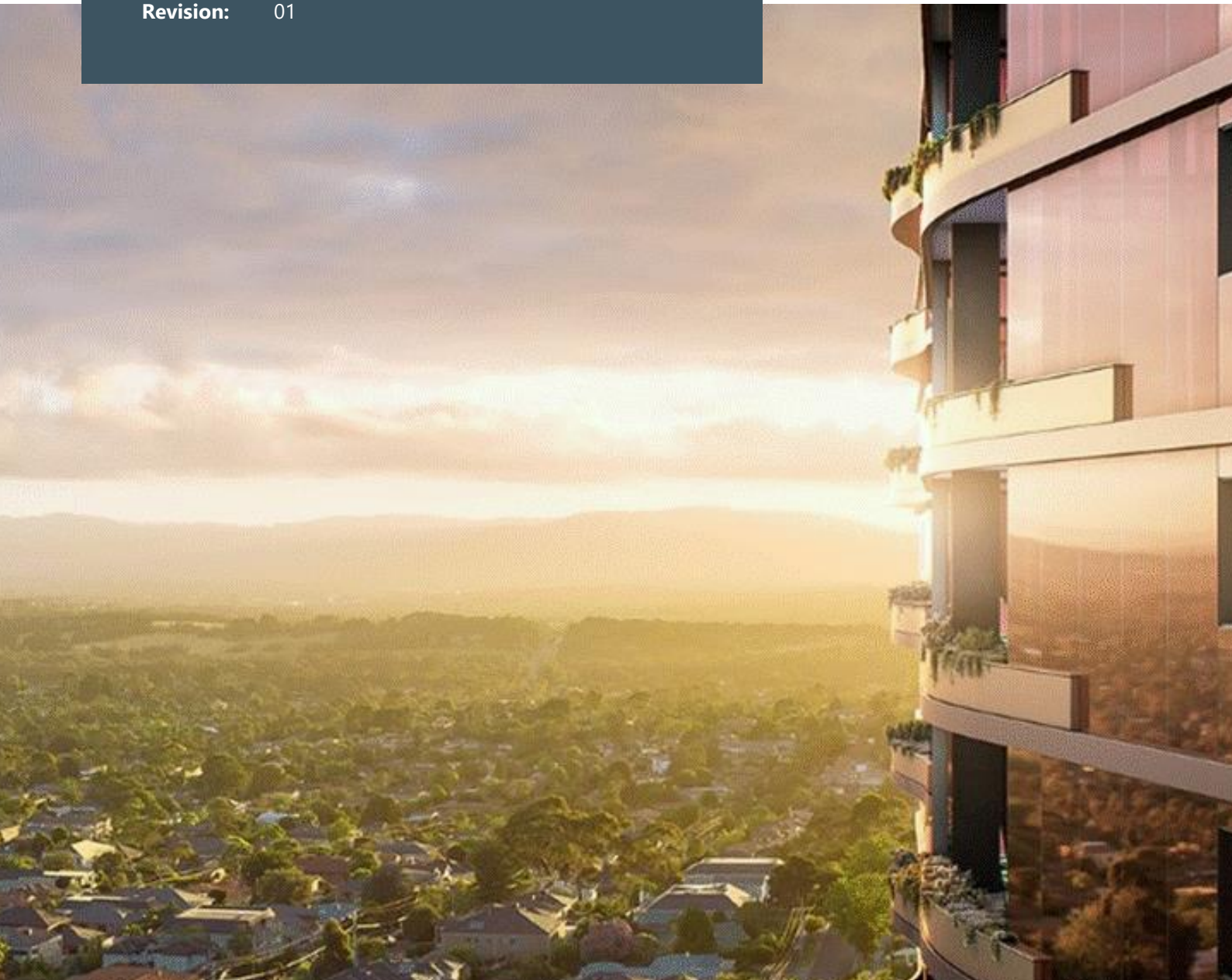


Mowbray Road, Lane Cove

BASIX Strategy Report

SEARs Reference: SSD-71687208

Project No: SYD3088
Date: 27 September 2024
Revision: 01



Project: Mowbray Road, Lane Cove
Location: 618-624 Mowbray Rd & 25-29 Mindarie St Lane Cove North 2066
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Project No: SYD3088
Revision: 01
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Rev	Date	Comment	Author	Technical Review	Authorisation
01	27/09/2024	BASIX Strategy Report	PJ	KS	BB

Project Team

Architect DKO Architecture
Client Homes NSW
ESD Consultant ADP Consulting Pty Ltd



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Executive Summary

This BASIX Report has been prepared by ADP Consulting on behalf of Homes NSW for State Significant Development Application (SSD-71687208) for construction of a five-storey residential flat building with a total of 86 social and affordable housing apartments at 618-624 Mowbray Rd and 25-29 Mindarie Street Lane Cove North.

The purpose of this report is to support the Development Application as a legislative requirement in accordance with the State Environmental Planning Policy (Sustainable Buildings) (SEPP) 2022 and BASIX (2023) and to address the Section 9- Ecologically Sustainable Development of the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 18 June 2024.

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

Table 1 BASIX Targets and Scores

Environmental Impact Category	NSW BASIX Minimum Target	Score Achieved
Water Savings	40%	46%
Energy Savings	61%	71%
Thermal Comfort	Pass	Pass
Materials	N/A	-100%

1. Introduction

ADP Consulting has been engaged to undertake the following BASIX assessment and certification for the proposed residential development located at 618-624 Mowbray Rd & 25-29 Mindarie St Lane Cove North.

The purpose of this report is to provide a summary of the Environmentally Sustainable Design (ESD) initiatives adopted as part of the proposed building design.

This report has been prepared as a contribution to the Development Application of the above noted project.

1.1 Project Context

1.1.1 The Site

The site is located at 618-624 Mowbray Rd and 25-29 Mindarie Street Lane Cove North, in the Lane Cove Local Government Area (LGA). It is located at 618-624 Mowbray Rd & 25-29 Mindarie St Lane Cove North with a site area of 4,195 square meters (sqm).

The site has a total site area of 4,198 square metres (sqm) and has frontages to Mowbray Road to the north, Kullah Parade to the east and Mindarie Street to the south. Refer to Figure 1.

The site currently contains seven single storey dwellings which are currently unoccupied. It is one of the final remaining sites to be developed within the Mowbray Precinct, an area of new residential flat buildings located along Mowbray Road with recent five storey apartment buildings located to the east and west of the site.

The site is located opposite Mindarie Park, which includes children's playgrounds, recreation areas and access to walking paths in Lane Cove National Park. Mowbray Public School is located to the north of the site on Mowbray Road.

The site is accessible by public transport with services that run along Mowbray Road with frequent services to Chatswood and Sydney CBD.

1.1.2 Proposed Development

The proposed development comprises demolition of existing buildings and construction of a new residential flat building to accommodate 86 social and affordable housing apartments, with 5 residential storeys, communal areas, and basement car parking including excavation, tree removal and associated landscaping and public domain works.

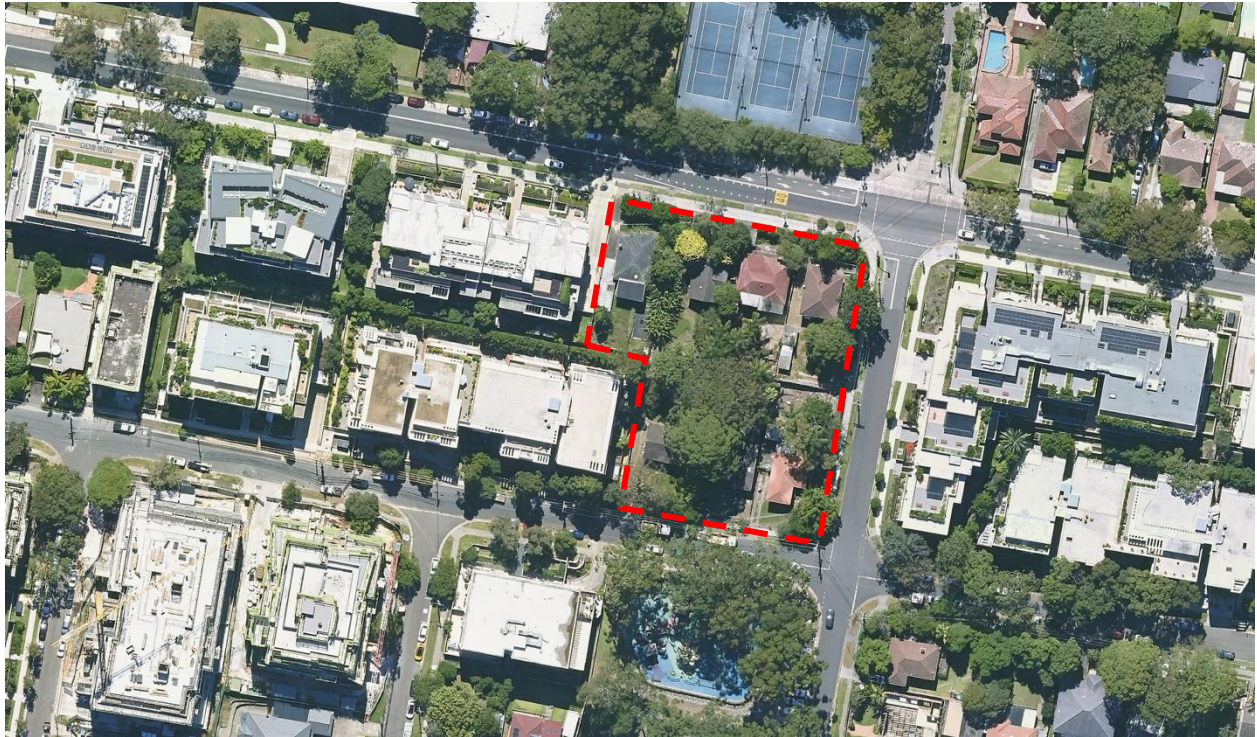


Figure 1: Proposed Development Site Location

1.2 Assessment Assumptions and References

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

- > Architectural Drawings by DKO Architecture dated 27/09/2024, with application SSD-71687208.

1.3 BASIX Assessment

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

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

For this type of development, the following minimum BASIX targets must be achieved as defined by the State of NSW under the SEPP 2022:

- > 40% improvement in Water consumption
- > 61% Improvement in Energy consumption
- > All units to 'pass' the minimum thermal performance requirements for heating and cooling (as defined by the development's climate zone)
- > Construction Material specification and volumes must be reported only – no target needs to be achieved

The minimum targets required for water and energy (40% and 61% respectively) represent a percentage saving and improvement for the development when compared to that of an average benchmark development for NSW.

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

- > Maximum dwelling heating load: 32.90 MJ/m²
- > Maximum dwelling cooling load: 20.4 MJ/m²
- > Average heating load: 29.7 MJ/m²
- > Average cooling load: 21.2 MJ/m²

2. BASIX Compliance

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

2.1 Water Strategies

The following table outlines the water strategy proposed for the development. The project is currently achieving over **46% improvement** on the BASIX average benchmark. The target is based on a minimum 40% compliance score.

