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MARANATHA CHRISTIAN SCHOOL - NEW ELC BUILDING AND BLOCK D EXTENSION

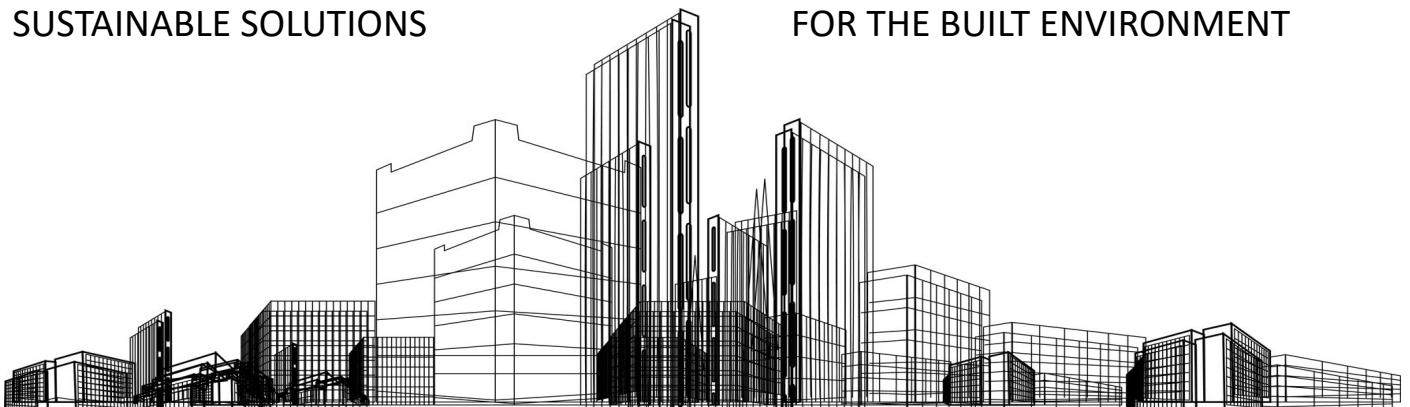
SUSTAINABILITY MANAGEMENT PLAN V2

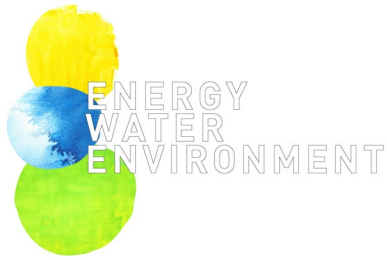
6TH MARCH, 2026

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SUSTAINABLE SOLUTIONS

FOR THE BUILT ENVIRONMENT





Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School – New ELC and Block D Extension
To: Giordan Gesos (Cortese Consultants)
John Cortese (Cortese Consultants)
Author: Patrick Phelan

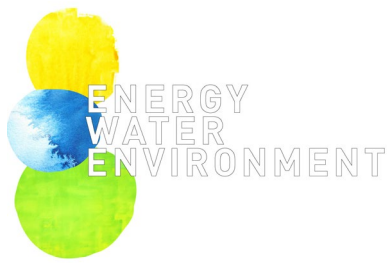
Document Title: Sustainability Management Plan Version 2

Table of Contents

1. Executive Summary	2
2. Introduction	3
3. Performance Requirements	3
3.1 National Construction Code 2022 Part J – Class Type	3
3.2 BESS Assessment.....	3
4. ESD Initiatives	6
4.1 Indoor Environment Quality (IEQ)	6
4.2 Energy Efficiency	7
4.3 Water Efficiency.....	8
4.4 Stormwater Management	9
4.5 Building Materials	10
4.6 Transport	10
4.7 Waste Management	11
4.8 Urban Ecology	11
4.9 Innovation.....	12
4.10 Construction and Building Management.....	12
5. Conclusion	12
Appendix A – NCC Part J Report	13
A.1 Building Fabric Requirements to Achieve J1V3 Compliance	13
Appendix B – BESS and STORM (Blue Factor) Calculations	16
B.1 BESS Assessment	16
B.2 STORM (Blue Factor) Report.....	17
Appendix C – Green Travel Plan	18

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1. Executive Summary

The purpose of this ESD Submission is to show the results and initiatives included in a Sustainability Management Plan (SMP) for the proposed works at Maranatha Christian School – ELC and Block D Works for review by City of Casey. The development has been assessed against the City of Casey Planning Scheme requirements and the National Construction Code energy efficiency regulations.

Maranatha Christian School is located at 104-108 Reema Blvd, Endeavour Hills VIC 3802. The proposed works consist of the following:

- Proposed new Early Learning Centre
- Extension of Block D

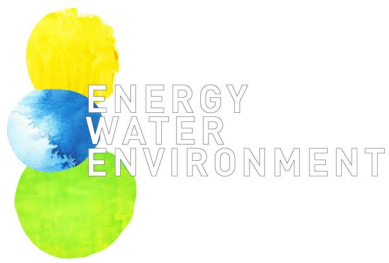
Table 1 below is a checklist showing compliance with the various environmentally sustainable design requirements.

Table 1 : SMP Checklist for Maranatha Christian School – ELC and Block D Works

Item	In Documents Required / Will be Recommended by its consultation and review as part of planning process under the Planning and Environment Act 1987	Reference if Applicable
Meet National Construction Code Minimum Energy Efficiency Requirements	✓	Refer to Section 3.2 and Appendix A
Water Sensitive Urban Design	✓	Refer to Section 4.4 and Appendix B.2.
BESS sustainability tool assessment	✓	Refer to Section 3.3 and Appendix B
An SMP describing sustainable initiatives for the development, targets and implementation set against City of Casey best practice guidelines	✓	Refer to Section 4
Green Travel Plan	✓	Refer to Appendix C

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The implementation of the initiatives within the Sustainability Management Plan are the responsibility of the school/lead contractor.



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2. Introduction

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Maranatha Christian School is located at 104-108 Reema Blvd, Endeavour Hills VIC 3802. The proposed works consist of the following:

- Proposed new Early Learning Centre
- Extension of Block D

3. Performance Requirements

3.1 National Construction Code 2022 Part J – Class Type

This development is an educational facility and contains the following class types (to ultimately be confirmed by the building surveyor):

- Class 9b general purpose education space

Refer to Appendix A which shows initial J1V3 modelling shall show compliance with the NCC Part J.

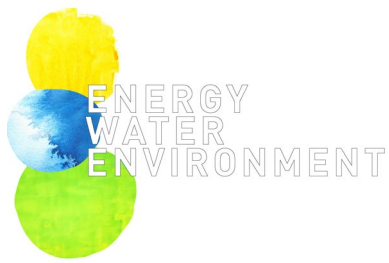
3.2 BESS Assessment

Built Environment Sustainability Scorecard (BESS) is an assessment tool created by CASBE council which is now widely used to benchmark proposed residential building developments. Based on the initiatives listed in Section 4 below, a BESS assessment has been undertaken for the proposed Maranatha Christian School – ELC and Block D Works. The results of the BESS assessment are shown below and illustrate that the proposed development either equals or exceeds the minimum requirements set by the tool in the categories with minimum requirements.

The BESS online tool was completed and the full score sheets have been provided in Appendix B.1.

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Date: 6/3/2026
 Project Number: PJ766
 Project Title: Maranatha Christian School – New ELC and Block D Extension
 Document Title: Sustainability Management Plan V2

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BESS – ELC

BESS, Maranatha Catholic School - ELC 104-108 Reema Blvd, Endeavour Hills 3...

BESS Report

Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at 104-108 Reema Blvd Endeavour Hills Victoria 3802. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Casey City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

55%

Project details

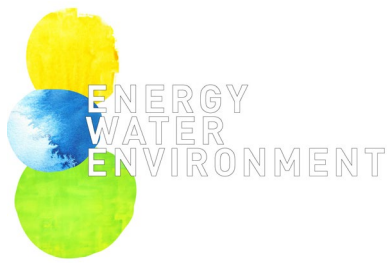
Name	Maranatha Catholic School - ELC
Address	104-108 Reema Blvd Endeavour Hills Victoria 3802
Project ID	25451E23-R3
BESS Version	BESS-9

Site type	Non-residential development
Account	patrick@ewenvironment.com.au
Application no.	
Site area	4,000 m ²
Building floor area	960 m ²
Date	06 March 2026
Software version	2.3.0-B.647

Performance by category ● This project ● Maximum available

Category	Weight	Score	Pass
Management	5%	57%	○
Integrated Water Management	23%	85%	✓
Operational Energy	28%	65%	✓
Indoor Environment Quality	17%	57%	✓
Transport	9%	0%	○
Waste & Resource Recovery	6%	66%	○
Urban Ecology	6%	50%	○
Innovation	9%	0%	○

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 Project Number: PJ766
 Project Title: Maranatha Christian School – New ELC and Block D Extension
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BESS – Block D Extension

BESS, Maranatha Catholic School - Block D Extension 104-108 Reema Blvd, En...

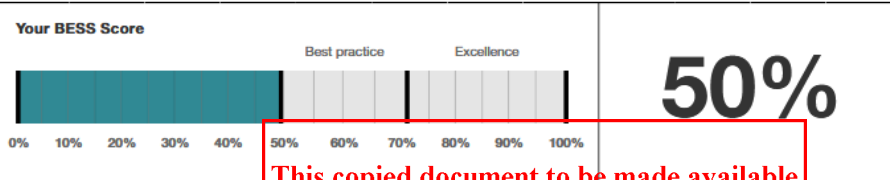
BESS Report

Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at 104-108 Reema Blvd Endeavour Hills Victoria 3802. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Casey City Council.

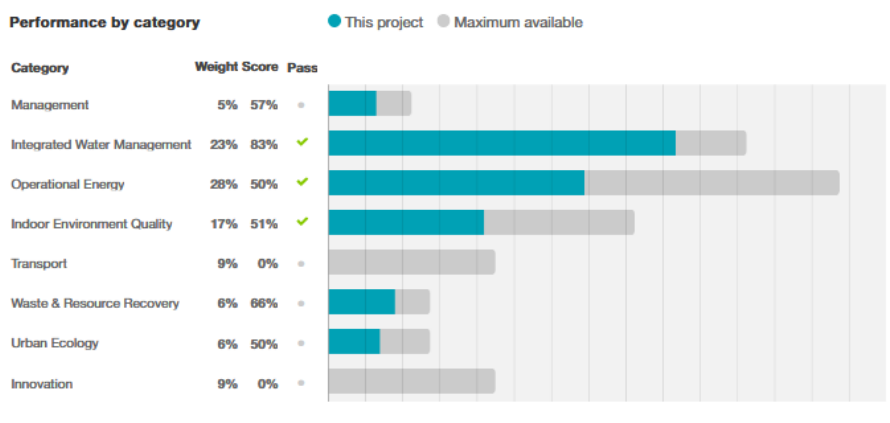
Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.



