



Giffnock Avenue, Macquarie Park

Giffnock Avenue, Macquarie Park

2-4 Giffnock Avenue, Macquarie Park, NSW, 2113

Project No.	P01697
Revision	03
Issued	16 th Jun 2026
Client	Holdmark

ISSUE AND REVISION RECORD

Revision	Date	Comments	Engineer	Reviewer
01	22.08.2025	Preliminary Issue	MR	JJ
02	08.10.25	SSDA Report	MR	NA
03	16.06.2026	SSDA Report	CM	SE-NA
04				

The building's energy and water performance are computed using the online BASIX tool and an energy model developed for thermal comfort and provides only an estimation and potential performance of the building.

This cannot be used alone to determine performance in actual practice as they are based on the idealised version of the building which does not and cannot fully consider all the complexities of the building's maintenance and operation.

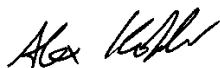
Engineering Lab NSW Pty Ltd

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Alex Kobler | Director



E-LAB Consulting

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	3
2. INTRODUCTION	4
2.1. PURPOSE	4
2.2. PROJECT DESCRIPTION	4
2.3. SITE OVERVIEW	4
2.4. DESIGN DOCUMENTATION	5
3. BASIX SUMMARY	6
3.1. OVERVIEW	6
3.2. BASIX CERTIFICATION DETAILS	6
3.1. ENERGY MODELLING SOFTWARE	7
4. BASIX ENERGY	8
5. BASIX THERMAL COMFORT	12
6. BASIX WATER	14
7. RESULTS	15
APPENDIX A - BASIX CERTIFICATION	16
APPENDIX B - NATHERS GROUP CERTIFICATION	ERROR! BOOKMARK NOT DEFINED.
APPENDIX C - INSULATION MARKUP	17

We recognise the Traditional Custodians of the land on which the proposed development will be constructed. We respect their enduring cultural and spiritual connections to the land and waters, and celebrate their knowledge, kinship, and values. We acknowledge that these connections to the land and waters have existed for millennia and will continue into the future. We respect the Elders who have gone before, together with those of today for their guidance on our shared journey. We recognise that we are, and always will be, on Aboriginal land.



1. EXECUTIVE SUMMARY

E-LAB Consulting are engaged by Holdmark to provide BASIX compliance consultancy for the residential portion of the 2-4 Giffnock Avenue, Macquarie Park, NSW, 2113 development. The intent of this report is to confirm the minimum requirements to satisfy the legislated minimum BASIX requirements for certification.

E-LAB have assessed the development and confirm that based on the design of the residential portion of building A1, A2, and B1 of the 2-4 Giffnock Avenue, Macquarie Park, NSW, 2113 and the inputs provided to BASIX, the proposal is positioned to comply with the requirements of BASIX. The information and performance required to achieve this is contained within this report.

This report outlines the results of the BASIX assessment; and details of how each section is independently meeting minimum legislated BASIX benchmarks using various sustainability opportunities the development is considering for BASIX certification. The minimum compliance requirements are per the below:

Table 1 : BASIX Summary

Area	Minimum Compliance Requirements	Project Score
Energy	A1 & A2: 63%	A1 & A2: 63%
	B1: 63%	B1: 63%
Water	A1 & A2: 40%	A1 & A2: 41%
	B1: 40%	B1: 41%
Thermal Comfort	A1 & A2: Pass	A1 & A2: Pass
	B1: Pass	B1: Pass
Material Index	A1 & A2: No Target	A1 & A2: -73
	B1: No Target	B1: -63

2. INTRODUCTION

2.1. PURPOSE

This BASIX Compliance Report has been prepared by E-LAB Consulting to accompany the submission for Holdmark (the Applicant) in support of the State Significant Development Application (SSDA) for the Giffnock Avenue, Macquarie Park development located at 2-4 Giffnock Avenue, Macquarie Park, NSW, 2113.

The purpose of this report is to outline the proposed sustainability strategy and demonstrate how the development responds to the relevant BASIX requirements, the State Environmental Planning Policy (Sustainable Buildings) 2022, and applicable NSW environmental performance objectives.

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARs) for In-fill Affordable Housing dated 28 November 2025. Specifically, this report has been prepared to respond to the SEARs requirement issued below.

Table 2 SEARs Requirements

SEARs Item	Description if issue and assessment requirements	Section Reference
Section 15 – Ecologically Sustainable Development (ESD)	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	BASIX Report – Section 3 – BASIX Energy Section 4 – BASIX Thermal Comfort Section 5 – BASIX Water

2.2. PROJECT DESCRIPTION

The SSDA seeks development consent for the Giffnock Avenue, Macquarie Park which consists of three high-rise residential buildings, The development consists of the following spaces but is not limited to:

- 6 levels of basements within the development for carparking, supporting infrastructure,
- Communal garden space on the ground floor
- Indoor communal rooms and open spaces
- Retail and Childcare facility

2.3. SITE OVERVIEW

The site is located at 2-4 Giffnock Avenue, Macquarie Park, NSW, 2113 within the Ryde Local Government Area (LGA). It is legally identified as Lot 1/-/DP1310550. The site is located in the Local Government Council of the Council of the city of Ryde, which is situated in Northern-Western region of Sydney. The immediate surrounding of the site is primarily residential apartment buildings.

The context of the site is shown below in figure.

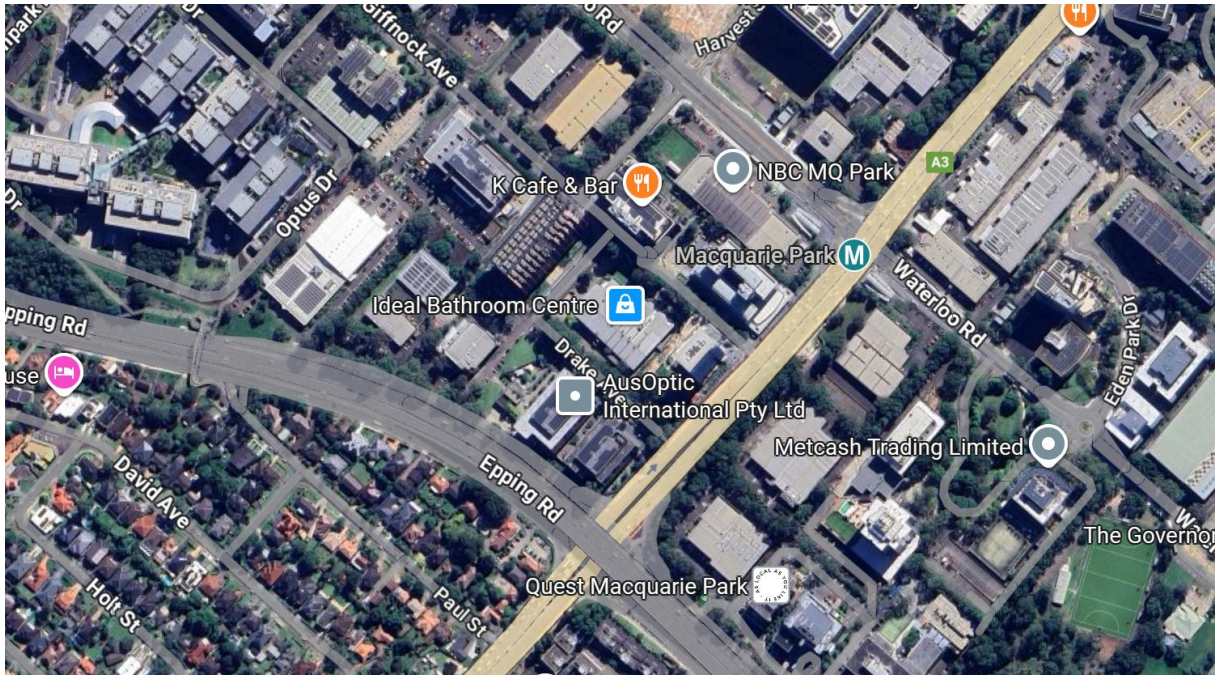


Figure 1: Site Location (source: Google Maps)

2.4. DESIGN DOCUMENTATION

This assessed is based on the Architectural Package provided by Studio.SC issued as Revision F For SSDA ISSUE dated 27.03.2026.

3. BASIX SUMMARY

3.1.OVERVIEW

BASIX compliance represents the minimum sustainability performance requirement in the state of NSW and serves as the primary pathway for demonstrating compliance with Section J of the National Construction Code (NCC) for residential development.

E-LAB Consulting has completed detailed assessment across all BASIX assessment categories—Water, Thermal Comfort, and Energy—for buildings A1, A2, & B1 of the proposed 2-4 Giffnock Avenue, Macquarie Park, NSW, 2113.

The BASIX outcomes achieved, based on the assumptions outlined within this report and the information provided to date, are summarised as follows:

Table 3 : BASIX Summary

Area	Minimum Compliance Requirements	Project Score
Energy	A1 & A2: 63%	A1 & A2: 63%
	B1: 63%	B1: 63%
Water	A1 & A2: 40%	A1 & A2: 41%
	B1: 40%	B1: 41%
Thermal Comfort	A1 & A2: Pass	A1 & A2: Pass
	B1: Pass	B1: Pass
Material Index	A1 & A2: No Target	A1 & A2: -73
	B1: No Target	B1: -63

3.2. BASIX CERTIFICATION DETAILS

Table 4: Project Summary

Category	Entry
Project Name	Giffnock Avenue, Macquarie Park
Address	2-4 Giffnock Avenue, Macquarie Park, NSW, 2113
Local Government Area	RYDE
Plan Type	Deposited Plan (DP)



Plan No.	1/--/DP1310550
No. of Residential Buildings	3 Buildings
Total Number of Units & Townhouses	A1 & A2: 430 B1: 315
Project Type	Residential Flat Buildings
BASIX Certificate Number	A1 & A2: 1816099M_03 B1: 1816089M_03

3.1.ENERGY MODELLING SOFTWARE

Simulation method in BASIX has been used to show the thermal comfort compliance. For energy simulations, FirstRate5 (Version 5.5.5) has been used which is approved under Thermal comfort protocol of BASIX since March 2023. This method does not guarantee or warrantee the performance in practical world as it only considers a simplified and idealistic building.

4. BASIX ENERGY

The following minimum standards will be required to comply with the BASIX targets for the project.

