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# OPERATIONAL WASTE MANAGEMENT PLAN (OWMP)

## GLENWOOD HIGH SCHOOL UPGRADE SSD-23512960

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## DISCLAIMER

This report is based on information provided by Jacobs.

To that extent, this report relies on the accuracy of the information provided to the consultant. This report is not a substitute for legal advice on the relevant environmental related legislation, which applies to businesses, contractors or other bodies. Accordingly, EcCell Environmental will not be liable for any loss or damage that may arise out of this project.

## DOCUMENT CONTROL

ISSUE NUMBER	DATE	COMMENTS	AUTHOR	REVIEW
DRAFT	26/08/2021	Issue for comment	Simon Lunn	Jo Drummond
DRAFT 211027	27/10/2021	Issue for comment	Simon Lunn	Jo Drummond
VERSION 1	14/11/2021	Final Issue	Simon Lunn	Jo Drummond
VERSION 2	1/11/2022	Section 3.3 updated Greenstar rating tool reference	Simon Lunn	Jo Drummond

## 1 INTRODUCTION

This Operational Waste Management Plan (OWMP) accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of a State Significant Development Application (SSD - 23512960).

The development is for upgrading works comprising alterations and additions to Glenwood High School at 85 Forman Avenue, Glenwood. The site is legally described as Lot 5227 DP 868693.

The site is roughly rectangular in shape, with a total area of 60,790m<sup>2</sup> and street frontages to Forman Avenue to the south and Glenwood Drive to the east. Glenwood Reserve adjoins the northern and western boundaries of the school.

This report addresses the relevant Secretary's Environmental Assessment Requirements (SEARs), specifically:

Table 1 - SEARs 17. Waste

SEARs Requirement	Response
Identify, quantify and classify the likely waste streams to be generated during operation.	Table 3 & 7
Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	Section 4 & 8
Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.	Section 7 & Appendix A
Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered.	Refer to construction waste management plan

### 1.1 THE PROPOSAL

The proposed development seeks to upgrade Glenwood High School. The upgrade consists of the following alterations and additions:

- Construction of a new three-storey building at the north-eastern portion of the site facing Glenwood Park Drive which will accommodate new learning spaces;
- Construction of one storey performance pavilion;
- Refurbishment of existing Building Block A (ground floor only) to provide one new support unit within the space of an existing general learning space;
- Refurbishment of Building Block D (ground floor only) to provide an additional office space and storeroom;
- Refurbishment of Building Block E to re-purpose it on the ground floor for computer learning spaces, staff and administration spaces as well as upgrades to the library on the first floor;
- Refurbishment of Building Block J to re-purpose it from visual arts and performing arts to learning spaces and workshops for food tech and woods/metal unit;

- Demolition of existing botany room and construction of a new single storey pavilion comprising of interview rooms and end-of trip facilities; and
- The proposed development will also involve ancillary works at the site associated with the proposed upgrades.

## 2 PURPOSE OF THIS REPORT

This purpose of this OWMP is to:

- Detail the type and quantity of waste to be generated during operation of the development;
- Advise the appropriate waste storage, source separation and collection facilities to maximise recovery of recyclables;
- Ensure waste management facilities are:
  - safely and easily accessible to occupants and service providers; and
  - appropriately sized for storage of the expected waste.
- Describe the handling, storage and disposal of all waste streams generated on site;
- Discourage illegal dumping and prevent large quantities of waste piling up by describing appropriate onsite storage and removal services; and
- Help facilitate landfill diversion targets of 75% of all waste generated as per the requirements of *NSW Waste Resource and Recovery Act 2014*, with scope to reach an aspirational target of 85% in anticipation of future mandatory targets as indicated in the *Cleaning Up Our Act: The Future for Waste and Resource Recovery in NSW. Issues Paper 2020. Net Zero*.

## 3 LEGISLATIVE REQUIREMENTS AND GUIDELINES

### 3.1 LEGISLATION AND REGULATIONS

Guidance documents and policies considered in the preparation of this OWMP are included below:

- NSW Environment Protection Authority (EPA) Waste Classification Guidelines 2014;
- NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012;
- NSW EPA's Waste Avoidance and Resource Recovery (WARR) Strategy 2014-21;
- Green Building Council of Australia (GBCA) Green Star Buildings Credit Criteria;
- Secretary's Environmental Assessment Requirements (SEARs) dated, 20 July 2021;
- Educational Facilities Standards & Guidelines (EFSG) NSW Updated Nov. 2020; and

- Blacktown Development Control Plan 2015 (DCP, 2015) - Part G Site Waste Management and Minimisation.

