Traffix Group

Waste Management Plan

Proposed Secondary School Use and Year 9 Specialist Building Development

Emmaus College St Timothy's Campus, Vermont

Prepared for
Roam Architects

October 2024

G35663R-02B (WMP)

Level 28, 459 Collins St
Melbourne Victoria 3000

Office 38, L4/60 Moorabool St
GEELONG VIC 3220

Traffix Group Pty Ltd
ABN: 32 100 481 570

T: 03 9822 2888
traffixgroup.com.au

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A	Draft	5/11/24	M. Jora	B. Chisholm
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1. Introduction

Traffix Group has been engaged by Roam Architects to prepare a Waste Management Plan for the Proposed Secondary School Use and Year 9 Specialist Building Development at Emmaus College St Timothy's Campus, Vermont.

This Waste Management Plan is intended to act as a guideline for the proposed secondary school and may be subject to the ongoing updates, post-development.

2. Existing Waste Operations

The overall site, addressed as 17-23 Stevens Road, Vermont, accommodates an existing primary school, Catholic Church and child care centre (Vermont Children's Centre). The church and child care centre have separate existing waste collection arrangements and are excluded in this Waste Management Plan.

St Timothy's Primary School provides for students from Prep to Year 6. St Timothy's Primary School is currently operating well below capacity with approximately 30-40 students and 10 staff, noting we understand that the school is scheduled to be closed at the end of 2024. Accordingly, its 2024 enrolment is well below its past operation.

Vehicle access to the on-site car park is provided via a dual-width crossover to Stevens Road midway along the site's western boundary. This access also connects with an asphalt basketball courts area which is currently used for waste collection.

The existing primary school has a single skip bin of 2-3m^3 in size that is located at the northeast end of the asphalt basketball courts area. Currently, waste collection is undertaken on-site by a private contractor at this location by a front-loader waste truck.

The existing waste vehicle collection arrangements are proposed to be retained following the proposed expansion.

3. Proposal

The proposal is for a change of use at the existing school to be converted from a Primary School to a Secondary School. In addition, a new two-storey building is proposed to be constructed in the southeast part of the site, to operate as a Year 9 specialist building, including Science Labs, an Art room and a Food Tech room.

The application seeks a maximum number of 300 students and 15 staff on the site at any one time. Compared to current operation of the existing primary school, this is an estimated increase of approximately 5 staff members and 260-270 students at any one time[1].

The proposed new Year 9 Specialist Building is to have a total internal floor area of 1,090m^2. The proposed building construction will involve demolition of a small existing building at its location.

The remaining existing school buildings to be retained for the proposed Secondary School have an estimated total floor area of approximately 2,600m^2.

No changes are proposed to the existing vehicle access arrangements. Furthermore, waste collection for the proposed secondary school is to occur within the asphalt basketball courts area as similar to arrangements for the current primary school.

A waste storage area is proposed at the northeast end of the asphalt basketball courts area as similar to the existing skip location. Waste collection is to be undertaken on-site adjacent to the proposed bin store by a private contractor using a waste truck up to the size of a medium rigid vehicle (MRV).

A copy of the development plans, prepared by Roam Architects (dated 8/11/2024), is attached at Appendix A.

[1] It is noted that the existing Primary School's 2024 enrolment well below the levels it has operated at in the past. We have been advised that there is no existing Planning Permit or specific limit on student enrolment or number of staff for the existing primary school.

4. Waste Management Plan

4.1. Waste Systems

The waste management systems of the proposed development comprise of the following components:

- Immediate smaller bins within the school for temporary storage of garbage and recyclable waste prior to transferring to the Mobile Garbage bins (MGB's), and
- Mobile garbage bins (MGB's) within the waste storage area located at the northeast end of the asphalt basketball courts area.
- A compost bin located in a sunny spot within the school yard for Food and Organics/Green Waste (FOGO).

The site operator retains the flexibility to adjust waste collection frequency and bin numbers based on actual waste volumes. If the actual waste volume varies the estimates, the operator shall increase/decrease the collection frequency/bins per week, as required by private waste contractor services.

4.2. Management of Waste Streams

In accordance with the Victorian Government's *Circular Economy Policy*: *Recycling Victoria*, food organics green organics (FOGO) and paper & cardboard waste have been considered separately to reduce landfill at the source.