This will be achieved provided the following water commitments are implemented:

Table 2 Water Commitments

BASIX Base Case	Water Conservation Strategies
Common Areas	Fixtures and fittings ¹ to be included: <ul style="list-style-type: none"> > 5-star flush toilets > 4-star bathroom taps
Common Landscape Areas	> Area of Garden: 2245 m ²
Individual Landscape Areas	> Nil
Individual Dwellings	Fixtures and fittings to be included: <ul style="list-style-type: none"> > 4-star showerheads (>6 but ≤ 7.5L/min) > 5-star flush toilets > 4-star kitchen and bathroom taps
Appliances (For Individual Dwellings)	> No appliances ² to be included
Alternative Water Source	> 10kL Rainwater tank with water reused for irrigation purposes
Car washing bays	> No Car Washing Bay
Swimming Pool and Spa	> No Pool or Spa
Basix Water Target	40%
Water Score	40%

¹ More information on water efficient fixtures and fittings can be found at www.waterrating.gov.au

² More information on water efficient appliances can be found at www.waterrating.gov.au

2.2 Energy Strategies

The following table outlines the energy strategy proposed for the development. The project is currently achieving **76%** on the BASIX average benchmark. The target is based on a minimum 61% compliance score.

This will be achieved providing the following energy commitments are implemented:

Table 3 Energy Commitments

BASIX Base Case		Energy Conservation Strategies
Building Management System	>	BMS is not included in the current strategy
	>	Dedicated LED light fittings located throughout each dwelling ³ (All downlights to be sealed)
Individual Dwellings	>	All kitchen, bathroom, and laundry exhausts to have individual fans ducted to the facade or roof with the following efficiency measures: <ul style="list-style-type: none"> – Kitchen: manual on/off switch – Laundry: Interlocked to light – Bathroom: Interlocked to light
	>	Heating and Cooling systems for Kitchen/Living Spaces only: <ul style="list-style-type: none"> – Individual Heating system: 1-phase air-conditioning / EER 3.0- 3.5 – Individual Cooling system: 1-phase air-conditioning / EER 3.0 - 3.5
	>	Ceiling Fans <ul style="list-style-type: none"> – 1200mm ceiling fans added to all Kitchen/ Living and Bedroom spaces
		Efficient appliances⁴ for each apartment as follows:
	>	Electric Cooktop & Electric Oven
Appliances (For Individual Dwellings)	>	Clothes Drier Machine: 4.5-star energy rating
Common areas		Ventilation systems and efficiency measures as follows:
	>	Car park - Ventilation exhaust with CO monitors and VSD fans
	>	Garbage rooms - Ventilation exhaust only
	>	Comms room and Elec room- Ventilation supply only, continuous
	>	Fire Pump Room - No mechanical ventilation
	>	Residential hallway/corridors – No mechanical ventilation
	>	Meeting room- Air conditioning, time clock controlled
Common areas	>	Amenity room- Ventilation exhaust only
		Lighting systems and efficiency measures as follows:

³ Dedicated LED must be the predominate (i.e. 80% of fittings) light fitting in each room

⁴ More information on energy efficient appliances can be found at www.energyrating.gov.au

- > Carpark: LEDs – Daylight and Motion Sensor, lighting control
- > Lift cars: LEDs connected to the lift call buttons
- > Plant rooms and switch rooms, LEDs – Manual on / Manual off
- > Waste rooms, LEDs – motion sensors, lighting control
- > Hallways, lobbies and corridors, LEDs –Motion Sensors, lighting control
- > Meeting room- LEDs, Manual on / off
- > Amenity room- LEDs, Manual on / off

Central Systems	<ul style="list-style-type: none"> > Central hot water system <ul style="list-style-type: none"> – Electric heat pump (air sourced) with R0.6 (\approx 25mm) internal piping insulation and R0.6 (\approx 25mm) external piping insulation <ul style="list-style-type: none"> > $3.5 < \text{COP} \leq 4.0$ > Vertical Transport <ul style="list-style-type: none"> > Energy efficient Gearless traction with VVVF motor and regenerative drive with a lift load capacity of $\leq 1001\text{kg}$ but $< 1500\text{kg}$ <ul style="list-style-type: none"> – Low energy LED lighting. – Shutdown of non-essential lighting, screens, etc. when on standby;
Photovoltaic system	> 49.5 kW peak array
Other	> Provision for indoor clothes drying line
Basix Energy Target	> 61%
Energy Score	> 76%

3. Thermal Comfort

3.1 National House Energy Rating Scheme (NatHERS) Assessment

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

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

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

- > The individual heating and cooling loads for each dwelling must not exceed the limit specified in the BASIX scheme
- > The average heating and cooling loads of all dwellings in a development must not exceed the specified average limit

These requirements have been provided below:

Table 4 Thermal Comfort Targets

NatHERS Target	Heat and Cooling Load
Maximum Thermal Load	> Heating 32.9 MJ/m ²
	> Cooling 20.4 MJ/m ²
Average Thermal Load	> Heating 29.7 MJ/m ²
	> Cooling 21.2 MJ/m ²

3.2 Thermal Comfort Compliance and Material Reporting

Thermal Comfort modelling has been undertaken to establish compliance with the minimum requirements noted in Section 3.1. The table 5 below outlines the building envelope constructions assumed as part of the modelling assessment and provides the average heating and cooling loads achieved for the proposed development.

Table 5 Construction Details

Building Element	Material & Detail
Construction & shading	> As indicated on the architectural drawings. Balconies have been included in the assessment.
External Walls	> Concrete wall with brick face + R2.5 bulk insulation- Steel Framing > Fibre cement clad concrete wall+ R2.5 bulk insulation- Steel Framing
Corridor Walls	> Concrete wall + R1.5 bulk insulation (insulation only value) between apartments and unconditioned areas – Steel Framing
Internal Walls	> Plasterboard on studs, no insulation within dwellings rooms
Ceiling and Roof	> 300mm Suspended Concrete Slab – R3.0 Ceiling insulation (insulation only value)- Steel Framing, where exposed above > 200mm concrete slab, no insulation where neighbour above
Floor	> 200mm concrete slab + R2.5 insulation (insulation only value) where exposed below – Steel Framing > 200mm concrete slab, no insulation where neighbour below
Floor coverings	> Tiles for Kitchen and Living spaces, Laundry and Toilets > Carpets for Bedrooms
Ceiling Fans	> Ceiling fans to all Kitchen/Living and Bedroom spaces
Glazing	> For units 1001, 1006, 2004, 3201, 3206, 2205, 2305, 3305, 3306, 3401, 3404, 3405, 3406, U1401, U1402, U1407 and U2405: – Awnings: U-Value $\leq 4.8 \text{ W/m}^2\text{k}$, SHGC 0.51 ($\pm 10\%$) – Fixed and Sliding Doors: U-Value $\leq 4.8 \text{ W/m}^2\text{k}$, SHGC 0.59 ($\pm 10\%$) > All other units: – Awnings: U-Value $\leq 6.7 \text{ W/m}^2\text{k}$, SHGC 0.57 ($\pm 10\%$) – Fixed and Sliding Doors: U-Value $\leq 6.7 \text{ W/m}^2\text{k}$, SHGC 0.7 ($\pm 10\%$)
> All windows and doors are weather stripped and assumed to have safety restrictors as per NCC requirements.	
> Window openings have been calculated as per the BASIX protocol based on input from the architectural team for fixed windows, awnings windows and sliding doors.	

Appendix A

NatHERS Group Certificate

Nationwide House Energy Rating Scheme® Class 2 Summary

NatHERS® Certificate No. #HR-HHH49V-04

Generated on 27 Sep 2024 using Hero 4.1

Property

Address 618-624 Mowbray Rd & 25-29 Mindarie St,
Lane Cove, NSW, 2066

Lot/DP

NatHERS climate zone 56 - Mascot AMO



Accredited assessor

Name Khyati Saxena
Business name ADP Consulting
Email k.saxena@adpconsulting.com.au
Phone +61 405886583
Accreditation No. 10191
Assessor Accrediting Organisation HERA

Verification

To verify this certificate,
scan the QR code or visit
<http://www.hero-software.com.au/pdf/HR-HHH49V-04>.

When using either link,
ensure you are visiting
<http://www.hero-software.com.au>



National Construction Code (NCC) requirements

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

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

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

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

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-OJW0LJ-02	1205	6.3 (33)	5.2 (20)	11.5	9.1	n/a
HR-TFZNNT-02	2104	19.6 (33)	3.5 (20)	23.1	7.7	n/a
HR-O80MK3-02	2204	18.2 (33)	3.6 (20)	21.7	7.9	n/a

Thermal performance Star rating



**NATIONWIDE
HOUSE**
ENERGY RATING SCHEME®

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

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

NCC heating and cooling maximum loads MJ/m².yr

Limits taken from ABCB Standard 2022

	Heating	Cooling
Average load	17.9	6.0
Maximum load	32.4	13.5
Average limit	29.7	21.2
Maximum limit	32.9	20.4