### 3.2 EDUCATIONAL FACILITIES STANDARDS AND GUIDELINES (EFSG)

The EFSG section DG02 Ecologically Sustainable Development 2.7.2 Operational Waste requires new and refurbished schools to establish operational waste targets. The minimum targets adopted for the operation of waste for this school reflects those from NSW Waste and Resource Recovery Strategy 2014-21, released in December 2014 which are to:

1. increase recycling rates to 70% for municipal solid waste; and
2. increase total waste diverted from landfill to 75%.

By setting realistic achievable goals and performance targets, the OWMP is more likely to succeed, and the school is able to report on waste diversion and reduction targets in line with the Department of Education's waste contract to comply with State Significant Development conditions. Examples of key performance indicators that may be relevant include:



### 3.3 GREEN STAR BUILDINGS V1 REV. B

#### Aim of Credit

Green Star is a voluntary sustainability rating system for buildings in Australia. The green star rating system aims to recognise projects that implement waste management plans that facilitate the re-use, recycling, conversion of waste to energy and stewardship of items to reduce the quantity of outgoing waste to landfill.

One (1) point is awarded where a qualified waste auditor prepares an Operational Waste Management Plan (OWMP) for the development in accordance with best practice approaches. The Operational Waste Credit - *8A PERFORMANCE PATHWAY: SPECIALIST PLAN* requires projects to implement waste management plans which address the measures presented in Table 2.

Table 2 - Summary of Green Star requirements and measures addressed in this OWMP

8A PERFORMANCE PATHWAY	
GREEN STAR REQUIREMENTS	MEASURES ADDRESSED
<p><b>Separation of waste streams</b></p> <p>The following waste streams must be provided with separate bins or containers:</p> <ul style="list-style-type: none"> <li>• general waste;</li> <li>• paper and cardboard;</li> <li>• glass;</li> <li>• plastic; and</li> <li>• at least one other waste stream.</li> </ul> <p>Advice from the Green Building Council of Australia GBCA indicates that where the waste collection service collects recyclables as a comingled stream, the requirement to provide separated waste streams for these recyclables is removed.</p> <p>This is permissible to the extent of comingling accepted by the waste collection service. For example, if glass and plastic are collected as comingled, then paper and cardboard is still required to have a separated waste stream.</p>	<p>This OWMP outlines provision for the management and collection of the following waste streams:</p> <ul style="list-style-type: none"> <li>• general waste;</li> <li>• paper and cardboard;</li> <li>• soft plastics;</li> <li>• comingled recycling (incl. glass);</li> <li>• Container Deposit Scheme (Return &amp; Earn); and</li> <li>• food / organics;</li> </ul> <p>Separate bins will be provided for each waste stream stored in a central waste storage area and bins will be clearly marked. Return &amp; Earn bins will be securely stored to deter potential trespassing and theft.</p>
<p><b>Dedicated Waste Storage Area</b></p> <p>Dedicated and sufficiently sized areas for the storage and collection of the applicable waste streams shall be provided.</p>	<p>Calculations for the waste storage area for the school have been carried out based on:</p> <ul style="list-style-type: none"> <li>• school areas and number of students attending the school;</li> <li>• collection method and materials handling requirements of each stream;</li> <li>• collection frequency for each waste stream; and</li> <li>• hygiene, cleanliness and aesthetic aspects to the benefit of the development.</li> </ul> <p>The waste generation estimates are summarised in Table 7.</p>
<p><b>Access to Waste Storage Area</b></p> <p>Access requirements for waste collection areas must adhere to best practices. These access arrangements must be as outlined within third-party Best Practice Guidelines. Best Practice Guidelines outline the following requirements:</p> <ul style="list-style-type: none"> <li>• The access pathway for wheeling bins between a central waste storage point and the collection point must be level and free of steps or kerbs.</li> <li>• The maximum manual handling distance between the storage point and the collection point for mobile garbage bins is 20 meters.</li> </ul>	<p>The waste &amp; recycling storage area is located sperate but adjacent to the school car park, shown in Appendix A &amp; B. Vehicle swept paths are also shown in Appendix C Further detail regarding vehicle access is described in the traffic management plan.</p> <p>The pathway for transporting waste from the waste storage area to the collection point is level and free of steps.</p>



## 4 WASTE GENERATION

### 4.1 WASTE TYPES

The NSW EPA Waste Classification Guidelines (NSW EPA, 2014a) groups wastes that pose similar risks to the environment and human health, as defined in the Protection of the Environment Operations Act 1997. The primary waste streams expected to be generated and corresponding EPA classifications for the ongoing operation of the development are summarised in Table 3.