The waste generated by the proposed development will be separated and managed into the following waste streams:

- General Garbage Waste,
- Food and Organics/Green Waste (FOGO)
- Paper & Cardboard Recycling
- Other Commingled Recycling (inc. Glass Recycling).

The proposed management of each of the streams/systems is detailed below.

Table 1: Waste Streams

Waste Type	Waste Management
Garbage	Smaller bins will be placed around the school for temporary storage of general waste (i.e., within the classrooms, communal areas). Staff will transfer the waste within tied plastic bags from smaller bins dispose of the bagged garbage directly into the Mobile garbage bins within the waste storage area provided.
Recycling	Smaller bins will be placed around the school for temporary storage of recycling waste (i.e., within the classrooms, communal areas). Staff will transfer the waste within tied plastic bags from smaller bins dispose of the bagged recycling waste directly into the Mobile garbage bins within the waste storage area provided.
FOGO	Smaller bins will be placed around the school for temporary storage of FOGO waste, including within the Food Tech classroom. Compost bins will be provided on the site. Staff will transfer the FOGO waste to the compost bins which is to be located at a sunny spot within the school yard. The contracted maintenance team will be responsible for the collection and disposal of any garden waste through coordination with private contractor as needed.
Paper & cardboard	Paper & cardboard waste by school is expected to be low and therefore it can be accommodated within the commingled recycling bin.
Glass	Glass waste by school is expected to be low and therefore it can be accommodated within the commingled recycling bin.
Hard Waste	The staff will dispose of any hard waste via a private contractor on a required basis.
Other	Staff shall dispose of any e-waste via a private contractor or can be disposed of at Whitehorse Recycling & Waste Centre (Burwood Highway and Morack Road, Vermont South) on a required basis. E-waste must not be disposed of in landfill.

4.3. Waste Generation

4.3.1. Overall Generation Rates

The development has been assessed against the waste generation rates specified under the *Better Practice Guide for Waste Management and Recycling in Multi-unit Developments* by Sustainability Victoria.

The waste generation rates of 5L/100sqm floor area/day for both general waste and recycling waste are adopted when assessing Education/training facilities.

This waste generation rate is to be applied to the proposed total building floor area of approximately 3,690m^2, including the proposed new building (1,090m^2) and existing school buildings to be retained (approximately 2,600m^2).

Furthermore, the proposed Year 9 Specialist Building is to include Food Tech practical kitchen classes which will generate additional waste compared to a typical classroom, especially Food Organics waste.

We have been provided with the information that Food Tech classes will run Tuesdays and Fridays with a maximum of six (6) up to 75-minute practical sessions per week. Each class will have a maximum number of 26 students and 1 staff member.

To estimate waste generation by the Food Tech kitchen classes, we refer to the NSW Port Macquarie Hastings Council event waste management guidelines[2] which specifies one litre of garbage waste and one litre of recycling waste will be generated per person/meal

Based on the information provided above, there will be a total of up to 156 students attend Food Tech classes each week. Assuming one meal by each student per food class session, this equates to 156L. Furthermore, we will assume at 30% of the garbage waste will comprise of FOGO.

Table 2 sets out the expected waste generation for the proposed Secondary School.

Table 2: Waste Generation Rates

Waste Source	Garbage	Recycling
Secondary School	5L/100m² floor area/day	5L/100m² floor area/day
Food Tech Classes (Inc. Kitchen)	1L waste/person/meal	1L waste/person/meal

[2] *NSW guidelines by Port Macquarie Hastings Council for events waste management plan www.pmhc.nsw.gov.au/fevents/event-waste-management-guidelines-june-2023.pdf*

An estimate of the total waste generated by the proposed development is detailed in Table 3

Table 3: Expected Waste Generation for the Proposed Use

Waste Source	Size/No.	Garbage	Recycling
Secondary School	3,690m^2	923L per week	923L per week
Food Tech Classes (Inc. Kitchen)	156 students per week	156L per week	156L per week
TOTAL WASTE GENERATED		**1,079L per week**	**1,079L per week**
Note: For the purposes of this assessment, for food tech kitchen classes, the waste has been calculated based on the maximum number of students attending the food class at any on any day i.e., 1L waste/student/meal. It is assumed that max. 2 meals will be prepared by each student within the class on any day each week.			

4.3.2. Considering Alternative Waste Streams

A number of different land uses across the site are expected to generate FOGO and paper & cardboard waste as summarised in Table 4.

