EBS CONSULTANTS

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Project
94 Park Street, Mona Vale

Report
BASIX and Thermal Report

Client
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Date
16 May 2025

Reference
19696-BASIX Report-1

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TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

EBS Consultants Pty Ltd has been engaged by the client to conduct an assessment ensuring compliance with BASIX and Thermal Comfort standards for the proposed development. This report details the requirements and commitments to achieve BASIX certification in accordance with the relevant EP&A and Sustainable Buildings SEPP regulations.

BASIX Item	Required Score	Achieved Score
Water	40%	**42%**
Energy	61%	**64%**
Thermal Comfort (NatHERS)	BASIX Heating and Cooling Load Limits	**Pass**

In accordance with the designated project design specifications, the proposed development can meet the minimum BASIX and NatHERS standards.

2.0 Introduction

2.1 Location and Description

The building development, the subject of this report, is located at 94 Park Street, Mona Vale. The building development consists of a Class 2 and 7a use.

2.2 BASIX Version

This report is based on the BASIX Certificate Version v4.03

2.3 Limitations of the Report

This report does not include nor imply any detailed analysis or assessment for design, compliance or upgrading for:

a) the structural adequacy or design of the building.
b) the inherent derived fire-resistance ratings of any existing structural elements of the building (unless specifically referred to).
c) any existing fire safety measures are assumed to be compliant and maintained under the Annual Fire Safety Statement provisions required by the building owner.
d) the design basis and/or operating capabilities of any existing or proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

a) Sections B, C, D, E, F, G, H, I and J of the NCC
b) the Disability Discrimination Act 1992.
c) The Design and Building Practitioners Act 2020.
d) Work Health and Safety Act 2011.
e) Requirements of other Regulatory Authorities including, but not limited to, Telstra, NBN Co, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Roads and Transport Authority, Local Council, ARTC, Department of Planning and the like.
f) Demolition Standards not referred to by the BCA.
g) Heritage significance
h) Requirements of Australian Standards unless specifically referred to.
i) Conditions of Development Application approval issued by Council.
j) The National Construction Code – Plumbing Code of Australia Volume Three.

2.4 Document Control

Date	Revision	Comments/Description	Prepared By:
02 May 2025	Draft	Draft report for review	Robert Romanous
12 May 2025	Draft2	Added thermal comfort spec	Robert Romanous
15 May 2025	Draft3	Updated water and energy requirements	Robert Romanous
16 May 2025	1	Final Report	Robert Romanous

2.5 Documentation

This report has been based on the Design Plan and Specifications of the relevant Stamped Drawing set.

3.0 Water Commitments

The following requirements must be implemented in design as a minimum, and to be ensured compliance by the builder/client during construction.

BASIX	Target Score	Project Score
Water	40%	42% - Pass

Central Water Commitments

Item	Commitment	Comments
Rainwater Tank	Min 900m^2 of roof area diverted to the tank Volume of 10,000L Connected to: - All landscape irrigation (private and common) - Each unit - taps near each toilet - Each unit - one cold tap in the laundry	
Common Landscape	Area - As per the landscape drawings All planting and gardens to be low-water-use or indigenous species	
Fire Sprinkler Systems	Not a closed-loop test system	
Common Pool	Max 127,500L	17x5x1.5m
Common Spa	Max 8,000L w/cover	

Dwelling Water Commitments

Item	Commitment	Comments
Private Landscape	Area - As per the landscape drawings All planting and gardens to be low-water-use or indigenous species	
Showerheads	4 Star (4.5-6.0L/min)	
Toilets	4 Star	
Kitchen Taps	5 Star	
Bathroom Taps	5 Star	
Washing Machines	Nil	
Dishwashers	5 Star (Water)	
Private Pool	101 – Max 14,000L w/cover 102 – Max 14,000L w/cover	Plungie Original

4.0 Energy Commitments

The following requirements must be implemented in design as a minimum, and to be ensured compliance by the builder/client during construction.

