



**Edesville Manly Pty Ltd**

9-11 Victoria Pde, Manly

BASIX Assessment Report

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## 1. SITE APPRECIATION

The proposed development is located at 9-11 Victoria Pde, Manly and consists of:

- 12 new residential units

## 2. BASIX WATER SECTION

The proposed development will meet the mandatory BASIX water target of 40% as long as the water commitments detailed in Table 1 are installed. For details of the requirements necessary to achieve this target, please refer to the BASIX Certificate No. 499050M\_06.

**Table 1: BASIX Water Commitments**

<b>Common Areas and Central Systems</b>	
<u>Area of Indigenous or low water species</u>	<ul style="list-style-type: none"> <li>• Please refer to Appendix B</li> </ul>
<u>Rainwater collection</u>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<u>Common Areas Facility</u>	<ul style="list-style-type: none"> <li>• 4-star (Water Rating) toilets</li> <li>• 4-star (Water Rating) taps</li> </ul>
<u>Fire Sprinkler</u>	<ul style="list-style-type: none"> <li>• For the Whole Building</li> <li>• No commitment is required for the test water to be diverted to a closed system</li> </ul>
<u>Common Area Pool &amp; Spa</u>	<ul style="list-style-type: none"> <li>• No Pool &amp; Spa</li> </ul>
<b>Private Dwellings</b>	
<u>Fixtures for apartments</u>	<ul style="list-style-type: none"> <li>• 3-star (Water Rating) showerheads with a flow rate &gt; 6.0L/min &amp; ≤ 7.5L/min</li> <li>• 4-star (Water Rating) toilets</li> <li>• 4-star (Water Rating) kitchen taps</li> <li>• 4-star (Water Rating) bathroom taps</li> <li>• Water star rating of appliances: <ul style="list-style-type: none"> <li>• Units 1, 4, 7, 10, 11 &amp; 12 <ul style="list-style-type: none"> <li>• 4.5-star washing machines</li> <li>• 6-star dishwashers</li> </ul> </li> <li>• Units 2, 3, 5, 6, 8 &amp; 9 <ul style="list-style-type: none"> <li>• 4.5-star washing machines</li> <li>• 5-star dishwashers</li> </ul> </li> </ul> </li> </ul>

### 3. BASIX THERMAL PERFORMANCE SECTION

The thermal performance of the development has been evaluated using BERS Pro 2<sup>nd</sup> Generation software. The BERS Pro computer simulation of residential developments forms part of the Nationwide House Energy Rating Scheme, and is used to assess the potential of a residential development to have low heating and cooling energy requirements once operational.

#### 3.1 MODELLING ASSUMPTIONS

The “base-case” building fabric and glazing and associated thermal performance specifications are described in Table 2 below as these assumptions are based on the nominated preferred construction materials indicated by the architect.

**Note: Table 2 must be read in conjunction with Table 3. Table 3 outlines additional thermal enhancements / treatments to meet the mandatory thermal load targets to achieve compliance.**

**Table 2: Base Case Assumptions on Construction and Fabric**

Element	Material	Detail
External walls	Brick Veneer	<b>Insulation: See Table 3</b>
		Light colour: 0.475<absorptance< 0.70
		Studs: Metal
	Hebel, lined	<b>Insulation: See Table 3</b>
		Light colour: 0.475<absorptance< 0.70
		Studs: Metal
	FC Cladding, lined	<b>Insulation: See Table 3</b>
		Light colour: 0.475<absorptance< 0.70
		Studs: Metal
Internal walls	Plasterboard	Studs: Metal
Party walls	Hebel, lined	<b>Insulation: None</b>
		Common corridors
	Hebel, lined	<b>Insulation: None</b>
		Neighbour
Windows	Concrete	<b>Insulation: None</b>
		Fire stairs & lifts
	<b>Type 1</b>	Total Window System Properties <b>U-value 5.4 &amp; SHGC 0.58 for sliding doors, sliding &amp; fixed windows</b>
		<b>And</b>
	<b>Type 2</b>	Total Window System Properties <b>U-value 5.4 &amp; SHGC 0.49 for bifold doors, awning &amp; casement windows</b>
		Total Window System Properties <b>U-value 4.8 &amp; SHGC 0.59 for sliding doors, sliding &amp; fixed windows</b>
	<b>Note: Only a ±5% SHGC tolerance to the value stated above &amp; U-value can be NO greater than or equal to the value stated above<sup>1</sup></b>	
	Window Operability	Balcony windows: <b>As per plans &amp; elevations</b> Bedroom windows: <b>10% (BCA D3D29) as per plans &amp; elevations</b> All other non-balcony windows: <b>As per plans &amp; elevations</b>
	Vertical shading device	Balcony windows: <b>As per plans &amp; elevations</b> Non-balcony windows: <b>As per plans &amp; elevations</b>
	Horizontal shading device	Eaves: <b>As per plans &amp; elevations</b>