Whole of Home performance rating

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

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m ² .yr)	Cooling load (load limit) (MJ/m ² .yr)	Total load (MJ/m ² .yr)	Star Rating	Whole of Home Rating
HR-LMS96T-02	2304	20.3 (33)	5.5 (20)	25.8	7.4	n/a
HR-DMIJHK-02	U1401	30.4 (33)	3.8 (20)	34.2	6.4	n/a
HR-WL97KK-02	U1402	19.9 (33)	8.6 (20)	28.6	7.1	n/a
HR-XPIKPY-02	U1403	8.4 (33)	13.0 (20)	21.4	7.9	n/a
HR-T8JXRI-02	U1404	6.6 (33)	9.0 (20)	15.7	8.5	n/a
HR-ARXO4D-02	U1405	9.4 (33)	9.0 (20)	18.4	8.3	n/a
HR-VAXTYN-02	U1406	20.0 (33)	9.4 (20)	29.4	7.1	n/a
HR-FVBUD1-02	U1407	32.4 (33)	4.4 (20)	36.8	6.2	n/a
HR-Z0VAQS-02	U2401	14.8 (33)	9.0 (20)	23.8	7.7	n/a
HR-ZPEZB4-02	U2402	6.5 (33)	8.4 (20)	14.9	8.6	n/a
HR-3FP1F9-02	U2403	16.1 (33)	9.5 (20)	25.7	7.4	n/a
HR-355DP8-02	U2404	27.6 (33)	9.0 (20)	36.6	6.2	n/a
HR-CTSBBV-02	U2405	25.5 (33)	11.9 (20)	37.4	6.1	n/a
HR-Z3CEEA-02	1001	29.9 (33)	2.8 (20)	32.6	6.7	n/a
HR-68110E-02	1002	27.9 (33)	6.9 (20)	34.8	6.4	n/a
HR-9DAR2H-02	1003	11.6 (33)	5.6 (20)	17.2	8.4	n/a
HR-PMK01T-02	1004	7.0 (33)	3.8 (20)	10.7	9.2	n/a
HR-R497BB-02	1005	4.8 (33)	5.1 (20)	9.9	9.4	n/a
HR-QAEW0J-02	1006	31.0 (33)	2.7 (20)	33.7	6.5	n/a
HR-VVT0ZY-02	1101	25.3 (33)	4.0 (20)	29.3	7.1	n/a
HR-J4NHL5-02	1102	16.8 (33)	5.1 (20)	21.9	7.9	n/a
HR-DFHRPI-02	1103	3.7 (33)	5.0 (20)	8.6	9.6	n/a
HR-DSE909-02	1104	1.8 (33)	3.4 (20)	5.2	10.0	n/a
HR-LD2EJ9-02	1105	6.2 (33)	5.5 (20)	11.7	9.1	n/a
HR-S848OU-02	1106	10.0 (33)	3.4 (20)	13.5	8.8	n/a
HR-99E9DX-02	1107	28.9 (33)	3.0 (20)	31.9	6.8	n/a
HR-4ZKPFO-02	1201	26.1 (33)	3.9 (20)	30.0	6.9	n/a
HR-6XDHEU-02	1202	14.6 (33)	10.6 (20)	25.2	7.4	n/a
HR-PWADI0-02	1203	3.2 (33)	4.9 (20)	8.1	9.6	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m ² .yr)	Cooling load (load limit) (MJ/m ² .yr)	Total load (MJ/m ² .yr)	Star Rating	Whole of Home Rating
HR-0QVQTK-02	1204	1.8 (33)	5.0 (20)	6.8	9.9	n/a
HR-6DHB0W-02	1206	12.2 (33)	3.0 (20)	15.2	8.6	n/a
HR-15CX7L-02	1207	29.9 (33)	3.5 (20)	33.4	6.6	n/a
HR-JWPZPP-02	1301	27.4 (33)	4.6 (20)	32.0	6.8	n/a
HR-9DILMX-02	1302	17.4 (33)	13.5 (20)	30.9	6.9	n/a
HR-NTAKHD-02	1303	5.6 (33)	7.3 (20)	12.9	8.9	n/a
HR-2D8PXI-02	1304	3.8 (33)	6.1 (20)	9.9	9.3	n/a
HR-AABJS0-02	1305	8.0 (33)	8.5 (20)	16.5	8.4	n/a
HR-E87L1D-02	1306	13.9 (33)	4.1 (20)	18.0	8.3	n/a
HR-EQNXMZ-02	1307	31.2 (33)	4.0 (20)	35.2	6.4	n/a
HR-34SVGE-02	2001	8.4 (33)	4.7 (20)	13.1	8.9	n/a
HR-U7RL4L-02	2002	15.8 (33)	6.4 (20)	22.2	7.8	n/a
HR-UWN2XT-02	2003	29.0 (33)	6.2 (20)	35.2	6.3	n/a
HR-34HTOJ-02	2004	23.2 (33)	4.6 (20)	27.8	7.2	n/a
HR-FS34T5-02	2101	14.5 (33)	2.5 (20)	16.9	8.4	n/a
HR-2DJ69O-02	2102	2.0 (33)	4.0 (20)	6.0	10.0	n/a
HR-WC2CLA-02	2103	6.0 (33)	3.8 (20)	9.7	9.4	n/a
HR-UYOBMM-02	2105	25.3 (33)	7.8 (20)	33.1	6.6	n/a
HR-KE9WL9-02	2201	15.1 (33)	2.4 (20)	17.5	8.3	n/a
HR-TI302P-02	2202	2.2 (33)	2.9 (20)	5.2	10.0	n/a
HR-ODZ7AU-02	2203	8.9 (33)	4.6 (20)	13.6	8.8	n/a
HR-QJ0GS0-02	2205	26.3 (33)	7.4 (20)	33.7	6.5	n/a
HR-VAT4C3-02	2301	17.5 (33)	3.8 (20)	21.3	7.9	n/a
HR-ZWSPMO-02	2302	4.0 (33)	4.5 (20)	8.4	9.6	n/a
HR-7YKD6X-02	2303	12.5 (33)	7.1 (20)	19.6	8.1	n/a
HR-MQUEIN-02	2305	20.3 (33)	4.5 (20)	24.8	7.5	n/a
HR-2XDPD2-02	3001	19.3 (33)	12.1 (20)	31.4	6.8	n/a
HR-BCXK2V-02	3002	10.8 (33)	2.7 (20)	13.5	8.8	n/a
HR-D4HV2I-02	3003	16.6 (33)	7.8 (20)	24.4	7.6	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m ² .yr)	Cooling load (load limit) (MJ/m ² .yr)	Total load (MJ/m ² .yr)	Star Rating	Whole of Home Rating
HR-7GBN2N-02	3004	7.7 (33)	10.2 (20)	17.9	8.3	n/a
HR-1FCGEX-02	3101	29.0 (33)	3.0 (20)	32.0	6.8	n/a
HR-O1XS6L-02	3102	19.0 (33)	4.3 (20)	23.3	7.7	n/a
HR-OCL686-02	3103	11.8 (33)	4.1 (20)	15.9	8.5	n/a
HR-7TC9O7-02	3201	25.2 (33)	5.8 (20)	31.0	6.9	n/a
HR-1Y35ID-02	3202	31.2 (33)	5.9 (20)	37.1	6.1	n/a
HR-NP5SCH-02	3203	17.7 (33)	4.0 (20)	21.7	7.9	n/a
HR-XRHUGW-02	3204	21.4 (33)	6.3 (20)	27.7	7.2	n/a
HR-DZVX28-02	3205	25.3 (33)	4.9 (20)	30.2	6.9	n/a
HR-2D97KI-02	3206	20.0 (33)	7.8 (20)	27.8	7.2	n/a
HR-D7ROS2-02	3207	15.5 (33)	10.2 (20)	25.7	7.4	n/a
HR-GUUOCN-02	3301	28.4 (33)	5.1 (20)	33.5	6.6	n/a
HR-NLW67I-02	3302	21.7 (33)	12.6 (20)	34.3	6.4	n/a
HR-13KO1G-02	3303	16.9 (33)	3.6 (20)	20.5	8.1	n/a
HR-R5VMHG-02	3304	19.2 (33)	4.7 (20)	23.9	7.6	n/a
HR-9CDMAP-02	3305	22.7 (33)	3.1 (20)	25.8	7.4	n/a
HR-UJ7FTQ-02	3306	25.4 (33)	4.5 (20)	29.9	7.0	n/a
HR-NWQU62-02	3307	21.6 (33)	6.5 (20)	28.1	7.2	n/a
HR-CCTVG1-02	3401	29.2 (33)	7.2 (20)	36.5	6.2	n/a
HR-DIAXM8-02	3402	30.1 (33)	13.5 (20)	43.6	5.5	n/a
HR-GUY0BY-02	3403	24.7 (33)	6.0 (20)	30.7	6.9	n/a
HR-AJLYN7-02	3404	22.2 (33)	6.1 (20)	28.4	7.2	n/a
HR-VEV8QE-02	3405	32.3 (33)	4.9 (20)	37.2	6.1	n/a
HR-PTMVK4-02	3406	29.6 (33)	5.9 (20)	35.5	6.3	n/a
HR-HNGEI9-02	3407	28.9 (33)	9.5 (20)	38.4	5.9	n/a
Averages	86x (Total)	17.9	6.0	23.9	7.7	n/a
Maximum Loads and Minimum Ratings		32.4	13.5	43.6	5.5	n/a

Explanatory notes

About the ratings

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

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

For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

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

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

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

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

Disclaimer

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

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

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

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

Appendix B

Certified Stamped Drawings

DEVELOPMENT APPLICATION

618-624 Mowbray Road & 25-29 Mindrie St,
Lane Cove North, NSW 2066



	Drawing Name	Rev...
DA000	Cover Page	A
DA001	Development Summary	A
DA100	Demolition Plan	A
DA101	Site Plan	A
DA102	Site Analysis	A
DA200	Lower Ground Plan	A
DA201	Ground Floor Plan	A
DA202	Upper Ground Plan	A
DA203	Level 1- 2 Plan	A
DA204	Level 3 Plan	A
DA205	Level 4 Plan	A
DA206	Roof Level	A
DA300	East Elevations	A
DA301	North Elevations	A
DA302	South Elevations	A
DA303	West Elevations	A
DA304	Internal South Elevations	A
DA305	Internal West Elevations	A
DA306	Sections	A
DA307	3D Montage	A
DA308	3D Montage	A
DA400	GFA Calculations	A
DA401	Solar Access	A
DA402	Cross Vent	A
DA403	COS & Deep Soil	A
DA404	Apartment Mix	A
DA405	Liveable Housing Mix	A
DA406	Post Adaptable Layout	A
DA407	Storage Calculation	A
DA408	Height Plane	A
DA409	Height Plane	A
DA500	Eye of the Sun - Winter Solstice	A
DA501	Eye of the Sun - Winter Solstice	A
DA502	Shadows - Winter Solstice	A
DA503	Shadows - Winter Solstice	A
DA504	Shadows - Summer Solstice	A
DA505	Shadows - Summer Solstice	A
DA506	Shadows - Spring Equinox	A
DA507	Shadows - Spring Equinox	A
DA508	Shadows - Autumn Equinox	A
DA509	Shadows - Autumn Equinox	A
DA510	Eye of the Sun - Allowable Envelope	A
DA511	Eye of the Sun - Allowable Envelope	A
DA512	Shadow Impact On Mindarie Park- All...	A
DA513	Shadow Impact On Mindarie Park - A...	A
DA514	Solar Impact - 31-39 Mindarie St.	A
DA515	Solar Impact - 626 Mowbray Road	A
DA516	Solar Impact - 608 Mowbray Road	A
DA600	Notification Drawings	A
DA601	Notification Drawings	A

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- Do not scale from drawing; figured dimensions only to be used.
- Building Contractor to verify all dimensions before commencing work.

Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DP	Issue For DA



Certificate No. #HR-HHH49V-04
Scan QR code or follow website link for rating details.

Assessor name

Khyati Saxena

Accreditation No.