Table 3 - Potential Waste Types and Classifications & AS 4123.7

EPA Classification	Waste Stream	Waste Type	Bin Colour	Waste Management
General solid waste (putrescible)	Organics	Food Organics	Lime Green	Food waste bin
		Garden Organics	N/A	Composted on site or removed as required by greenskeeper/arborist
General solid waste (non-putrescible)	Recycling	Metals (steel, aluminium, stainless)	Yellow	Comingled recycling bins
		Hard Plastics (recyclables)		
		Glass (bottles, containers, jars)		
	Recycling	Soft Plastic (plastic bags, bread bags, bubble wrap, plastic wrappers, etc.)	Any Colour	Plastic recycling bins
		Return & Earn Plastic Bottles (ONLY containers with the 10c refund label)	White	Container Deposit Scheme
		Paper (excluding paper towels, toilet paper & tissues)	Blue	Paper & Cardboard recycling bins
		Cardboard (excluding waxed cardboard)		
	General	Non-recyclable Plastics (Dirty/contaminated plastic)	Red	General waste bins
General refuse				

EPA Classification	Waste Stream	Waste Type	Bin Colour	Waste Management
Potentially hazardous waste	Other	Chemical liquid & solid waste	N/A	Science department to manage storage, collection and Material Safety Data Sheets (MSDS)
		Nespresso pods and capsules		Collected by Nespresso
		Sanitary waste (including feminine hygiene products,)		Collected by an appropriate contractor or sub-contractor as defined in the buy.NSW Contract 9698 agreement
		Lead-acid or nickel-cadmium batteries		
		Secure destruction (of sensitive documents)		
		Used printer cartridges		
		E-waste		

Designers must refer to EFSG - AS 4123.7 for colours, markings, and designation requirements for further guidance on bin colour, waste stream and waste type.

#### 4.2 WASTE HIERARCHY

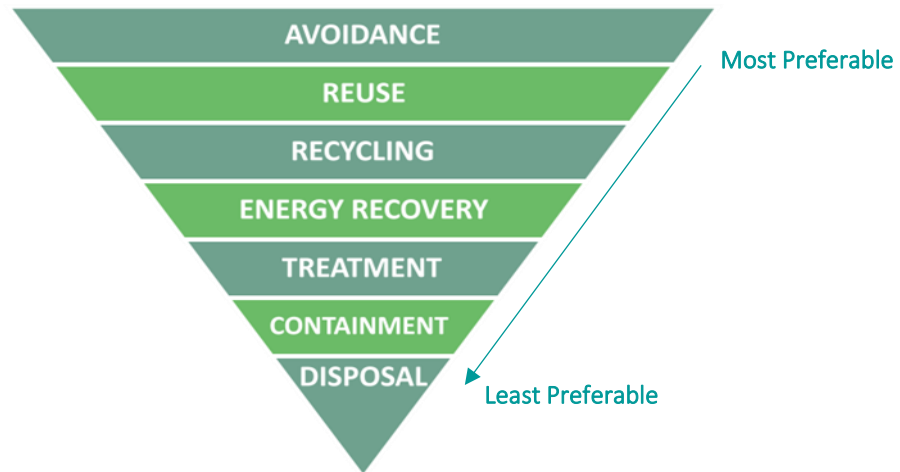


Figure 1 - Order of the Waste Hierarchy

The EFSG requires new and refurbished schools to identify opportunities for reuse and recycling in the operation of the facilities. Table 4 indicates waste management practices that should be adopted in accordance with the *Waste Avoidance and Resource Recovery Act 2001* (NSW EPA, 2014).

Table 4 - Implementing the Waste Hierarchy

Implementing the Waste Hierarchy	
<b>Avoid / Reduce</b>	
Reduce general waste at the source, determine changes in returnable delivery systems including packaging and purchasing.	
Require suppliers to use stackable/returnable/reusable boxes instead of disposable cardboard boxes.	
Reduce consumption of resources that have the potential to become waste through strategies such as green purchasing - purchasing items with reusable, recyclable, have no packaging or are biodegradable.	
Examining all processes to determine where wastes are produced and to devise measures for waste prevention or reduction.	
Devising ways of reducing waste with students so they too can share in the savings (i.e. rewards for students who reduce waste).	
Partnering with others to assist with waste minimisation.	
Keeping track of changes and improvement.	
<b>Reuse</b>	
Set up a reuse area for excess materials and promote the contribution and reuse of excess food.	
Donate old (useable) computer/electrical equipment, furniture and fittings to staff, charities, or sell at auction.	
Implement the Enviro Bank program for bottles and cans.	
Reusing drums, cartridges and containers where possible.	
Selling or donating usable waste materials to other organisations.	
<b>Recycle</b>	
Introduce recycling systems for major waste streams generated onsite including: <ul style="list-style-type: none"> <li>• Paper and cardboard;</li> <li>• Food / Organics;</li> <li>• Soft Plastics, packaging and other plastics; and</li> <li>• Bottles and cans;</li> </ul>	
Modify or refresh signage on recycling bins or in recycling areas to promote correct recycling practice.	
Provide regular information and education to staff on appropriate usage of recycling bins.	
Investigating alternative uses for organic waste that cannot be reduced or reused (i.e. composting, bio-gas from waste, digester, etc.).	
Provision for a recycling station at a central location in school with the option of source separation and clear waste signage to ensure source separation.	
Explore opportunities for recycling waste types not included in the mandatory stream separation (i.e. batteries, coffee cups, e-waste, etc.)	
<b>Waste Disposal</b>	
Students, staff and cleaners dispose of waste in the correct manner, separating their waste into as many waste streams as possible. Suggest that a Waste Management Policy is developed for the school such that can further guide ways to reach best practise recycling methods.	
<b>Monitoring and Assessment</b>	
Request waste contractor to provide monthly data and reporting on materials recycled compared with those sent to landfill.	