Table 4: Alternative Waste Streams

Land Use	Garbage/week		Recycling/week
	General	FOGO	Commingled
School (Inc. Food and Tech classes)	70%	30%	100%

Based on the preceding assessment, the development is expected to generate the following waste volumes.

Table 5: Expected Waste Generation – Splits per Stream

Waste Source	Size/No.	Garbage/week		Recycling/week
		General	FOGO	Commingled
School (inc. Food and Tech Classes)	3,690m^2	646L	277L	923L
	156 students per week	109L	47L	156L
	SUBTOTAL	***755L***	***324L***	***1,079L***
TOTAL WASTE GENERATED		**1,079L per week**		**1,079L per week**

4.4. Waste Equipment (MGBs)

Based on the determined waste generation, Table 6 provides a summary of the nominated waste storage area provisions and the frequency of collection.

Table 6: Waste Bins and Collection Frequencies

Waste Stream	Waste Volume (L/week)	Bin Capacity	No. of Bins Required	Collection Frequency (per week)
Garbage	755 L	1,100L	1 no.	1
FOGO	324 L	2x 240L = 480L	2 no.	As required, when compost bins are full
Recycling	1,079 L	1,100L	1 no.	1

Overall, the proposed mixed-use development requires the following bins:

- 1 x 240L bin, and
- 2 x 660L bins.

Further details regarding the waste equipment required for the development are detailed in Table 7.

Table 7: Bin Details and Colours

Waste Stream	Bin Capacity	Dimensions (H x W x D) Note 1	Bin Lid Colour Note 2	Bin Body Colour Note 2
Garbage	1,100L	1,240 x 1,070 x 1,330mm	Red	Dark Green
FOGO	240L	585 x 730 x 1,060mm	Green	
Recycling	1,100L	1,240 x 1,070 x 1,330mm	Yellow	

Note 1. Bin capacity and dimensions are provided as an indicative dimension, sourced from Bin Supplier, 'Sulo'.
Note 2. Bin lid and body colours are based on the bin colour scheme set out by Sustainability Victoria.

4.4.1. Waste Area and Access

The proposed development is to provide a waste storage area located near the front of the school and carpark which will be accessed via the carpark accessway.

The waste area and access route are illustrated at Figure 1.

Figure 1: Proposed Waste Area & Truck Access Route

Table 8 details the waste area requirements based on the waste equipment proposed.

Table 8: Waste Area Requirements

Use	Waste Equipment	Bin Area[1]	Quantity	Bin Area Required	Total Bin Area Required
School	240L	0.43m^2	2	0.86m^2	>3.52m^2
	1,100L	1.33m^2	2	2.66m^2	

Note 1: Bin area required is calculated from the dimensions of the bins.

A total bin store area of 10.1m^2 is to be provided which exceeds the above. Accordingly, based on the above, sufficient space is provided for on-site waste storage within the proposed development.

4.5. Signage

Appropriate signage in accordance with Sustainability Victoria will be displayed on the bins and within the waste area, as illustrated in Figure 2.

The signage will help guide and encourage students/staff of the proposed development to dispose of waste correctly into the appropriate waste streams.

Figure 2: Waste Signage Examples

4.6. Waste Collection Arrangements and Vehicle Access

A waste storage area is proposed at the northeast end of the asphalt basketball courts area as similar to the existing skip location. Waste collection is to be undertaken on-site adjacent to the proposed bin store by a private contractor using a waste truck up to the size of a medium rigid vehicle (MRV). The waste vehicle will prop temporarily within the accessway adjacent to the bin store whilst the bins are emptied, and then exit the site in a forward direction.

Waste collection will be undertaken outside of the school operating hours including drop-off/pick-up periods to minimise disruption and ensure the asphalt basketball courts area is vacant.

Swept path diagrams demonstrating vehicle access for an 8.8m long medium rigid vehicle (MRV) to and from the site in a forward direction is attached at Appendix B.

5. Amenity Impacts

It is the responsibility of the property manager/maintenance team to carry out the ongoing maintenance of all waste areas to minimise the following amenity impacts.

5.1. Ventilation/Odour Prevention

Adequate ventilation will be provided within the bin store areas in accordance with AS1668.2 to ensure waste-related odours are minimised.

Waste areas will be frequently cleaned to prevent the retainment of odours.

5.2. Noise Reduction

The waste facilities will comply with BCA and AS2107 acoustic requirements. Private waste collection will follow Council's and EPA guidelines to ensure acoustic impact is minimised.