HERA 10191

Property Address

618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove, NSW, 2066

http://www.hero-software.com.au/pdf/HR-19-H49V-04



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Project Name Mowbray Road, Lane Cove
Project Number 13293
Project Address 618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove North NSW 2066

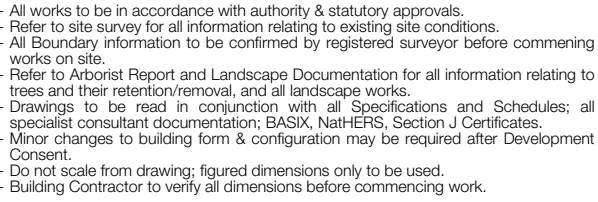
Country Cammeraygal Country

Client Hornes NSW

Drawing Name
Cover Page

Drawing Scale
Drawing No.
DA000

@ A1
Revision
A



Rev	Date	By	Chk	Description
A	27/09/2024	KHS	DF	Issue For DA

Development Summary

Site Area:	4197.5 sqm
Allowable FSR:	1.8 :1
Maximum GFA	7,556 sqm
GFA:	6,512 sqm
Proposed GFA:	6,317 sqm
Proposed FSR:	1.50 :1

[illegible]

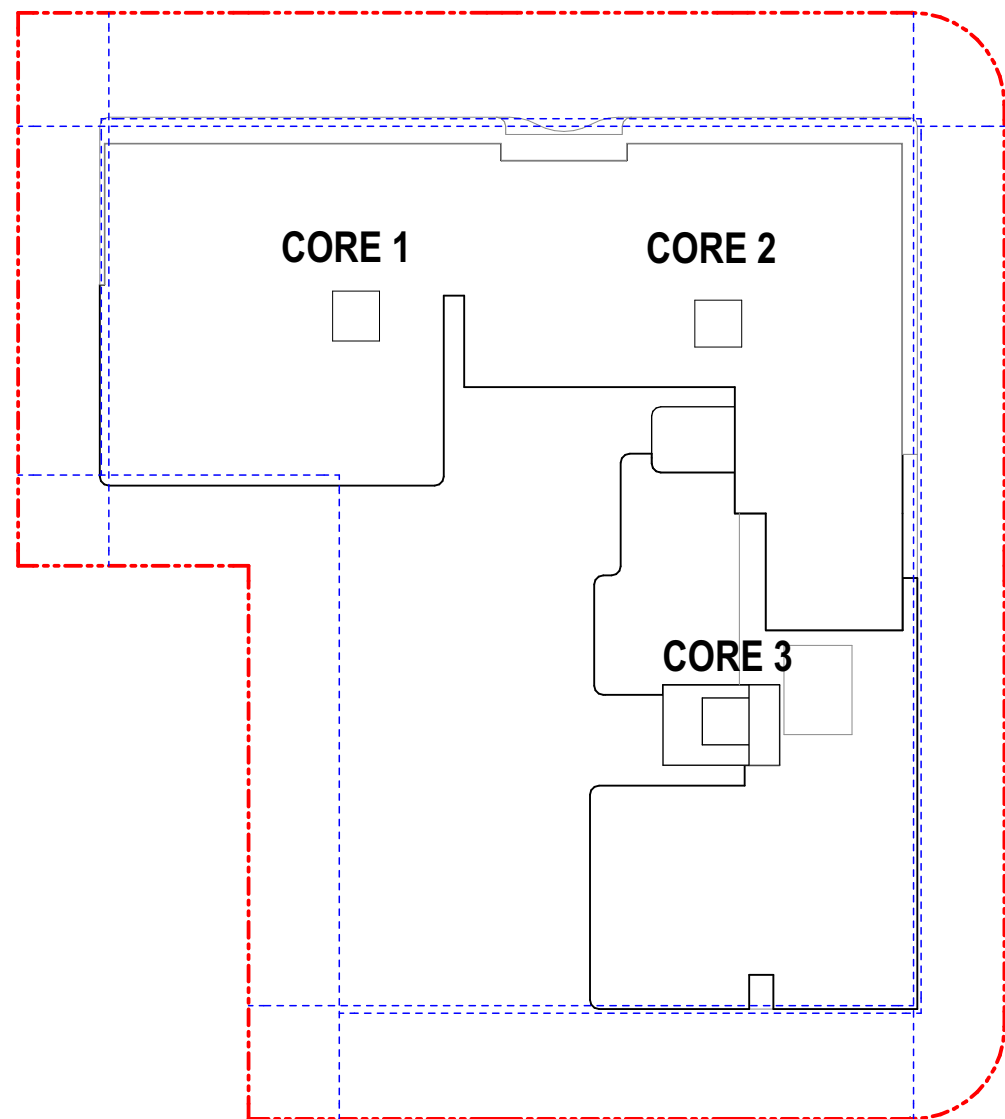
These areas are schematic only and subject to council and other requisite approval. Areas are not to be used for marketing purposes.

This scheme has been prepared generally within the bounds of the current site dimensions however is subject to detailed discussion with council, hence may be subject to change once advice is received.

This design has been prepared without structural or services engineering input hence is subject to change once advice is received.

The information contained herein is believed to be correct at time on preparation based on the information available at the time of preparation. Recipients must make their own investigations to satisfy themselves in all aspects.

The design and accompanying documentation contained herein is and remains the intellectual property of dKO Architecture (NSW) P/L.



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dko.com.au info@dko.com.au T +61 2 8346 4500	
Project Name Project Number Project Address Country	Mowbray Road, Lane Cove 13293 618-624 Mowbray Rd & 25-29 Minclaire St Lane Cove North NSW 2086 Cammeraygal Country
Client	Homes NSW
Drawing Name Development Summary	
Drawing Scale Drawing No.	2:1, 1:500 A Revision A
DA001	



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Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DP	Issue For DA

**Certificate No. #HR-HHH49V-04**
Scan QR code or follow website link for rating details.




Assessor name
Khyati Saxena

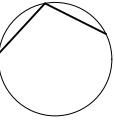
Accreditation No.
HERA 10191

Property Address
618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove, NSW, 2066

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-  Proposed areas of demolition
-  Trees to be Removed
-  Trees to be Retained



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Project Name
Project Number
Project Address
Country
Client

Mowbray Road, Lane Cove
13293
618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove North NSW 2066
Camberaygal Country
Homes NSW

Drawing Name
Demolition Plan

Drawing Scale
Drawing No.
DA100

1:200 @ A1
Revision
A

Rev	Date	By	Chk	Description
A	27/03/2024	KHS	DF	Issue For D

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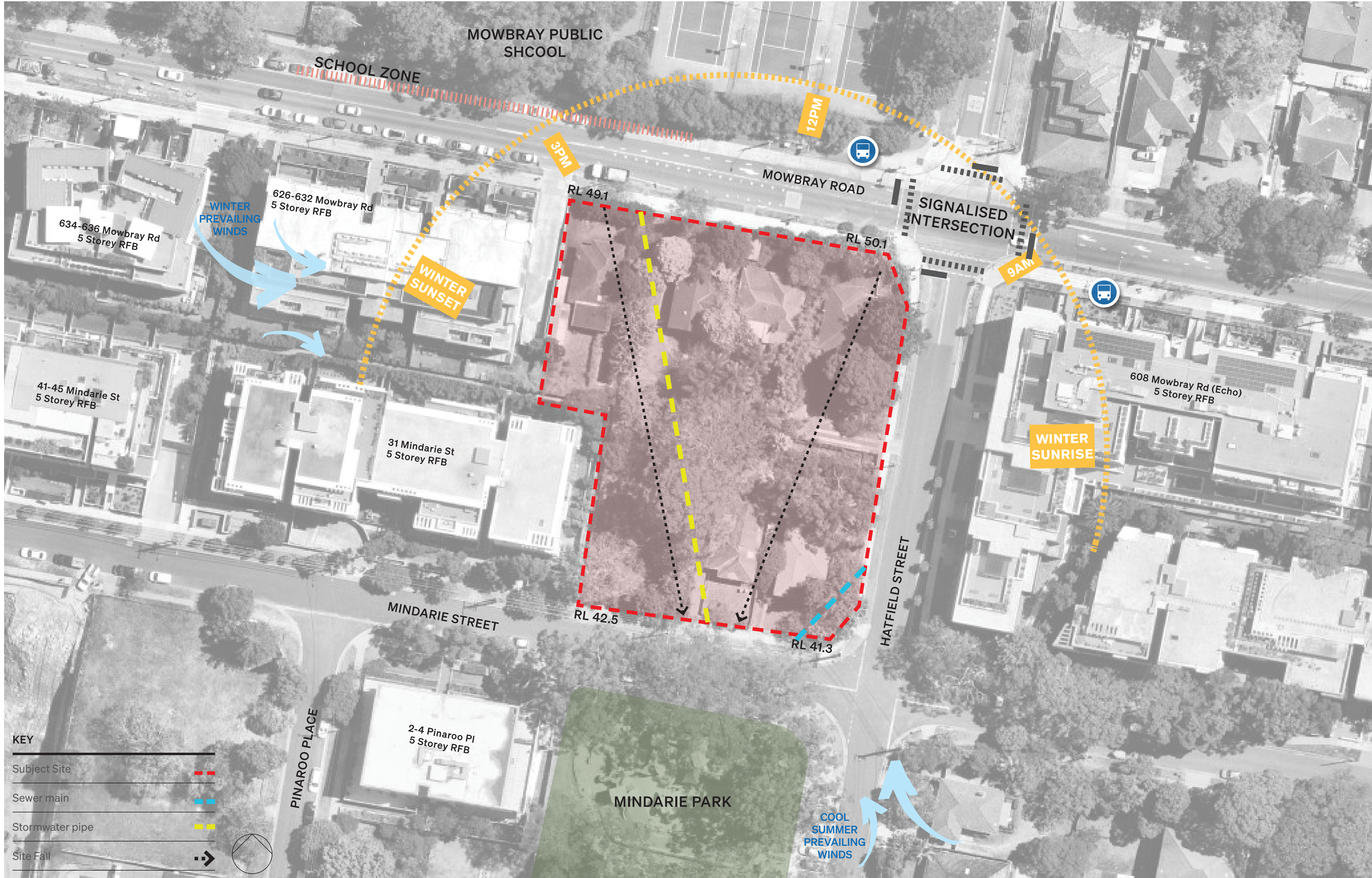
Country	Cammeraygal Country
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Drawing Name
Site Plan

1:200 @ A1


Revision

A



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Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DF	Issue For DA


**Certificate No. #HR-HHH49V-04**
Scan QR code or follow website link for rating details.

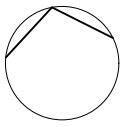
Assessor name
Khyab Saxena

Accreditation No.
HERA 10191

Property Address
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<http://www.hero-software.com.au/pdf/HR-HHH49V-04>





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Project Name
Project Number
Project Address

