Blue Gum Community School (SSD- 10444)

Waste Management Plan – April 2020

Prepared in consultation with Hornsby Shire Council

CONTEXT

This Waste Management Plan has been developed to accompany the State Significant Development Application to adapt an existing heritage dwelling and its surrounding gardens into a small community preschool and primary school. The new school will be located at 1 Rosemead Road in Hornsby NSW. This WMP forms part of the technical inputs to the Environmental Impact Statement (EIS) for the Project. The Project has been deemed State Significant Development (SSD-10444)

BACKGROUND

The SEARs for the Project were issued on 19 April 2020. The SEARs outline the requirements for waste management for the Project.

The WMP must provide information on the following:

- Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.
- Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site

PROPONENT OBJECTIVES

- To minimise the generations of waste.
- To reduce the amount of waste for disposal.
- Appropriately manage waste streams in accordance with legislation, policies and guidelines.
- To engage best practice during the construction phase and during ongoing operations on the site.

RELEVANT POLICIES AND GUIDELINES

Waste Classification Guidelines (EPA, 2014)

WASTE DURING DEMOLITION & CONSTRUCTION

Expected waste volumes to be generated from the Project during the demolition and construction phase are mapped out in the Hornsby Shire Council Waste Management Plan included within this document. This plan has been prepared noting:

- The reuse and/or recycling of waste materials generated on site shall be maximised as far as practicable, to minimise the need for treatment or disposal of those materials off site.
- Sediment recovered from erosion and sediment control devices would be reused on site as general fill material or it will be incorporated within landscaping materials where possible and stabilised.
- All waste material generated on-site (including chemical, fuel and lubricant containers, and solid and liquid waste) would be classified and disposed of in

accordance with the *Protection of the Environment Operations Act 1997* and *Waste Classification Guidelines Part 1: Classifying Waste (DECCW, 2009)*, or any superseding document.

- Recycled material would be considered for use in all aspects of the project where feasible and reasonable and measures will seek to avoid, minimise, re-use, recycle, treat or dispose of waste streams during demolition and address transport and disposal arrangements.
- Regular visual inspections would be conducted to ensure that work sites are kept tidy and to identify opportunities for reuse and recycling.
- Topsoil (weed free) would be stockpiled in accordance with RMS criteria in allocated areas and reused for landscaping.
- Any contaminated waste would be handled, separated, contained, managed and disposed of to prevent migration and further contamination.
- The relevant licences of waste facilities utilised for the disposal of project waste would be obtained (on a regular basis if necessary) to ensure they are legally able to accept that waste.
- The disposal of chemical, fuel and lubricant containers, solid and liquid wastes must be in accordance with the requirements of the Hornsby Shire Council or the EPA.
- All trucks transporting wastes off site would be appropriately licensed to carry the materials to appropriately licensed waste facilities.
- Procurement of materials will be planned and managed to avoid the over-ordering of products and minimise excess packaging is to be carried out.
- Cleared vegetation will be reused or recycled to the greatest extent practicable.

CONTINGENCY PLANNING

Appropriate professional advice will be sought immediately, should previously unidentified waste/materials of a suspected harmful or contaminating nature be identified during site demolition and/or construction works.

HAZARDOUS MATERIALS

Hazardous materials are not expected to remain onsite after the demolition works. However, if hazardous materials do remain onsite following the building demolition works, a hazardous materials register would be developed and maintained for the site. The register would detail the location and condition of all hazardous materials remaining at the site. Inspections would be conducted on a regular basis and the hazardous materials register updated accordingly. Any works identified/required as a result of the inspections would be undertaken immediately. The hazardous materials register would be made available to any site occupant or contractor that may come into contact with hazardous materials remaining onsite.