Table 5: BASIX Energy Requirements

Design Element	Compliance Criteria
Domestic hot water systems	Centralised electric heat pump (air sourced) with a $3.0 < \text{COP} \leq 3.5$ and minimum R1.0 insulation to internal and external pipework
Cooking	Electric cooktop & electric oven
Mechanical heating and cooling	Reverse cycle air-conditioning (1-Phase ducted) for all units living areas. Minimum EER ratings – Cooling 3.0-3.5, Heating 3.0-3.5.
Apartment ventilation	Bathroom: individual fan, ducted to façade or roof – Manual on/off Laundry: individual fan, open to façade or roof – Manual on/off Kitchen range hood: Individual fan, open to façade or roof – Manual on/off
Apartment artificial lighting	LED throughout with dedicated fittings
Appliances in Apartments (minimum Energy Star rating)	Dishwashers: Minimum 4.0 Star Energy Rated (To all apartments) Clothes Dryers: Minimum 2.0 Star Energy Rated (To all apartments)
Appliances in Common Areas (minimum Energy Star rating)	Clothes Washers: No common laundry facilities Clothes Dryers: No common laundry facilities
Photovoltaic Array	A1 & A2: Calculated 40kW peak PV B: Calculated 45kW peak PV
Building Management System (BMS)	Yes
Vertical transport	All Lifts: gearless traction with VVVF motor ($\geq 1001 \text{ kg}$ but $\leq 1500 \text{ kg}$)
Indoor Swimming Pool	No Swimming Pool
Sauna	No Sauna

Table 6: Common Area Ventilation and Artificial lighting for Basix A1 & A2

Common Area Name	Ventilation System Type	Ventilation Efficiency Measure	Primary Type of artificial lighting	Lighting efficiency measure
Building A1 & A2				
Car Park	Ventilation (Supply + exhaust)	Carbon monoxide monitor + VSD fan	Light-emitting diode	Zoned switching with motion sensors
Shared Carpark	Ventilation (Supply + exhaust)	Carbon monoxide monitor + VSD fan	Light-emitting diode	Zoned switching with motion sensors
Main Switch Room	Ventilation (Supply + exhaust)	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Substation	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Comms	Air conditioning system	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Shared Elec	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
A1 Elec	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
A2 Elec	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
A2 Waste	Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
A1 Waste	Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
Shared Bin Room	Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
FOGO Bin Room	Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
Fan Room	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
CSA – A2	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
CSA – A1	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Fire Pump Room	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Services	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off

Grease Arrestor	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Fire Tank	Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Basement Fire Stair	No mechanical ventilation	N/A	Light-emitting diode	Zoned switching with motion sensors
A1 Fire Stair	No mechanical ventilation	N/A	Light-emitting diode	Zoned switching with motion sensors
A2 Fire Stair	No mechanical ventilation	N/A	Light-emitting diode	Zoned switching with motion sensors
Bike Workshop	Ventilation supply only	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
Store	Ventilation supply only	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
A1 Communal	Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
A2 Communal	Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
A2 Amenities	Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
A2 Storage	Ventilation supply only	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
A1 Lobby	Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
A2 Lobby	Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
Mail	Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
Parcel	Air conditioning system	None i.e., continuous	Light-emitting diode	Zoned switching with motion sensors
A1 Corridor	Ventilation supply only	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
A2 Corridor	Ventilation supply only	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
Building B1				
Shared Carpark	Ventilation (Supply + exhaust)	Carbon monoxide monitor + VSD fan	Light-emitting diode	Zoned switching with motion sensors
Carpark	Ventilation (Supply + exhaust)	Carbon monoxide monitor + VSD fan	Light-emitting diode	Zoned switching with motion sensors



Elec		Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Shared Bin Room		Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
Shared FOGO Bin Room		Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
Bulky Waste		Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
Waste		Ventilation (Supply + exhaust)	N/A	Light-emitting diode	Motion sensors
Shared Dock		Ventilation supply only	N/A	Light-emitting diode	Motion sensors
Communal		Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors
Shared Hydraulic Pump		Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Shared Comms		Air conditioning system	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Shared Fire Tank		Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Shared Fan Room		Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Shared Fire Pump		Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Services		Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Fire Pump Room		Ventilation supply only	Thermostatically controlled	Light-emitting diode	Manual on / manual off
Basement Stair	Fire	No mechanical ventilation	N/A	Light-emitting diode	Zoned switching with motion sensors
Fire Stair		No mechanical ventilation	N/A	Light-emitting diode	Zoned switching with motion sensors
Shared FCR		Ventilation exhaust only	Time clock or BMS controlled	Light-emitting diode	Manual on / manual off
Lobby		Air conditioning system	Time clock or BMS controlled	Light-emitting diode	Zoned switching with motion sensors

5. BASIX THERMAL COMFORT

The following minimum standards are based on the architecture drawing H dated 29.09.2025 for coordination and not updated to revision H for SSDA issue dated 27.03.2026.

required to comply with the BASIX Thermal Comfort requirements for the project.

Table 7: BASIX Thermal Comfort Requirements

Design Element	Compliance Criteria
Glazed Doors / Windows	The following glazed elements are used throughout the development
	Buildings A1 & A2
	<u>Fixed and Sliding Windows</u>
	Total System U-Value = 4.10 (equal to or less than)
	Total System SHGC = 0.52 (+/- 5%)
	<u>Awning Windows</u>
	Total System U-Value = 4.10 (equal to or less than)
	Total System SHGC = 0.47 (+/- 5%)
	The following glazed elements are used for high-risk units
	A1.4401, A1.4402
	A2.901 to A2.0909
	<u>Fixed and Sliding Windows</u>
	Total System U-Value = 3.10 (equal to or less than)
	Total System SHGC = 0.47 (+/- 5%)
	<u>Awning Windows</u>
	Total System U-Value = 3.10 (equal to or less than)
	Building B1
	The following glazed elements are used throughout the development
	<u>Fixed and Sliding Windows</u>
	Total System U-Value = 3.10 (equal to or less than)
	Total System SHGC = 0.47 (+/- 5%)
	<u>Awning Windows</u>
	Total System U-Value = 3.10 (equal to or less than)
	Total System SHGC = 0.39 (+/- 5%)
	Total System SHGC = 0.39 (+/- 5%) Operability – max available while meeting window safety device requirements defined in the BCA.
	Note – all glazing systems are whole of system, including glazing and frame systems.

	All windows and doors are assumed to have weather-stripped and Insect Screen.
External Solid Walls	Added R2.5 bulk insulation for all apartment external walls. Minimum nominal 20mm unventilated non-reflective airgap. No thermal break required for the metal stud frame for thermal bridging controls. Medium or light colour
Walls to Non-Conditioned Zones:	Added R1.5 bulk insulation for all internal walls between apartment units and non-conditioned enclosed internal zones without thermal break. Refer to 0Appendix B - Insulation Markup0.
Exposed Roofs/Balconies (Over unconditioned spaces)	R4.0 soffit slab insulation to all units with exposed ceiling to outside. Medium or light colour.
Exposed Floor (Over unconditioned spaces)	R2.5 soffit slab insulation to all units with exposed ceiling to outside. Medium colour.
Floors Covering	Carpet in Bedrooms, Timber in Living/Dining Rooms. Tile in Bathrooms.
Insulation Penetrations & Ceiling fans	Exhaust fans have been modelled as "Sealed" and 1 per bathroom, 1 per laundry if available and 1 per kitchen. As a lighting plan/RCP is not yet available, downlights have been modelled as "Sealed" at a scale of 1 downlight/ 5m². Ceiling fans with 1200mm diameter have been modelled in Bedrooms and Kitchen/Living room of following units: A1.4402, A1.4407 A2.901 to A2.908 B1.0304 to B1.4404, B1.1007 to B1.4407, B1.4408

6. BASIX WATER

The following minimum standards are required to comply with the BASIX Water Targets for the project.

Table 8: BASIX Water Requirements

Design Element	Compliance Criteria
Fixtures	Showers: Minimum 4 Star (> 6.0 but <= 7.5 L/min) WELS Rated Toilets: Minimum 4 Star WELS Rated Bathroom Taps: Minimum 5 Star WELS Rated Kitchen Sink Taps: Minimum 5 Star WELS Rated
Fixtures within common areas	Showers: Minimum 4 Star (> 6.0 but <= 7.5 L/min) WELS Rated Toilets: Minimum 4 Star WELS Rated Bathroom Taps: Minimum 5 Star WELS Rated
Fittings/Appliances within units	Clothes Washer: Not Specified Dishwasher: Minimum 4.0 Star WELS Rated (To all apartments)
Fittings/Appliances within common areas	Clothes Washer: no common laundry facility
Fire Sprinkler Water Test	All Fire sprinkler systems test water contained in a closed system so that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.
Indoor Swimming Pool	No Swimming Pool
Alternative Water	A1 & A2: Rainwater Tank - Minimum 5,000L Rainwater tank to harvest the roof area of not less than 500 m2 and connect to at least 2186.75 m2 common landscape. B1: Rainwater Tank - Minimum 5,000L Rainwater tank to harvest the roof area of not less than 200 m2 and connect to at least 2186.75 m2 common landscape.
Common Landscape	A1 & A2: Common lawn area: 1,686.75 m2 Common Garden area: 500 m2 Indigenous species area: 0 m2 B1: Common lawn area: 1,314.3 m2 Common Garden area: 500 m2 Indigenous species area: 0 m2



7. RESULTS

E-LAB Consulting are engaged by Holdmark to provide BASIX compliance consultancy for 2-4 Giffnock Avenue, Macquarie Park. The report has confirmed the minimum requirements to satisfy the legislated minimum BASIX requirements for certification.

E-LAB have assessed the development and confirm that based on the design of the 2-4 Giffnock Avenue, Macquarie Park, NSW, 2113 and the inputs provided to BASIX, the proposal is positioned to comply with the requirements of BASIX.