Project details

Name	Maranatha Catholic School - Block D Extension
Address	104-108 Reema Blvd Endeavour Hills Victoria 3802
Project ID	98273B60-R2
BESS Version	BESS-9
Site type	Non-residential development
Account	patrick@ewenvironment.com.au
Application no.	
Site area	4,000 m ²
Building floor area	392 m ²
Date	06 March 2026
Software version	2.3.0-B.647

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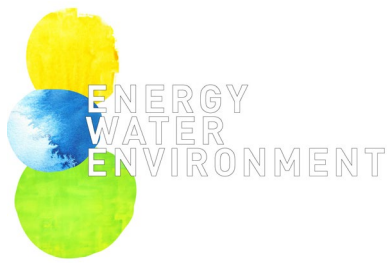


The Built Environment Sustainability Scorecard is an initiative of the Council Alliance for a Sustainable Built Environment (CASBE). For more details see www.bess.net.au

Page 1 of 17

Refer to Appendix B.1 and B.2 for the BESS and STORM (Blue Factor) calculations respectively.

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4. ESD Initiatives

The following sections outline the ESD initiatives and management processes that are proposed for the Maranatha Christian School – ELC and Block D Works.

- Indoor Environment Quality (IEQ)
- Energy Efficiency
- Water Efficiency
- Stormwater Management
- Building Materials
- Transport
- Waste Management
- Urban Ecology
- Innovation
- Construction and Building Management

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Each of the above categories have been broken down into sub-categories and then into particular initiatives in the table below. The targets in the table and the initiatives reflect City of Casey SDAPP best practice requirements, and review as part of a planning process under the Planning and Environment Act 1987.

The initiatives apply to both ELC and Block D Works unless otherwise stated.

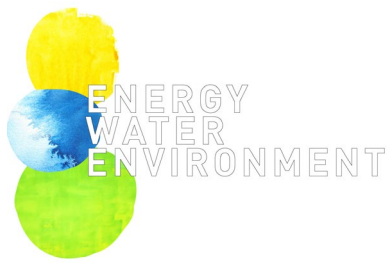
The implementation of the initiatives within the Sustainability Management Plan are the responsibility of the school and lead contractor.

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4.1 Indoor Environment Quality (IEQ)

Table 2 : IEQ Sub-Categories and Initiatives

IEQ Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target	Schedule of Initiatives and Responsibility
Daylight	<ul style="list-style-type: none"> ▪ Daylight calculations show that 61% and 91% of the primary spaces in the ELC and Block D Works will have daylight factor of over 2% respectively 	<ul style="list-style-type: none"> ▪ Over 33% coverage (refer Appendix B.1 for full BESS scores) 	<ul style="list-style-type: none"> ▪ Design phase: Architect ▪ Construction phase: Builder, window contractor
Daylight glare and reduction in solar gain	<ul style="list-style-type: none"> ▪ For the ELC horizontal shading provided by roof eaves have been implemented to shade the majority of glazing elements. Refer to architectural elevations 	<ul style="list-style-type: none"> ▪ General target to mitigate daylight glare and solar gain where practicable 	<ul style="list-style-type: none"> ▪ Design phase: Architect ▪ Construction phase: Builder
External Views	<ul style="list-style-type: none"> ▪ The majority of primary learning and administration spaces have 	<ul style="list-style-type: none"> ▪ No specific target 	<ul style="list-style-type: none"> ▪ Design phase: Architect ▪ Construction phase:



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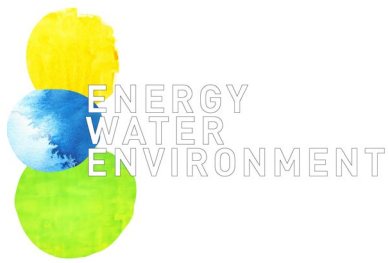
Hazardous Materials	<ul style="list-style-type: none"> access to external views No hazardous waste shall be used in construction materials 	<ul style="list-style-type: none"> No hazardous waste shall be used in construction materials 	<ul style="list-style-type: none"> Builder Implemented as part of construction of design drawings (mechanical contractor responsibility)
Acoustics	<ul style="list-style-type: none"> Acoustic insulation levels will provide an acoustic buffer from other classrooms and staff rooms All mechanical equipment shall meet the Australian Standards for noise levels 	<ul style="list-style-type: none"> To meet Australian Standards for noise levels 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder
Natural Ventilation	<ul style="list-style-type: none"> Natural ventilation will be provided via cross ventilation or single sided ventilation. The coverage for ELC and Block D Extension is 63% and 70% respectively 	<ul style="list-style-type: none"> BESS benchmarking (refer Appendix B.1) 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder

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4.2 Energy Efficiency

Table 3 : Energy Efficiency Sub-Categories and Initiatives

Energy Efficiency Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target and Implementation	Schedule of Initiatives and Responsibility
Operating Energy and Building Fabric	<ul style="list-style-type: none"> The building fabric improvements will result in a heating and cooling reduction of 21.5 and 21.0% upon NCC benchmarks for the ELC and Block D Extension respectively 	<ul style="list-style-type: none"> To achieve at least 10% improvement on NCC benchmarks. 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder
Lighting Power Density	<ul style="list-style-type: none"> Lighting power density shall be 20% lower than those stipulated by the National Construction Code in Part J6 for all areas. LED lighting will be implemented for the majority of lighting. 	<ul style="list-style-type: none"> National Construction Code requirements. BESS benchmarking (refer Appendix B.1) 	<ul style="list-style-type: none"> Design phase: Architect, Electrical Designer Construction phase: Electrical Contractor
Air leakage minimized	<ul style="list-style-type: none"> All dwellings shall be designed and built in accordance with the building sealing requirements of the National Construction Code. 	<ul style="list-style-type: none"> National Construction Code requirements. 	<ul style="list-style-type: none"> Design phase: Architect, mechanical designer Construction phase: Builder, mechanical contractor
External Lighting	<ul style="list-style-type: none"> External lighting will be controlled via a time switch and motion detection 	<ul style="list-style-type: none"> BESS benchmarking (refer Appendix B.1) 	<ul style="list-style-type: none"> Design phase: Architect, Electrical Designer Construction phase: Electrical Contractor



Date: 6/3/2026
 Project Number: PJ766
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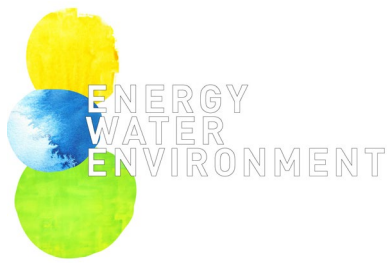
4.3 Water Efficiency

Table 4 : Water Efficiency Sub-Categories and Initiatives

Water Efficiency Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target	Schedule of Initiatives and Responsibility
Minimising Amenity Water Demand	<ul style="list-style-type: none"> The fittings and fixtures proposed for the development will meet the following Star Ratings under the Water Efficiency Labeling Scheme: <ul style="list-style-type: none"> Toilets – 4 Star Basin Taps – 6 Star Kitchen Taps – 5 Star Dishwashers – 5 Star 	<ul style="list-style-type: none"> As per star rating targets specified. BESS benchmarking (refer Appendix B.1) 	<ul style="list-style-type: none"> Design phase: Architect / Hydraulic Designer Construction phase: Builder and hydraulic contractor
Heat Rejection Water	<ul style="list-style-type: none"> Air conditioning units shall use air-cooled chillers. 	<ul style="list-style-type: none"> No water to be used in cooling. 	<ul style="list-style-type: none"> Design phase: Architect / Mechanical Designer Construction phase: Builder and Mechanical Contractor
Rainwater Harvesting	<p>ELC</p> <ul style="list-style-type: none"> Rainwater shall be collected and stored via 5,000 litre tank and shall provide toilet flushing and landscape irrigation <p>Block D</p> <ul style="list-style-type: none"> No rainwater harvesting proposed for Block D 	<ul style="list-style-type: none"> BESS benchmarking (refer Appendix B.1) 	<ul style="list-style-type: none"> Design phase: Architect / Hydraulic Designer Construction phase: Builder and hydraulic contractor

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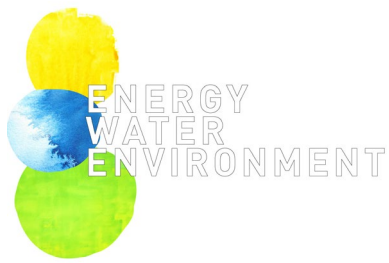
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4.4 Stormwater Management

Table 5 : Stormwater Management Sub-Categories and Initiatives

Stormwater Management Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target	Schedule of Initiatives and Responsibility
STORM (Blue Factor) rating	<ul style="list-style-type: none"> The calculated STORM (Blue Factor) rating is 146%. Refer to Appendix B.2 for the STORM (Blue Factor) report. 	<ul style="list-style-type: none"> A minimum of 100% in STORM (Blue Factor). 	<ul style="list-style-type: none"> Design phase: Architect / ESD Consultant / Hydraulic Designer / Civil Designer / Landscape Consultant Construction phase: Builder, civil contractor, landscape contractor and hydraulic contractor
Discharge to Sewer	<ul style="list-style-type: none"> Low flow fittings and fixtures shall be used and shall reduce the discharge to sewer. 	<ul style="list-style-type: none"> The fittings and fixtures proposed for the development will meet the following Star Ratings under the Water Efficiency Labeling Scheme: <ul style="list-style-type: none"> Toilets – 4 Star Basin Taps – 6 Star Kitchen Taps – 5 Star Dishwashers – 5 Star 	<ul style="list-style-type: none"> Implemented as part of construction of design drawings (contractor responsibility)
Rainwater Harvesting	<p>ELC</p> <ul style="list-style-type: none"> Rainwater shall be collected and stored via 5,000 litre tank and shall provide toilet flushing and landscape irrigation <p>Block D</p> <ul style="list-style-type: none"> No rainwater harvesting proposed for Block D 	<ul style="list-style-type: none"> BESS benchmarking (refer Appendix B.1) 	<ul style="list-style-type: none"> Design phase: Architect / Hydraulic Designer Construction phase: Builder and hydraulic contractor
Watercourse Pollution	<ul style="list-style-type: none"> A 20m² biofiltration system (raingarden) will be implemented to treat the building stormwater and wider site areas. 	<ul style="list-style-type: none"> A minimum of 100% in STORM. 	<ul style="list-style-type: none"> Design phase: Architect / ESD Consultant / Hydraulic Designer / Civil Designer / Construction phase: Builder, civil contractor, and hydraulic contractor

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Date: 6/3/2026
 Project Number: PJ766
 Project Title: Maranatha Christian School – New ELC and Block D Extension
 Document Title: Sustainability Management Plan V2