Collection days and times will be determined following the confirmation of a specific private waste collection contractor by the maintenance team. Waste collection times should comply with the EPA Noise Control Guidelines (Publication 1254):

- *Collections occurring once a week should be restricted to the hours 6:30am — 8pm Monday to Saturday, 9am – 8pm Sunday and public holidays*
- *Collections occurring more than once a week should be restricted to the hours 7 am —8pm Monday to Saturday, 9am – 8pm Sunday and public holidays*

5.3. Vermin Prevention & Litter Management

All bin lids will be kept closed at all the times to prevent vermin access.

Waste areas will be monitored by the property manager to ensure that bins are not overfilled and any spillage resulting from waste collection is appropriately addressed.

5.4. Washing Facilities and Stormwater Pollution

Appropriate washing facilities including water supply and hose will be provided for the regular washing of the bins by the maintenance team. Washing facility provided will be connected to the sewerage for drainage to prevent any stormwater pollution. Alternatively, an external waste bin cleaning contractor can be engaged for washing of bins and waste areas.

6. Ongoing Maintenance & Sustainability Initiatives

6.1. Maintenance Management

It is the responsibility of the maintenance team for the ongoing operation and maintenance of the waste management arrangements.

The maintenance team will ensure that maintenance work and upgrades are carried out on the waste areas and components of the waste system. When required, the maintenance team will engage an appropriate contractor to conduct maintenance services, replacements, or upgrades.

All ongoing costs are to be fully met by the owner(s) of the building.

6.2. Waste Reduction Strategies

The maintenance team will be responsible to encourage the students/staff to reduce waste disposal and recycle materials based on the waste management hierarchy set out by Sustainability Victoria.

The hierarchy is detailed at Figure 3 below.

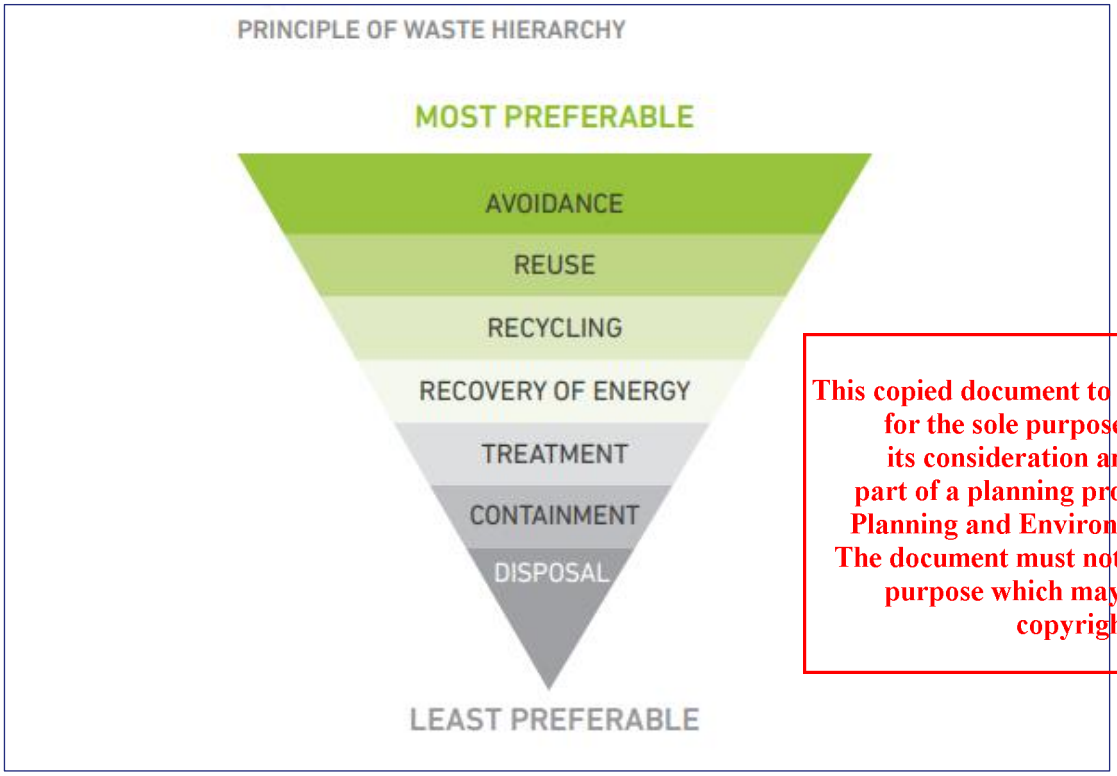


Figure 3: Sustainability Victoria's Waste Management Hierarchy

Additionally, the maintenance team can set targets and measures to reduce garbage going to landfill and increase recycling and choose to participate in Council's waste programs to promote sustainability initiatives.