## 5 WASTE GENERATION ESTIMATES

### 5.1 WASTE GENERATION RATES

As there is no reference in Blacktown Development Control Plan DCP 2015 for waste strategies for schools, a desktop assessment of waste generated from the following similarly structured schools with a variety of student numbers to provide indicative waste volumes, was conducted.

Table 5 - Weekly waste generation (Litres/week) across different schools

School	# Students	General	Recyclable
Parramatta Public School	600	6000	2400
Pendle Hill High School	450	4500	Not Determined
Mainsbridge School	130	1980	1920
Erskine Park High School	1011	6000	1500

#### Erskine Park High School

In addition, an in-depth review of waste material composition was estimated based on the results of the Erskine Park High School Waste Audit 2019 conducted by APC Waste Consultants in collaboration with the Department of Education. The waste assessed through this audit was considered to be representative of waste that will be generated at the school and formed the basis for the waste generation estimates.

#### Existing Glenwood High School

The collection schedule currently serviced by Cleanaway which encompasses the existing school waste generation is shown in Table 6.

Table 6 - Glenwood High School Existing Waste Collection Schedule

Waste Stream	Transaction Date	Description	Bin Size	No. Units	Vol. per collection
Recycle	14/07/2021	3.0M Recycle Bin	3000	1	3000
Recycle	19/07/2021	3.0M Recycle Bin	3000	1	3000
Recycle	26/07/2021	3.0M Recycle Bin	3000	1	3000
General	14/07/2021	4.5M Bin	4500	1	4500
General	16/07/2021	4.5M Bin	4500	1	4500
General	21/07/2021	4.5M Bin	4500	1	4500
General	23/07/2021	4.5M Bin	4500	1	4500
General	26/07/2021	4.5M Bin	4500	1	4500
General	28/07/2021	4.5M Bin	4500	1	4500
General	30/07/2021	4.5M Bin	4500	1	4500
General	12/07/2021	4.5M Bin (HL)	4500	1	4500

On this basis the following collection schedules are currently in place:

- General Waste 3 x 4500L bins collected weekly = 13500L
- Recycling Waste 1 x 3000L bins collected weekly = 3000L
- Total weekly volume collected = 16500L

## 5.2 ESTIMATE OF QUANTITIES

To derive indicative quantities of waste, the following assumptions have been applied:

- The occupancy rate = 5 days per week (with students present during the NSW DoE designated active term dates);
- Number of students proposed = 1820;
- Reference was made to the waste generated from schools listed in Table 5; and
- Weekly collection has been assumed; however the final frequency of waste collection will be made once final waste contractor agreements are in place.

Table 7 - Waste Generation Estimates

Material Type	Vol. (L) per collection	Bin Size (L)	# Bins	Bin Area (sqm)
Paper Cardboard	2700	1100	3	1.71
Comingled	3024	1100	3	1.71
Soft Plastic	2916	1100	3	1.71
Organics	540	240	3	0.43
Return & Earn	324	660	1	1.16
General	3822	4500	1	2.90

## 5.3 WASTE STORAGE AREA SIZE ESTIMATES

An areas for the storage of the applicable waste streams will be provided within the school grounds. The waste storage area (WSA) will be sized to accommodate all bins or containers, for all applicable waste streams, for at least one collection cycle.

Table 8 - Waste Storage Area - Estimated Requirements

<b>Minimum suggested waste storage size - including circulation space</b>	~50 m <sup>2</sup>
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The area allocated for planned waste storage, as shown in Appendix A, is 54m<sup>2</sup>. This is sufficiently sized in order to accommodate waste storage requirements of the school, as well as the waste collection vehicle turning requirements.