Construction phase stormwater pollution strategy	<ul style="list-style-type: none"> As a part of the construction management plan a stormwater pollution reduction strategy for the construction phase will be implemented 	<ul style="list-style-type: none"> To Banyule Council standards 	<ul style="list-style-type: none"> Lead contractor
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4.5 Building Materials

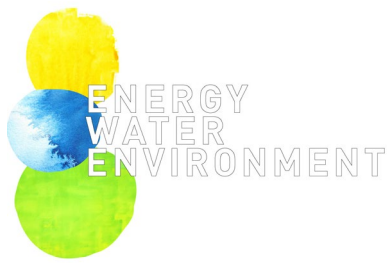
Table 6 : Building Materials Sub-Categories and Initiatives

Building Materials Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target and Implementation	
Storage for Recycling Waste	<ul style="list-style-type: none"> Appropriate bin storage space including space for recycling bins has been allocated in the basement area. 	<ul style="list-style-type: none"> Appropriate bin storage space including space for recycling bins has been allocated in the basement area. 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder
Environmental Toxicity	<ul style="list-style-type: none"> Both refrigerants and insulation materials shall be specified to be ozone depleting materials and manufacture. 	<ul style="list-style-type: none"> Zero ozone depleting materials used in both composition and manufacture. 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder
Product Choice	<ul style="list-style-type: none"> Paints, flooring and adhesives will be low VOC to Green Star standards and joinery shall be low formaldehyde 	<ul style="list-style-type: none"> Meet credit criteria in Green Star Buildings VOC tables for paints, flooring and adhesives. Meet credit criteria for low formaldehyde in joinery as per Green Star Buildings tool 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder, carpet supplier, all trades working with adhesives internally

4.6 Transport

Table 7 : Transport Sub-Categories and Initiatives

Transport Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target and Implementation	Schedule of Initiatives and Responsibility
Car Parks	<ul style="list-style-type: none"> There is on-site car parking proposed for the development for this scope of works 	<ul style="list-style-type: none"> Car parking not to exceed planning maximums. 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder
Bike Storage	<ul style="list-style-type: none"> Provision for bike storage has been made on other areas of the site. It's not part of these scope of works. 	<ul style="list-style-type: none"> Refer to architectural plans. 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder



Date: 6/3/2026
 Project Number: PJ766
 Project Title: Maranatha Christian School – New ELC and Block D Extension
 Document Title: Sustainability Management Plan V2

4.7 Waste Management

Table 8 : Waste Management Sub-Categories and Initiatives

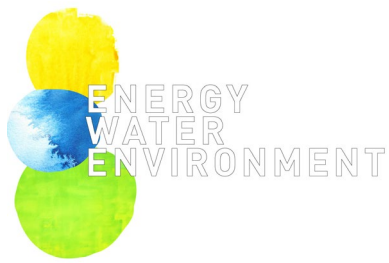
Waste Management Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target and Implementation	Schedule of Initiatives and Responsibility
Construction Environmental Management Plan	<ul style="list-style-type: none"> A construction environmental management plan will be required to be implemented by the lead contractor. 	<ul style="list-style-type: none"> Production and implementation of an EMP. 	<ul style="list-style-type: none"> Architectural preliminaries to require a CEMP Lead contractor responsibility
Waste Management Plan	<ul style="list-style-type: none"> Construction phase environmental management plan to be implemented. 	<ul style="list-style-type: none"> Minimum 80% of construction waste to be reused or recycled. BESS benchmarking (refer Appendix B.1) 	<ul style="list-style-type: none"> Architectural preliminaries to require a WMP Lead contractor responsibility
Storage spaces for recycling and green waste	<ul style="list-style-type: none"> Appropriate bin storage space including space for recycling bins and green waste has been allocated in appropriate areas. 	<ul style="list-style-type: none"> Appropriate bin storage space including space for recycling bins and green waste has been allocated in appropriate areas. 	<ul style="list-style-type: none"> Design phase: Architect Construction phase: Builder

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4.8 Urban Ecology

Table 9 : Urban Ecology Sub-Categories and Initiatives

Urban Ecology Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target and Implementation	Schedule of Initiatives and Responsibility
Reuse of already developed land	<ul style="list-style-type: none"> The site has previously been developed. 	<ul style="list-style-type: none"> Develop on previously developed site. 	<ul style="list-style-type: none"> Inherent property of the site
Landscaped Areas	<ul style="list-style-type: none"> Landscaping will be provided as shown in Landscape drawings. 	<ul style="list-style-type: none"> To provide landscaping in nominated areas. 	<ul style="list-style-type: none"> Design phase: Architect / Landscape Architect Construction phase: Builder / Landscape Contractor



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 Document Title: Sustainability Management Plan V2

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4.9 Innovation

There are no initiatives that cannot be categorised within the other 9 categories, therefore the innovation category is not applicable.

4.10 Construction and Building Management

Table 10 : Construction and Building Management Sub-Categories and Initiatives

Construction and Building Management Sub-Categories	Proposed Maranatha Christian School – ELC and Block D Works Initiatives	Performance Target and Implementation	Schedule of Initiatives and Responsibility
Construction Environmental Management Plan	<ul style="list-style-type: none"> A construction environmental management plan will be required to be implemented by the lead contractor. 	<ul style="list-style-type: none"> Production and implementation of an EMP. 	<ul style="list-style-type: none"> Architectural preliminaries to require a CEMP Lead contractor responsibility
Stormwater Construction Management Plan	<ul style="list-style-type: none"> A stormwater construction management plan will be implemented as part of the construction environmental management plan. 	<ul style="list-style-type: none"> Council requirements. 	<ul style="list-style-type: none"> Architectural preliminaries to require a SMP Lead contractor responsibility
Building User Guide	<ul style="list-style-type: none"> A building user guide to be handed over to all owners after construction. 	<ul style="list-style-type: none"> Sustainability and maintenance information to be included in building user guide. 	<ul style="list-style-type: none"> Lead contractor responsibility

5. Conclusion

The ESD components for the Maranatha Christian School – ELC and Block D Works development have been proposed with reference to current construction code standards, the industry benchmarking tool BESS and City of Casey Planning Scheme ESD requirements. The proposed design meets best practice as set out by these items.

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Appendix A – NCC Part J Report

As a part of this ESD submission, this section shows compliance with BCA Part J via computer simulation modelling. This report shows, based on the documentation used in the calculation and associated assumptions, the Maranatha Christian School – ELC and Block D Works comply with the requirements.

A.1 Building Fabric Requirements to Achieve J1V3 Compliance

The following table shows the requirements for the building fabric for each building to achieve J1V3 compliance.

Table 12 : Building Fabric Requirements – Maranatha Christian School – ELC

Building Element	Minimum Requirement Under J1V3 Compliance Method
New External Walls	External walls require overall system R-Value of 2.0 including thermal break. (E.g. R2.0 bulk insulation in stud wall with thermal break on external studs will meet the requirement)
New Floor Slab	Car park - concrete slab on ground with no insulation Car park soffit - Suspended concrete slab with R1.0 insulation on the soffit
New External Glazing	Glazing to have U-value of maximum 4.2 and solar heat gain coefficient of maximum 0.65
Ceilings / Roof	Ceilings/roof to have overall system R-Value of 4.0 (this can be a roof / ceiling combination of insulation) – including thermal break

Table 13 : Building Fabric Requirements – Maranatha Christian School – Block D Extension

Building Element	Minimum Requirement Under J1V3 Compliance Method
Existing External Walls	Existing external walls to remain
New External Walls	External walls where adjacent to habitable spaces require overall system R-Value of 2.0 including thermal break
Existing Floor Slab	Concrete slab on ground with no insulation
New Floor Slab	Concrete slab on ground with no insulation
Existing External Glazing	Existing external glazing to remain
New External Glazing	Glazing to have U-value of maximum 4.2 and solar heat gain coefficient of maximum 0.65
Ceilings / Roof	New roofs where above habitable spaces to have overall system R-Value of 4.0 (this can be a roof / ceiling combination of insulation) – including thermal break

Compliance has been shown using the verification method J1V3. Computer simulation energy modeling has been undertaken using IES Virtual Environment Software Version 2022. Three models were created and each yielded an annual energy calculation for the purposes

of comparison. The figure below shows the calculation requirements for the J1V3 method with regards to the three models that are required to be produced.

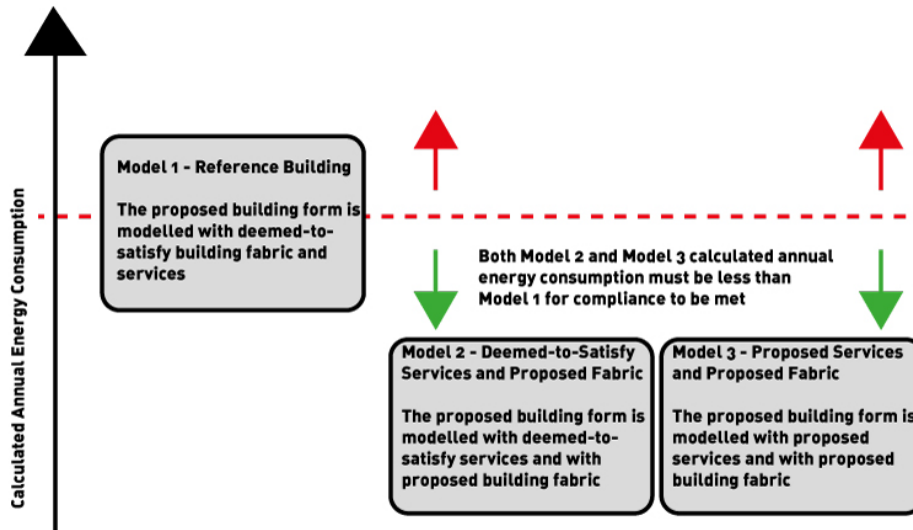


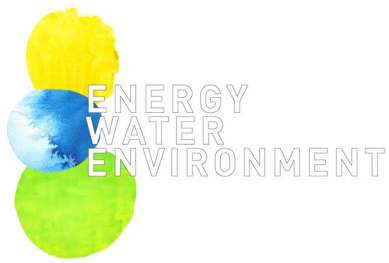
Figure 1 Illustration of the 3 Model Calculation System Required by J1V3

Table 1 below shows the calculated annual energy consumption of the Dominique Portet for all three models.