OPERATIONAL WASTE MANAGEMENT

Once operational, the school intends to provide a waste management system that:

- Minimises the generation of waste through avoid-reduce-reuse-recycle education policies
- Will provide the opportunity to educate staff/students in waste management and resource recovery processes
- Meets regulatory and best practice requirement and guidelines

- Is 'hands on' but safe. Students/staff segregate their wastes into different receptacles at source (i.e. where it is generated: yard, inside, office, workshops, canteens etc.) and then transferred to the waste collect area by cleaning staff.
- Is cost effective.

All Blue Gum Community school staff and cleaning staff (and contractors) will be briefed on the proper use of waste management systems. Recycling streams will be monitored and reported by cleaners/building management, as it is imperative that they remain free of contamination to ensure compliance with Hornsby Council and the appointed waste service contractor collection protocols. Staff will be encouraged to maximise the separation of general waste and mixed recyclables to aid the proper disposal of all materials.

Waste/recyclables will be collected on a daily basis by school staff and cleaners and transported to the waste storage enclosure.

ONGOING MANAGEMENT

Having suitable systems in place is only one element of an effective waste management system. Compliance by all stakeholders is essential.

Cleaners are a key element in the effectiveness of the systems in place. Prior to acceptance of the cleaning contract, the contractor will be required to demonstrate how the management of waste and recycling will be carried out so as to ensure that segregated materials are placed in the correct systems. This process will be agreed and a training program implemented by the cleaning contractor to ensure full understanding by all cleaners. The cleaning supervisor and site management throughout the term of the contract will carry out monitoring of the system.

In addition, cleaners will be required to feed back to site management any non-compliance issues they observe during their cleaning activities. This may include contamination of recycling, non-participation in the recycling system, or missing or damaged bins. In this way issues can be promptly dealt with by management.

Waste and recycling contractors will be required to report actual volumes collected by stream so that site management can monitor performance and feed this back to stakeholders.

ESTIMATED BIN NUMBERS

Bin numbers proposed are based on consultation with Hornsby Shire Council's Waste Management team and directly responsive to advice provided by Carolyn Gordon, Environmental Scientist representing Hornsby Shire Council's Waste Management Services (26 February 2020).

Using the Council's guides, the number of bins required, for the proposed new used of the site, came to:

- 5.6 x 240L garbage, 5.3 x 240L recycling and the 5 x 240L greens bins

Given that the preschool (childcare) component of the project will not be catering for infants and toddlers (and therefore will have no nappy disposal needs) and will not be providing food for children on site, the proponent estimates the school would only needa maximum of:

- 5 x 240L garbage, 4 x 240L recycling and 5 x 240L greens (fortnightly).

Once operational, the actual filling rates for all collection containers will be monitored on a monthly basis, and appropriate bin numbers, volumes and collection frequencies will be adopted and/or adjusted. It is the expectation of the proponent that less, rather than more bins will be required in the long-term.

Using the Council's commercial waste and recycling services, would allow for a weekly recycling and garbage pickup and a fortnightly greens pick up, using the same pick up times and trucks already servicing residential properties on the road – not adding an additional commercial service to the street.

The proponent, as residential owners, currently puts out 6 bins on Rosemead Road for weekly waste collection. These bins are picked up from the Rosemead kerb.

The waste management plan proposes an increase of that number to 9 in one week and 14 in the following. The plan proposes pick up would continue to be from Rosemead Road, with the bins grouped in no more than 6 bins in a row, with the groups of bins spaced out generously across the 83.1m frontage on Rosemead Road.

CONSULTATION WITH LOCAL COUNCIL

The first iteration of the waste management plan proposed for this project was submitted and thoroughly reviewed by Hornsby Shire Council's Waste Management team and discussed in depth with Benjamin Jones, Town Planner with Hornsby Shire Council. Feedback about the first iteration of the waste management plan was received from Hornsby Shire Council via email from Benjamin Jones, on 18 March 2020. The advice provided in that feedback informed the amendment of the waste management plan to where it stands now.