6.3. Waste Management Rules

It will be the responsibility of the maintenance team to ensure all staff are provided with the relevant information and materials regarding the waste management system and sustainability strategies of the proposed development.

Relevant information will be provided at the waste areas to ensure that all users will operate and maintain safe practice when utilising the waste facilities.

6.4. Monitoring and Review

This Waste Management Plan should be monitored and reviewed on a regular basis to ensure that it meets the regulatory requirements and the expected waste generation rates outlined in Section 0. The maintenance team will be responsible for monitoring the Waste Management Plan. Where required, the maintenance team should undertake a waste audit to identify any modifications and/or improvements to the waste management system.

7. Contact Information

Table 9 provides a list of common waste collection service contractors and waste equipment suppliers. The property manager is not obligated to procure goods/services from the following suppliers and reserves the right to choose their own preferred suppliers.

Traffix Group does not make representations for the goods/services provided by the suppliers listed below.

Table 9: Supplier Contact Information

Service Type	Business Name	Phone	Website
Private Waste Collectors	Citywide Waste	03 9261 5000	www.citywide.com.au
	Cleanaway	13 13 39	www.cleanaway.com.au
	Veolia	13 29 55	www.veolia.com/anz
	JJ Richards	03 9794 5722	www.jjrichards.com.au
	Waste Wise Environmental	1300 550 408	www.wastewise.com.au
	Kartaway	1300 362 362	www.kartaway.com.au
	iDump	1300 443 867	www.idump.com.au
	Waste Ninja	1300 648 088	www.wasteninja.com.au
E-Waste Collection	TechCollect	1300 229 837	www.techcollect.com.au
Equipment Supplier	Sulo Australian (bin supplier)	03 9357 7320	www.sulo.com.au
	Mr Wheelie Bin (bin supplier)	03 9912 2850	www.mrwheeliebin.com.au
Bin Washing Services	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
	Kerbside Clean-A-Bin	03 9588 1944	www.kerbsidecleanabin.com.au