Table 14 : Calculated Energy Consumption for 3 Models – ELC

Model	Calculated Annual Energy Consumption (MWh / annum)		Calculated Annual Energy Derived Greenhouse Gas Emissions (kgCO ₂ -e / annum)*	
	Value	Comparison	Value	Comparison
Model 1 – Deemed-to-Satisfy Building Fabric and Services	56.77	(Reference)	66,010	(Reference)
Model 2 – Deemed-to-Satisfy Services and Proposed Building Fabric	54.95	(Lower than Reference)	63,890	(Lower than Reference)
Model 3 – Proposed Services and Proposed Building Fabric	44.63	(Lower than Reference)	51,896	(Lower than Reference)

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 Project Number: PJ766
 Project Title: Maranatha Christian School – New ELC and Block D Extension
 Document Title: Sustainability Management Plan V2

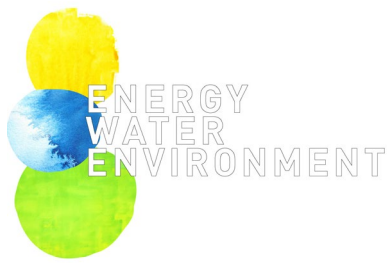
Table 15 : Calculated Energy Consumption for 3 Models – Block D Extension

Model	Calculated Annual Energy Consumption (MWh / annum)		Calculated Annual Energy Derived Greenhouse Gas Emissions (kgCO2-e / annum)*	
	Value	Comparison	Value	Comparison
Model 1 – Deemed-to-Satisfy Building Fabric and Services	42.68	(Reference)	49,628	(Reference)
Model 2 – Deemed-to-Satisfy Services and Proposed Building Fabric	39.43	(Lower than Reference)	45,849	(Lower than Reference)
Model 3 – Proposed Services and Proposed Building Fabric	33.69	(Lower than Reference)	39,175	(Lower than Reference)

For both buildings Model 2 and Model 3 have a lower energy consumption than Model 1, the design is compliant with the National Construction Code energy efficiency requirements.

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Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School – New ELC and Block D Extension
Document Title: Sustainability Management Plan V2

Appendix B – BESS and STORM (Blue Factor) Calculations

B.1 BESS Assessment

The full BESS assessments for both buildings are attached on the overleaf.

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BESS Report

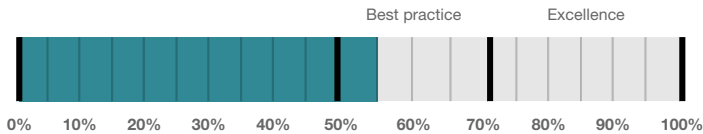
Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at 104-108 Reema Blvd Endeavour Hills Victoria 3802. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Casey City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score



55%

Project details

Name	Maranatha Catholic School - ELC
Address	104-108 Reema Blvd, Endeavour Hills, Victoria 3802
Project ID	25451E23-F3
BESS Version	BESS-9
Site type	Non-residential development
Account	patrick@ewenvironment.com.au
Application no.	
Site area	4,000 m ²
Building floor area	960 m ²
Date	06 March 2026
Software version	2.3.0-B.647

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Performance by category

● This project ● Maximum available

Category	Weight	Score	Pass
Management	5%	57%	●
Integrated Water Management	23%	85%	✓
Operational Energy	28%	65%	✓
Indoor Environment Quality	17%	57%	✓
Transport	9%	0%	●
Waste & Resource Recovery	6%	66%	●
Urban Ecology	6%	50%	●
Innovation	9%	0%	●

Buildings

Name	Height	Footprint	% of total footprint
ELC Building	1	760 m ²	100%

Dwellings & Non Res Spaces

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Other building				
Non-Residential Space 1	1	960 m ²	ELC Building	100%
Total	1	960 m²	100%	

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Supporting Evidence

Shown on Floor Plans

Credit	Requirement	Response	Status
Management 3.3	Annotation: Sub-meters to be provided to all major common area services (list each)	To be printed Refer to SMP	✓
Integrated Water Management 2.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)	To be printed Refer to SMP	✓
Integrated Water Management 3.1	Annotation: Water Efficient Toilet	To be printed Refer to SMP	✓
Waste & Resource Recovery 2.1	Location of food and garden waste facilities	To be printed Refer to Arch site plans	✓
Waste & Resource Recovery 2.2	Location of recycling facilities	To be printed Refer to Arch site plans	✓
Urban Ecology 1.1	Location and size of communal spaces	To be printed Refer to Arch plans	✓
Urban Ecology 2.1	Location and size of vegetated areas	To be printed Refer to Arch site plans	✓

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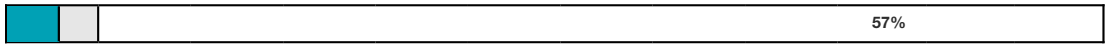





Supporting Documentation

Credit	Requirement	Response	Status
Management 2.3a	Section J glazing assessment	To be printed Refer to SMP Refer to SMP	✓
Management 2.3b	Preliminary modelling report	To be printed Refer to SMP Refer to SMP	✓
Integrated Water Management 2.1	STORM report or MUSIC model	To be printed Refer to SMP Refer to SMP	✓
Operational Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	To be printed Refer to SMP Refer to SMP	✓






Credit	Requirement	Response	Status
Operational Energy 3.7	Average lighting power density and lighting type(s) to be used	To be printed Refer to SMP Refer to SMP	✓
Indoor Environment Quality 1.4	A short report detailing assumptions used and results achieved.	To be printed Refer to SMP Refer to SMP	✓

Credit summary

Management Overall contribution 4.5%

		57%
1.1 Pre-Application Meeting		0%
2.3 Thermal Performance Modelling - Non-Residential		100%
3.2 Metering - Non-Residential		N/A ✦ Scoped Out
		Not applicable to school building
3.3 Metering - Common Areas		100%
4.1 Building Users Guide		100%

IWM Overall contribution 22.5%

		85%	✓ Pass
1.1 Potable Water Use		55%	✓ Achieved
2.1 Stormwater Treatment		100%	✓ Achieved
3.1 Water Efficient Landscaping		100%	
4.1 Building Systems Water Use		N/A	✦ Scoped Out
			No water cooled chillers or sprinklers

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Operational Energy Overall contribution 27.5%

		Minimum required 50%	65%	✔ Pass
1.1 Thermal Performance Rating - Non-Residential			18%	
2.1 Greenhouse Gas Emissions			100%	
2.2 Peak Demand			100%	
2.6 Electrification			100%	
2.7 Energy consumption			100%	
3.1 Carpark Ventilation			N/A	⚡ Scoped Out
				No enclosed car park
3.2 Hot Water - Non-Residential			100%	
3.7 Internal Lighting - Non-Residential			100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)			N/A	⚡ Scoped Out
				No cogeneration or trigeneration system in use.
4.2 Renewable Energy Systems - Solar			0%	⊘ Disabled
				No solar PV renewable energy is in use.
4.4 Renewable Energy Systems - Other			N/A	⚡ Scoped Out
				No other (non-solar PV) renewable energy is in use.

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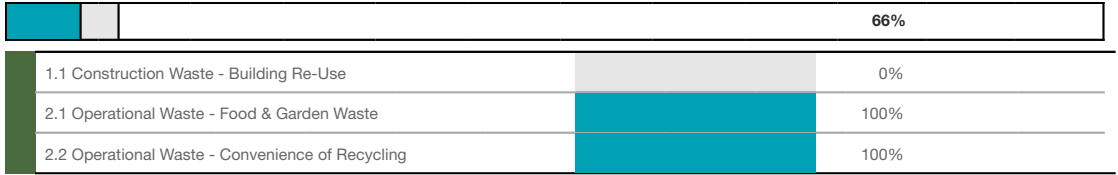
IEQ Overall contribution 16.5%

		Minimum required 50%	57%	✔ Pass
1.4 Daylight Access - Non-Residential			61%	✔ Achieved
2.3 Ventilation - Non-Residential			34%	✔ Achieved
3.4 Thermal comfort - Shading - Non-Residential			100%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential			0%	
4.1 Air Quality - Non-Residential			100%	

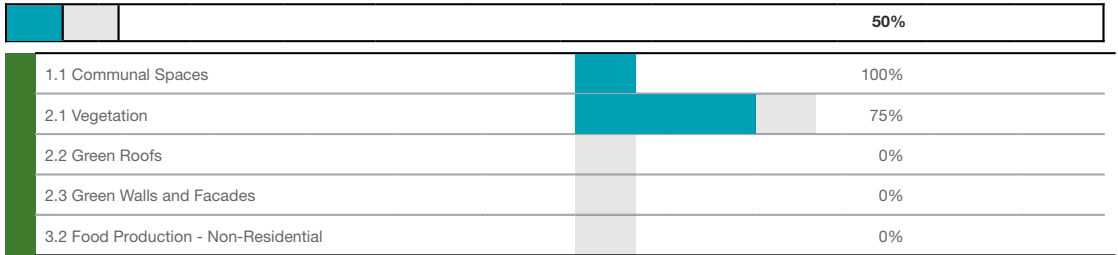
Transport Overall contribution 9.0%

		0%
1.4 Bicycle Parking - Non-Residential		0%
1.5 Bicycle Parking - Non-Residential Visitor		0%
1.6 End of Trip Facilities - Non-Residential		0%
		⊘ Disabled
		Credit 1.4 must be complete first.
2.1 Electric Vehicle Infrastructure		0%
2.2 Car Share Scheme		0%
2.3 Motorbikes / Mopeds		0%

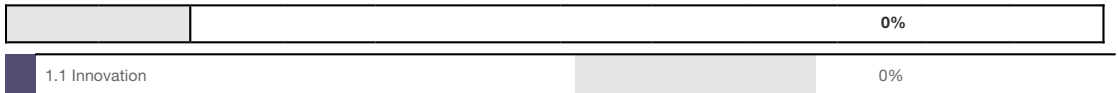
Waste & Resource Recovery Overall contribution 5.5%



Urban Ecology Overall contribution 5.5%



Innovation Overall contribution 9.0%



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Credit breakdown

Management Overall contribution 4.5%

	57%
--	-----

1.1 Pre-Application Meeting	0%
------------------------------------	----

Score Contribution	This credit contributes 42.9% towards the category score.
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?
Question	Criteria Achieved ?
Project	No

2.3 Thermal Performance Modelling - Non-Residential	100%
--	------

Score Contribution	This credit contributes 28.6% towards the category score.
--------------------	---

Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2022 Section J4D6?
Question	Criteria Achieved ?
Other building	Yes

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Criteria	Has a preliminary facade assessment been undertaken in accordance with either NCC2022 Section J4D6 or NCC2019 Section J4D6?
Question	Criteria Achieved ?
Other building	Yes

3.2 Metering - Non-Residential	N/A ◆ Scoped Out
---------------------------------------	--

Not applicable to school building	
This credit was scoped out	Not applicable to school building

3.3 Metering - Common Areas	100%
------------------------------------	------

Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Have all major common area services been separately submetered?
Question	Criteria Achieved ?
Other building	Yes

4.1 Building Users Guide	100%
---------------------------------	------

Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Will a building users guide be produced and issued to occupants?
Question	Criteria Achieved ?
Project	Yes

IWM Overall contribution 22.5%

		85% ✔ Pass
--	--	---

Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No

Stormwater profile

Which stormwater modelling software are you using?:	Melbourne Water STORM tool
STORM score achieved:	140
Flow:	-
Total Suspended Solids:	-
Total Phosphorus:	-
Total Nitrogen:	-