The main changes made relate to the proposed number of bins needed once the site is in operation and the sizing and positioning of the bin enclosures to accommodate the additional bins. A summary of the specific feedback received and action taken in response is included in the table below.

Feedback from consultation with Hornsby Shire Council	Amendments made based on feedback
Child care centres generate 20L/child/week of garbage and 10L/child/week for recycling. *The Better Practice Guide for resource recovery in residential developments* (2019) indicates that waste generation for primary	Based on this benchmark for estimating waste generation each week, the number of bins proposed was increased to reflect the estimates from *The Better Practice Guide for resource recovery in residential developments (2019).*

schools is 15L/child/week of garbage and 20L/child/week for recycling. Therefore, the development can be expected to generate 1360L/week garbage and 1280L/week recycling. The number of bins proposed in the Waste management plan is consequently inadequate.	
The proposed bin storage area is inadequate for the following reasons: • It is not deep enough – the 240L bins would need to be placed in it sideways, and these bins cannot be manoeuvred sideways without lifting, which is a work place health and safety issue that can easily be avoided by good design. • It does not have sufficient space for all of the required bins. • Insufficient information has been provided about the screening of the bins. How does the screening integrate with the heritage of the site?	This was clarified with Council, through discussion. It was agreed, on a re-reading of the plans, that the storage provided was adequate in size to allow for the bins to be manoeuvred forwards and backwards, in an out of the bin enclosures. Additional enclosed spaces were added to incorporate storage for the additional bins added. Screening plants along the front fence line will ensure the bin storage enclosure is not visually dominant. The bin storage is positioned well away from the front facade of the heritage item, close to the proposed new driveway exit. The garage is not original to the heritage item.
Presenting 240L bins kerbside and using Council's side loader service has the following concerns: • Bins cannot be serviced where a car is parked in front of them, and cars are always parked outside of schools. • A line of 6 garbage bins and 12 recycling bins or 4 green waste bins will negatively impact the heritage values of the site.	The bins can be positioned on the kerbside the night prior to pick up. The frontage is 83.1 m wide. The kerbside on the Eastern side of the existing driveway does not allow parking and as such a number of the bins could be positioned in that area if needed, due to parked cars. Currently, as a residence, the property is puts out 6 bins once a fortnight. This is due to the 5 garden waste bins already in operation. The waste management plan will ensure that bins will continue to be positioned in groups no more than 6.
Note that since this development is in a residential area, waste collection services must not take place between 8PM and 6AM weekdays or 8PM and 8AM on weekends and public holidays.	Understood and will be adhered to.

Appendix

Waste Management Plan prepared based on the Hornsby Shire Council feedback and requirements for this project.

Appendix 3 - Waste Management Plan

To facilitate waste management and reduction, Council requires on-site sorting and storage of waste products pending re-use, recycling or collection. Council's goal is that at least 76% of all demolition and construction waste is to be re-used or recycled.

The applicable sections of the following waste management plan must (at a minimum) be completed and submitted with applications which involve the demolition, design and construction, the use of a building and on-going management.

Larger developments should include the level of detail which reflects the scale of the development. The NSW Environmental Planning Authority website **epa.nsw.gov.au/waste** contains a number of best practice publications that may be of assistance for more detailed waste management planning activities.

The information provided in the waste management plan will enable an assessment of how it is intended to re-use, recycle and dispose of waste. The information will be assessed against prescribed targets for the minimisation of waste disposal.

Outline of Proposal

Site Address: 1 Rosemead Road Hornsby NSW 2077

Applicant's name and address: Jill McLachlan (Education Director Blue Gum Community School)

1 Rosemead Road Hornsby NSW 2077

Phone: 0414 240 090 Fax:

Buildings and other structures currently on the site: Existing dwelling, detached garage and small utility shed

Brief Description of Proposal: Alterations and additions for change of use to Pre School and School (3-12yrs) with total 80 Places including new carpark and exit driveway to Rosemead Road.