BASIX	Target Score	Project Score
Energy	61%	64% - Pass

Central Ventilation Commitments

Common Area	System	Efficiency	Comments
Gymnasium	air conditioning system	time clock	
Basement 1	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	
Basement 2	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	
Waste Room	ventilation exhaust only	-	
Bulky Waste	ventilation exhaust only	-	
Plant (B2)	ventilation supply only	thermostatically controlled	
Storage	ventilation supply only	interlocked to light	
Amenity	ventilation (supply + exhaust)	interlocked to light	
WC/Change	ventilation exhaust only	interlocked to light	
North Ground Floor Lobby	no mechanical ventilation	-	
South Ground Floor Lobby	no mechanical ventilation	-	
North Common Corridors	no mechanical ventilation	-	
South Common Corridors	no mechanical ventilation	-	

Central Lighting Commitments

Common Area	System	Efficiency	Comments
Gymnasium	light-emitting diode	time clocks	
Basement 1	light-emitting diode	motion sensors	
Basement 2	light-emitting diode	motion sensors	
Waste Room	light-emitting diode	motion sensors	
Bulky Waste	light-emitting diode	motion sensors	
Plant (B2)	light-emitting diode	motion sensors	
Storage	light-emitting diode	motion sensors	
Amenity	light-emitting diode	motion sensors	
WC/Change	light-emitting diode	motion sensors	
North Ground Floor Lobby	light-emitting diode	motion sensors	
South Ground Floor Lobby	light-emitting diode	motion sensors	
North Common Corridors	light-emitting diode	motion sensors	
South Common Corridors	light-emitting diode	motion sensors	
Lifts	light-emitting diode	connected to lift call button	

Central Energy Commitments

Item	Commitment	Comments
Lifts	Gearless Traction w/ VVVF Motor Lift load capacity under 1001kg	
Solar PV	Min 30pkW System	
Common Pool	Electric heat pump heating w/ pump on timer	
Common Spa	Electric heat pump heating w/ pump on timer	
Sauna	Electric infrared heating w/ timer off	

Dwelling Energy Commitments

Item	Commitment	Comments
Hot Water	Individual 6-star gas instantaneous	
Dwelling Ventilation	Bathroom fan - Ducted w/ manual switch Kitchen fan - Ducted w/ manual switch Laundry fan - Ducted w/ manual switch	
AC Cooling and Heating	System Type – 1 phase AC - ducted Efficiency – Above COP/EER of 3.0	
Cooktop	Electric	
Oven	Electric	
Dishwashers	4 Star (Energy)	
Clothes Dryers	Nil	
Private Pool	101 and 102: - Electric heat pump heating w/ pump on time - Dual speed pump w/ min 4-star energy rating	

5.0 Thermal Comfort Commitments (NatHERS)

The following requirements must be implemented in design as a minimum, and to be ensured compliance by the builder/client during construction.

BASIX	Target Score	Project Score
Thermal Comfort (NatHERS)	BASIX Heating and Cooling Load Limits	**Pass – 7.5 Star Average**

Thermal Construction Details	
Glazing	
Sliding and Fixed – Except below Max U-value 4.50 SHGC 0.61 (±5%) Aluminium Frame Single Low-E Clear **or** Double Clear	**Awning - All** Max U-value 4.90 SHGC 0.53 (±5%) Aluminium Frame Single Low-E Clear **or** Double Clear
Sliding Balcony Doors – Units 501 and 503 Only Max U-value 4.60 SHGC 0.36 (±5%) Aluminium Frame Single Low-E Grey **or** Double Grey	**Sliding Balcony Doors – Units 203, 303 and 403 Only** Max U-value 3.23 SHGC 0.57 (±5%) Aluminium Frame Double Low-E Clear
External Walls	
External Walls of Units (including breezeways)	- 10mm render, 200mm concrete, 25mm airspace, 92mm metal stud with R2.50 insulation. - 9mm FC cladding, 35mm batten, 92mm metal stud with R2.50 insulation plus R0.20 thermal break.
Internal Walls	
Between Lifts / Fire Stairs to Units	- 180mm concrete, 76mm metal stud with R2.00 insulation
Intertenancy Walls	- 25mm shaftliner, 76mm metal stud with acoustic insulation only
Internal Walls Inside Units	- 13mm plaster, 64mm metal stud with acoustic insulation only
Dwelling Floors	
Floors to Internal and Enclosed Areas	- 200mm concrete - No additional insulation modelled
Floors To Basement and Non-Enclosed Areas	- 200mm concrete – 50mm R2.30 insulation rigid board
Parts of Floor to External Areas (Units 301 and 307)	- 200mm concrete - No additional insulation modelled
Dwelling Roofs	
Roof To External	- 200mm concrete – 60mm R2.75 insulation rigid board