Country

Client

Drawing Name
Site Analysis

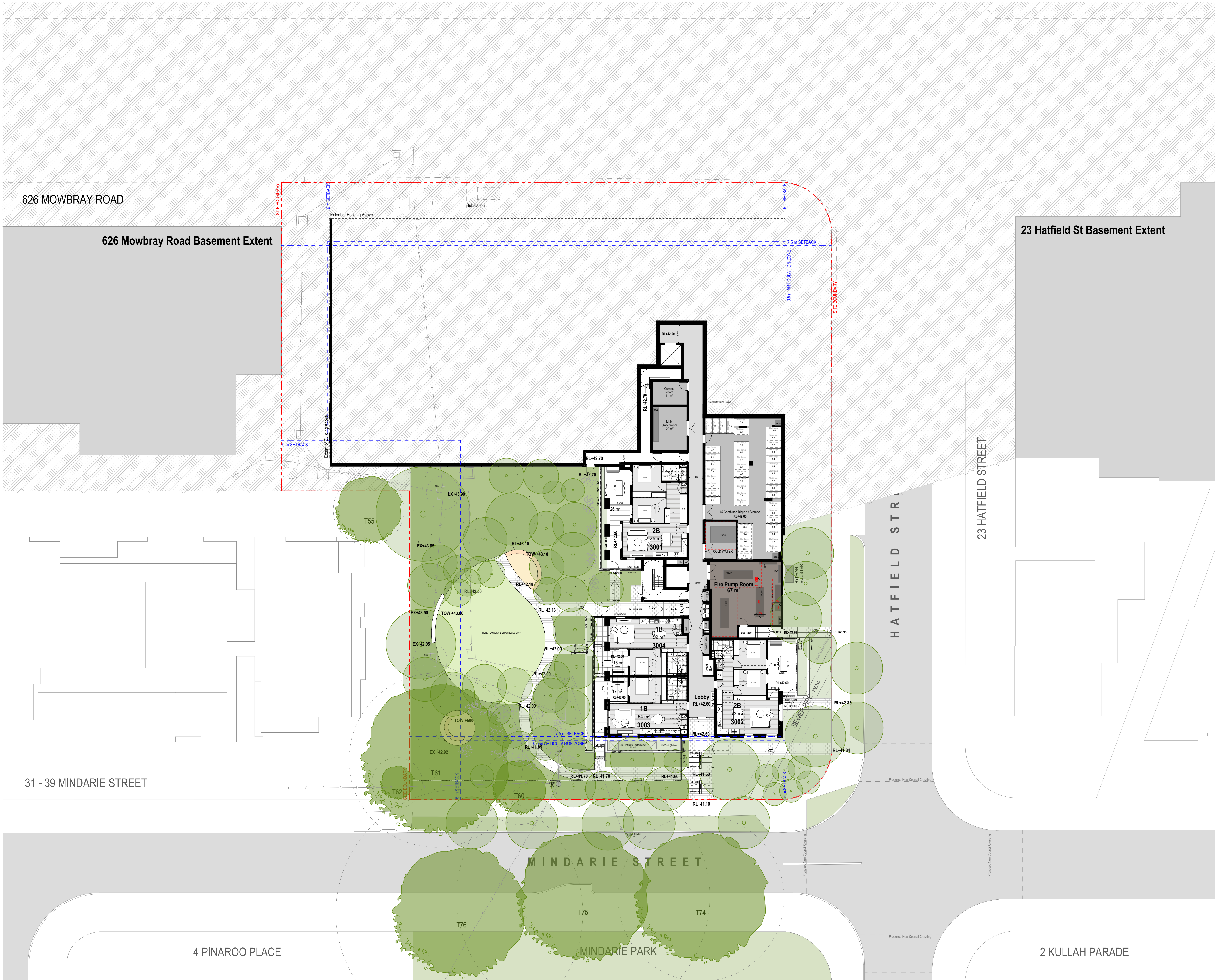
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Drawing No.
DA102

1:0.56 @ A1

Revision

A



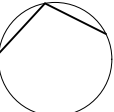
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Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DF	Issue For DA

**Certificate No. #HR-HHH49V-04**
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Assessor name: Khyab Saxena
Accreditation No.: HERA 10191
Property Address: 618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove, NSW, 2066
<http://www.hera-software.com.au/pdf/HR-HHH49V-04>





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Project Name: Mowbray Road, Lane Cove
Project Number: 13293
Project Address: 618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove North NSW 2066

Country: Cammeraygal Country

Client: Hornes NSW

Drawing Name: Lower Ground Plan

Drawing Scale: 1:200 @ A1
Drawing No.: DA200

Revision: A



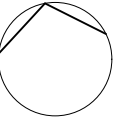
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Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DF	Issue For DA

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Assessor name Khyab Saxena
Accreditation No. HERA 10191
Property Address 618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove, NSW, 2066
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Project Name	Mowbray Road, Lane Cove
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Project Address	618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove North NSW 2066

Country	Cammeraygal Country
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Client	Homes NSW
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Drawing Name
Ground Floor Plan

Drawing Scale
Drawing No.
DA201

1:200 @ A1
Revision
A



- All works to be in accordance with authority & statutory approvals.
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Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DP	Issue For DA

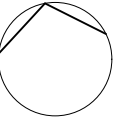
**Certificate No. #HR-HHH49V-04**
Scan QR code or follow website link for rating details.

Assessor name
Khyab Saxena

Accreditation No.
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Property Address
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Project Number	13293
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Country	Cammeraygal Country
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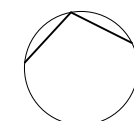
Client	Homes NSW
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Drawing Name
Upper Ground Plan

Drawing Scale
Drawing No.
DA202

1:200 @ A1
Revision
A

Rev	Date	By	Chk	Description
A	27/09/2024	KHS	DF	Issue For D



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Country	Cammeraygal Country
---------	---------------------

Client	Homes NSW
--------	-----------

Drawing Scale
Drawing No.
DA203

1:200 @ A1
Revision
A


Rev	Date	By	Chk	Description
A	27/09/2024	KHS	OF	Issue For DA



Certificate No. #HR-HHH49V-0

Scan QR code or follow website link for rating details.

Assessor name	Khyati Saxena
Accreditation No.	HERA 10191
Property Address	618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove, NSW, 2086



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626 MOWBRAY ROAD

HATHFIELD STREET

23 HATFIELD STREET

31 - 39 MINDARIE STREET

4 PINAROO PLACE

MINDARIE STREET

MINDARIE PARK

2 KULLAH PARADE

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Project Address	618-624 Mowbray Rd & 25-29 Mindarie St Lane Cove North NSW 2066

Country	Cammeraygal Country
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Client	Homes NSW
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Drawing Name
Level 3 Plan

Drawing Scale

Drawing No.
DA204

1:200 @ A1

Revisor
A



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Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DP	Issue For DA

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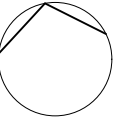
Assessor name
Khyati Saxena

Accreditation No.
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Property Address
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Project Name
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Project Address

Country

Client

Drawing Name

Drawing Scale
Drawing No.

1:200 @ A1
Revision
A



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A	27/09/2024	NHS	DP	Issue For DA

**Certificate No. #HR-HHH49V-04**
Scan QR code or follow website link for rating details.

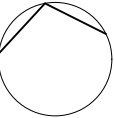
Assessor name
Khyati Saxena

Accreditation No.
HERA 10191

Property Address
618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove, NSW, 2066

<http://www.hero-software.com.au/pdf/HR-HHH49V-04>





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Project Name
Project Number
Project Address

Country

Client

Drawing Name

Drawing Scale
Drawing No.
DA206

1:200 @ A1
Revision
A

- All works to be in accordance with authority & statutory approvals.
- Refer to site survey for all information relating to existing site conditions.
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Rev
A

Date
27/09/2024

By
NHS

CHK
DF

Description
Issue For DA

**Certificate No. #HR-HHH49V-04**
Scan QR code or follow website link for rating details.

Assessor name
Khyati Saxena

Accreditation No.
HERA 10191

Property Address
618-624 Mowbray Rd & 25-29
Mindarie St, Lane Cove, NSW
2066

<http://www.hero-software.com.au/pdf/HR-HHH49V-04>



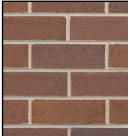

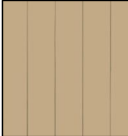
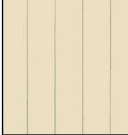


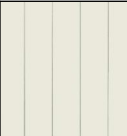


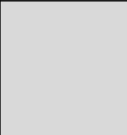
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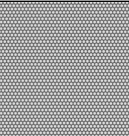


East - Elevation

1:100

LEGEND

	EF-01 Finish: Product: Colour:	Face Brick Brick Brown
	EF-02 Finish: Product: Colour:	Natural Concrete Natural
	EF-03 Finish: Product: Colour:	Pre Finished FC Cladding Sand or similar
	EF-04 Finish: Product: Colour:	Pre Finished FC Cladding Cream or similar

	EF-05 Finish: Product: Colour:	Pre Finished FC Cladding Cream or similar
	EF-06 Finish: Product: Colour:	Painted FC Cladding Dark Grey
	EF-07 Finish: Product: Colour:	PowderCoat Aluminium Monument Grey
	EF-08 Finish: Product: Colour:	Clear Glass Transparent

	EF-09 Finish: Product: Colour:	Anodised Mesh -
	EF-10 Finish: Product: Colour:	Obscure Glass Obscure
	EF-11 Finish: Product: Colour:	Tinted Concrete To Match EF-06



KEY PLAN

DEVELOPMENT
APPLICATION

D K O

Auckland
Brisbane
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Melbourne
Perth
Sydney

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T +61 2 8346 4500

Project Name
Project Number
Project Address

Country

Client

Drawing Name
East Elevations

Drawing Scale
Drawing No.
DA300

1:100 @ A1
Revision
A

- All works to be in accordance with authority & statutory approvals.
- Refer to site survey for all information relating to existing site conditions.
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- Minor changes to building form & configuration may be required after Development Consent.
- Do not scale from drawing: figured dimensions only to be used.
- Building Contractor to verify all dimensions before commencing work.