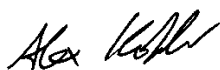
This report has outlined the results of the BASIX assessment and details of how each section is independently meeting minimum legislated BASIX benchmarks using various sustainability opportunities the development is considering for BASIX certification. The minimum compliance requirements are per the below:

Table 5: Project Summary

Area	Minimum Compliance Requirements	Project Score
Energy	A1 & A2: 63%	A1 & A2: 63%
	B1: 63%	B1: 63%
Water	A1 & A2: 40%	A1 & A2: 41%
	B1: 40%	B1: 41%
Thermal Comfort	A1 & A2: Pass	A1 & A2: Pass
	B1: Pass	B1: Pass
Material Index	A1 & A2: No Target	A1 & A2: -73
	B1: No Target	B1: -63

Note: Percentages stated for Energy and Water are the percentage improvement upon the NSW average dwelling's consumption

Alex Kobler | Director



E-LAB Consulting

e-lab.com.au



APPENDIX A – BASIX CERTIFICATION

Refer to next page



BASIX™ Certificate

Building Sustainability Index

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

Multi Dwelling

Certificate number: 1816099M_03

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

This certificate is a revision of certificate number 1816099M submitted to the consent authority or certifier on 16 December 2025 with application SSD -79017211.

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

Secretary

Date of issue: Tuesday, 16 June 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 12345679.

Project summary

Project name	2-4 Giffnock Avenue, Macquarie Park_A1 & A2_03
Street address	2-4 GIFFNOCK AVENUE MACQUARIE PARK 2113
Local Government Area	RYDE
Plan type and plan number	Deposited Plan 1310550
Lot No.	1
Section no.	-
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	430
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 41	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 63	Target 63
Materials	✓ -73	Target n/a

Certificate Prepared by

Name / Company Name: E-LAB Consulting

ABN (if applicable): 84647520634

Description of project

Project address	
Project name	2-4 Giffnock Avenue, Macquarie Park_A1 & A2_03
Street address	2-4 GIFFNOCK AVENUE MACQUARIE PARK 2113
Local Government Area	RYDE
Plan type and plan number	Deposited Plan 1310550
Lot No.	1
Section no.	-
Project type	
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	430
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	12386
Roof area (m²)	881.83
Non-residential floor area (m²)	938.85
Residential car spaces	412
Non-residential car spaces	23

Common area landscape		
Common area lawn (m²)	1686.75	
Common area garden (m²)	500	
Area of indigenous or low water use species (m²)	0	
Assessor details and thermal loads		
Assessor number	111111111111	
Certificate number	12345679	
Climate zone	56	
Project score		
Water	✓ 41	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 63	Target 63
Materials	✓ -73	Target n/a

Description of project

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

Residential flat buildings - A1, 341 dwellings, 49 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)
0101	1	63	0	0	0
0105	2	80	0	0	0
0201	1	63	0	0	0
0205	2	80	0	0	0
0301	1	65	0	0	0
0305	2	82	0	0	0
0401	1	63	0	0	0
0405	2	81	0	0	0
0501	1	63	0	0	0
0505	2	81	0	0	0
0601	1	63	0	0	0
0605	2	81	0	0	0
0701	1	63	0	0	0
0705	2	81	0	0	0
0801	1	63	0	0	0
0805	2	81	0	0	0
0901	1	63	0	0	0
0905	2	82	0	0	0
1002	2	80	0	0	0
1006	2	84	0	0	0
1103	2	80	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)
0102	2	80	0	0	0
0106	2	86	0	0	0
0202	2	80	0	0	0
0206	2	86	0	0	0
0302	2	75	0	0	0
0306	2	84	0	0	0
0402	2	80	0	0	0
0406	2	84	0	0	0
0502	2	80	0	0	0
0506	2	84	0	0	0
0602	2	80	0	0	0
0606	2	84	0	0	0
0702	2	80	0	0	0
0706	2	84	0	0	0
0802	2	80	0	0	0
0806	2	84	0	0	0
0902	2	80	0	0	0
0906	2	84	0	0	0
1003	2	80	0	0	0
1007	2	85	0	0	0
1104	2	80	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)
0103	2	80	0	0	0
0107	2	89	0	0	0
0203	2	80	0	0	0
0207	2	89	0	0	0
0303	2	75	0	0	0
0307	2	89	0	0	0
0403	2	80	0	0	0
0407	2	89	0	0	0
0503	2	80	0	0	0
0507	2	89	0	0	0
0603	2	80	0	0	0
0607	2	89	0	0	0
0703	2	80	0	0	0
0707	2	89	0	0	0
0803	2	80	0	0	0
0807	2	89	0	0	0
0903	2	80	0	0	0
0907	2	85	0	0	0
1004	2	80	0	0	0
1101	1	63	0	0	0
1105	2	82	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)
0104	2	81	0	0	0
0108	3	98	0	0	0
0204	2	81	0	0	0
0208	3	98	0	0	0
0304	2	81	0	0	0
0308	3	94	0	0	0
0404	2	80	0	0	0
0408	3	97	0	0	0
0504	2	80	0	0	0
0508	3	97	0	0	0
0604	2	80	0	0	0
0608	3	97	0	0	0
0704	2	80	0	0	0
0708	3	97	0	0	0
0804	2	80	0	0	0
0808	3	97	0	0	0
0904	2	80	0	0	0
1001	1	63	0	0	0
1005	2	81	0	0	0
1102	2	80	0	0	0
1106	2	84	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)
1107	2	85	0	0	0
1204	2	80	0	0	0
1301	1	63	0	0	0
1305	2	81	0	0	0
1402	2	80	0	0	0
1406	2	84	0	0	0
1503	2	80	0	0	0
1507	2	85	0	0	0
1604	2	80	0	0	0
1701	1	63	0	0	0
1705	2	81	0	0	0
1802	2	80	0	0	0
1806	2	84	0	0	0
1903	2	80	0	0	0
1907	2	85	0	0	0
2004	2	85	0	0	0
2104	2	80	0	0	0
2201	1	63	0	0	0
2205	2	82	0	0	0
2302	2	80	0	0	0
2306	2	84	0	0	0
2403	2	80	0	0	0
2407	2	85	0	0	0
2504	2	77	0	0	0
2601	1	63	0	0	0
2605	2	82	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)
1201	1	63	0	0	0
1205	2	81	0	0	0
1302	2	80	0	0	0
1306	2	84	0	0	0
1403	2	80	0	0	0
1407	2	85	0	0	0
1504	2	80	0	0	0
1601	1	63	0	0	0
1605	2	81	0	0	0
1702	2	80	0	0	0
1706	2	84	0	0	0
1803	2	80	0	0	0
1807	2	85	0	0	0
1904	2	80	0	0	0
2001	2	80	0	0	0
2101	1	63	0	0	0
2105	2	82	0	0	0
2202	2	80	0	0	0
2206	2	84	0	0	0
2303	2	80	0	0	0
2307	2	85	0	0	0
2404	2	80	0	0	0
2501	1	63	0	0	0
2505	2	82	0	0	0
2602	2	80	0	0	0
2606	2	84	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)
1202	2	80	0	0	0
1206	2	84	0	0	0
1303	2	80	0	0	0
1307	2	85	0	0	0
1404	2	80	0	0	0
1501	1	63	0	0	0
1505	2	81	0	0	0
1602	2	80	0	0	0
1606	2	84	0	0	0
1703	2	80	0	0	0
1707	2	85	0	0	0
1804	2	80	0	0	0
1901	1	63	0	0	0
1905	2	82	0	0	0
2002	2	80	0	0	0
2102	2	80	0	0	0
2106	2	84	0	0	0
2203	2	80	0	0	0
2207	2	85	0	0	0
2304	2	80	0	0	0
2401	1	63	0	0	0
2405	2	82	0	0	0
2502	2	80	0	0	0
2506	2	84	0	0	0
2603	2	80	0	0	0
2607	2	85	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1203	2	80	0	0	0
1207	2	85	0	0	0
1304	2	80	0	0	0
1401	1	63	0	0	0
1405	2	81	0	0	0
1502	2	80	0	0	0
1506	2	84	0	0	0
1603	2	80	0	0	0
1607	2	85	0	0	0
1704	2	80	0	0	0
1801	1	63	0	0	0
1805	2	82	0	0	0
1902	2	80	0	0	0
1906	2	84	0	0	0
2003	2	80	0	0	0
2103	2	80	0	0	0
2107	2	85	0	0	0
2204	2	80	0	0	0
2301	1	63	0	0	0
2305	2	82	0	0	0
2402	2	80	0	0	0
2406	2	84	0	0	0
2503	2	80	0	0	0
2507	2	85	0	0	0
2604	2	80	0	0	0
2701	1	63	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)
2702	2	80	0	0	0
2706	2	84	0	0	0
2803	2	80	0	0	0
2807	2	85	0	0	0
2904	2	80	0	0	0
3001	1	63	0	0	0
3005	2	82	0	0	0
3102	2	80	0	0	0
3106	2	84	0	0	0
3203	2	80	0	0	0
3207	2	85	0	0	0
3304	2	80	0	0	0
3401	1	63	0	0	0
3405	2	82	0	0	0
3502	2	80	0	0	0
3506	2	84	0	0	0
3603	2	80	0	0	0
3607	2	85	0	0	0
3704	2	80	0	0	0
3801	1	63	0	0	0
3805	2	82	0	0	0
3902	2	80	0	0	0
3906	2	84	0	0	0
4003	2	80	0	0	0
4007	2	85	0	0	0
4104	2	80	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)
2703	2	80	0	0	0
2707	2	85	0	0	0
2804	2	80	0	0	0
2901	1	63	0	0	0
2905	2	82	0	0	0
3002	2	80	0	0	0
3006	2	84	0	0	0
3103	2	80	0	0	0
3107	2	85	0	0	0
3204	2	80	0	0	0
3301	1	63	0	0	0
3305	2	82	0	0	0
3402	2	80	0	0	0
3406	2	84	0	0	0
3503	2	80	0	0	0
3507	2	85	0	0	0
3604	2	80	0	0	0
3701	1	63	0	0	0
3705	2	82	0	0	0
3802	2	80	0	0	0
3806	2	84	0	0	0
3903	2	80	0	0	0
3907	2	85	0	0	0
4004	2	80	0	0	0
4101	1	63	0	0	0
4105	2	82	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)
2704	2	80	0	0	0
2801	1	63	0	0	0
2805	2	82	0	0	0
2902	2	80	0	0	0
2906	2	84	0	0	0
3003	2	80	0	0	0
3007	2	85	0	0	0
3104	2	80	0	0	0
3201	1	63	0	0	0
3205	2	82	0	0	0
3302	2	80	0	0	0
3306	2	84	0	0	0
3403	2	80	0	0	0
3407	2	85	0	0	0
3504	2	80	0	0	0
3601	1	63	0	0	0
3605	2	82	0	0	0
3702	2	80	0	0	0
3706	2	84	0	0	0
3803	2	80	0	0	0
3807	2	85	0	0	0
3904	2	80	0	0	0
4001	1	63	0	0	0
4005	2	82	0	0	0
4102	2	80	0	0	0
4106	2	84	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)
2705	2	82	0	0	0
2802	2	80	0	0	0
2806	2	84	0	0	0
2903	2	80	0	0	0
2907	2	85	0	0	0
3004	2	80	0	0	0
3101	1	63	0	0	0
3105	2	82	0	0	0
3202	2	80	0	0	0
3206	2	84	0	0	0
3303	2	80	0	0	0
3307	2	85	0	0	0
3404	2	80	0	0	0
3501	1	63	0	0	0
3505	2	82	0	0	0
3602	2	80	0	0	0
3606	2	84	0	0	0
3703	2	80	0	0	0
3707	2	85	0	0	0
3804	2	80	0	0	0
3901	1	63	0	0	0
3905	2	82	0	0	0
4002	2	80	0	0	0
4006	2	84	0	0	0
4103	2	80	0	0	0
4107	2	85	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)
4201	1	63	0	0	0
4205	2	82	0	0	0
4302	2	80	0	0	0
4306	2	84	0	0	0
4403	2	80	0	0	0
4407	2	85	0	0	0
4504	2	80	0	0	0
4601	1	63	0	0	0
4605	2	82	0	0	0
4702	2	80	0	0	0
4706	2	84	0	0	0
4803	2	80	0	0	0
4807	2	85	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)
4202	2	80	0	0	0
4206	2	84	0	0	0
4303	2	80	0	0	0
4307	2	85	0	0	0
4404	2	80	0	0	0
4501	1	63	0	0	0
4505	2	82	0	0	0
4602	2	80	0	0	0
4606	2	84	0	0	0
4703	2	80	0	0	0
4707	2	85	0	0	0
4804	2	80	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)
4203	2	80	0	0	0
4207	2	85	0	0	0
4304	2	80	0	0	0
4401	1	63	0	0	0
4405	2	82	0	0	0
4502	2	80	0	0	0
4506	2	84	0	0	0
4603	2	80	0	0	0
4607	2	85	0	0	0
4704	2	80	0	0	0
4801	1	63	0	0	0
4805	2	82	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)
4204	2	80	0	0	0
4301	1	63	0	0	0
4305	2	82	0	0	0
4402	2	80	0	0	0
4406	2	84	0	0	0
4503	2	80	0	0	0
4507	2	85	0	0	0
4604	2	80	0	0	0
4701	1	63	0	0	0
4705	2	82	0	0	0
4802	2	80	0	0	0
4806	2	84	0	0	0