## 6 WASTE STORAGE AREA REQUIREMENTS

The basic requirements for waste storage area are as follows:

- To be of adequate size;
- Integrated with building design and site landscaping;
- Suitably screened from public view using materials such as walls, fencing, natural shrubs or a hedge row;
- Bins to be covered to protect against birds, vermin and vandals.
- Area to be level, with appropriate access for collection; and
- Access to waste enclosure to be safe, convenient to all users and to meet WorkCover NSW Occupational Health and Safety guidelines.

Responsibility for cleaning of waste storage area and service compartments will be designated to the cleaning staff.

## 7 WASTE MANAGEMENT

### 7.1 WASTE STORAGE SYSTEMS

It is anticipated that a combination of Bulk Bins and Mobile Garbage Bins (MGBs) will be utilised within the school. The bulk bins will be used for general waste & cardboard/paper and MGBs will be used for each remaining waste streams as shown in APPENDIX B.

Small quantities of hazardous wastes may be generated (e.g. light bulbs, e-waste, batteries, oil, chemicals or paint). Separate containers for the safe storage of these wastes in the school will be provided where applicable in the waste storage area or another applicable storage area within the school. These materials will be collected by an appropriate contractor or sub-contractor as defined in the buy NSW Contract 9698 agreement.

#### 7.1.1 COMPOSTING

Currently all of the schools food organic waste will be processed offsite, through the collection of this material from a waste contractor. The final conversion of this material will be determined by the waste contractor, however it is likely that this material will be used for either generating energy (biogas), compost and/or liquid fertilisers. In regard to implementing any school composting program, an on-site compost recycling program would be required. This would likely result in the food/organic waste material getting re-directed from the organics bin to a locally managed composting program. The school should look to implement only once a designated team /community is set up to do so.

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## 7.2 WASTE MOVEMENT

It is anticipated that staff, students etc will dispose of waste directly into various streams (general, paper/cardboard, comingled recycling, soft plastics, container deposit scheme and food/organics) located in the offices, canteen, classrooms and open space playground prior to collection by the cleaners. Each waste stream will have small labelled and separate waste bins. Waste from these small bins will be then transported by cleaning contractors via the nominated egress corridors/pathways to the waste storage area where the waste material will be combined into larger bins ready for collection by the waste contractor.

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## 7.3 WASTE COLLECTION POINT

The nominated Waste Collection Point (WCP) is next to the Waste Storage Area (WSA) as shown in Appendix A. The appointed waste contractors will wheel the MGBs for each waste stream from their resting position to the back of the truck for collection and then wheel the MGBs back at nominated times in accordance with the relevant waste contract. The WSA & WCP are within the boundary of the school grounds and not within a public place.

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## 7.4 VEHICLE MOVEMENTS

Waste collection vehicles will collect waste from the bins at the WCP on designated collection days. Swept paths and access pathways are shown in Appendix C. This will be done in such a manner as to minimise risk of damage to the roadway, footpath or services under the ground. Waste collection vehicles will not obstruct access to adjacent premises, roadways, the footpath or the primary pedestrian entrances to the school. In addition, waste collection will be carried out with due care for public safety including other road users, cyclists and pedestrians.

The WCP must be located such that the following vehicles can gain access:

- Rear Lifting Medium Rigid Vehicle (MRV) (8.8m long x 2.5m wide x 4.5m high);
- Front Lifting Heavy Rigid Vehicle (HRV) (11m long x 2.5m wide x 4.25m high);

Other points to note include:

- Different waste streams are collected by separate trucks at separate times/days;
- Swept path diagrams in more detail to be provided by traffic consultant;
- Concrete slab / carpark able to support the weight of a loaded truck and bins/skips; and
- The collection truck to enter and leave school in a forward direction.

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## 7.5 COLLECTION HOURS

The waste collection company will determine the collection hours based on school location & logistical access. The collection company is to ensure waste pick collection times are in accordance with the EIS and SRtS with no collection to occur before 6am or after 6pm on the day of collection, and does not occur within the following peak traffic hours (school days) & school zone hours to reduce any risk from the truck and bin movements affecting the school children; 7:45am to 9:30am; and 2:15pm to 4:00pm.

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## 7.6 CONTRACTORS

A contract with a licensed waste contractor for the collection and removal of all waste to a licensed facility, will be arranged and concluded prior to commencement of waste removal. The contract will also include specific provisions for:

- The times and manner of collections;
- The verification of recycling and/or landfill of all the facility's waste streams; and
- Potential intermittent streams including but not exclusively: batteries, electronics, light bulbs, smoke detectors and any other fixtures or fittings that are generated as recyclable waste.

Written evidence of a valid and current contract with a licensed collector for waste and recycling collection will be provided to the client of the school. The contract will, as stated above, include specific details on the method, timing and location of both the licensed recycling facilities used and/or licensed landfill(s) used for the disposal of non-recyclable waste.