Rainwater tank profile

What is the total roof area connected to the rainwater tank?:	
Rainwater Tank 1	500 m ²
	-
Tank Size:	
Rainwater Tank 1	5,000 Litres
Irrigation area connected to tank:	
Rainwater Tank 1	200 m ²
Is connected irrigation area a water efficient garden?:	
Rainwater Tank 1	Yes
Other external water demand connected to tank?:	
Rainwater Tank 1	0.0 Litres/Day
	-

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Fixtures, fittings & connections profile

Building:	ELC Building
Showerhead:	Scope out
Bath:	Scope out
Kitchen Taps:	>= 5 Star WELS rating
Bathroom Taps:	>= 6 Star WELS rating
Dishwashers:	>= 5 Star WELS rating
WC:	>= 4 Star WELS rating
Urinals:	Scope out
Washing Machine Water Efficiency:	Occupant to Install
Which non-potable water source is the dwelling/space connected to?:	236184
Non-potable water source connected to Toilets:	Yes

Non-potable water source connected to Laundry (washing machine):		No
Non-potable water source connected to Hot Water System:		No
1.1 Potable Water Use		55% ✔ Achieved
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.	
Output	Reference	
Project	1478 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	1197 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	936 kL	
Output	% Reduction in Potable Water Consumption	
Project	36 %	
Output	% of connected demand met by rainwater	
Project	69 %	
Output	How often does the tank overflow?	
Project	Very Often	
Output	Opportunity for additional rainwater connection	
Project	750 kL	
2.1 Stormwater Treatment		100% ✔ Achieved
Score Contribution	This credit contributes 60% towards the category score.	
Criteria	Has best practice stormwater management been demonstrated?	
Output	Min STORM Score	
Project	100	
Output	STORM Score	
Project	140	
3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 6.7% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	
4.1 Building Systems Water Use		N/A ✦ Scoped Out
No water cooled chillers or sprinklers		
This credit was scoped out	No water cooled chillers or sprinklers	

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


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Operational Energy Overall contribution 27.5%

		Minimum required 50%	65% ✔ Pass
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





Project profile	
Use the BESS Deem to Satisfy (DtS) method for Non-residential No spaces?:	
Are you installing any renewable energy system(s) (other than solar photovoltaic)?:	No
Energy Supply:	All-electric
Non-residential buildings profile	
Heating, Cooling & Comfort Ventilation Electricity Reference fabric and Reference services:	39,900 kWh
Heating, Cooling & Comfort Ventilation Electricity Proposed fabric and Reference services:	38,976 kWh
Heating, Cooling & Comfort Ventilation Electricity Proposed fabric and Proposed services:	32,480 kWh
Heating Wood Reference fabric and Reference services:	0.0 MJ
Heating Wood Proposed fabric and Reference services:	
Heating Wood Proposed fabric and Proposed services:	
Hot Water Electricity - Reference:	9,100 kWh
Hot Water Electricity - Proposed:	4,550 kWh
Lighting Electricity - Reference:	15,750 kWh
Lighting Electricity - Proposed:	12,600 kWh
Peak Thermal Cooling Load Reference:	53.0 kW
Peak Thermal Cooling Load Proposed:	32.0 kW
1.1 Thermal Performance Rating - Non-Residential	
18%	
Score Contribution	This credit contributes 36.4% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC2022 Section J)?
Output	Total Improvement
Other building	2 %

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2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contributes 9.1% towards the category score.	
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?	
Output	Reference Building with Reference Services (BCA only)	
Other building	38,710 kg CO2	
Output	Proposed Building with Proposed Services (Actual Building)	
Other building	29,254 kg CO2	
Output	% Reduction in GHG Emissions	
Other building	24 %	
2.2 Peak Demand		100%
Score Contribution	This credit contributes 4.5% towards the category score.	
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?	
Output	Peak Thermal Cooling Load - Baseline	
Other building	53.0 kW	
Output	Peak Thermal Cooling Load - Proposed	
Other building	32.0 kW	
Output	Peak Thermal Cooling Load - % Reduction	
Other building	39 %	
2.6 Electrification		100%
Score Contribution	This credit contributes 13.6% towards the category score.	
Criteria	What is the % reduction in annual energy consumption against the benchmark?	
Question	What is the % reduction in annual energy consumption against the benchmark?	
Project	44 %	
2.7 Energy consumption		100%
Score Contribution	This credit contributes 18.2% towards the category score.	
Criteria	What is the % reduction in annual energy consumption against the benchmark?	
Output	Reference Building with Reference Services (BCA only)	
Other building	176,400 MJ	
Output	Proposed Building with Proposed Services (Actual Building)	
Other building	133,308 MJ	
Output	% Reduction in total energy	
Other building	24 %	
3.1 Carpark Ventilation		N/A  Scoped Out
	No enclosed car park	
This credit was scoped out	No enclosed car park	
3.2 Hot Water - Non-Residential		100%

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Score Contribution	This credit contributes 4.5% towards the category score.	
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?	
Output	Reference	
Other building	32,760 MJ	
Output	Proposed	
Other building	16,380 MJ	
Output	Improvement	
Other building	50 %	
3.7 Internal Lighting - Non-Residential		100%
Score Contribution	This credit contributes 9.1% towards the category score.	
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J7D3a of the NCC 2022 Vol 1?	
Question	Criteria Achieved ?	
Other building	Yes	
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A  Scoped Out
	No cogeneration or trigeneration system in use.	
This credit was scoped out	No cogeneration or trigeneration system in use.	
4.2 Renewable Energy Systems - Solar		0%  Disabled
	No solar PV renewable energy is in use.	
This credit is disabled	No solar PV renewable energy is in use.	
4.4 Renewable Energy Systems - Other		N/A  Scoped Out
	No other (non-solar PV) renewable energy is in use.	
This credit was scoped out	No other (non-solar PV) renewable energy is in use.	

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IEQ Overall contribution 16.5%

		Minimum required 50%	57%	✔ Pass
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1.4 Daylight Access - Non-Residential		61%	✔ Achieved
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Score Contribution	This credit contributes 35.3% towards the category score.
Criteria	What % of the nominated floor area has at least 2% daylight factor?
Question	Percentage Achieved?
Other building	61 %

2.3 Ventilation - Non-Residential		34%	✔ Achieved
--	--	------------	-------------------

Score Contribution	This credit contributes 35.3% towards the category score.
Criteria	What % of the regular use areas are effectively naturally ventilated?
Question	Percentage Achieved?
Other building	63 %

Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?
Question	Percentage Achieved?
Other building	63 %

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Criteria	What percentage of regular use areas in tenancies have ceiling fans?
Question	Percentage Achieved?
Other building	100 %

3.4 Thermal comfort - Shading - Non-Residential		100%	
--	--	-------------	--

Score Contribution	This credit contributes 17.6% towards the category score.
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?
Question	Percentage Achieved?
Other building	100 %

3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
---	--	-----------	--

Score Contribution	This credit contributes 5.9% towards the category score.
Criteria	What percentage of regular use areas in tenancies have ceiling fans?
Question	Percentage Achieved?
Other building	0 %

4.1 Air Quality - Non-Residential		100%	
--	--	-------------	--

Score Contribution	This credit contributes 5.9% towards the category score.
--------------------	--

Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes
Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes
Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes

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Transport Overall contribution 9.0%

	0%
--	----

1.4 Bicycle Parking - Non-Residential 0%

Score Contribution	This credit contributes 25% towards the category score.
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Other building	No
Question	Bicycle Spaces Provided ?
Other building	-

1.5 Bicycle Parking - Non-Residential Visitor 0%

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Other building	No
Question	Bicycle Spaces Provided ?
Other building	-

1.6 End of Trip Facilities - Non-Residential 0% Disabled

Credit 1.4 must be complete first.	
This credit is disabled	Credit 1.4 must be complete first.

2.1 Electric Vehicle Infrastructure 0%

Score Contribution	This credit contributes 25% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	No

2.2 Car Share Scheme 0%

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No

2.3 Motorbikes / Mopeds 0%

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

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Waste & Resource Recovery Overall contribution 5.5%

		66%
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1.1 Construction Waste - Building Re-Use		0%
---	--	----

Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?	
Question	Criteria Achieved ?	
Project	No	

2.1 Operational Waste - Food & Garden Waste		100%
--	--	------

Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	Are facilities provided for on-site management of food and garden waste?	
Question	Criteria Achieved ?	
Project	Yes	

2.2 Operational Waste - Convenience of Recycling		100%
---	--	------

Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?	
Question	Criteria Achieved ?	
Project	Yes	

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Urban Ecology Overall contribution 5.5%

	50%
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1.1 Communal Spaces	100%
----------------------------	------

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Is there at least the following amount of common space measured in square meters : * 1m ² for each of the first 50 occupants * Additional 0.5m ² for each occupant between 51 and 250 * Additional 0.25m ² for each occupant above 251?
Question	Common space provided
Other building	111 m ²
Output	Minimum Common Space Required
Other building	48 m ²

2.1 Vegetation	75%
-----------------------	-----

Score Contribution	This credit contributes 50% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?
Question	Percentage Achieved ?
Project	25 %

2.2 Green Roofs	0%
------------------------	----

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	No

2.3 Green Walls and Facades	0%
------------------------------------	----

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	No

3.2 Food Production - Non-Residential	0%
--	----

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	What area of space per occupant is dedicated to food production?
Question	Food Production Area
Other building	0.0 m ²
Output	Min Food Production Area
Other building	12 m ²

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Innovation Overall contribution 9.0%

	0%
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1.1 Innovation	0%
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Score Contribution	This credit contributes 100% towards the category score.
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?

Disclaimer

The Built Environment Sustainability Scorecard (BESS) has been provided for the purpose of information and communication. While we make every effort to ensure that material is accurate and up to date (except where denoted as 'archival'), this material does in no way constitute the provision of professional or specific advice. You should seek appropriate, independent, professional advice before acting on any of the areas covered by BESS.