Residential flat buildings - A2, 89 dwellings, 11 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
0101	2	80	0	0	0
0105	1	64	0	0	0
0109	3	96	0	0	0
0203	2	85	0	0	0
0207	1	56	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)
0102	1	64	0	0	0
0106	1	56	0	0	0
0110	2	80	0	0	0
0204	1	66	0	0	0
0208	3	101	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)
0103	2	86	0	0	0
0107	1	57	0	0	0
0201	1	67	0	0	0
0205	1	66	0	0	0
0209	2	80	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)
0104	1	63	0	0	0
0108	3	112	0	0	0
0202	1	64	0	0	0
0206	1	57	0	0	0
0210	1	67	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)
0301	2	80	0	0	0
0305	1	64	0	0	0
0309	3	96	0	0	0
0403	2	86	0	0	0
0407	1	56	0	0	0
0501	2	80	0	0	0
0505	1	64	0	0	0
0509	3	97	0	0	0
0603	2	86	0	0	0
0607	1	56	0	0	0
0701	2	80	0	0	0
0705	1	64	0	0	0
0709	3	97	0	0	0
0803	2	86	0	0	0
0807	1	56	0	0	0
0901	2	80	0	0	0
0905	1	56	0	0	0
0909	2	80	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)
0302	1	64	0	0	0
0306	1	57	0	0	0
0310	2	80	0	0	0
0404	1	63	0	0	0
0408	3	112	0	0	0
0502	1	64	0	0	0
0506	1	56	0	0	0
0510	2	80	0	0	0
0604	1	63	0	0	0
0608	3	112	0	0	0
0702	1	64	0	0	0
0706	1	56	0	0	0
0710	2	80	0	0	0
0804	1	63	0	0	0
0808	3	112	0	0	0
0902	1	64	0	0	0
0906	1	56	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)
0303	2	86	0	0	0
0307	1	56	0	0	0
0401	2	80	0	0	0
0405	1	64	0	0	0
0409	3	97	0	0	0
0503	2	86	0	0	0
0507	1	56	0	0	0
0601	2	80	0	0	0
0605	1	64	0	0	0
0609	3	97	0	0	0
0703	2	86	0	0	0
0707	1	56	0	0	0
0801	2	80	0	0	0
0805	1	64	0	0	0
0809	3	97	0	0	0
0903	1	63	0	0	0
0907	3	112	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)
0304	1	63	0	0	0
0308	3	111	0	0	0
0402	1	64	0	0	0
0406	1	56	0	0	0
0410	2	80	0	0	0
0504	1	63	0	0	0
0508	3	112	0	0	0
0602	1	64	0	0	0
0606	1	56	0	0	0
0610	2	80	0	0	0
0704	1	63	0	0	0
0708	3	112	0	0	0
0802	1	64	0	0	0
0806	1	56	0	0	0
0810	2	80	0	0	0
0904	1	64	0	0	0
0908	3	97	0	0	0

Description of project

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

Common areas of unit building - A1

Common area	Floor area (m²)
A1_Elec	294.98
A1_Services	71.06
A1_Communal	157.35

Common area	Floor area (m²)
A1_Waste	254.88
A1_Fire Tank	48.76
A1_Lobby	121.10

Common area	Floor area (m²)
A1_CSA	11.11
A1_Fire Stair	946.46
A1_Corridor	3286.27

Common areas of unit building - A2

Common area	Floor area (m²)
A2_Elec	71.64
A2_Amenities	7.09

Common area	Floor area (m²)
A2_Waste	59.49
A2_Storage	8.84

Common area	Floor area (m²)
A2_Fire Pump	57.01

Common areas of the development (non-building specific)

Common area	Floor area (m²)
A1 and A2_Car Park	13863.99
A2_Substation	288.38
A1 and A2_Shared_Bin Room	118.49
A1 and A2_Shared_Grease Arrestor	32.12
A1 and A2_Store	85.05

Common area	Floor area (m²)
A1 and A2_Shared_Carpark	2328.64
A1 and A2_Shared_Comms	21.06
A1 and A2_Shared_Fogo Bin Room	36.53
A1 and A2_Basement Fire Stair	206.19
A1 and A2_Mail	43.95

Common area	Floor area (m²)
A1 and A2_Shared_Main Switch Room	160.18
A1 and A2_Shared Elec	7.83
A1 and A2_Shared_Fan Room	93.23
A1 and A2_Bike Workshop	87.29
A1 and A2_Parcel	19.00

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - A1

- (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 - 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)

- (a) Buildings 'Other'
 - (i) Materials
- (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 - A1

(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
floors above habitable rooms, frame: suspended concrete slab	29311.83	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	framed (metal clad), frame: light steel frame	4476.15	-	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	cavity brick wall, frame: light steel frame	750	-

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

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
framed - terracotta tiles, frame: light steel frame	613.81	-	-

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)
0	5498.62	0	5498.62	0	0	0	0

(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 (> 6 but ≤ 7.5 L/min)	4 star	5 star	5 star	-	not specified	4 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	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	Central hot water system (No. 1)	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	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
All dwellings	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	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	-	-	-	-	-	electric cooktop & electric oven	4 star	2 star	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: (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)
0101	20	14.4	34.400
0102	13.8	20.2	34.000
0103	5.3	11.4	16.700
0104	9.3	6.3	15.600

	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)
0105	18.5	7.8	26.300
0106	18.8	5.6	24.400
0107	10	8.1	18.100
0108	14.3	9.5	23.800
0201	20	14.6	34.600
0202	14.3	20	34.300
0203	5.1	11.9	17.000
0204	9.7	6.1	15.800
0205	16.9	8	24.900
0206	18.8	5.7	24.500
0207	10.3	7.9	18.200
0208	15.4	9.6	25.000
0301	23.9	12.1	36.000
0302	19.2	16.7	35.900
0303	5.1	9.8	14.900
0304	11.4	6	17.400
0305	12.8	6.4	19.200
0306	13.9	6.4	20.300
0307	13.8	6.1	19.900
0308	16.6	11.4	28.000
0401	20.8	14.4	35.200
0402	17.6	10.9	28.500
0403	4.5	13	17.500
0404	11	8.8	19.800
0407	14.4	6	20.400
0408	16.7	7.1	23.800
0501	21.7	13.9	35.600
0502	18	10.5	28.500
0503	4.6	12.2	16.800
0504	11.5	8.6	20.100
0505	14.8	6.7	21.500

	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)
0506	15	6.3	21.300
0507	14.8	6	20.800
0508	16.9	6.8	23.700
0601	22.1	13.7	35.800
0602	19.6	9.8	29.400
0603	5.1	11.1	16.200
0604	12.6	8.3	20.900
0605	15.2	6.4	21.600
0606	15.5	6.2	21.700
0607	15.2	5.9	21.100
0608	17.3	6.6	23.900
0701	22	13.9	35.900
0702	19	10.2	29.200
0703	5.9	10.8	16.700
0704	13	8.2	21.200
0705	15.6	6.3	21.900
0706	15.8	6.2	22.000
0707	15.5	5.8	21.300
0708	17.6	6.4	24.000
0801	22.5	13.7	36.200
0802	19.5	10	29.500
0803	4.9	11.5	16.400
0804	12.5	8.3	20.800
0805	15.9	6.3	22.200
0806	16.6	6.5	23.100
0807	24.2	8.8	33.000
0808	20.7	7.2	27.900
0901	24.9	8.7	33.600
0902	23.5	9	32.500
0903	6.6	9.1	15.700
0904	15	7.9	22.900