### **Waste management service contract**

Waste contractors servicing the school must adhere to the Contract 9698 in buy NSW website. This contract is mandatory and covers waste management services (bins, collection, transport, processing, treatment and disposal).

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## 7.7 SEGREGATING WASTE

Waste will be segregated into separate streams (general, paper/cardboard, comingled recycling, soft plastics, container deposit scheme and food/organics) at the point of generation. Effective segregation is best achieved through:

- Education and training to all staff, contractors, visitors and students who generate waste, such as the waste wise schools' program;
- Ensuring identifiable colour coding and labelling of bins for each waste stream is implemented and maintained;
- Ordering and provision of suitable containers at appropriate locations;
- Incorporation of quick and efficient waste disposal methods into staff areas; and
- Ensuring all waste can be easily, safely and correctly segregated at the point of generation, for instance including appropriate bins in food preparation and administrative areas.



## 8 ONGOING MANAGEMENT

### 8.1 SIGNAGE

Signage will be provided in all waste disposal, storage and collection areas demonstrating how to use the waste management system, including what materials are acceptable in each bin. All waste streams will be stored in clearly labelled; colour coded bins as appropriate to ensure that waste streams are not inadvertently mixed. Signage will be prepared and located on site in accordance with the Australian Standard (AS 1319) for safety signs, and the NSW EPA and Australian Standard for recycling signage. Examples of signage are shown in APPENDIX D.

The provision of space must include source separation, including bin stations and appropriate signage of waste and receptacles for multiple waste streams. Designers must refer to AS 4123.7 Mobile waste containers - Colours, markings, and designation requirements for further guidance on bin colour, waste stream and waste type.

Table 9 - AS 4123.7 Waste Storage Requirements

Bin Colour	Waste Stream	Waste type
Lime Green	Organics	Food Organics and Garden Organics
Yellow	Recycling	Comingled Containers
Blue	Recycling	Paper and Cardboard
White	Recycling	Container Deposit Scheme
Any colour	Recycling	Soft Plastic
Red	General	General Waste

### 8.2 EDUCATION & TRAINING

The school will aim to build a strong culture of waste reduction and recycling through regular waste management updates at assemblies, student gatherings, Parents and Citizens (P&C) meetings, staff inductions and meetings, ideally within an effective framework such as the waste wise schools' program.

### 8.3 ROLES & RESPONSIBILITIES

It is expected that all personnel will commit to the OWMP and be responsible for their own actions in adhering to the waste management objectives.

Table 10 - Roles and Responsibilities

Responsibility	Activity	Monitoring
Administrative Manager	<ul style="list-style-type: none"> <li>Ensuring staff (and students) are inducted into the OWMP and other applicable management plans.</li> <li>Responsible for undertaking procurement of operational materials in accordance with the waste management hierarchy.</li> <li>Segregation of waste streams where required to ensure appropriate use, treatment and/or disposal.</li> <li>Compliance with applicable environmental legislation and project conditions.</li> <li>Ensure environmental management plan(s) across the site are adhered to and accurate to site conditions.</li> <li>Undertake inspections to ensure compliance.</li> <li>Maintenance of waste-related signage, colour coding and MGBs.</li> <li>Security of waste storage area during day-to-day business.</li> <li>Ensure no waste is placed on the public way.</li> <li>Promoting and enabling compliance with the OWMP by other stakeholders (cleaners, staff, students etc.) through delivery of positive waste management culture at the school.</li> </ul>	Monitor contractors and cleaners for compliance to the OWMP.
Cleaners Removing Material	<ul style="list-style-type: none"> <li>Responsible for acting in accordance with the OWMP.</li> <li>Transfer of waste within the School.</li> <li>Transfer of MGBs to the nominated waste storage area and return of MGBs to waste school areas.</li> <li>Clean areas around waste storage area.</li> <li>Ensure no waste is placed on the public way.</li> </ul>	Ensure there is no contamination in comingled bins.
Staff	<ul style="list-style-type: none"> <li>Adherence to the OWMP.</li> <li>Placement of waste/recycling within correct bins.</li> <li>Notify manager/cleaning contractor when bins are overfull and require transport to the MGBs.</li> <li>Informing the Administrative Manager of any waste management incidences.</li> <li>Reinforcing positive waste management culture as defined by administrative manager amongst colleagues and students.</li> </ul>	Ensure there is no contamination in comingled bins.
Students	<ul style="list-style-type: none"> <li>Responsible use of waste facilities and appropriate disposal of waste.</li> <li>Encourage BYO for the following items: water bottles, containers, straws, reusable utensil sets, washable hand towel, carry bag and coffee cups.</li> <li>Engaging with positive waste management culture as delivered by teachers.</li> </ul>	Communicate targets and goals .
Waste Contractors	<ul style="list-style-type: none"> <li>Acknowledge and comply with waste targets.</li> <li>Use reasonable endeavours to assist reaching the waste targets.</li> <li>Provide feedback on actual volumes of waste and recycling collected to enable waste volume evaluation by Administrative Manager.</li> </ul>	Quantify the amount and types of waste. Assess for contamination.