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BESS Report

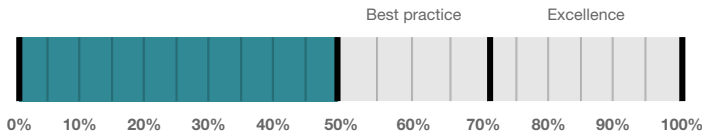
Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at 104-108 Reema Blvd Endeavour Hills Victoria 3802. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Casey City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score



50%

Project details

Name	Maranatha Catholic School - Block D Extension
Address	104-108 Reema Blvd Endeavour Hills Victoria 3802
Project ID	98273B60-F2
BESS Version	BESS-9
Site type	Non-residential development
Account	patrick@ewenvironment.com.au
Application no.	
Site area	4,000 m ²
Building floor area	392 m ²
Date	06 March 2026
Software version	2.3.0-B.647

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Performance by category

● This project ● Maximum available

Category	Weight	Score	Pass
Management	5%	57%	●
Integrated Water Management	23%	83%	✓
Operational Energy	28%	50%	✓
Indoor Environment Quality	17%	51%	✓
Transport	9%	0%	●
Waste & Resource Recovery	6%	66%	●
Urban Ecology	6%	50%	●
Innovation	9%	0%	●

Buildings

Name	Height	Footprint	% of total footprint
Block D - Additions	1	392 m ²	100%

Dwellings & Non Res Spaces

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Other building				
Non-Residential Space 1	1	392 m ²	Block D - Additions	100%
Total	1	392 m²	100%	

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Supporting Evidence

Shown on Floor Plans

Credit	Requirement	Response	Status
Management 3.3	Annotation: Sub-meters to be provided to all meter common area services (list each)	To be printed Refer to SDA	✓
Integrated Water Management 2.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)	To be printed Refer to SDA	✓
Integrated Water Management 3.1	Annotation: Water Efficient Use Details	To be printed Refer to SDA	✓
Waste & Resource Recovery 2.1	Location of food and garden waste facilities	To be printed Refer to Architectural Plans / Site Plans	✓
Waste & Resource Recovery 2.2	Location of recycling facilities	To be printed Refer to Architectural Plans / Site Plans	✓
Urban Ecology 1.1	Location and size of communal spaces	To be printed Refer to Architectural Plans / Site Plans	✓
Urban Ecology 2.1	Location and size of vegetated areas	To be printed Refer to Architectural Plans / Site Plans	✓

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Supporting Documentation

Credit	Requirement	Response	Status
Management 2.3a	Section J glazing assessment	To be printed Refer to SDA Refer to SDA	✓
Management 2.3b	Preliminary modelling report	To be printed Refer to SDA Refer to SDA	✓
Integrated Water Management 2.1	STORM report or MUSIC model	To be printed Refer to SDA Refer to SDA	✓

Credit	Requirement	Response	Status
Operational Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	To be printed Refer to SDA Refer to SDA	✓
Operational Energy 3.7	Average lighting power density and lighting type(s) to be used	To be printed Refer to SDA Refer to SDA	✓
Indoor Environment Quality 1.4	A short report detailing assumptions used and results achieved.	To be printed Refer to SDA Refer to SDA	✓

Credit summary

Management Overall contribution 4.5%

		57%
1.1 Pre-Application Meeting		0%
2.3 Thermal Performance Modelling - Non-Residential		100%
3.2 Metering - Non-Residential		N/A ✦ Scoped Out
		Not applicable to school building
3.3 Metering - Common Areas		100%
4.1 Building Users Guide		100%

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IWM Overall contribution 22.5%

		83%	✓ Pass
1.1 Potable Water Use		49%	✓ Achieved
2.1 Stormwater Treatment		100%	✓ Achieved
3.1 Water Efficient Landscaping		100%	
4.1 Building Systems Water Use		N/A	✦ Scoped Out
		No water cooled chillers or sprinklers	

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Operational Energy Overall contribution 27.5%

		Minimum required 50%	50%	✓ Pass
1.1 Thermal Performance Rating - Non-Residential			26%	
2.1 Greenhouse Gas Emissions			100%	
2.2 Peak Demand			100%	
2.6 Electrification			0%	⊗ Disabled
Credit is available when the energy supply is set to all-electric (no gas or wood).				
2.7 Energy consumption			100%	
3.1 Carpark Ventilation			N/A	⚡ Scoped Out
No enclosed car park				
3.2 Hot Water - Non-Residential			0%	
3.7 Internal Lighting - Non-Residential			100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)			N/A	⚡ Scoped Out
No cogeneration or trigeneration system in use.				
4.2 Renewable Energy Systems - Solar			0%	⊗ Disabled
No solar PV renewable energy is in use.				
4.4 Renewable Energy Systems - Other			N/A	⚡ Scoped Out
No other (non-solar PV) renewable energy is in use.				

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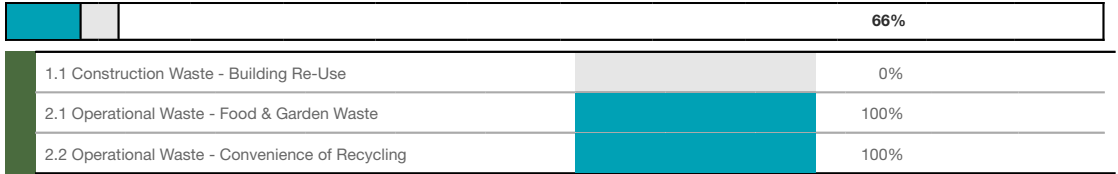
IEQ Overall contribution 16.5%

		Minimum required 50%	51%	✓ Pass
1.4 Daylight Access - Non-Residential			91%	✓ Achieved
2.3 Ventilation - Non-Residential			37%	✓ Achieved
3.4 Thermal comfort - Shading - Non-Residential			0%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential			0%	
4.1 Air Quality - Non-Residential			100%	

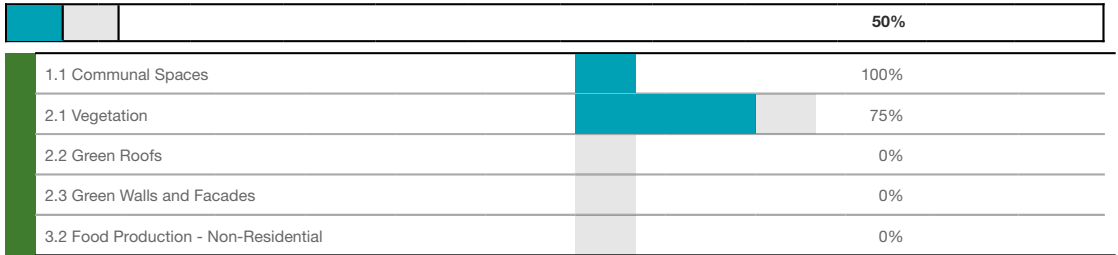
Transport Overall contribution 9.0%

		0%	
1.4 Bicycle Parking - Non-Residential		0%	
1.5 Bicycle Parking - Non-Residential Visitor		0%	
1.6 End of Trip Facilities - Non-Residential		0%	⊗ Disabled
Credit 1.4 must be complete first.			
2.1 Electric Vehicle Infrastructure		0%	
2.2 Car Share Scheme		0%	
2.3 Motorbikes / Mopeds		0%	

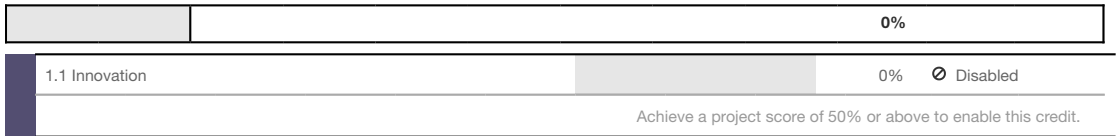
Waste & Resource Recovery Overall contribution 5.5%



Urban Ecology Overall contribution 5.5%



Innovation Overall contribution 9.0%



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Credit breakdown

Management Overall contribution 4.5%

	57%
--	-----

1.1 Pre-Application Meeting	0%
------------------------------------	----

Score Contribution	This credit contributes 42.9% towards the category score.
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?
Question	Criteria Achieved ?
Project	No

2.3 Thermal Performance Modelling - Non-Residential	100%
--	------

Score Contribution	This credit contributes 28.6% towards the category score.
--------------------	---

Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2022 Section J4D6?
Question	Criteria Achieved ?
Other building	Yes

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Criteria	Has a preliminary facade assessment been undertaken in accordance with either NCC2022 Section J4D6 or NCC2019 Section J4D6?
Question	Criteria Achieved ?
Other building	Yes

3.2 Metering - Non-Residential	N/A ✦ Scoped Out
---------------------------------------	--

This credit was scoped out	Not applicable to school building
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3.3 Metering - Common Areas	100%
------------------------------------	------

Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Have all major common area services been separately submetered?
Question	Criteria Achieved ?
Other building	Yes

4.1 Building Users Guide	100%
---------------------------------	------

Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Will a building users guide be produced and issued to occupants?
Question	Criteria Achieved ?
Project	Yes

IWM Overall contribution 22.5%

		83% ✔ Pass
--	--	---

Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No

Stormwater profile	
Which stormwater modelling software are you using?:	Melbourne Water STORM tool
STORM score achieved:	140
Flow:	-
Total Suspended Solids:	-
Total Phosphorus:	-
Total Nitrogen:	-



Fixtures, fittings & connections profile	
Building:	Block D - Additions
Showerhead:	Scope out
Bath:	Scope out
Kitchen Taps:	>= 5 Star WELS rating
Bathroom Taps:	>= 6 Star WELS rating
Dishwashers:	Scope out
WC:	>= 4 Star WELS rating
Urinals:	Scope out
Washing Machine Water Efficiency:	Scope out
Non-potable water source connected to Toilets:	No
Non-potable water source connected to Laundry (washing machine):	No
Non-potable water source connected to Hot Water System:	No

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1.1 Potable Water Use		49% ✔ Achieved
------------------------------	--	---

Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.	
Output	Reference	
Project	336 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	228 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	228 kL	
Output	% Reduction in Potable Water Consumption	
Project	32 %	

2.1 Stormwater Treatment		100% ✔ Achieved
---------------------------------	--	--

Score Contribution	This credit contributes 60% towards the category score.	
Criteria	Has best practice stormwater management been demonstrated?	
Output	Min STORM Score	
Project	100	
Output	STORM Score	
Project	140	
3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 6.7% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	
4.1 Building Systems Water Use		N/A ✦ Scoped Out
	No water cooled chillers or sprinklers	
This credit was scoped out	No water cooled chillers or sprinklers	

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Operational Energy Overall contribution 27.5%

		Minimum required 50%	50% ✔ Pass
--	--	----------------------	---

Project profile	
Use the BESS Deem to Satisfy (DtS) method for Non-residential No spaces?:	
Are you installing any renewable energy system(s) (other than solar photovoltaic)?:	No
Energy Supply:	Electricity & Natural Gas
Are you installing a cogeneration or trigeneration system?:	No
Non-residential buildings profile	
Heating, Cooling & Comfort Ventilation Electricity Reference fabric and Reference services:	22,120 kWh
Heating, Cooling & Comfort Ventilation Electricity Proposed fabric and Reference services:	20,888 kWh
Heating, Cooling & Comfort Ventilation Electricity Proposed fabric and Proposed services:	17,360 kWh
Heating - Gas - Reference fabric and services:	0.0 MJ
Heating - Gas - Proposed fabric and Reference services:	0.0 MJ
Heating Gas Proposed fabric & Proposed services:	0.0 MJ
Heating Wood Reference fabric and Reference services:	0.0 MJ
Heating Wood Proposed fabric and Reference services:	0.0 MJ
Heating Wood Proposed fabric and Proposed services:	0.0 MJ
Hot Water Electricity - Reference:	0.0 kWh
Hot Water Electricity - Proposed:	0.0 kWh
Hot Water Gas - Reference:	0.0 MJ
Hot Water Gas - Proposed:	0.0 MJ
Lighting Electricity - Reference:	8,440 kWh
Lighting Electricity - Proposed:	6,400 kWh