	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)
0905	17.8	6.2	24.000
0906	23.1	9.2	32.300
0907	29.3	8.1	37.400
1001	24.8	12.7	37.500
1002	22.4	9.9	32.300
1003	6.2	9.6	15.800
1004	15.8	7.6	23.400
1007	28.5	8.2	36.700
1101	23.8	13	36.800
1102	22.2	9.8	32.000
1103	6.4	9.6	16.000
1104	14.9	7.6	22.500
1105	18.4	6.1	24.500
1106	22.8	9.8	32.600
1107	28.4	8.3	36.700
1201	22.8	12.6	35.400
1202	26.8	9.9	36.700
1203	8.5	9.2	17.700
1205	17.3	6.1	23.400
1206	21.5	10.4	31.900
1207	29.3	8.2	37.500
1301	23.1	12.9	36.000
1302	26.2	10.4	36.600
1303	8.3	9.7	18.000
1304	18.6	7.5	26.100
1305	17.4	6.1	23.500
1306	20.9	10.2	31.100
1307	29.2	8.4	37.600
1401	23	12.9	35.900
1402	26.3	9.5	35.800
1403	9.8	9.2	19.000

	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)
1404	19	7.4	26.400
1405	17.5	6	23.500
1406	21.1	10	31.100
1501	23	12.8	35.800
1502	27.5	9.9	37.400
1503	8.7	9.5	18.200
1504	19.1	7.4	26.500
1505	17.7	6	23.700
1506	21.9	10.6	32.500
1507	29.5	8.1	37.600
1601	23.2	13	36.200
1602	26.8	10.3	37.100
1603	8.7	9.6	18.300
1604	19.5	7.5	27.000
1605	17.9	5.9	23.800
1606	21.9	10.5	32.400
1607	29.6	8.1	37.700
1701	23.4	12.3	35.700
1702	28.1	9.8	37.900
1703	8.8	9.5	18.300
1704	19.7	7.3	27.000
1705	18.1	5.9	24.000
1706	22.6	10.8	33.400
1801	23.8	12.5	36.300
1802	27.0	9.5	36.500
1803	9	9.2	18.200
1804	19.8	7.40	27.200
1806	22.1	10.3	32.400
1807	29.9	8	37.900
1901	24.4	11.5	35.900
1902	27.6	8.9	36.500

	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)
1903	9.8	9.5	19.300
1906	19.2	16	35.200
2001	25.6	9.6	35.200
2002	9.9	9.5	19.400
2003	20	7.3	27.300
2102	28.9	8.5	37.400
2105	19.9	5.8	25.700
2106	19.5	15.6	35.100
2107	29.7	8.2	37.900
2201	25.1	11.1	36.200
2202	28	9.2	37.200
2203	9.6	9.4	19.000
2204	17.5	7.1	24.600
2205	19.4	5.8	25.200
2206	24.1	9.8	33.900
2207	30	7.8	37.800
2301	25	11.1	36.100
2302	28.2	9.2	37.400
2303	9.7	9.4	19.100
2304	17.6	7.1	24.700
2305	19.8	5.8	25.600
2307	30.1	7.8	37.900
2402	29.4	8.5	37.900
2403	10.1	9.2	19.300
2404	17.7	7.2	24.900
2405	19.8	5.9	25.700
2406	23.8	9.7	33.500
2407	29.4	7.7	37.100
2501	24.9	10.9	35.800
2502	28.6	8.9	37.500
2503	9.7	9.2	18.900

	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)
2504	18	7.4	25.400
2505	20	5.8	25.800
2506	24.1	9.4	33.500
2507	29.9	7.8	37.700
2601	24.7	11.1	35.800
2602	28.5	8.9	37.400
2603	9.7	9.3	19.000
2604	17.8	7.4	25.200
2606	24.3	9.6	33.900
2607	29.8	7.9	37.700
2702	29.4	8.2	37.600
2703	10.1	9.4	19.500
2705	20.2	5.6	25.800
2706	24.3	9.9	34.200
2707	29.2	7.3	36.500
2801	25.2	11.2	36.400
2802	28.9	8.8	37.700
2803	10	9.5	19.500
2805	20.2	5.8	26.000
2807	30.1	7.4	37.500
2901	25.5	10.9	36.400
2902	27.1	9	36.100
2904	18.3	7.3	25.600
2906	22.6	10	32.600
2907	29.5	7.1	36.600
3001	25.7	10.7	36.400
3003	10.5	9.3	19.800
3004	18.3	7.4	25.700
3006	23.2	9.8	33.000
3007	30.3	7.4	37.700
3102	28.9	8.3	37.200

	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)
3103	10.3	9.5	19.800
3104	18.2	7.4	25.600
3107	30.3	7	37.300
3201	26.5	10.7	37.200
3202	29	8.3	37.300
3203	10.4	9.5	19.900
3205	20.6	5.7	26.300
3206	24	9.9	33.900
3207	30.1	7.2	37.300
3301	26.4	10.8	37.200
3302	29.5	8	37.500
3303	10.8	9.5	20.300
3306	18.9	15.2	34.100
3307	30.3	7.2	37.500
3401	26.3	10.9	37.200
3402	28.8	8.1	36.900
3404	18.3	7.6	25.900
3405	20.6	5.8	26.400
3406	23.9	10.1	34.000
3407	30.3	7.3	37.600
3501	25.7	10.8	36.500
3502	28.8	8.2	37.000
3504	18.1	7.6	25.700
3506	23.8	9.9	33.700
3507	30.4	7.3	37.700
3602	29	8.1	37.100
3603	10.9	9.4	20.300
3604	17.8	7.6	25.400
3607	30.5	7.3	37.800
3701	25.5	10.8	36.300
3702	29.1	8.1	37.200

	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)
3703	10.7	9.7	20.400
3704	17.2	7.6	24.800
3705	20.3	5.8	26.100
3707	30.6	7.4	38.000
3801	25.6	10.7	36.300
3802	29.1	8.3	37.400
3803	10.6	9.8	20.400
3804	18.1	7.9	26.000
3805	19.7	5.8	25.500
3806	22.3	10.3	32.600
3807	26.2	7.8	34.000
3901	25.6	10.6	36.200
3903	11	9.4	20.400
3904	17.4	8	25.400
3905	18.8	5.9	24.700
3906	20.9	9.7	30.600
3907	30.3	7.6	37.900
4001	26.3	11.2	37.500
4002	29.3	8.3	37.600
4004	15.5	8.1	23.600
4005	17.2	5.9	23.100
4006	17.6	9.6	27.200
4007	30.1	7.9	38.000
4101	26.6	10.8	37.400
4102	29.5	8.4	37.900
4104	12.6	8.1	20.700
4105	15	6	21.000
4107	25.7	7.8	33.500
4201	27.7	6.9	34.600
4204	11.5	8.3	19.800
4205	14	5.8	19.800

	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)
4207	27.3	7.8	35.100
4301	27.1	10.7	37.800
4302	29.6	8.3	37.900
4303	10.9	9.6	20.500
4304	9.5	8.5	18.000
4305	12.4	5.9	18.300
4306	13.9	10.2	24.100
4307	27.3	7.6	34.900
4401	28.8	7.6	36.400
4402	30.1	6.9	37.000
4403	19.7	11.3	31.000
4404	16.9	11	27.900
4405	21.2	7.8	29.000
4406	20.6	12.8	33.400
4407	31.5	5.7	37.200
0405, 0406	14.5	6.5	21.000
1005, 1805	18.2	5.9	24.100
1006, 3106	22.9	9.9	32.800
1407, 3002	29.7	8.1	37.800
1707, 3902	29.9	7.9	37.800
1904, 2104	19.8	7.3	27.100
1905, 2605	20.1	5.8	25.900
1907, 2004	29.8	8.1	37.900
2101, 4202	29.5	8.3	37.800
2103, 2903	10.1	9.5	19.600
2306, 3706	23.5	9.8	33.300
2401, 2701	24.8	11.3	36.100
2704, 2804	18	7.3	25.300
2806, 3606	23.1	9.9	33.000
3005, 3505	20.4	5.8	26.200
3101, 3601	25.8	10.7	36.500

	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)
3403, 3503	10.5	9.7	20.200
4106, 4206	14.7	10.2	24.900
1204, 3204, 3304	18.4	7.4	25.800
4003, 4103, 4203	10.8	9.6	20.400
2905, 3105, 3305, 3605	20.5	5.8	26.300
4604, 4605, 4606, 4607, 4701, 4702, 4703, 4704, 4705, 4706, 4707, 4801, 4802	15.00	15	30.000
All other dwellings	15	15	30.000

(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	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

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

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(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
A1_Elec	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1_Waste	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
A1_CSA	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1_Services	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1_Fire Tank	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1_Fire Stair	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
A1_Communa	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A1_Lobby	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A1_Corridor	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Lift bank (No. 1)	gearless traction with V V V F motor	Number of levels with apartments served by a lift: 48 number of levels from the bottom of the lift shaft to the top of the lift shaft: 55 number of lifts: 4 lift load capacity: >= 1001 kg but <= 1500kg
Central hot water system (No. 1)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: 3.0 < COP <= 3.5

2. Commitments for Residential flat buildings - 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
floors above habitable rooms, frame: suspended concrete slab	8042.30	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	framed (metal clad), frame: light steel frame	4476.15	-	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	cavity brick wall, frame: light steel frame	750	-

Reinforcement concrete frames/columns

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

Ceiling and roof types

Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
framed - terracotta tiles, frame: light steel frame	268.02	-	-

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)
0	5498.62	0	5498.62	0	0	0	0

(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 (> 6 but ≤ 7.5 L/min)	4 star	5 star	5 star	-	not specified	4 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	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	Central hot water system (No. 2)	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	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
All dwellings	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	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	-	-	-	-	-	electric cooktop & electric oven	4 star	2 star	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: (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)
0101	29.3	4.9	34.200
0102	20.5	11.3	31.800
0103	12.9	7.3	20.200
0104	14.4	9.2	23.600

	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)
0105	16.8	8.9	25.700
0106	21.7	10.2	31.900
0107	11.1	12.2	23.300
0108	14.5	11.3	25.800
0109	24.6	8.8	33.400
0110	25.5	5.4	30.900
0201	25.7	8.3	34.000
0202	17.9	12.9	30.800
0203	13.1	7.0	20.100
0204	15	8.6	23.600
0205	16.5	8.2	24.700
0206	19.6	10.2	29.800
0207	11.3	12.3	23.600
0208	11.6	6.5	18.100
0209	24.8	10.4	35.200
0210	19.5	13.9	33.400
0301	26.4	6.7	33.100
0302	20.6	10.9	31.500
0303	16.6	5.5	22.100
0304	17.6	8.1	25.700
0305	20.4	8.5	28.900
0306	21.6	9.7	31.300
0307	14.3	10	24.300
0308	11.7	9.4	21.100
0309	24.2	9.3	33.500
0310	24.5	5.4	29.900
0401	25.9	7.2	33.100
0402	21.3	10.7	32.000
0403	17.1	5.7	22.800
0404	21.3	8.0	29.300
0405	21.6	8.2	29.800