Commitment to this Waste Management Plan

When any construction and/or demolition waste is removed from the site, written records will be made by the principal contractor and submitted to the Principal Certifying Authority within 14 days demonstrating consistency with this Waste Management Plan. This is to include tip docket/receipt from the site to which the waste was taken (noting date and time of delivery, description (type and quantity) of waste).

Signature of applicant  Date

For further information on completing the waste management plan, refer to Council's Waste Minimisation and Management Guide that is available at hornsby.nsw.gov.au

SECTION ONE – DEMOLITION STAGE

To be completed for applications involving demolition, excavation or residential subdivision (where involving 6 or more lots).

GENERAL DEMOLITION WASTE			HOW WILL YOU MANAGE THIS WASTE?			
	Estimated volume (m^3)	Estimated weight (kg)	Re-use on-site * see A1.02 for suggestions		Recycle off-site * see A1.04 for outlets	Landfill * see A1.03 for landfills
Type of material	*see A2.01	*see A2.01	Quantity (kg)	Use	Quantity (kg)	Quantity (kg)
Excavation material	1	1500	1500	Landscape Design	-	-
Green Waste	15	2500	1000	Mulch	1500	-
Bricks	2	2000	-	-	2000	-
Concrete	1	2500	-	-	2500	-
Tiles	-					
Timber (specify)	1	500	-	-	-	500
Plasterboard	-					
Metals (specify)	1	500	-	-	500	-
Other (specify)	-					
TOTAL GENERAL WASTE		9500 kg (100%)		2500 kg (26 %)	6500 kg (68 %)	500 kg (6 %)
Material containing Asbestos			N/A		N/A	

Principal off-site recycler (address)	Principal licensed landfill for general waste (address)	Licensed landfill for asbestos waste (address)
Kimbriki Resource Recovery Centre Kimbriki Road, off Mona Vale Road, Ingleside / Terrey Hills	Kimbriki Resource Recovery Centre Kimbriki Road, off Mona Vale Road, Ingleside / Terrey Hills	Kimbriki Resource Recovery Centre Kimbriki Road, off Mona Vale Road, Ingleside / Terrey Hills

Does the combined re-use and recycling of general waste materials meet the target of 76% or greater (Yes/No) Yes. If no, revisit the table to see where improvements may be achieved. If the target is still not possible, please state reasons why.

For further information: The Council's Waste Minimisation and Management Guide available at hornsby.nsw.gov.au, provides help in completing this plan. For example reference *A2.01 is included in the Waste Minimisation and Management Guide at Page 88 and helps you to estimate demolition volumes.

SECTION TWO – CONSTRUCTION STAGE

To be completed for all applications involving construction of buildings.

EXPECTED WASTE MATERIALS			HOW WILL YOU MANAGE THIS WASTE?			
	Estimated volume (m3)	Estimated weight (kg)	Re-use on-site * see A1.02 for suggestions		Recycle off-site * see A1.04 for outlets	Landfill * see A1.03 for landfills
Type of Material	*see A4.01	*see A4.01	Quantity (kg)	Use	Quantity (kg)	Quantity (kg)
Excavation material	1	1500	1500	Landscape Design	-	-
Green waste	-					
Bricks	-					
Concrete	0.1	250	-	-	250	-
Tiles	0.05	50	-	-	-	50
Timber (specify)	0.5	250	-	-	250	-
Plasterboard	0.05	50	-	-	-	50
Metals (specify)	-					
Other (specify)	-					
		600 kg		- kg	500 kg	50 kg
TOTAL WASTE		(100%)		(0 %)	(83 %)	(7 %)

Principal off-site recycler (address)	Principal licensed landfill site (address)
Kimbriki Resource Recovery Centre Kimbriki Road, off Mona Vale Road, Ingleside / Terrey Hills	Kimbriki Resource Recovery Centre Kimbriki Road, off Mona Vale Road, Ingleside / Terrey Hills

Does the combined re-use and recycling of waste materials meet the target of 76% or greater (Yes/No) Yes. If no, revisit the table to see where improvements may be achieved. If the target is still not possible, please state reasons why.