Rev	Date	By	CHK	Description
A	27/09/2024	NHS	DF	Issue For DA

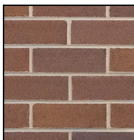
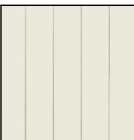
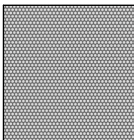




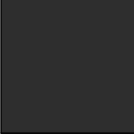

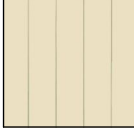
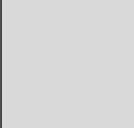


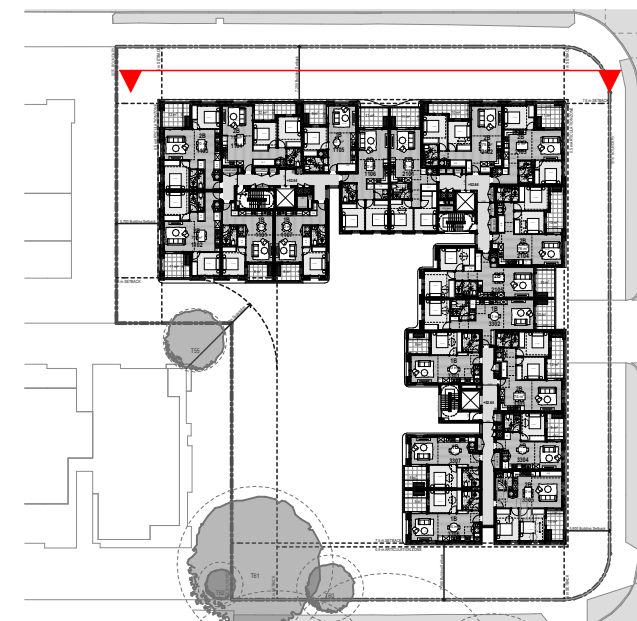
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North - Elevation

1:100

LEGEND

	EF-01 Finish: Face Brick Product: Brick Colour: Brown		EF-05 Finish: Pre Finished FC Cladding Product: FC Cladding Colour: Cream or similar		EF-09 Finish: Anodised Mesh Product: Mesh Colour: -
	EF-02 Finish: Natural Concrete Product: Concrete Colour: Natural		EF-06 Finish: Painted FC Cladding Product: FC Cladding Colour: Dark Grey		EF-10 Finish: Obscure Glass Product: Glass Colour: Obscure
	EF-03 Finish: Pre Finished FC Cladding Product: FC Cladding Colour: Sand or similar		EF-07 Finish: PowderCoat Aluminium Product: Aluminium Colour: Monument Grey		EF-11 Finish: Tinted Concrete Product: Concrete Colour: To Match EF-06
	EF-04 Finish: Pre Finished FC Cladding Product: FC Cladding Colour: Cream or similar		EF-08 Finish: Clear Glass Product: Glass Colour: Transparent		



KEY PLAN

DEVELOPMENT APPLICATION



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T +61 2 8346 4500

Project Name	Mowbray Road, Lane Cove
Project Number	13293
Project Address	618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove North NSW 2066

Country	Cammeraygal Country
---------	---------------------

Client	Homes NSW
--------	-----------

Drawing Name
North Elevations

Drawing Scale
Drawing No.
DA301

1:100 @ A1
Revision
A

- All works to be in accordance with authority & statutory approvals.
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Rev
A

Date
27/09/2024

By
NHS

CHK
DF

Description
Issue For DA


 **Certificate No. #HR-HHH49V-04**
Scan QR code or follow website link for rating details.

Assessor name
Khyab Saxena

Accreditation No.
HERA 10191

Property Address
618-624 Mowbray Rd & 25-29
Mindarie St, Lane Cove, NSW,
2066

<http://www.hero-software.com.au/pdf/HR-HHH49V-04>



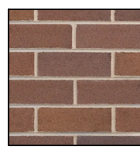
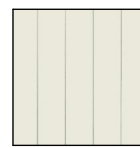
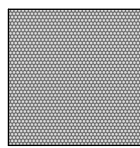
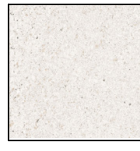


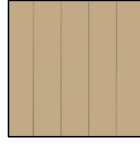


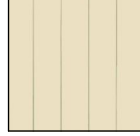



01

South - Elevation

1:100

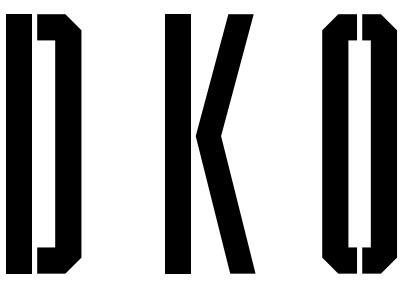
LEGEND

	EF-01 Finish: Face Brick Product: Brick Colour: Brown		EF-05 Finish: Pre Finished FC Cladding Product: FC Cladding Colour: Cream or similar		EF-09 Finish: Anodised Mesh Product: Mesh Colour: -
	EF-02 Finish: Natural Concrete Product: Concrete Colour: Natural		EF-06 Finish: Painted FC Cladding Product: FC Cladding Colour: Dark Grey		EF-10 Finish: Obscure Glass Product: Glass Colour: Obscure
	EF-03 Finish: Pre Finished FC Cladding Product: FC Cladding Colour: Sand or similar		EF-07 Finish: PowderCoat Aluminium Product: Aluminium Colour: Monument Grey		EF-11 Finish: Tinted Concrete Product: Concrete Colour: To Match EF-06
	EF-04 Finish: Pre Finished FC Cladding Product: FC Cladding Colour: Cream or similar		EF-08 Finish: Clear Glass Product: Glass Colour: Transparent		



KEY PLAN

DEVELOPMENT APPLICATION



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Sydney

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Project Name
Mowbray Road, Lane Cove
Project Number
13293
Project Address
618-624 Mowbray Rd & 25-29 Mindarie St,
Lane Cove North NSW 2066

Country
Cammerraygal Country

Client
Homes NSW

Drawing Name
South Elevations

Drawing Scale
Drawing No.
DA302

1:100 @ A1
Revision
A

- All works to be in accordance with authority & statutory approvals.
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Rev
A

Date
27/09/2024

By
HVS

Chk
DF

Description
Issue For DA

 **Certificate No. #HR-HHH49V-04**

Scan QR code or follow website link for rating details

Assessor name
Khyati Saxena

Accreditation No.
HERA 10191

Property Address
618-624 Mowbray Rd & 25-29
Mindarie St, Lane Cove, NSW,
2066

<http://www.hero-software.com.au/pdf/HR-HHH49V-04>



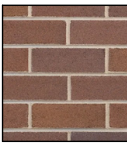


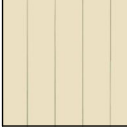


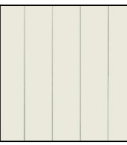


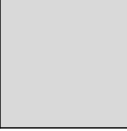
E-06

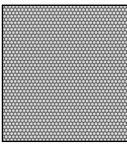


West - Elevation

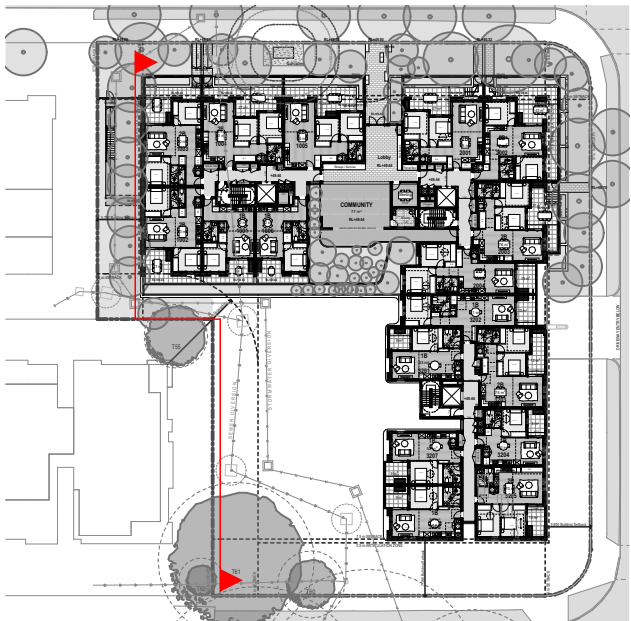
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LEGEND

	EF-01 Finish: Product: Colour:	Face Brick Brick Brown
	EF-02 Finish: Product: Colour:	Natural Concrete Natural
	EF-03 Finish: Product: Colour:	Pre Finished FC Cladding Sand or similar
	EF-04 Finish: Product: Colour:	Pre Finished FC Cladding Cream or similar

	EF-05 Finish: Product: Colour:	Pre Finished FC Cladding Cream or similar
	EF-06 Finish: Product: Colour:	Painted FC Cladding Dark Grey
	EF-07 Finish: Product: Colour:	PowderCoat Aluminium Monument Grey
	EF-08 Finish: Product: Colour:	Clear Glass Transparent

	EF-09 Finish: Product: Colour:	Anodised Mesh -
	EF-10 Finish: Product: Colour:	Obscure Glass Obscure
	EF-11 Finish: Product: Colour:	Tinted Concrete To Match EF-06



KEY PLAN

DEVELOPMENT
APPLICATION

D K O

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Project Name
Project Number
Project Address

Mowbray Road, Lane Cove
13293
618-624 Mowbray Rd & 25-29 Mindarie
St.
Lane Cove North NSW 2066

Country
Cammerragal Country

Client
Homes NSW

Drawing Name
West Elevations

Drawing Scale
Drawing No.
DA303

1:100 @ A1
Revision
A

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Rev
A

Date
27/09/2024

By
RVS

Chk
DP

Description
Issue For DA

 **Certificate No. #HR-HHH49V-04**


Scan QR code or follow website link for rating details.

Assessor name
Khyati Saxena

Accreditation No.
HERA 10191

Property Address
618-624 Mowbray Rd & 25-29
Mandarie St, Lane Cove, NSW,
2066

<http://www.hero-software.com.au/pdf/HR-HHH49V-04>






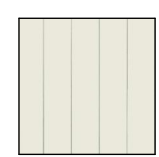
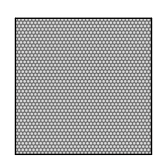


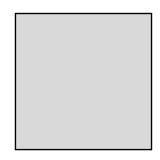
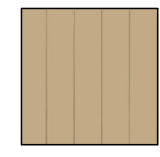


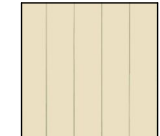

E-04

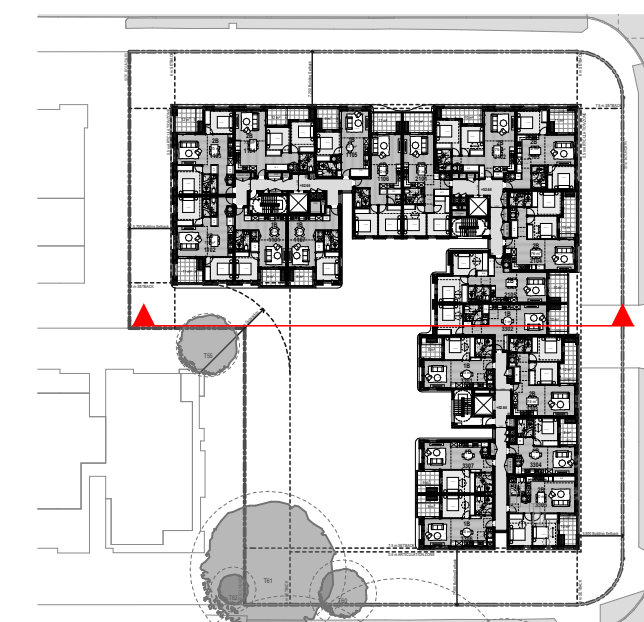
Internal South - Elevation

1:100

Potential Artwork on screen
to be detailed at design development

LEGEND

	EF-01 Finish: Face Brick Product: Brick Colour: Brown		EF-05 Finish: Pre Finished FC Cladding Product: FC Cladding Colour: Cream or similar		EF-09 Finish: Anodised Mesh Product: Mesh Colour: -
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KEY PLAN