	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)
0406	22.3	10	32.300
0407	14.9	9.8	24.700
0408	14	9.9	23.900
0409	24.6	9.7	34.300
0410	24.2	5.2	29.400
0501	26.8	5.8	32.600
0502	21.8	10.5	32.300
0503	17.6	5.3	22.900
0504	20.1	7.9	28.000
0505	22.3	8	30.300
0506	22.8	9.8	32.600
0507	15.3	9.5	24.800
0508	14.4	9.9	24.300
0509	25.4	10.2	35.600
0510	24.7	4.9	29.600
0601	26.9	6.1	33.000
0602	22.3	10.4	32.700
0603	17.7	5.6	23.300
0604	22.4	7.8	30.200
0605	22.8	8	30.800
0606	23.3	9.8	33.100
0607	15.8	9.4	25.200
0608	14.9	9.9	24.800
0610	24.8	5.2	30.000
0701	27.1	5.6	32.700
0702	22.6	10.3	32.900
0703	18	5.4	23.400
0704	22.8	7.6	30.400
0705	23.2	8.0	31.200
0706	23.6	10.0	33.600
0707	16	9.4	25.400

	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)
0708	15.2	9.7	24.900
0709	26.1	9.0	35.100
0710	24.9	5.1	30.000
0801	26.5	7.0	33.500
0802	21.5	10.5	32.000
0803	27.3	7.8	35.100
0804	25.4	7.8	33.200
0805	23.5	7.9	31.400
0806	23.8	9.9	33.700
0807	16.3	9.3	25.600
0808	15.3	10.0	25.300
0810	22.1	6.3	28.400
0901	31.9	4.6	36.500
0902	30.8	7.2	38.000
0903	31.1	5.8	36.900
0904	28.3	8.9	37.200
0905	26.2	10.4	36.600
0906	21.5	11.9	33.400
0907	24.9	12.5	37.400
0908	31.7	5.1	36.800
0909	31.3	5.9	37.200
All other dwellings	25.5	9.7	35.200

(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	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 2)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(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	yes
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	yes
A2_Elec	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A2_Waste	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
A2_CSA	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A2_Fire Pump	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A2_Fire Stair	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
A2_Communal	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A2_Amenities	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A2_Storage	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A2_Lobby	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A2_Corridor	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Lift bank (No. 2)	gearless traction with V V V F motor	Number of levels with apartments served by a lift: 9 number of levels from the bottom of the lift shaft to the top of the lift shaft: 16 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg
Central hot water system (No. 2)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: 3.0 < COP <= 3.5

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

(a) Buildings 'Other'

(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
garage floor, frame: suspended concrete slab	17140.41	-	none

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	framed (metal clad), frame: light steel frame	2534	-	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	cavity brick wall, frame: light steel frame	750	-

Reinforcement concrete frames/columns

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

Ceiling and roof types

Ceiling and roof type	Area (m ²)	Roof Insulation	Ceiling Insulation
-	-	-	

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)
0	0	0	0	0	0	0	0

(b) Common areas and central systems/facilities

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

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

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	5000	To collect run-off from at least: - 500 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 2186.75 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 3)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-
Fire sprinkler system (No. 4)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(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
A1 and A2_Car Park	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
A1 and A2_Shared_Carpark	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
A1 and A2_Shared_Main Switch Room	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A2_Substation	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1 and A2_Shared_Comms	air conditioning system	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1 and A2_Shared Elec	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1 and A2_Shared_Bin Room	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
A1 and A2_Shared_Fogo Bin Room	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
A1 and A2_Shared_Fan Room	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1 and A2_Shared_Grease Arrestor	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
A1 and A2_Basement Fire Stair	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
A1 and A2_Bike Workshop	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A1 and A2_Store	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes

	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
A1 and A2_Mail	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
A1 and A2_Parcel	air conditioning system	none i.e., continuous	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 40 peak kW
Other	Building management system installed?: yes	-

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).

BASIX™ Certificate

Building Sustainability Index

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

Multi Dwelling

Certificate number: 1816089M_03

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

This certificate is a revision of certificate number 1816089M submitted to the consent authority or certifier on 16 December 2025 with application DDS-79017211.

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

Secretary

Date of issue: Tuesday, 16 June 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 12345679.

Project summary

Project name	2-4 Giffnock Avenue, Macquarie Park_B1_03
Street address	2-4 GIFFNOCK AVENUE MACQUARIE PARK 2113
Local Government Area	RYDE
Plan type and plan number	Deposited Plan 1310550
Lot No.	1
Section no.	-
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	315
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 41	Target 40
Thermal Performance (Simulation method)	✓ Pass	Target Pass
Energy	✓ 63	Target 63
Materials	✓ -63	Target n/a

Certificate Prepared by

Name / Company Name: E-LAB Consulting

ABN (if applicable): 84647520634

Description of project

Project address	
Project name	2-4 Giffnock Avenue, Macquarie Park_B1_03
Street address	2-4 GIFFNOCK AVENUE MACQUARIE PARK 2113
Local Government Area	RYDE
Plan type and plan number	Deposited Plan 1310550
Lot No.	1
Section no.	-
Project type	
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	315
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	12386
Roof area (m²)	826.66
Non-residential floor area (m²)	1866.36
Residential car spaces	285
Non-residential car spaces	16

Common area landscape		
Common area lawn (m²)	1314.3	
Common area garden (m²)	500	
Area of indigenous or low water use species (m²)	0	
Assessor details and thermal loads		
Assessor number	111111111111	
Certificate number	12345679	
Climate zone	56	
Project score		
Water	41	Target 40
Thermal Performance (Simulation method)	Pass	Target Pass
Energy	63	Target 63
Materials	-63	Target n/a