<sup>1</sup> As per BASIX Thermal Performance Protocol 4.14.2

Element	Material	Detail
Skylight	<u>Single glazed clear</u>	
Roof	Concrete	<b>Insulation: See Table 3</b>
		Light colour: 0.475<absorptance< 0.70
		Rafters & Purlins: N/A
Ceilings	Plasterboard	<b>Insulation: See Table 3</b>
		Cavity: Unventilated Cavity
		Joists: Metal
Floors	Concrete	<b>Insulation: See Table 3</b>
		Tiles: Wet areas only
		Carpet: Bedrooms only
		Timber: Elsewhere
		Joists: N/A
Common corridors naturally ventilated		No
Recessed downlights assessed		No. No lighting plan provided. Project will be updated once lighting plan is available. <b>All assumed to be sealed</b>
Exhaust fans (kitchens, bathrooms, laundry)		<b>All assumed to be sealed</b>

### 3.2 BERS PRO RESULTS (THERMAL PERFORMANCE)

The simulated heating and cooling loads per dwelling are summarized in Table 3 below. Where the dwellings have failed to meet the thermal load targets additional thermal enhancements / treatments are provided. This is typically in the form of bulk insulation. These additional thermal treatments are required to pass the BASIX Thermal performance requirements. Please refer to BASIX Certificate No. 499050M\_06 & NatHERS Certificate No. 0012024110 for details.

**Table 3: BERS Pro Thermal Loads**

Unit No.	Additional Treatments Required	Heating Load (MJ/m <sup>2</sup> .yr)	Cooling Load (MJ/m <sup>2</sup> .yr)	Stars	Pass/Fail
1	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - No insulation to heritage external walls - Type 2 windows except to windows located in heritage listed parts	65.7	11.9	3.1	PASS
2	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows	32.2	19.3	4.9	PASS
3	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows	28.0	12.2	5.8	PASS
4	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - Type 1 windows	13.5	10.6	7.6	PASS
5	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total	30.4	15.1	5.4	PASS

Unit No.	Additional Treatments Required	Heating Load (MJ/m <sup>2</sup> .yr)	Cooling Load (MJ/m <sup>2</sup> .yr)	Stars	Pass/Fail
	external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows				
6	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows	25.6	12.1	6.0	PASS
7	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - Type 1 windows	31.7	13.5	5.4	PASS
8	- R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows	31.4	15.1	5.3	PASS
9	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - R1.5 Bulk Ceiling Insulation to exposed areas only (total ceiling/roof system R-value Rt1.66) - Type 1 windows	37.8	11.9	5.1	PASS
10	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows	22.8	13.8	6.2	PASS
11	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows	22.8	14.6	6.1	PASS
12	- R2.5 External Wall Insulation to brick veneer walls only (total external wall system Rt2.96) - R2.5 External Wall Insulation to hebel walls only (total external wall system Rt3.14) - R2.5 External Wall Insulation to cladded walls only (total external wall system Rt2.58) - Type 1 windows - Single glazed clear skylights	37.8	16.9	4.7	PASS

## 4. BASIX ENERGY SECTION

The proposed development will meet the mandatory BASIX Energy target of 20% as long as the energy commitments detailed in Table 4 are installed.