DEVELOPMENT APPLICATION



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Project Name
Project Number
Project Address

Mowbray Road, Lane Cove
13293
618-624 Mowbray Rd & 25-29 Mandarie
St.
Lane Cove North NSW 2066

Country
Cammerragal Country


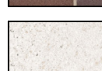

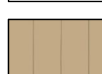
Client
Homes NSW




Drawing Name
Internal South Elevations




Drawing Scale
Drawing No.
DA304

1:100 @ A1
Revision
A



	EF-01 Finish: Face Brick Product: Brick Colour: Brown
	EF-02 Finish: Natural Product: Concrete Colour: Natural
	EF-03 Finish: Pre Finished Product: FC Cladding Colour: Sand or similar
	EF-04 Finish: Pre Finished Product: FC Cladding Colour: Cream or similar

	EF-05 Finish: Pre Finished Product: FC Cladding Colour: Cream or similar
	EF-06 Finish: Painted Product: FC Cladding Colour: Dark Grey
	EF-07 Finish: PowderCoat Product: Aluminium Colour: Monument Grey
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	EF-09 Finish: Anodised Product: Mesh Colour: -
	EF-10 Finish: Obscure Product: Glass Colour: Obscure
	EF-11 Finish: Tinted Product: Concrete Colour: To Match EF-06



DKD

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Country	Cammeraygal Country
---------	---------------------

Client	Homes NSW
--------	-----------

Drawing Name
Internal West Elevations

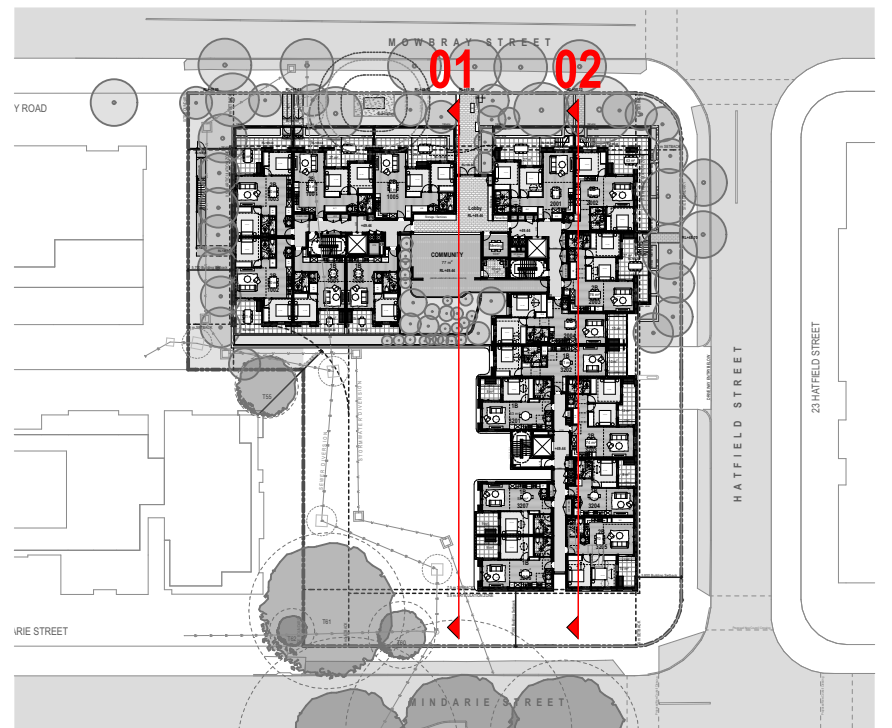
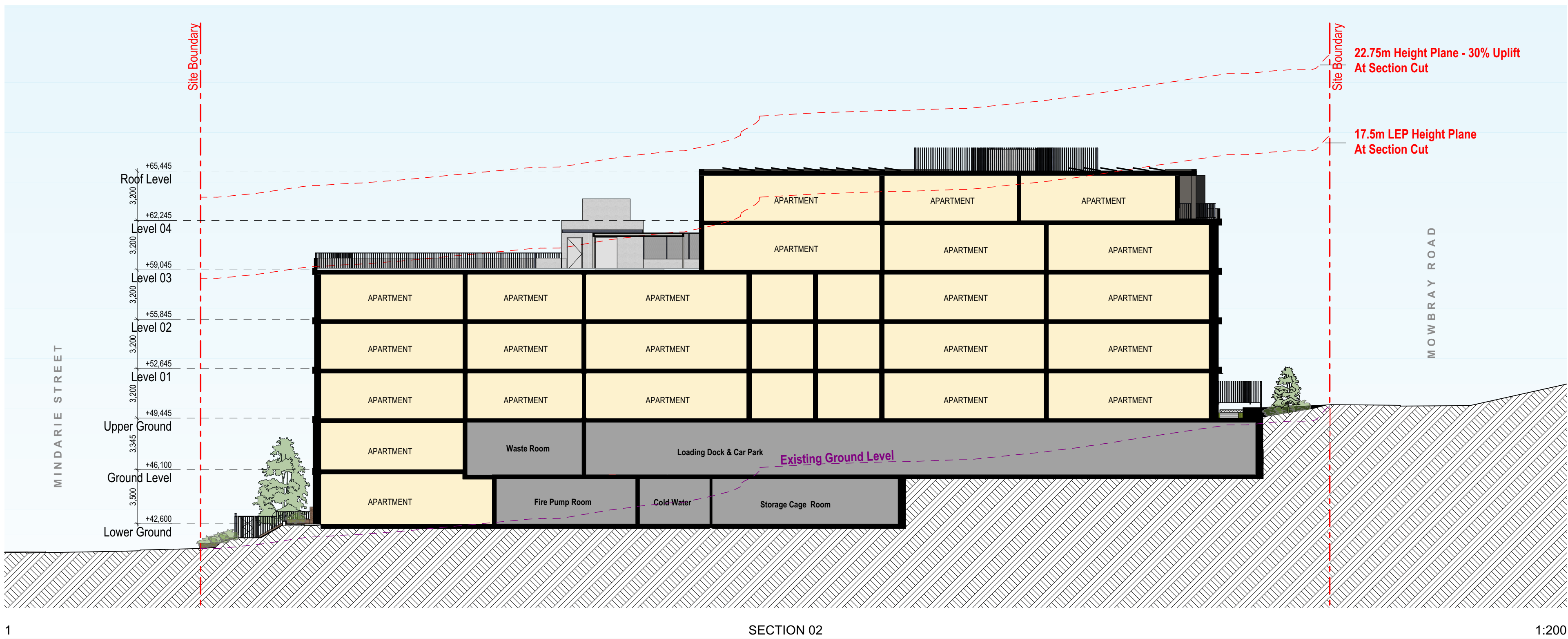
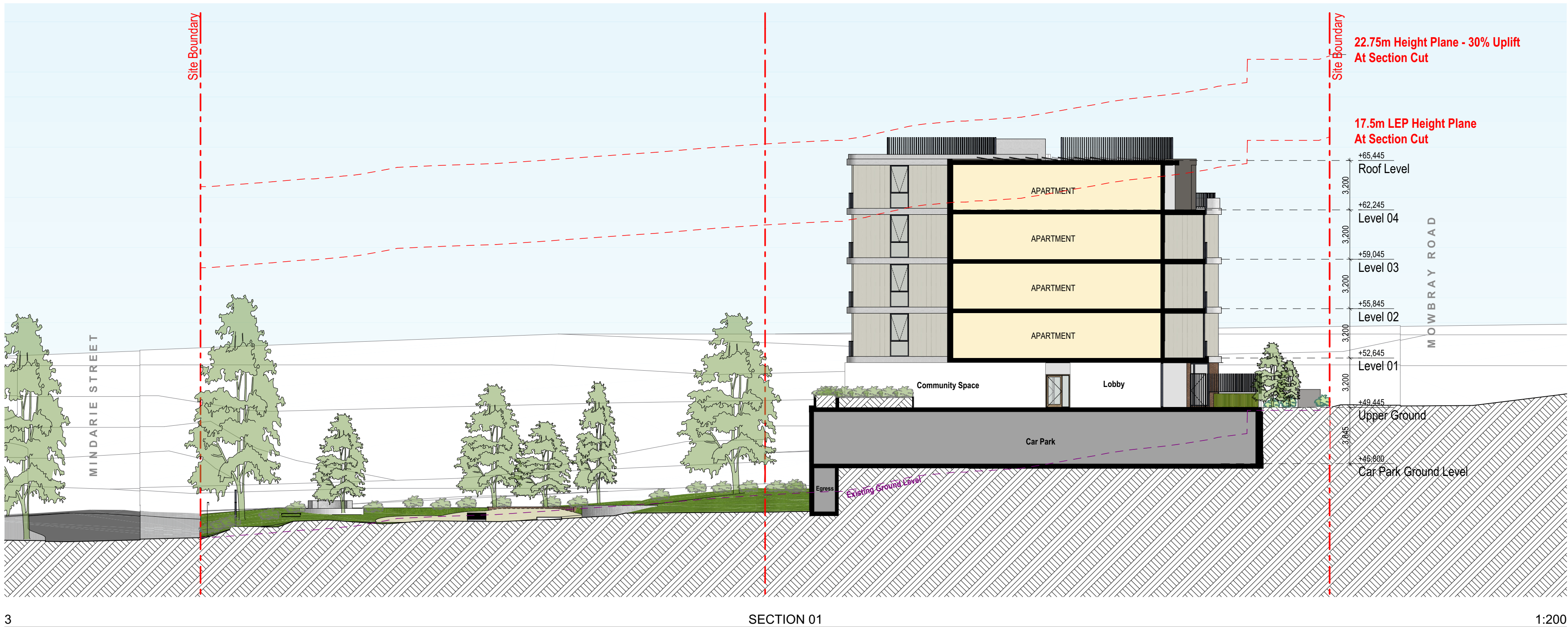
Drawing Scale 1:100 @ A1
Drawing No. DA305
Revision A

Revision
A

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Rev	Date	By	CHK	Description
A	27/09/2024	NYS	DF	Issue For DA

**Certificate No. #HR-HHH49V-04**
Scan QR code or follow website link for rating details.
Assessor name: Khyati Saxena
Accreditation No: HERA 10191
Property Address: 618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove, NSW, 2066
<http://www.hera-software.com.au/pdf/HR-HHH49V-04>



DEVELOPMENT
APPLICATION

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Project Name	Mowbray Road, Lane Cove
Project Number	13293
Project Address	618-624 Mowbray Rd & 25-29 Mindarie St, Lane Cove North NSW 2066
Country	Cammeraygal Country

Drawing Name
Sections

Drawing Scale
Drawing No.
DA306

1:200 @ A1
Revision
A

Appendix C

BASIX Certificate

BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 1766554M

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

Secretary

Date of issue: Friday, 27 September 2024

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.



