting diode	motion sensors	no
LG02 Carpark lobby	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
LG01 Lobby/Hallway/Mail room	ventilation supply only	none i.e., continuous	light-emitting diode	time clocks	no
GL-L2: Lobby/Hallway	ventilation supply only	none i.e., continuous	light-emitting diode	time clock and motion sensors	no
GL-L2: Breezeway	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Lift bank (No. 1)	permanent magnet synchronous motor (PMSM) and regenerative drive	Number of levels with apartments served by a lift: 4 number of levels from the bottom of the lift shaft to the top of the lift shaft: 4 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg

2. Commitments for Residential flat buildings - Building A1 & A2

(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:	894	-	none
suspended floor above enclosed subfloor, frame: suspended concrete slab	5729.86	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	brick veneer,frame:light steel frame	2195	-	fibreglass batts or roll
External wall type 2	framed (fibre cement sheet or boards),frame:light steel frame	565.8	-	fibreglass batts or roll

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	75 mm AAC panel, frame:light steel frame	2458.2	fibreglass batts or roll
Internal wall type 2	plasterboard, frame:light steel frame	2397.6	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	98	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: light steel frame	940	foil/sarking	fibreglass batts or roll
concrete - plasterboard internal, frame: no frame	2840	-	fibreglass batts or roll

Glazing types			Frame types				
Single glazing (m²)	Double glazing (m²)	Triple glazing (m²)	Aluminium frames (m²)	Timber frames (m²)	uPVC frames (m²)	Steel frames (m²)	Composite frames (m²)
-	1203	-	1203	-	-	-	-

(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	5 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	5 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	-	-	-	-	-	-	-

(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: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✓	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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	heat pump - not specified	individual fan, ducted to façade	interlocked to light with timer off	individual fan, ducted to façade	manual switch on/off	individual fan, ducted to façade	interlocked to light

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All dwellings	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	0	yes

	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	yes

(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: (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/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
1001	15.1	11.3	26.400
1002	7.9	5.8	13.700
1003	31.5	6.4	37.900
1101	13.4	15.2	28.600

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
1102	2.5	16.7	19.200
1103	20.6	13.5	34.100
1104	51.2	7.3	58.500
1105	38.2	6.7	44.900
1106	19.1	23.9	43.000
1107	19.3	15.7	35.000
1108	39.3	6.6	45.900
1109	32.4	15.2	47.600
1110	39.9	6.3	46.200
1111	51.5	20.6	72.100
1112	40.8	22.5	63.300
1201	13.3	15.5	28.800
1202	2.6	16.1	18.700
1203	16.7	13.8	30.500
1204	34.5	8.7	43.200
1205	17.3	8.5	25.800
1206	3.8	27.4	31.200
1207	8.4	17.7	26.100
1208	12.7	10.5	23.200
1209	38.1	6.2	44.300
1210	14.2	17.1	31.300
1211	15.1	6.9	22.000
1212	22.3	12.3	34.600
1213	25.1	22.3	47.400
1214	25.7	25.6	51.300
1301	13.5	15.2	28.700
1302	2.8	15.2	18.000
1303	17.3	13.3	30.600
1304	34.9	8.7	43.600
1305	17.5	8.4	25.900
1306	4.1	26.2	30.300

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m ² /yr)	Area adjusted cooling load (in MJ/m ² /yr)	Area adjusted total load (in MJ/m ² /yr)
1307	8.5	17	25.500
1308	9.7	9.8	19.500
1309	6.2	5.6	11.800
1310	13.5	16.8	30.300
1311	15.5	6.6	22.100
1312	21.9	12.1	34.000
1313	25.7	22.3	48.000
1314	25	24.9	49.900
1401	13.7	15.9	29.600
1402	2.9	15.1	18.000
1403	16.2	13.4	29.600
1404	35.3	8.7	44.000
1405	17.7	8.2	25.900
1406	4.5	25.8	30.300
1407	9	16.6	25.600
1408	7.3	9.8	17.100
1409	2.6	5.9	8.500
1410	13.9	16.6	30.500
1411	15.9	6.5	22.400
1412	22.5	12	34.500
1413	21.8	24.1	45.900
1414	25.5	24.7	50.200
1501	23.8	17.4	41.200
1502	37.5	6.2	43.700
1503	33	25.9	58.900
1504	22.5	22.1	44.600
1505	22.5	24.6	47.100
1506	17.3	9.5	26.800
1507	38.9	8.8	47.700
1508	33.4	15.8	49.200
All other dwellings	31.8	25.5	57.300

(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	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	10000	To collect run-off from at least: - 1687.12 square metres of roof area of buildings in the development	- irrigation of 3426 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 1)	-	-	-

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

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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
Lift bank (No. 3)	-	-	light-emitting diode	connected to lift call button	no
Underground carpark area	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	no
LG01 MSR	ventilation supply only	interlocked to light	light-emitting diode	motion sensors	no
LG01 waste rooms	ventilation exhaust only	-	light-emitting diode	motion sensors	no
GL Waste Hold	ventilation exhaust only	-	light-emitting diode	motion sensors	no
GL Bulky Waste	ventilation exhaust only	-	light-emitting diode	motion sensors	no
GL Recreation space	air conditioning system	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	no
GL Meeting Room	air conditioning system	time clock or BMS controlled	light-emitting diode	motion sensors	no
LG01 Fire Pump Room	ventilation (supply + exhaust)	interlocked to light	light-emitting diode	motion sensors	no
LG01 PCW+RW Pump	ventilation supply only	interlocked to light	light-emitting diode	motion sensors	no
LG01 Comms	air conditioning system	none i.e., continuous	light-emitting diode	motion sensors	no
LG01 Airlock	no mechanical ventilation	-	light-emitting diode	motion sensors	no
GL Acc W/C	ventilation exhaust only	time clock or BMS controlled	light-emitting diode	motion sensors	no
Fire Stairs	no mechanical ventilation	-	light-emitting diode	motion sensors	no
LG01 Carpark Lobbies	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
LG01 Hallways/lobbies	ventilation supply only	none i.e., continuous	light-emitting diode	time clock and motion sensors	no
GL-L4 Lobbies/Hallways	ventilation supply only	none i.e., continuous	light-emitting diode	time clock and motion sensors	no
L1-L4 Breezeway:	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Lift bank (No. 2)	permanent magnet synchronous motor (PMSM) and regenerative drive	Number of levels with apartments served by a lift: 6 number of levels from the bottom of the lift shaft to the top of the lift shaft: 6 number of lifts: 2 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Lift bank (No. 3)	permanent magnet synchronous motor (PMSM) and regenerative drive	Number of levels with apartments served by a lift: 6 number of levels from the bottom of the lift shaft to the top of the lift shaft: 6 number of lifts: 2 lift load capacity: ≥ 1001 kg but ≤ 1500 kg

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

(b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	5 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): 35 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).