## 9 REVIEW PROCESS

This OWMP forms the basis of operational waste management on site for the school. It is a living document which will be reviewed and revised to provide increased accuracy of waste generation estimates and to ensure appropriate onsite waste management in accordance with current and future waste management regulations. Compliance by the administrative manager, staff, cleaning contractors and waste collection contractor is essential to ensure the efficiency of the system. As such, all stakeholder engaging with the OWMP will need to maintain awareness of any new relevant guidelines and regulations that come into effect during the operational phase of the development.

School Management will undertake regular reviews of the OWMP including the following indices:

Waste Management Contract
On Site Signage
Waste Contractor Performance
Data on Recycling Rates
Waste Contractor Licences
On Site Waste and Recycling Systems

## 10 LIMITATIONS

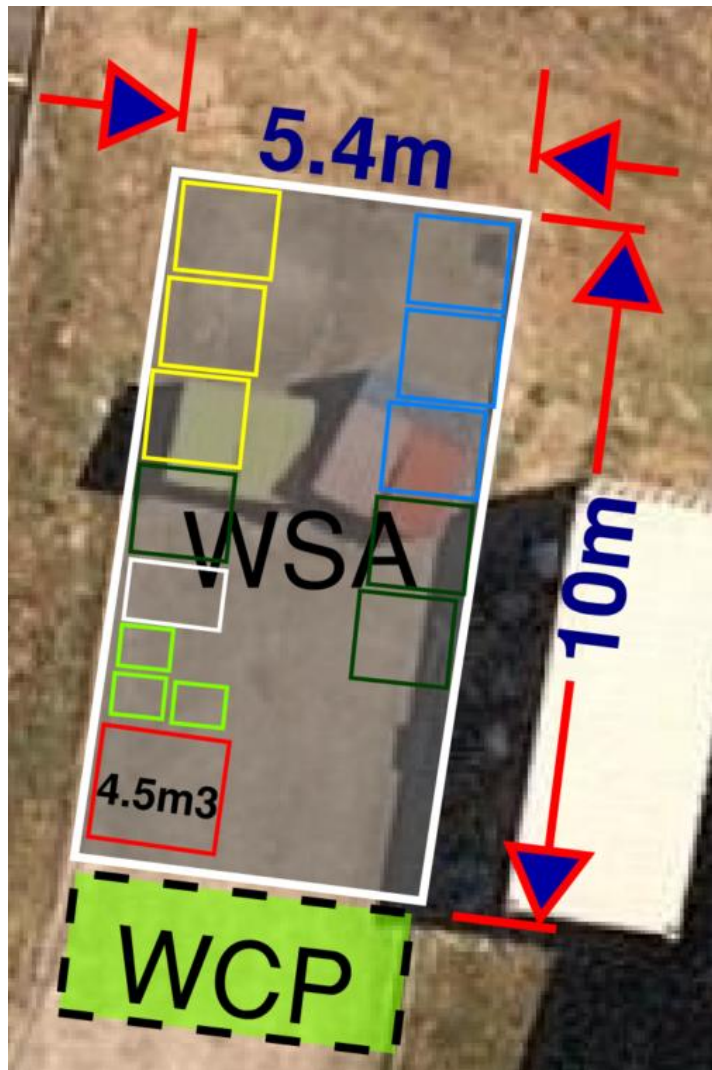
This report documents an Operational Waste Management Plan (OWMP) as part of the SSDA with the following limitations:

- Estimates and details contained in this waste management plan have been prepared by analysing the information, plans and documents supplied by the client, and third parties including Council and government information;
- The figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate and waste generation intensity as well as the approach to educating visitors, staff and students regarding waste management operations and responsibilities;
- The School Administrative Manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly;
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures;
- This OWMP has been prepared with reference to applicable legislation, regulations and guidelines in effect at the time of writing and no guarantee can be made that the recommendations provided will remain compliant with future mandatory requirements during the operational lifespan of the development;
- The report has been prepared with all due care, however, no assurance or representation is made that the OWMP reflects the actual outcome and EcCell will not be liable for plans or outcomes that are not suitable for the purpose of the project, whether as a result of incorrect or unsuitable information or otherwise; and
- EcCell offer no warranty or representation of accuracy or reliability of the OWMP unless specifically stated.