Project summary

Project name	Mowbray Road, Lane Cove North
Street address	618-624 MOWBRAY ROAD 25-29 MINDARIE STREET LANE COVE 2066
Local Government Area	LANE COVE
Plan type and plan number	Deposited Plan DP35865, 19/DP35865, 20/DP35865, 64/DP35865, 65/DP35865, 66/DP35865
Lot no.	17
Section no.	DP35865, 18/DP35865, 19/DP35865, 20/DP35865, 64/DP35865, 65/DP35865, 66
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	86
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score

Water	✓ 40	Target 40
Thermal Performance	✓ Pass	Target Pass
Energy	✓ 73	Target 61
Materials	✓ -100	Target n/a

Certificate Prepared by

Name / Company Name: ADP Consulting
ABN (if applicable):

Description of project

Project address	
Project name	Mowbray Road, Lane Cove North
Street address	618-624 MOWBRAY ROAD 25-29 MINDARIE STREET LANE COVE 2066
Local Government Area	LANE COVE
Plan type and plan number	Deposited Plan DP35865, 19/DP35865, 20/DP35865, 64/DP35865, 65/DP35865, 66/DP35865
Lot no.	17
Section no.	DP35865, 18/DP35865, 19/DP35865, 20/DP35865, 64/DP35865, 65/DP35865, 66
Project type	
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	86
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	4198
Roof area (m²)	1265.6
Non-residential floor area (m²)	-
Residential car spaces	47
Non-residential car spaces	-

Common area landscape		
Common area lawn (m²)	0.00	
Common area garden (m²)	2245	
Area of indigenous or low water use species (m²)	2245	
Assessor details and thermal loads		
Assessor number	10191	
Certificate number	HR-HHH49V-04	
Climate zone	56	
Project score		
Water	✓ 40	Target 40
Thermal Performance	✓ Pass	Target Pass
Energy	✓ 73	Target 61
Materials	✓ -100	Target n/a

Description of project

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

Residential flat buildings - Building 1, 86 dwellings, 5 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1001	1	52	0	0	0
1005	2	74	0	0	0
1103	2	70	0	0	0
1107	1	52	0	0	0
1204	2	73	0	0	0
1301	1	52	0	0	0
1305	1	51	0	0	0
1402	2	70	0	0	0
1406	2	70	0	0	0
2003	2	76	0	0	0
2103	2	72	0	0	0
2202	2	75	0	0	0
2301	2	71	0	0	0
2305	2	75	0	0	0
2404	1	53	0	0	0
3003	1	53	0	0	0
3103	1	52	0	0	0
3204	1	50	0	0	0
3301	1	53	0	0	0
3305	2	70	0	0	0
3402	1	61	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1002	2	70	0	0	0
1006	1	52	0	0	0
1104	2	73	0	0	0
1201	1	52	0	0	0
1205	1	51	0	0	0
1302	2	70	0	0	0
1306	2	70	0	0	0
1403	2	72	0	0	0
1407	1	52	0	0	0
2004	2	74	0	0	0
2104	2	76	0	0	0
2203	2	72	0	0	0
2302	2	75	0	0	0
2401	2	71	0	0	0
2405	2	75	0	0	0
3004	1	52	0	0	0
3201	1	53	0	0	0
3205	2	70	0	0	0
3302	1	61	0	0	0
3306	1	53	0	0	0
3403	2	74	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1003	2	70	0	0	0
1101	1	52	0	0	0
1105	1	51	0	0	0
1202	2	70	0	0	0
1206	2	70	0	0	0
1303	2	70	0	0	0
1307	1	52	0	0	0
1404	1	50	0	0	0
2001	2	75	0	0	0
2101	2	71	0	0	0
2105	2	74	0	0	0
2204	2	76	0	0	0
2303	2	72	0	0	0
2402	1	51	0	0	0
3001	2	75	0	0	0
3101	2	70	0	0	0
3202	1	61	0	0	0
3206	1	53	0	0	0
3303	2	74	0	0	0
3307	1	52	0	0	0
3404	1	50	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)
1004	2	73	0	0	0
1102	2	70	0	0	0
1106	2	70	0	0	0
1203	2	70	0	0	0
1207	1	52	0	0	0
1304	2	73	0	0	0
1401	1	52	0	0	0
1405	1	50	0	0	0
2002	2	72	0	0	0
2102	2	75	0	0	0
2201	2	71	0	0	0
2205	2	74	0	0	0
2304	2	76	0	0	0
2403	2	76	0	0	0
3002	2	73	0	0	0
3102	1	53	0	0	0
3203	2	74	0	0	0
3207	1	51	0	0	0
3304	1	50	0	0	0
3401	1	53	0	0	0
3405	2	70	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)
3406	1	53	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)
3407	1	52	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)
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Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
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Description of project

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

Common areas of unit building - Building 1

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m²)
Lift bank (No. 1)	-	Undercover car park area (No. 1)	1447	Switch room (No. 1)	20
Waste rooms (No. 1)	147	Meeting Room	10.54	Bicycle and Storage	131.66
Amenity room	8.06	Biike Parking	40	Comms Room	11
Fire Pump Room	67	Stormwater Pump room	9.53	Lower ground Hallways	247.6
Level 1-4 Hallways	345.89				

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building 1

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

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

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

Schedule of BASIX commitments

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

1. Commitments for Residential flat buildings - Building 1

(a) Buildings

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

Floor types

Floor type	Area (m2)	Insulation	Low emissions option
concrete slab on ground, frame:	708.8	-	none
floors above habitable rooms, frame: suspended concrete slab	7300	rockwool batts, roll or pump-in	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	concrete block/ plasterboard, frame: light steel frame	4774.8	-	rockwool batts, roll or pump-in

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	single skin masonry, frame:light steel frame	3038	rockwool batts, roll or pump-in
Internal wall type 2	plasterboard, frame:light steel frame	3869	rockwool batts, roll or pump-in

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
concrete - plasterboard internal, frame: light steel frame	5477.6	-	rockwool batts, roll or pump-in
concrete - bare internal, frame: light steel frame	1414.8	-	rockwool batts, roll or pump-in

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)
-	1382.9	-	1382.9	-	-	-	-

(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)	5 star	4 star	4 star	-	not specified	not specified	-	-	-	-	-	-	-

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

(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	interlocked to light with timer off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

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

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	-	electric cooktop & electric oven	-	4.5 star	yes	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/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
1001	29.9	2.8	32.700
1002	27.9	6.9	34.800
1003	11.6	5.6	17.200
1004	7	3.8	10.800

	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)
1005	4.8	5.1	9.900
1006	31	2.7	33.700
1101	25.3	4	29.300
1102	16.8	5.1	21.900
1103	3.7	5	8.700
1104	1.8	3.4	5.200
1105	6.2	5.5	11.700
1106	10	3.4	13.400
1107	28.9	3	31.900
1201	26.1	3.9	30.000
1202	14.6	10.6	25.200
1203	3.2	4.9	8.100
1204	1.8	5	6.800
1205	6.3	5.2	11.500
1206	12.2	3	15.200
1207	29.9	3.5	33.400
1301	27.4	4.6	32.000
1302	17.4	13.5	30.900
1303	5.6	7.3	12.900
1304	3.8	6.1	9.900
1305	8	8.5	16.500
1306	13.9	4.1	18.000
1307	31.2	4	35.200
1401	30.4	3.8	34.200
1402	19.9	8.6	28.500
1403	8.4	13	21.400
1404	6.6	9	15.600
1405	9.4	9	18.400
1406	20	9.4	29.400
1407	32.4	4.4	36.800
2001	8.4	4.7	13.100

	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)
2002	15.8	6.4	22.200
2003	29	6.2	35.200
2004	23.2	4.6	27.800
2101	14.5	2.5	17.000
2102	2	4	6.000
2103	6	3.8	9.800
2104	19.6	3.5	23.100
2105	25.3	7.8	33.100
2201	15.1	2.4	17.500
2202	2.2	2.9	5.100
2203	8.9	4.6	13.500
2204	18.2	3.6	21.800
2205	26.3	7.4	33.700
2301	17.5	3.8	21.300
2302	4	4.5	8.500
2303	12.5	7.1	19.600
2304	20.3	5.5	25.800
2305	20.3	4.5	24.800
2401	14.8	9	23.800
2402	6.5	8.4	14.900
2403	16.1	9.5	25.600
2404	27.6	9	36.600
2405	25.5	11.9	37.400
3001	19.3	12.1	31.400
3002	10.8	2.7	13.500
3003	16.6	7.8	24.400
3004	7.7	10.2	17.900
3101	29	3	32.000
3102	19	4.3	23.300
3103	11.8	4.1	15.900
3201	25.2	5.8	31.000

	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)
3202	31.2	5.9	37.100
3203	17.7	4	21.700
3204	21.4	6.3	27.700
3205	25.3	4.9	30.200
3206	20	7.8	27.800
3207	15.5	10.2	25.700
3301	28.4	5.1	33.500
3302	21.7	12.6	34.300
3303	16.9	3.6	20.500
3304	19.2	4.7	23.900
3305	22.7	3.1	25.800
3306	25.4	4.5	29.900
3307	21.6	6.5	28.100
3401	29.2	7.2	36.400
3402	30.1	13.5	43.600
3403	24.7	6	30.700
3404	22.2	6.1	28.300
3405	32.3	4.9	37.200
3406	29.6	5.9	35.500
All other dwellings	28.9	9.5	38.400

(c) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	5 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	10000	To collect run-off from at least: - 1265.6 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 2245 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

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

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

Common area	Common area ventilation system		Common area lighting		
	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
Undercover car park area (No. 1)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	daylight sensor and motion sensor	yes
Switch room (No. 1)	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
Waste rooms (No. 1)	ventilation exhaust only	-	light-emitting diode	manual on / manual off	no
Meeting Room	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	no
Bicycle and Storage	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
Amenity room	ventilation exhaust only	none i.e., continuous	light-emitting diode	manual on / manual off	no
Bike Parking	ventilation supply only	none i.e., continuous	light-emitting diode	motion sensors	yes
Comms Room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
Fire Pump Room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
Stormwater Pump room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
Lower ground Hallways	no mechanical ventilation	-	light-emitting diode	motion sensors	yes
Level 1-4 Hallways	no mechanical ventilation	-	light-emitting diode	motion sensors	yes

Central energy systems	Type	Specification
Lift bank (No. 1)	gearless traction with V V V F motor and regenerative drive	Number of levels (including basement): 6 number of levels from the bottom of the lift shaft to the top of the lift shaft: 6 number of lifts: 3 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: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm) (c) Unit Efficiency: $3.5 < \text{COP} \leq 4.0$

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

(b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	5 star	4 star	no common laundry facility

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

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 49.5 peak kW
Other	-	-

Notes

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

Legend

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

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