Description of project

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

Residential flat buildings - B1, 315 dwellings, 42 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)
0201	1	63	0	0	0
0205	2	94	3.7	0	0
0303	3	103	0	0	0
0307	2	92	3.7	0	0
0403	3	103	0	0	0
0407	2	92	3.7	0	0
0503	3	103	0	0	0
0507	2	92	3.7	0	0
0603	3	103	0	0	0
0607	2	92	3.7	0	0
0703	3	103	0	0	0
0707	2	92	3.7	0	0
0803	3	103	0	0	0
0807	2	92	3.7	0	0
0903	3	103	0	0	0
0907	2	92	3.7	0	0
1003	3	103	0	0	0
1007	2	92	3.7	0	0
1103	3	103	0	0	0
1107	2	92	3.7	0	0
1203	3	103	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)
0202	3	106	0	0	0
0206	2	80	0	0	0
0304	2	85	3.9	0	0
0308	2	84	0	0	0
0404	2	85	3.9	0	0
0408	2	84	0	0	0
0504	2	85	3.9	0	0
0508	2	84	0	0	0
0604	2	85	3.9	0	0
0608	2	84	0	0	0
0704	2	85	3.9	0	0
0708	2	84	0	0	0
0804	2	85	3.9	0	0
0808	2	84	0	0	0
0904	2	85	3.9	0	0
0908	2	84	0	0	0
1004	2	85	3.9	0	0
1008	2	84	0	0	0
1104	2	85	3.9	0	0
1108	2	84	0	0	0
1204	2	85	3.9	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)
0203	3	117	0	0	0
0301	1	64	0	0	0
0305	2	85	0	0	0
0401	1	64	0	0	0
0405	2	85	0	0	0
0501	1	64	0	0	0
0505	2	85	0	0	0
0601	1	64	0	0	0
0605	2	85	0	0	0
0701	1	64	0	0	0
0705	2	85	0	0	0
0801	1	64	0	0	0
0805	2	85	0	0	0
0901	1	64	0	0	0
0905	2	85	0	0	0
1001	1	64	0	0	0
1005	2	85	0	0	0
1101	1	64	0	0	0
1105	2	85	0	0	0
1201	1	64	0	0	0
1205	2	85	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)
0204	2	92	0	0	0
0302	2	80	0	0	0
0306	2	86	0	0	0
0402	2	80	0	0	0
0406	2	86	0	0	0
0502	2	80	0	0	0
0506	2	86	0	0	0
0602	2	80	0	0	0
0606	2	86	0	0	0
0702	2	80	0	0	0
0706	2	86	0	0	0
0802	2	80	0	0	0
0806	2	86	0	0	0
0902	2	80	0	0	0
0906	2	86	0	0	0
1002	2	80	0	0	0
1006	2	86	0	0	0
1102	2	80	0	0	0
1106	2	86	0	0	0
1202	2	80	0	0	0
1206	2	86	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)
1207	2	92	3.7	0	0
1303	3	103	0	0	0
1307	2	92	3.7	0	0
1403	3	103	0	0	0
1407	2	92	2.7	0	0
1503	3	103	0	0	0
1507	2	92	3.7	0	0
1603	3	103	0	0	0
1607	2	92	3.7	0	0
1703	3	103	0	0	0
1707	2	92	3.7	0	0
1803	3	103	0	0	0
1807	2	92	3.7	0	0
1903	3	103	0	0	0
1907	2	92	3.7	0	0
2003	2	85	3.9	0	0
2102	2	80	0	0	0
2106	2	86	0	0	0
2202	2	80	0	0	0
2206	2	86	0	0	0
2302	2	81	0	0	0
2306	2	86	0	0	0
2402	2	81	0	0	0
2406	2	86	0	0	0
2502	2	80	0	0	0
2506	2	86	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)
1208	2	84	0	0	0
1304	2	85	3.9	0	0
1308	2	84	0	0	0
1404	2	85	3.9	0	0
1408	2	84	0	0	0
1504	2	85	3.9	0	0
1508	2	84	0	0	0
1604	2	85	3.9	0	0
1608	2	84	0	0	0
1704	2	85	3.9	0	0
1708	2	84	0	0	0
1804	2	85	3.9	0	0
1808	2	84	0	0	0
1904	2	85	3.9	0	0
1908	2	84	0	0	0
2004	2	93	3.7	0	0
2103	3	103	0	0	0
2107	2	92	3.7	0	0
2203	3	103	0	0	0
2207	2	92	3.7	0	0
2303	3	103	0	0	0
2307	2	92	3.7	0	0
2403	3	103	0	0	0
2407	2	92	3.7	0	0
2503	3	103	0	0	0
2507	2	92	3.7	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)
1301	1	64	0	0	0
1305	2	85	0	0	0
1401	1	64	0	0	0
1405	2	85	0	0	0
1501	1	64	0	0	0
1505	2	85	0	0	0
1601	1	64	0	0	0
1605	2	85	0	0	0
1701	1	64	0	0	0
1705	2	85	0	0	0
1801	1	64	0	0	0
1805	2	85	0	0	0
1901	1	64	0	0	0
1905	2	85	0	0	0
2001	2	80	0	0	0
2005	2	85	0	0	0
2104	2	85	3.9	0	0
2108	2	84	0	0	0
2204	2	85	3.9	0	0
2208	2	84	0	0	0
2304	2	85	3.9	0	0
2308	2	84	0	0	0
2404	2	85	3.90	0	0
2408	2	84	0	0	0
2504	2	85	3.9	0	0
2508	2	84	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)
1302	2	80	0	0	0
1306	2	86	0	0	0
1402	2	80	0	0	0
1406	2	86	0	0	0
1502	2	80	0	0	0
1506	2	86	0	0	0
1602	2	80	0	0	0
1606	2	86	0	0	0
1702	2	830	0	0	0
1706	2	86	0	0	0
1802	2	81	0	0	0
1806	2	86	0	0	0
1902	2	80	0	0	0
1906	2	86	0	0	0
2002	3	104	0	0	0
2101	1	64	0	0	0
2105	2	85	0	0	0
2201	1	64	0	0	0
2205	2	85	0	0	0
2301	1	64	0	0	0
2305	2	85	0	0	0
2401	1	64	0	0	0
2405	2	85	0	0	0
2501	1	64	0	0	0
2505	2	85	0	0	0
2601	1	64	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)
2602	2	80	0	0	0
2606	2	86	0	0	0
2702	2	80	0	0	0
2706	2	86	0	0	0
2802	2	80	0	0	0
2806	2	86	0	0	0
2902	2	80	0	0	0
2906	2	86	0	0	0
3002	2	80	0	0	0
3006	2	86	0	0	0
3102	2	80	0	0	0
3106	2	86	0	0	0
3202	2	80	0	0	0
3206	2	86	0	0	0
3302	2	80	0	0	0
3306	2	86	0	0	0
3402	2	80	0	0	0
3406	2	86	0	0	0
3502	2	80	0	0	0
3506	2	86	0	0	0
3602	2	80	0	0	0
3606	2	86	0	0	0
3702	2	80	0	0	0
3706	2	86	0	0	0
3802	2	80	0	0	0
3806	2	86	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)
2603	3	103	0	0	0
2607	2	92	3.7	0	0
2703	3	103	0	0	0
2707	2	92	3.7	0	0
2803	3	103	0	0	0
2807	2	92	3.7	0	0
2903	3	103	0	0	0
2907	2	92	3.7	0	0
3003	3	103	0	0	0
3007	2	92	3.7	0	0
3103	3	103	0	0	0
3107	2	92	3.7	0	0
3203	3	103	0	0	0
3207	2	85	3.7	0	0
3303	3	103	0	0	0
3307	2	92	3.7	0	0
3403	3	103	0	0	0
3407	2	92	3.7	0	0
3503	3	103	0	0	0
3507	2	92	3.7	0	0
3603	3	103	0	0	0
3607	2	92	3.7	0	0
3703	3	103	0	0	0
3707	2	92	3.7	0	0
3803	3	103	0	0	0
3807	2	92	3.7	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)
2604	2	85	3.9	0	0
2608	2	84	0	0	0
2704	2	85	3.9	0	0
2708	2	84	0	0	0
2804	2	85	3.9	0	0
2808	2	84	0	0	0
2904	2	85	3.9	0	0
2908	2	84	0	0	0
3004	2	85	3.9	0	0
3008	2	84	0	0	0
3104	2	85	3.9	0	0
3108	2	84	0	0	0
3204	2	85	3.9	0	0
3208	2	84	0	0	0
3304	2	85	3.9	0	0
3308	2	84	0	0	0
3404	2	85	3.9	0	0
3408	2	84	0	0	0
3504	2	85	3.9	0	0
3508	2	84	0	0	0
3604	2	85	3.9	0	0
3608	2	84	0	0	0
3704	2	85	3.9	0	0
3708	2	84	0	0	0
3804	2	85	3.9	0	0
3808	2	84	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)
2605	2	85	0	0	0
2701	1	64	0	0	0
2705	2	85	0	0	0
2801	1	64	0	0	0
2805	2	85	0	0	0
2901	1	64	0	0	0
2905	2	85	0	0	0
3001	1	64	0	0	0
3005	2	85	0	0	0
3101	1	64	0	0	0
3105	2	85	0	0	0
3201	1	64	0	0	0
3205	2	85	0	0	0
3301	1	64	0	0	0
3305	2	85	0	0	0
3401	1	64	0	0	0
3405	2	85	0	0	0
3501	1	64	0	0	0
3505	2	85	0	0	0
3601	1	64	0	0	0
3605	2	85	0	0	0
3701	1	64	0	0	0
3705	2	85	0	0	0
3801	1	64	0	0	0
3805	2	85	0	0	0
3901	1	64	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)
3902	2	80	0	0	0
3906	2	86	0	0	0
4002	2	80	0	0	0
4006	2	86	0	0	0
4102	2	80	0	0	0
4106	2	86	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)
3903	3	103	0	0	0
3907	2	92	3.7	0	0
4003	3	103	0	0	0
4007	2	92	3.7	0	0
4103	3	103	0	0	0
4107	2	92	3.7	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)
3904	2	85	3.9	0	0
3908	2	84	0	0	0
4004	2	85	3.9	0	0
4008	2	84	0	0	0
4104	2	85	3.9	0	0
4108	2	84	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)
3905	2	85	0	0	0
4001	1	64	0	0	0
4005	2	85	0	0	0
4101	1	64	0	0	0
4105	2	85	0	0	0

Description of project

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

Common areas of unit building - B1

Common area	Floor area (m²)
B_Elec	220
B_Fire Pump Room	50.63
B_Shared_Booster	5.84

Common area	Floor area (m²)
B_Waste	178.88
B_Fire Stair	951.54
B_Mail	37.32

Common area	Floor area (m²)
B_Shared_Dock	415.45
B_Shared_Bike Parking	69.87

Common areas of the development (non-building specific)

Common area	Floor area (m²)
B_Shared_Carpark	1873.21
B_Shared_FOGO Bin Room	16.18
B_Shared_Comms	38.53
B_Shared_Fire Pump	69.6

Common area	Floor area (m²)
B_Carpark	13022.86
B_Bulky Waste	67.27
B_Shared_Fire Tank	59.58
B_Basement Fire Stair	150.8

Common area	Floor area (m²)
B_Shared_Bin Room	106.18
B_Shared_Hydraulic Pump	48.43
B_Shared_Fan Room	128.08
B_Shared_Fire Stair	140.71

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - B1

(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)

(a) Buildings 'Other'

(i) Materials

(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 - B1

(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
floors above habitable rooms, frame: suspended concrete slab	32447.02	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	framed (metal clad), frame: light steel frame	11888.7	-	fibreglass batts or roll

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	cavity brick wall, frame: light steel frame	750	-

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

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
framed - terracotta tiles, frame: light steel frame	826.66	-	-

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)
0	12664.3	0	12664.3	0	0	0	0

(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 (> 6 but ≤ 7.5 L/min)	4 star	5 star	5 star	-	not specified	4 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	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	Central hot water system (No. 1)	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	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
All dwellings	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	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	-	-	-	-	-	electric cooktop & electric oven	4 star	2 star	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: (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)
0201	6.5	12.8	19.300
0202	13.3	6.7	20.000
0203	20.1	7.1	27.200
0204	9.1	10.6	19.700

	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)
0205	18.7	11.4	30.100
0206	16.5	16.2	32.700
0302	11.3	8.9	20.200
0303	6	16.6	22.600
0304	8.7	11.8	20.500
0305	10.9	10.3	21.200
0306	11.2	8.7	19.900
0307	24.4	6.7	31.100
0308	17.7	7.1	24.800
0402	11.5	8.2	19.700
0403	6.1	16.5	22.600
0404	7.3	20.3	27.600
0405	11	12.2	23.200
0406	12.7	12.4	25.100
0407	24.4	7.5	31.900
0408	17.6	7.1	24.700
0501	13.2	7.5	20.700
0502	12.2	7.9	20.100
0503	6.4	16.4	22.800
0504	7.4	20.7	28.100
0505	11.4	12.2	23.600
0506	12.9	12	24.900
0507	23.8	7.2	31.000
0508	18	7.2	25.200
0601	13.8	7.5	21.300
0602	12.4	7.8	20.200
0603	6.6	16.1	22.700
0604	7.6	20.5	28.100
0605	11.7	12.2	23.900
0606	13.2	12.2	25.400
0607	24.1	7.3	31.400

	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)
0608	18.3	6.9	25.200
0701	14.1	7.5	21.600
0703	6.8	16	22.800
0704	6.9	9.1	16.000
0705	10.7	8.3	19.000
0706	12.7	9.1	21.800
0707	24.7	6.5	31.200
0708	18.5	6.9	25.400
0801	14.2	7.1	21.300
0802	12.8	7.4	20.200
0803	9.8	16	25.800
0804	7.9	19.7	27.600
0805	12.2	12.1	24.300
0806	13.8	12.1	25.900
0807	24.1	7.1	31.200
0808	18.8	6.7	25.500
0901	16.1	6.5	22.600
0902	14.4	7.1	21.500
0903	8.1	14	22.100
0904	9.3	16.7	26.000
0905	13.9	10.8	24.700
0906	15.6	10.8	26.400
0907	25.7	8	33.700
0908	20.5	6.3	26.800
1001	16.4	6.4	22.800
1002	14.8	7.3	22.100
1003	8.4	13.9	22.300
1004	9.4	16.3	25.700
1005	14.1	10.9	25.000
1007	26.1	6.9	33.000
1008	20.4	6.4	26.800