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Peak Thermal Cooling Load Reference:	27.5 kW	
Peak Thermal Cooling Load Proposed:	18.7 kW	
1.1 Thermal Performance Rating - Non-Residential		26%
Score Contribution	This credit contributes 36.4% towards the category score.	
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC2022 Section J)?	
Output	Total Improvement	
Other building	5 %	
2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contributes 9.1% towards the category score.	
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?	
Output	Reference Building with Reference Services (BCA only)	
Other building	17,475 kg CO2	
Output	Proposed Building with Proposed Services (Actual Building)	
Other building	13,714 kg CO2	
Output	% Reduction in GHG Emissions	
Other building	32 %	
2.2 Peak Demand		100%
Score Contribution	This credit contributes 4.5% towards the category score.	
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?	
Output	Peak Thermal Cooling Load - Baseline	
Other building	27.5 kW	
Output	Peak Thermal Cooling Load - Proposed	
Other building	18.7 kW	
Output	Peak Thermal Cooling Load - % Reduction	
Other building	32 %	
2.6 Electrification		0% <input checked="" type="checkbox"/> Disabled
Credit is available when the energy supply is set to all-electric (no gas or wood).		
This credit is disabled	Credit is available when the energy supply is set to all-electric (no gas or wood).	
2.7 Energy consumption		100%
Score Contribution	This credit contributes 18.2% towards the category score.	
Criteria	What is the % reduction in annual energy consumption against the benchmark?	
Output	Reference Building with Reference Services (BCA only)	
Other building	79,632 MJ	
Output	Proposed Building with Proposed Services (Actual Building)	
Other building	62,496 MJ	
Output	% Reduction in total energy	
Other building	21 %	

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3.1 Carpark Ventilation		N/A	✦ Scoped Out
No enclosed car park			
This credit was scoped out	No enclosed car park		
3.2 Hot Water - Non-Residential		0%	
Score Contribution	This credit contributes 4.5% towards the category score.		
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?		
3.7 Internal Lighting - Non-Residential		100%	
Score Contribution	This credit contributes 9.1% towards the category score.		
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J7D3a of the NCC 2022 Vol 1?		
Question	Criteria Achieved ?		
Other building	Yes		
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	✦ Scoped Out
No cogeneration or trigeneration system in use.			
This credit was scoped out	No cogeneration or trigeneration system in use.		
4.2 Renewable Energy Systems - Solar		0%	⊘ Disabled
No solar PV renewable energy is in use.			
This credit is disabled	No solar PV renewable energy is in use.		
4.4 Renewable Energy Systems - Other		N/A	✦ Scoped Out
No other (non-solar PV) renewable energy is in use.			
This credit was scoped out	No other (non-solar PV) renewable energy is in use.		

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IEQ Overall contribution 16.5%

		Minimum required 50%	51%	✔ Pass
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1.4 Daylight Access - Non-Residential		91%	✔	Achieved
--	--	-----	---	----------

Score Contribution	This credit contributes 35.3% towards the category score.			
Criteria	What % of the nominated floor area has at least 2% daylight factor?			
Question	Percentage Achieved?			
Other building	91 %			

2.3 Ventilation - Non-Residential		37%	✔	Achieved
--	--	-----	---	----------

Score Contribution	This credit contributes 35.3% towards the category score.			
Criteria	What % of the regular use areas are effectively naturally ventilated?			
Question	Percentage Achieved?			
Other building	70 %			

Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?			
Question	Percentage Achieved?			
Other building				

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Criteria	What percentage of regular use areas are effectively naturally ventilated by systems designed to achieve, to monitor and control air quality?			
Question	Percentage Achieved?			
Other building				

3.4 Thermal comfort - Shading - Non-Residential		0%		
--	--	----	--	--

Score Contribution	This credit contributes 17.6% towards the category score.			
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?			
Question	Percentage Achieved?			
Other building	0 %			

3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%		
---	--	----	--	--

Score Contribution	This credit contributes 5.9% towards the category score.			
Criteria	What percentage of regular use areas in tenancies have ceiling fans?			
Question	Percentage Achieved?			
Other building	0 %			

4.1 Air Quality - Non-Residential		100%		
--	--	------	--	--

Score Contribution	This credit contributes 5.9% towards the category score.			
--------------------	--	--	--	--

Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes
Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes
Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes

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Transport Overall contribution 9.0%

	0%
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1.4 Bicycle Parking - Non-Residential 0%

Score Contribution	This credit contributes 25% towards the category score.
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Other building	No
Question	Bicycle Spaces Provided ?
Other building	-

1.5 Bicycle Parking - Non-Residential Visitor 0%

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Other building	No
Question	Bicycle Spaces Provided ?
Other building	-

1.6 End of Trip Facilities - Non-Residential 0% Disabled

Credit 1.4 must be complete first.	
This credit is disabled	Credit 1.4 must be complete first.

2.1 Electric Vehicle Infrastructure 0%

Score Contribution	This credit contributes 25% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	No

2.2 Car Share Scheme 0%

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No

2.3 Motorbikes / Mopeds 0%

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

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Waste & Resource Recovery Overall contribution 5.5%

		66%
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1.1 Construction Waste - Building Re-Use		0%
---	--	----

Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No

2.1 Operational Waste - Food & Garden Waste		100%
--	--	------

Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	Yes

2.2 Operational Waste - Convenience of Recycling		100%
---	--	------

Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

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Urban Ecology Overall contribution 5.5%

	50%
--	-----

1.1 Communal Spaces	100%
----------------------------	------

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Is there at least the following amount of common space measured in square meters : * 1m ² for each of the first 50 occupants * Additional 0.5m ² for each occupant between 51 and 250 * Additional 0.25m ² for each occupant above 251?
Question	Common space provided
Other building	111 m ²
Output	Minimum Common Space Required
Other building	19 m ²

2.1 Vegetation	75%
-----------------------	-----

Score Contribution	This credit contributes 50% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?
Question	Percentage Achieved ?
Project	25 %

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2.2 Green Roofs	0%
------------------------	----

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	No

2.3 Green Walls and Facades	0%
------------------------------------	----

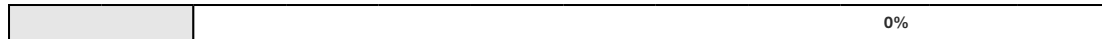
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	No

3.2 Food Production - Non-Residential	0%
--	----

Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	What area of space per occupant is dedicated to food production?
Question	Food Production Area
Other building	0.0 m ²
Output	Min Food Production Area
Other building	5 m ²

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Innovation Overall contribution 9.0%



1.1 Innovation 0% Disabled

Achieve a project score of 50% or above to enable this credit.

This credit is disabled Achieve a project score of 50% or above to enable this credit.

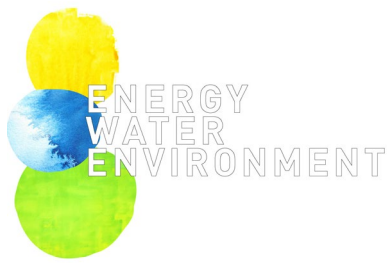
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Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School – New ELC and Block D Extension
Document Title: Sustainability Management Plan V2

B.2 STORM (Blue Factor) Report

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Maranatha CS New ELC and Block D V2



The proposed stormwater treatments provide 'deemed to comply' compliance with the minimum planning requirement for total nitrogen but does not comply with all the relevant objectives for management of stormwater flows on-site.

Project details

Name	Maranatha CS New ELC and Block D V2
Project ID	637B4F83
Street address	104-108 Reema Blvd, Endeavour Hills VIC 3802, Australia
Municipality	Casey (North of Monash Freeway)
Site area	4000 sqm
Planning Number	

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Flow and pollutant load reductions

Item	Result	Target	
Mean annual runoff volume harvested or stored in tanks (%)	12%	>23%	✗
Mean annual runoff volume infiltrated or filtered (%)	0%	>13%	✗
Total suspended solids (%)	81%	>80%	✓
Total phosphorus (%)	51%	>45%	✓
Total nitrogen (%)	63%	>45%	✓
Total gross pollutants (%)	90%	>70%	✓

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Configuration 1



Roof Rainwater Harvesting 500m²



Rainwater Tank 1

Rainwater tank retention volume in kilolitres: 5

Configuration 2



Hard Surface Paved, 1800m²



Roof No Rainwater Harvesting 500m²



Raingarden 1 Area: 20m² Extending detention depth: 0.3 m
Submerged zone depth: 0.3 m. Site soil type: Lined

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Catchments



Hard Surface Paved, 1800m²



Roof Rainwater Harvesting 500m²



Soft Landscape Pervious (garden and lawn), 1200m²



Roof No Rainwater Harvesting 500m²

Treatments



Raingarden 1 Area: 20 m²,
Extended detention depth: 0.3 m,
Submerged zone depth: 0.3 m, Site soil type: Lined

140%



Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 5

139%

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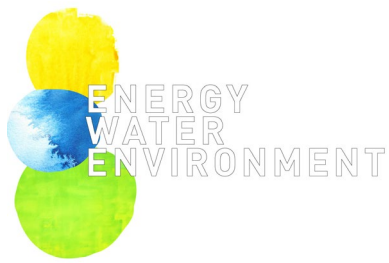


Building 1 Non-Residential BCA Class 5 - Commercial/Office,
200 employee(s)

Water sources	I want to calculate my water use based on fixtures and fittings
Basin taps - Primary water source	Mains water
Basin taps - Efficiency	6 star WELS rating
Showers - Primary water source	Mains water
Showers - Efficiency	Scope out
Clothes Washer - Primary water source	Mains water
Clothes Washer - Efficiency	Scope out
Urinal - Primary water source	Mains water
Urinal - Efficiency	No urinals
Toilets connected to mains water	2
Toilets connected to rainwater	2
Toilets connected to recycled water	0
Toilets efficiency	4 star WELS rating
Garden water use	Other water demands are not in use

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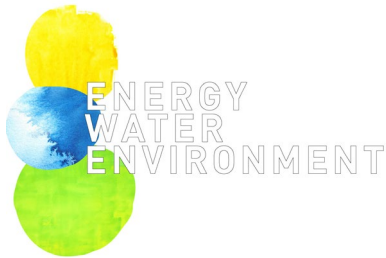
Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School – New ELC and Block D Extension
Document Title: Sustainability Management Plan V2

Appendix C – Green Travel Plan

The full BESS assess Refer to the overleaf for the Green Travel Plan.