For further information The Council's Waste Minimisation and Management Guide available at hornsby.nsw.gov.au, provides help in completing this plan. For example reference *A2.01 is included in the Waste Minimisation and Management Guide at Page 88 and helps you to estimate demolition volumes.

SECTION THREE – USE AND ON-GOING MANAGEMENT

To be completed for all applications involving the construction of residential accommodation and commercial and industrial developments or for the change of use of same.

Describe how you intend to ensure on-going management of waste on-site. Issues which may require to be addressed include maintenance, signage and responsibilities.

ISSUE		PROPOSED ARRANGEMENTS
Size and Location		
	Use of premises.	1
	Number of dwellings/units.	1
	Estimated garbage generation (See A6.01).	5 x 240L Weekly
	Estimated recycling generation (See A6.01).	5 x 240L Weekly
	Number of and capacity of waste storage bins and volume handling and reduction equipment to be used for managing garbage.	2 x 240 L
	Number of and capacity of waste storage bins and volume handling and reduction equipment to be used for managing recyclables.	2 x 240 L
	Number of and capacity of waste storage bins and volume handling and reduction equipment to be used for managing garden organics (if applicable).	4 x 240 L
	Area/s allocated for waste storage and recycling area and volume handling and reduction equipment (highlight on plan drawings).	New Waste enclosure adjacent to existing garage. Garden Organics bins Eastern boundary adjacent vegetable garden.
On-site Access		
	Describe arrangements for on-site access by residents to waste facilities (highlight on plan drawings)	Via Driveway / landscaped pathway
	Describe arrangements for on-site access by collection contractors to waste facilities (highlight on plan drawings)	Bins to be located on Street kerb for scheduled waste pick up.
Design and Construction		
	Describe the fire safety features and protection equipment provided.	Bin storage has been located away main dewlling
	Describe how noise associated with residents using the bins, collection contractors emptying the bins and waste falling through and out of the bottom of a garbage chute has been minimised.	Bin Storage area is located away from residents at 1a Rosemead Road
	Describe any features for preventing ingress of vermin into waste storage areas.	Proposed Bin enclosure includes walls and ventilating doors to minimize vermin access.
	Describe measures taken to ensure waste storage areas are aesthetically consistent with the rest of the development.	Proposed Bins storage has materials and finishes that are consistent with the proposed materials and finishes of the main dwelling additions.

	Describe the light source and method of ventilation within waste storage areas.	The Waste will be managed during daylight hours and is naturally ventilated.
	Describe facilities for washing bins, waste storage areas and garbage chute systems.	Waste Bins will be washed with a garden house (existing onsite)
	Describe the features incorporated in the design of the volume handling and reduction equipment to ensure its safe and efficient operation.	The proposed bin enclosure has been design for simple and safe front access to each bin.
On-going Waste Management		
	Identify the time frame that it will take to introduce an environmental management system (i.e. waste minimisation and management strategy).	12-24 months
	Describe arrangements for the cleaning and maintenance of waste storage areas and volume handling and reduction equipment.	Waste Bins will be washed with a garden house (existing onsite)
	Describe arrangements for ensuring appropriate signage and ensuring residents/ tenants are aware of how to use the waste management system correctly.	N/A - Non Residential proposal
	Identify each stage of waste transfer between residents'/tenants' units and loading into the collection vehicle. Who is responsible for each transfer?	N/A - Non Residential proposal
	Describe arrangements for the disposal of hazardous waste (if applicable)(See A6.02).	Removed by a license waste contractor in accordance with relevant regulations.

SECTION THREE – USE AND ON-GOING MANAGEMENT (CONTINUED)

Insert a plan referenced in the table at Section 3 above showing the location of waste storage and collection facilities and access thereto.