**Table 4: BASIX Energy Commitments**

<b>Component</b>		<b>Commitment</b>
<b>Common Areas and Central Systems</b>	<u>Hot Water System</u>	<ul style="list-style-type: none"> <li>Centralised Electric Storage with internal piping insulation of R1.0 (~38mm)</li> </ul>
	<u>Alternative Energy Supply</u>	<ul style="list-style-type: none"> <li>Photovoltaic system of a minimum rated electrical output of 1.5 kW peak</li> </ul>
	<u>Lifts</u>	<ul style="list-style-type: none"> <li>All lifts to use Gearless traction with VVVF motor servicing all levels</li> </ul>
	<u>Ventilation</u>	<ul style="list-style-type: none"> <li>Car park: Ventilation (supply &amp; exhaust) with a CO monitor &amp; VSD fan</li> <li>Electrical rooms: Ventilation (supply only), thermostatically controlled</li> <li>Sprinkler Valve Room: Ventilation (supply only), thermostatically controlled</li> <li>Garbage Rooms: Ventilation (exhaust only), continuous</li> <li>B1 &amp; B2 smoke lobby: Ventilation (supply only), continuous</li> <li>Ground floor lobby: No mechanical ventilation</li> <li>Hallways &amp; lobbies: Ventilation (supply only), continuous</li> </ul>
	<u>Lighting</u>	<ul style="list-style-type: none"> <li>Car park: LED lighting with motion sensors</li> <li>Lift cars: LED lighting connected to lift call button</li> <li>Electrical rooms: Compact fluorescent lighting with manual on/off switch</li> <li>Garbage Rooms: Compact fluorescent lighting with motion sensors</li> <li>Sprinkler Valve Room: Compact fluorescent lighting with manual on/off switch</li> <li>B1 &amp; B2 smoke lobby: LED lighting with motion sensors</li> <li>Ground floor lobby: LED lighting with manual on/off switch</li> <li>Hallways &amp; lobbies: LED lighting with manual on/off switch</li> </ul>
<b>Private Dwellings</b>	<u>Hot Water System</u>	<ul style="list-style-type: none"> <li>See Central Systems</li> </ul>
	<u>Ventilation</u>	<ul style="list-style-type: none"> <li>Kitchen Exhaust: Individual fan, ducted to roof or façade, with manual on/ timer off</li> <li>Bathroom Exhaust: Individual fan, ducted to roof or façade, with manual on/ timer off</li> <li>Laundry Exhaust: Individual fan, ducted to roof or façade, with manual on/timer off</li> </ul>
	<u>Heating &amp; Cooling</u>	<ul style="list-style-type: none"> <li>Heating: Living &amp; Beds to have individual 1-phase air-conditioning with EER 2.5-3.0</li> <li>Cooling: Living &amp; Beds to have individual 1 phase air-conditioning with EER 2.5-3.0</li> </ul>
	<u>Lighting</u>	<ul style="list-style-type: none"> <li>Dwellings must be primarily lit (minimum 80% of light fittings) by compact fluorescent, fluorescent and LED lamps.</li> </ul>

<b>Component</b>		<b>Commitment</b>
	<u>Appliances</u>	<ul style="list-style-type: none"> <li>• Induction cook top and electric oven</li> <li>• Energy star rating of appliances: <ul style="list-style-type: none"> <li>• Units 1, 4, 7, 10, 11 &amp; 12 <ul style="list-style-type: none"> <li>• Minimum 4-star (new rating) refrigerator</li> <li>• 4.5-star washing machines</li> <li>• 4.5-star dishwashers</li> <li>• 9-star dryer</li> </ul> </li> <li>• Units 2, 3, 5, 6, 8 &amp; 9 <ul style="list-style-type: none"> <li>• Minimum 4-star (new rating) refrigerator</li> <li>• 4.5-star washing machines</li> <li>• 4-star dishwashers</li> <li>• 7-star dryer</li> </ul> </li> </ul> </li> </ul>

## 5. CONCLUSION

The proposed development has been assessed to optimise its thermal performance (passive and fabric design) using the Nationwide House Energy Rating scheme (NatHERS) and also been assessed in terms of its ability to conserve water and minimise energy consumption through BASIX Tool.

With the commitment recommendations contained within this report the proposed development is able to meet BASIX requirements and is BASIX compliant.

For further details, please refer to the BASIX Certificate No. 499050M\_06 provided.

## APPENDIX A - ARCHITECTURAL DRAWINGS

The building sustainability performance assessment carried out in this report was based on the following architectural drawings supplied by Platform Architects received on 9<sup>th</sup> July 2025.



Appendix A - Architectural Drawings

## APPENDIX B – LANDSCAPING AREAS

Area of common area landscape (m <sup>2</sup> )	38.7
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Unit	Area of garden & lawn (m <sup>2</sup> )
3	5.1
10	4.6
12	10.1