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Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School
Document Title: Green Travel Plan V2

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MARANATHA CHRISTIAN GREEN TRAVEL PLAN V6

PREPARED BY PATRICK PHELAN FROM ENERGY WATER AND ENVIRONMENT
CONSULTING 6/3/2026

1) Introduction

The Green Travel Plan (GTP) is intended for the proposed building works and wider site at Maranatha Cristian School as part of the New ELC and Block D Extension Works.

The Plan is proposed to be part of the Planning Permit. Once submitted and approved to the satisfaction of the Responsibility Authority, the Green Travel Plan will form part of the endorsed plans.

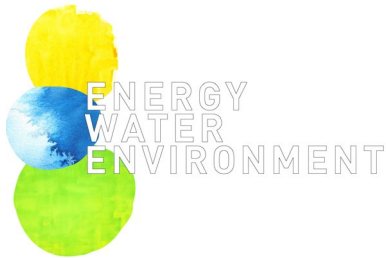
2) Site Context

Maranatha Christian School is located at 104-108 Reema Blvd, Endeavour Hills VIC 3802. The nearest major intersection is Hallam N Road and Heatherston Road. The school has existing car parking and bike parking. No further car parking or bike parking will be provided as part of the new works.

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Site plan of school and car parking.



Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School
Document Title: Green Travel Plan V2

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Public transport opportunities are limited for the site as the nearest public transport bus station is approximately 1km away. This does not take into account school buses connected with the school.

The nearest train station is Dandenong train station which is approximately 9km from the school.

3) Aims and Objectives

The underlying objective of this Travel Plan is to reduce carbon emissions from travel and traffic congestion, to improve staff health, well-being and travel independence through sustainable travel options such as walking, cycling, public transport and car-pooling.

The chief objective of the Green Travel Plan is to provide details of the design initiatives and sustainable management practices for encouraging and enabling occupants to reduce dependence on car usage. More specifically it will:

- Identify measurable and realistic annual targets for reducing dependency on car usage (against the baseline)
- Facilitate a strong commitment to the GTP by the design team and The School by identifying a list of actions and key responsibilities for design, construction and post-handover stage
- Provide information on the education and awareness programs available to empower occupants to change their travel habits
- Outline a monitoring plan to measure the success and uptake of the Plan

4) Targets

- Achieve 10% reduction on repetitive single occupancy car journeys (e.g. staff car pooling) by 2028
- Achieve 20% increase (compared to the baseline) in sustainable travel uptake by occupants by 2028

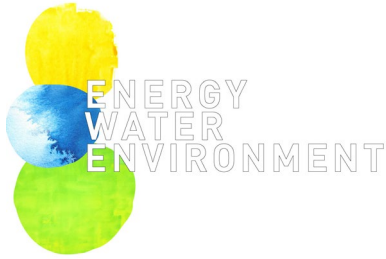
5) Actions and Chart of Responsibilities

A list of design/management actions have been listed below to support alternative Sustainable Travel:

a. Undertake Survey of occupant travel habits

An access audit should be undertaken to provide the following information, which will form the basis for a consolidated Green Travel Plan:

- A brief description of the survey process



Date: 6/3/2026
 Project Number: PJ766
 Project Title: Maranatha Christian School
 Document Title: Green Travel Plan V2

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- Define a baseline for the proposed buildings
- Outline the key findings – e.g. commute trips for each transport mode (public transport, cyclic paths, walking, car-pool), most common reasons for travel choices
- Outline a list of barriers and opportunities for sustainable travel
- Provide a graph or chart of the key results

b. Undertake Accessibility assessment

The School will undertake an Accessibility Assessment to see how accessible the proposed buildings is for all different modes of transport. This will inform the formulation of actions for every design stage. It will include the following:

- Site accessibility for pedestrians and cyclists
- Cycle access
- Public Transport Accessibility
- Access to bus/train services including shuttle buses
- Bus stop facilities

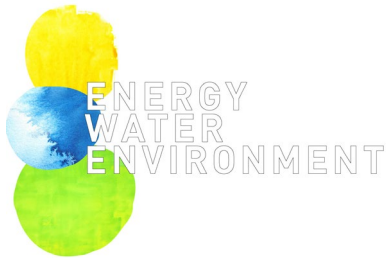
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c. Actions for encouraging and enabling walking as a travel option

Action	Timeline	By whom
Produce a map showing safe walking routes to and from the site with times, not distances, to local facilities, such as shops and bus stops (e.g. Walkscore)	Design and Handover	School
Open-up short cuts for pedestrian access across/along the proposed work site	Design	Architect
Negotiate with your local council for improvements to footpaths	Design	Architect, School
Ensure pedestrian safety and access is not compromised during construction or by cross sections	Design	Lead Contractor

d. Actions for encouraging and enabling cycling as a travel option

Action	Timeline	By whom
Provide sufficient number of secure bicycle parking spaces, which is easily accessible, well lit and secure.	Ongoing	School



Date: 6/3/2026
 Project Number: PJ766
 Project Title: Maranatha Christian School
 Document Title: Green Travel Plan V2

Ensure bike parking is easily accessible and clearly visible or provide signage to direct people to bike parking spaces.	Ongoing	School
Review condition and interconnection opportunities of existing onsite cycle routes	Ongoing	School
Upgrade or provide new onsite cycle routes	Ongoing	School
Ensure cycle routes are not compromised during construction or by cross sections	Construction	Lead Contractor

e. Actions for encouraging and enabling public transport as a travel option

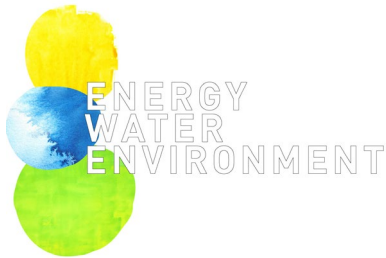
Action	Timeline	By whom
A map showing public transport routes to the site	Post Handover	School

f. Actions for encouraging and enabling car pooling as a travel option

Action	Timeline	By whom
Allocate priority parking spaces for car poolers	Ongoing	School

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Date: 6/3/2026
 Project Number: PJ766
 Project Title: Maranatha Christian School
 Document Title: Green Travel Plan V2

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g. Actions for proper designation of car parking

Action	Timeline	By whom
Identify priority users of car park e.g. people with disabilities	Ongoing	School
Provide spaces for car-share	Ongoing	School
Provide spaces for mopeds/motorbikes	Ongoing	School
Consider provision of electric vehicle charging	Ongoing	School

h. Management practices identifying sustainable transport initiatives

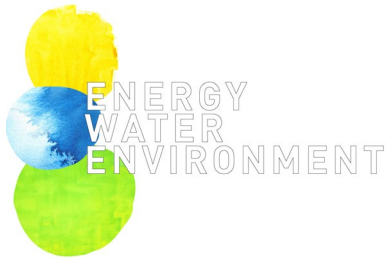
Action	Timeline	By whom
<p>- Commitment to conducting an Access survey to set baseline and gain insights about the travel habits of the occupants</p> <p>- Commitment to implementing the Green Travel Plan</p> <p>- Commitment to ongoing Monitoring & Reporting</p> <p>Conduct user surveys and keep records of the success/uptake of other initiatives</p> <p>- Commitment to appoint a travel coordinator (see below for his/her roles and responsibilities)</p> <p>- Commitment to keep the education and awareness program fresh and entertaining (see below for details)</p>	<p>Post-handover</p>	School

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6) Details of Education and Awareness Program

A program of information and awareness will be developed to facilitate, support and empower occupants to change their travel habits. This may include the following:

- Creating a central portal for
 - Online maps of walking paths, cycle routes and cycle parking spots
 - Tracking of targets
 - A list of facilities and design features in place that support the uptake of alternative travel plans
 - A system to allow 'buddying-up' for cycling, car-pooling and walking
 - A system to access similar programs and activities in other residential communities also



Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School
Document Title: Green Travel Plan V2

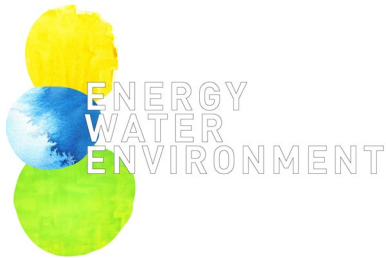
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- A system to share experiences and allow interaction between occupants on Sustainable Travel options
 - Provide links to informative websites, information about local community groups and programs and annual events etc.
 - Allow a bike-buddy or walk-buddy scheme to encourage uptake of cycling or walking – supported by an online system to access and connect with the buddies. This should also be supported by online information for the new starters on the routes, gears and activities.
 - Appoint a Travel Coordinator who will be the first contact point for all the above information. The roles and responsibilities of a travel coordinator may include the following:
 - Responsible for developing annual or bi-annual event for the occupants e.g. 'Bike Week or Carpool Week or Walking Challenge' to raise awareness and promote the benefits of cycling and walking amongst occupants who are beginning and returning to walking or cycling, or thinking about Car-pooling.
 - Arrange group discounts on travel cards.
 - Take responsibility to display boards on screens in prominent locations to show public transport maps and timetables.
 - Establish and manage User groups e.g. Occupants Bicycle Users Group (BUG)
 - Supply and manage a building toolkit - this can consist of puncture repair equipment, a bike pump, a spare lock and lights
 - Participate in annual events such as 'Ride to Work Day'
 - Set up and manage databases and portals e.g. car pooling database

7) Monitoring & Reporting Plan

Monitoring is an essential part of the Green Travel Plan and should be done annually in a consistent way to collect same data on a regular basis. Progress will be assessed against the targets and will be reported and analysed in a consistent way. If required, the plan or the targets will be updated and adjusted and a new set of actions will be identified to achieve the targets or to go beyond them.

A written report will be provided at the end of each Monitoring and Reporting process.



Date: 6/3/2026
Project Number: PJ766
Project Title: Maranatha Christian School
Document Title: Green Travel Plan V2

Responsibility for the Monitoring and Reporting will lie with the School. It is likely to be the responsibility of the appointed Travel Coordinator who may be supported by external third party for surveys or audits.

The following method/tools will be used to monitor the Travel Plan:

- Annual questionnaires for the occupants
- Random on-site vehicle counts during the work-hours
- Regular Accessibility assessment every two years to assess how accessible the proposed buildings is for all different modes of transport

- The monitoring report will include the following:
 - Details of progress made since the submission of the last annual report and any other changes that are significant to the Plan.
 - An assessment of travel questionnaire results and any other monitoring such as vehicle counts.
 - An assessment of how the targets are being met
 - A list of remedial measures to meet the target in the next round
 - Any revisions to the Travel Plan (e.g. new list of actions)

8) Useful Links and Resources

Bicycle Network

<https://www.bicyclenetwork.com.au>

Public Transport Victoria

<http://ptv.vic.gov.au>

TravelSmart

<http://www.travelsmart.gov.au>

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