	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)
1101	15.6	6.4	22.000
1102	15	7.1	22.100
1103	8.5	13.5	22.000
1104	8.8	8.5	17.300
1106	14.7	7.7	22.400
1107	26.4	6.8	33.200
1108	20.5	6.4	26.900
1201	11.7	7.40	19.100
1202	17.3	7.4	24.700
1203	11.4	14.8	26.200
1204	11.2	16.6	27.800
1205	14.4	11.3	25.700
1207	26.1	7.4	33.500
1301	12	7.3	19.300
1302	17.7	7	24.700
1303	11.7	14.6	26.300
1304	11.6	15.4	27.000
1305	15.7	10.9	26.600
1306	15.8	11.4	27.200
1307	26.5	8.2	34.700
1308	26.4	6.5	32.900
1402	17.6	7.4	25.000
1403	11.5	14.5	26.000
1404	11.9	15.7	27.600
1405	16.6	10.7	27.300
1406	16.2	11.1	27.300
1407	26.3	8.8	35.100
1408	26.5	6.7	33.200
1501	14.1	6.8	20.900
1502	17.7	7.4	25.100
1503	12.2	14.3	26.500

	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)
1504	11.6	16.5	28.100
1505	16.1	10.4	26.500
1506	16.3	11	27.300
1507	26.2	9.2	35.400
1508	25.6	6.7	32.300
1601	13.2	7.3	20.500
1602	17.8	7.1	24.900
1603	12.6	14.9	27.500
1604	11.2	16.5	27.700
1605	17	10.3	27.300
1606	15.8	11.2	27.000
1607	26.1	9.4	35.500
1608	26.8	6.6	33.400
1701	13.1	6.9	20.000
1702	18	7	25.000
1703	13.7	14	27.700
1704	12.6	8.5	21.100
1705	15.8	7.6	23.400
1706	15.7	8.1	23.800
1707	26.6	8.1	34.700
1708	25.5	6.9	32.400
1802	18.1	6.9	25.000
1803	14.8	14.2	29.000
1804	12.9	15.2	28.100
1805	16.6	10	26.600
1806	16.7	11.3	28.000
1807	25.9	9.7	35.600
1808	26.7	6.4	33.100
1901	25.6	8.5	34.100
1903	13.8	14.2	28.000
1904	12.6	16.3	28.900

	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)
1905	16.4	10.4	26.800
1907	26.1	9.7	35.800
1908	24.7	6.8	31.500
2001	27.6	6.9	34.500
2002	13.8	13.8	27.600
2003	11.7	15.7	27.400
2004	28.1	7.9	36.000
2005	24.2	7.2	31.400
2101	17	5.6	22.600
2102	17.2	7.1	24.300
2103	12.2	13.7	25.900
2104	13	15.6	28.600
2105	16.8	10.1	26.900
2106	15.9	11.2	27.100
2107	26.2	9.5	35.700
2108	25.5	6.5	32.000
2201	15.1	6.7	21.800
2202	17.6	6.7	24.300
2203	11.7	13.8	25.500
2204	11.8	16.3	28.100
2205	16.1	10	26.100
2206	16.2	11.3	27.500
2207	26.4	9.4	35.800
2301	14.1	6.9	21.000
2302	17.4	6.7	24.100
2303	12.5	10.9	23.400
2304	12.9	16.4	29.300
2305	16.9	9.8	26.700
2306	16.5	11.2	27.700
2307	26.5	9.4	35.900
2308	27	6.2	33.200

	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)
2401	14.7	6.4	21.100
2403	12.5	13.7	26.200
2404	13	16.5	29.500
2405	16.5	9.8	26.300
2407	26.7	9.4	36.100
2408	27.1	6.4	33.500
2501	14.8	6.1	20.900
2503	12.7	13.7	26.400
2505	16.8	9.4	26.200
2506	16.4	11	27.400
2601	12.1	6.2	18.300
2602	17.7	6.7	24.400
2603	12.9	11.5	24.400
2605	16.7	9.4	26.100
2606	16.6	10.9	27.500
2703	12.6	13.6	26.200
2704	13.1	8.4	21.500
2705	15.8	7.8	23.600
2706	15.8	7.7	23.500
2707	27.6	7.8	35.400
2708	27.3	6.5	33.800
2801	15	5.9	20.900
2803	12.7	13.4	26.100
2804	13.4	16.8	30.200
2805	16.9	9.3	26.200
2806	17.1	11.1	28.200
2807	27.1	9.2	36.300
2808	27.4	6.2	33.600
2903	12.9	13.5	26.400
2904	13.5	16.8	30.300
2906	16.7	11.1	27.800

	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)
3001	14.7	6.1	20.800
3002	18.2	6.5	24.700
3003	12.8	13.5	26.300
3004	13.5	16.9	30.400
3006	16.8	11.1	27.900
3008	27.5	6.3	33.800
3101	13.9	5.9	19.800
3102	18.6	6.5	25.100
3104	13.7	16.7	30.400
3105	17.2	9.1	26.300
3106	17.1	9.7	26.800
3107	27.4	9.1	36.500
3203	13.1	13.6	26.700
3205	17.3	9.1	26.400
3206	17	10.5	27.500
3208	27.7	6.3	34.000
3301	13.9	6.2	20.100
3302	18.6	6.6	25.200
3303	13.1	13.8	26.900
3305	17.3	9.3	26.600
3306	17	10.6	27.600
3401	12.9	5.5	18.400
3404	13.9	17	30.900
3405	17.4	9.3	26.700
3408	27	6.4	33.400
3501	13.6	6.1	19.700
3502	18.4	6.5	24.900
3503	13	13.6	26.600
3504	14	16.9	30.900
3505	17.4	9.1	26.500
3506	17.4	10.7	28.100

	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)
3601	12.7	5.7	18.400
3602	18.4	6.7	25.100
3603	13.3	13.5	26.800
3604	14.1	16.5	30.600
3605	17.6	9.2	26.800
3607	27.8	9.2	37.000
3701	13.3	5.8	19.100
3702	18.5	6.4	24.900
3703	13.3	13.6	26.900
3704	14.2	16.7	30.900
3706	17.6	10.3	27.900
3708	25.6	7	32.600
3801	13.3	5.7	19.000
3803	13.4	13.6	27.000
3804	14.2	16.6	30.800
3806	17.3	10.4	27.700
3901	13.1	6.1	19.200
3903	13.3	13.9	27.200
3904	14.3	16.6	30.900
3905	17.8	9	26.800
3906	17.7	10.3	28.000
3908	26.1	7	33.100
4001	13	5.9	18.900
4002	18.4	6.6	25.000
4003	13.4	13.7	27.100
4004	14	16.7	30.700
4005	17.8	9.2	27.000
4006	17.9	10.6	28.500
4008	25.6	7.4	33.000
4101	13.4	5.8	19.200
4102	18.5	6.5	25.000

	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)
4103	13.5	13.7	27.200
4104	14.5	16	30.500
4105	18	9	27.000
4106	18.1	10.6	28.700
4107	28.2	9	37.200
4108	25.7	7.4	33.100
0301, 0702	12.2	7.5	19.700
0401, 1105	12.8	7.5	20.300
1006, 1906	15.5	10.8	26.300
1206, 2406	16.4	11.2	27.600
1208, 2208	26.8	6.3	33.100
1401, 1801	13	6.9	19.900
1902, 2902	18	6.7	24.700
2402, 2502	17.7	6.8	24.500
2504, 2604	13.1	16.9	30.000
2507, 2607	26.8	9.4	36.200
2508, 2608	27.2	6.3	33.500
2702, 2802	18	6.8	24.800
2905, 3005	17.1	9.4	26.500
2907, 3007	27.2	9.1	36.300
2908, 3108	27.6	6.4	34.000
3103, 3403	13.2	13.7	26.900
3202, 3402	18.3	6.7	25.000
3204, 3304	13.8	16.8	30.600
3207, 3307	27.5	9.1	36.600
3308, 3508	27.8	6.3	34.100
3406, 3606	17.3	10.6	27.900
3407, 3507	27.7	9.2	36.900
3608, 3808	26	6.8	32.800
3705, 3805	17.7	9.2	26.900
3707, 3807	27.9	9	36.900

	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)
3802, 3902	18.5	6.6	25.100
3907, 4007	28.1	9	37.100
All other dwellings	15	6	21.000

(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	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

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

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(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	yes
B_Elec	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Waste	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
B_Shared_Dock	ventilation supply only	-	light-emitting diode	motion sensors	yes
B_Communal	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
B_Services	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Fire Pump Room	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Fire Stair	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
B_Shared_FCR	ventilation exhaust only	time clock or BMS controlled	light-emitting diode	manual on / manual off	yes
B_Lobby	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
B_Shared_Bike Parking	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
B_Shared_Booster	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
B_Corridor	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes
B_Mail	air conditioning system	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Lift bank (No. 1)	gearless traction with V V V F motor	Number of levels with apartments served by a lift: 39 number of levels from the bottom of the lift shaft to the top of the lift shaft: 48 number of lifts: 4 lift load capacity: ≥ 1001 kg but ≤ 1500 kg
Central hot water system (No. 1)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm) (c) Unit Efficiency: $3.0 < COP \leq 3.5$

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

(a) Buildings 'Other'

(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
garage floor, frame: suspended concrete slab	17136.55	-	none

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	off form concrete, frame: light steel frame	1081.97	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	cavity brick wall, frame: light steel frame	750	-

Reinforcement concrete frames/columns

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

Ceiling and roof types

Ceiling and roof type	Area (m ²)	Roof Insulation	Ceiling Insulation
-	-	-	

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)
0	0	0	0	0	0	0	0

(b) Common areas and central systems/facilities

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

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

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	5000	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 1814.3 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 2)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-
Fire sprinkler system (No. 3)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(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
B_Shared_Carpark	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
B_Carpark	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	yes
B_Shared_Bin Room	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
B_Shared_FOGO Bin Room	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
B_Bulky Waste	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	yes
B_Shared_Hydraulic Pump	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Shared_Comms	air conditioning system	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Shared_Fire Tank	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Shared_Fan Room	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Shared_Fire Pump	ventilation supply only	thermostatically controlled	light-emitting diode	manual on / manual off	yes
B_Basement Fire Stair	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes
B_Shared_Fire Stair	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	yes

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 45 peak kW

Central energy systems	Type	Specification
Other	Building management system installed?: yes	-

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).



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