## APPENDIX A – PROPOSED WASTE STORAGE AREA AND WASTE COLLECTION POINT

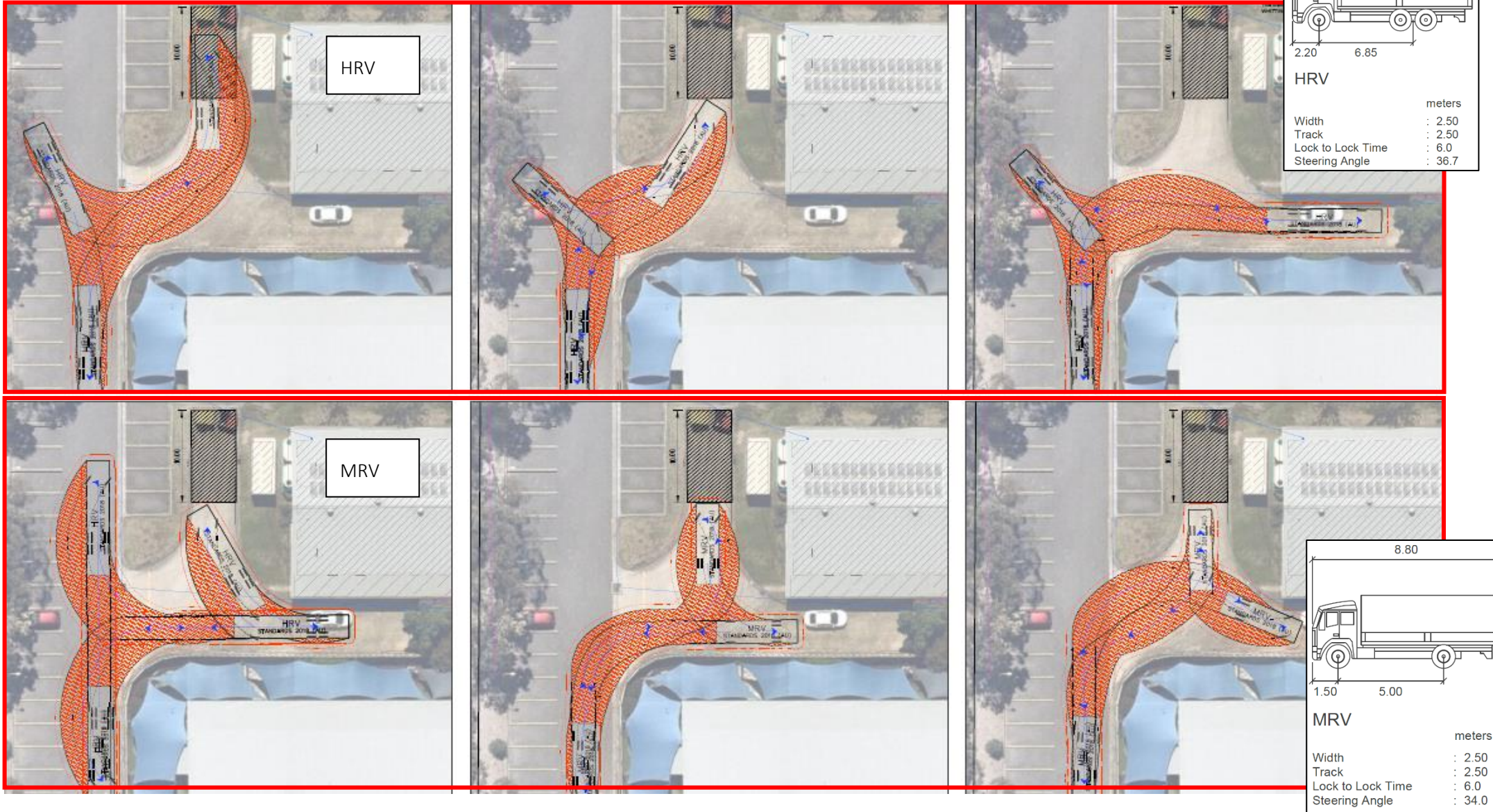


## APPENDIX B – WASTE STORAGE AREA BIN LAYOUT



Bin Colour	Waste Stream	Waste type
Lime Green	Organics	Food Organics and Garden Organics
Yellow	Recycling	Comingled Containers
Blue	Recycling	Paper and Cardboard
White	Recycling	Container Deposit Scheme
Dark Green	Recycling	Soft Plastic
Red	General	General Waste

## APPENDIX C – SWEEP PATHS OF MEDIUM RIGID VEHICLE (MRV) & HEAVY RIGID VEHICLE (HRV)



## APPENDIX D – EXAMPLES OF APPROPRIATE WASTE SIGNAGE