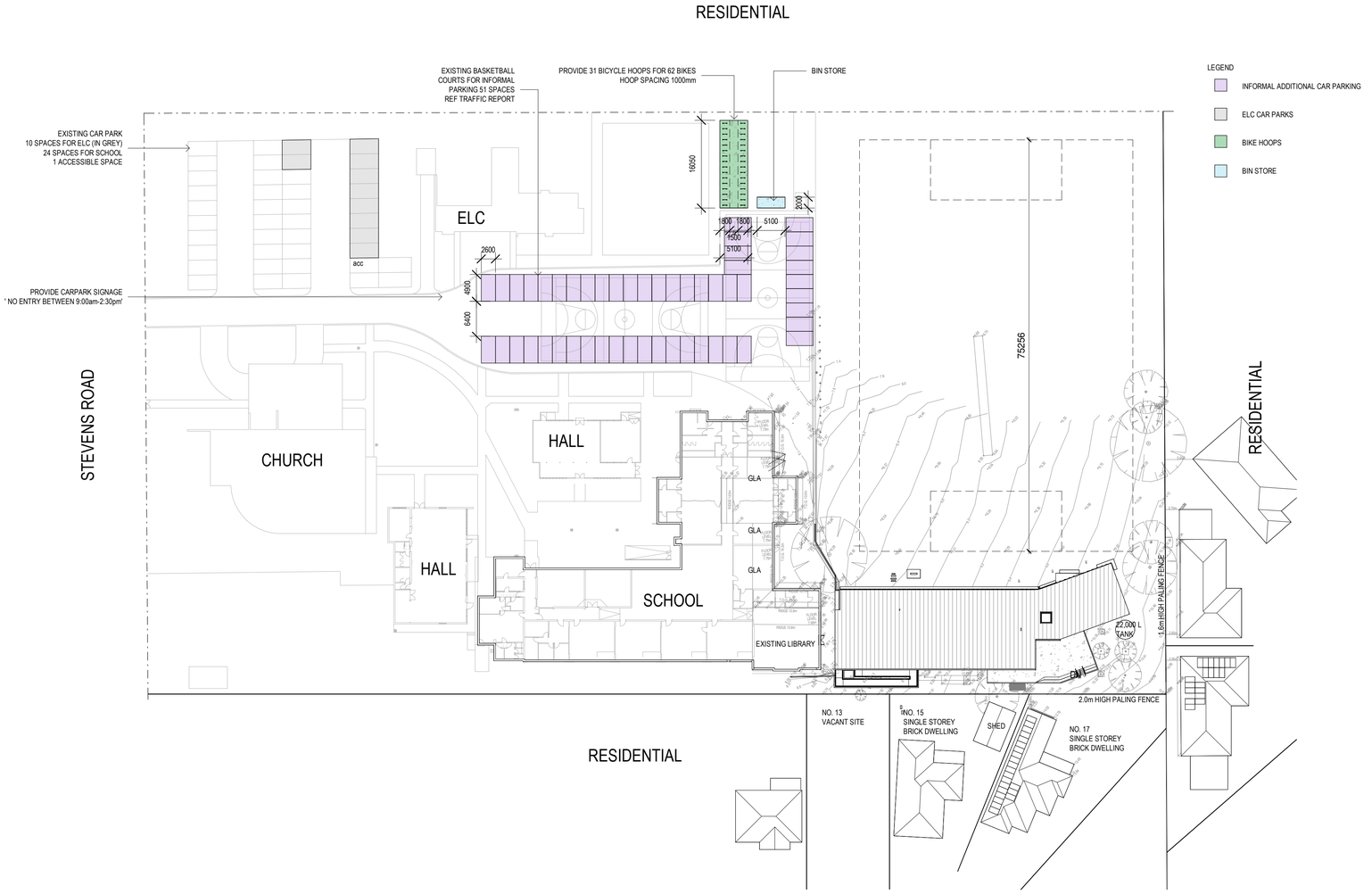
Appendix A

Development Plans

ROAM Architects
T: 03 9028 2625
www.roamarchitects.com.au

ISSUE	DATE	REVISIONS
1	25.07.2024	PRELIMINARY
2	8.08.24	CONCEPT
3	22.08.24	SD
4	11.10.2024	CONSULTANT ISSUE SD
5	23.10.2024	ESD TP ISSUE 2
6	30.10.2024	CONSULTANT ISSUE
7	31.10.2024	COST PLAN B
8	8.11.2024	CONSULTANT ISSUE 2

ADVERTISED PLAN



1 **SITE PLAN - PROPOSED**
1 : 500

CLIENT
EMMAUS COLLEGE

PROJECT TITLE
EMMAUS COLLEGE SAINT TIMOTHY'S CAMPUS

PROJECT NUMBER
ROAM 137

PROJECT NORTH

GRAPHIC SCALE

SCALE
1 : 500 AT A1 DO NOT SCALE

STATUS
SCHEMATIC DESIGN

DRAWING
PROPOSED SITE PLAN

DRAWING NUMBER	ISSUE
137-A-03	8

Appendix B

Swept Path Diagrams

ADVERTISED PLAN

ISSUE	ISSUE DESCRIPTION	DESIGNER	CHECKED/APPROVED	ISSUE DATE
A	INITIAL ISSUE	DFT	BC (RPE7582)	13/11/2024

GENERAL NOTES
1 BASE INFORMATION FROM AERIAL PHOTOGRAPH (SOURCE NEARMAP OCTOBER 2024)

DESIGNED: D. TORPEY
CHECKED/APPROVED: B. CHISHOLM
FILE NAME: G35663-01-00.dgn

Traffix Group
Level 28, 459 Collins Street
Melbourne, Victoria 3000
+61 3 9822 2888
www.traffixgroup.com.au

EMMAUS COLLEGE - ST TIMOTHYS CAMPUS
17-23 STEVENS ROAD, VERMONT
WHITEHORSE CITY COUNCIL
SWEPT PATH ASSESSMENT

SCALE 1:500 (A3) 0 2.5 5 7.5 10
SHEET No. 1/2
DWG No. G35663-01-01

DATE: 13/11/2024
MODEL: G35663-01-01
FILE: P:\Synergy\Projects\GRP3\GRP35663\03-Drawings\G35663-01-00.dgn