Construction Waste Management Plan (CWMP)

Young High School

1 Introduction

1.1 Context

This Construction Waste Management Sub Plan (CWMP) forms part of the Construction Environmental Management Plan (CEMP) for the Young High School Main Works Project.

This CWMP has been prepared to address the NSW Department of Planning conditions of approval for the project.

Avoiding the generation of waste is of primary importance to Joss when considering waste minimisation and management measures. Waste management and reuse strategies will be considered and implemented where practical and cost-effective. Reuse opportunities will be maximised, with efforts made to implement reuse and recycling initiatives wherever possible.

1.2 Background and Scope

The Young High School Main Works project involves the renovation and construction of a number of new buildings on the Young High School Campus.

This includes a renovation to an existing building, the extension of a public car park, and the construction of a new 3 storey library building.

The new library will be built adjacent to the old court house, and in a historically sensitive location close to where the Lambing Flat riots occurred in the 1800's.

The works will span approximately 12 months, and will involve all types on construction, including earthworks, suspended concrete slabs, precast, blockwork, roofing, glazing, fitout works and landscaping.

2 Purpose and objectives

2.1 Purpose

The purpose of this Plan is to describe how Joss proposes to minimise the amount of waste sent for disposal, manage waste and control any hazardous materials found during construction.

2.2 Objectives

The key objective of the CWMP are to ensure that waste sent for disposal in minimised. To achieve this objective, Joss will undertake the following:

- Ensure measures are identified and implemented to minimise waste, manage waste throughout the construction of the project.
- Ensure the preferred waste management hierarchy of avoidance, minimisation, reuse, recycling and finally disposal is followed.
- Provide staff with an increased level of understanding and awareness of waste and resource use management issues.
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 3.1 of this Plan.

2.3 Targets

The following targets have been established for the management of waste during the project:

- Avoid the unnecessary production of waste where practical to do so.
- Dispose of waste materials in accordance with legislative requirements.
- Minimise / reduce the quantities of resources to be used.

3 Environmental requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation

Legislation and regulations relevant to waste management includes:

- *Protection of the Environment Operations Act 1997*.
- Protection of the Environment Operations (General) Regulation 2009.
- Protection of the Environment Operations (Waste) Regulation 2014.
- *Waste Avoidance and Resource Recovery Act 2001 (WARR Act).*

3.1.2 Policies, Guidelines and standards

The main guidelines, specifications and policy documents relevant to this Plan include:

- NSW Government Resource Efficiency Policy (NSW Government, 2014)
- Waste Avoidance and Resource Recovery Strategy (EPA, 2014)
- Waste Classification Guidelines: Part 1 Classifying Waste 2014 (EPA, 2014)

3.2 Consent Conditions

Before construction can commence, Joss are required to provide appropriate responses to the NSW Department of Planning conditions of approval for the project. Conditions that are relevant to waste are:

Consent Condition	Requirement
B16	The Construction Waste Management Sub Plan (CWMSP) must address, but not be limited to, the following: (a) Detail the quantities of each waste type generated during the construction and the proposed reuse, recycling and disposal locations; and (b) Removal of hazardous materials, particularly the method of containment and control of emission of fibers into the air and disposal at an approved waste disposal facility in accordance with the requirements of the relevant legislation, codes, standards and guidelines, prior to the commencement of construction.

4 Environmental aspects and impacts

4.1 Construction waste streams

The following construction related waste streams have been identified:

- Demolition: waste from existing structures that require demolition – slabs, services, walls, flooring etc.
- Excavation waste resulting from bulk earthworks.
- Waste associated with the construction of the buildings.
- Vegetation from removal of shrubs and trees.
- Packaging materials associated with items delivered to site such as pallets, crates, cartons, plastics and wrapping materials.
- General wastes including office wastes, scrap materials and biodegradable wastes.

4.2 Impacts

The potential environmental impacts associated with construction waste generation include:

- Excessive generation of construction waste directed to landfill, such as excavated soil and rock and vegetation due to inadequate consideration of re-use and recycling opportunities.
- Inappropriate identification and disposal of hazardous waste.
- Excessive generation of waste for disposal to landfill due to mixing of different classes of waste.
- Generation or spread of contaminated waste/soils, e.g. groundwater or construction materials.
- Water pollution due to sediment runoff from soil excavation and excess spoil storage

5 Waste management

5.1 Classification of potential waste streams and volumes

The construction aspects and types of waste potentially generated during construction and outlined below. Estimations on the volumes of each waste type generated have been made. These estimations have the potential to vary dependent on a number of on site factors.

Aspect	Waste Type	Proposed Reuse/ Recycling/ Disposal	Volume Generated
Site Clearing and grubbing: removal of trees and vegetation.	Vegetation	Retain mulched material on site for landscaping and dust/ sediment control.	45m3
Demolition	Concrete Slab	Dispose of at landfill	400m3
Bulk Earthworks	Excavated Soil	Store and reuse top soil on site, surplus soil to be removed for use at landfill.	3500m3
Structural Slab Construction	Surplus Steel Reo	Recycle at scrap steel facility	5T
Structural Slab Construction	Surplus Concrete	Return to batch plant for recycling.	25m3
Structural Slab Construction	Surplus Formwork	Dispose of at landfill	100m3
Building Construction and Fitout	Packaging and wrapping	Dispose of at landfill	100m3
Building Construction and Fitout	Gyprock and Wall Framing	Dispose of at landfill	75m3
Building Construction and Fitout	Metal and Façade Roofing	Dispose of at landfill	45m3
Building Construction and Fitout	Brick, Block and Tiling	Dispose of at landfill	45m3
Building Construction and Fitout	Timber	Dispose of at landfill	30m3
Site Sheds and Offices	General Waste	Dispose of at landfill	45m3

5.2 Reuse and recycling

Waste separation and segregation will be promoted on-site to facilitate reuse and recycling.

Waste segregation onsite – Waste materials, including spoil and demolition waste, will be separated onsite into dedicated bins/areas for either reuse onsite or collection by a waste contractor and transport to offsite facilities for reuse or disposal.

Where materials cannot be reused and recycled, all waste would be handled and disposed in accordance with the POEO Act and the Protection of the Environment Operations (Waste) Regulation 2014.

Due to the regional location of the site, there are limited off site sorting a recycling facilities available, as such wherever possible contractors will be encouraged to remove their own waste from site for recycling or reuse at their own facilities.

5.3 Waste Handling and Storage

Where waste is required to be handled and stored onsite prior to onsite reuse or offsite recycling/disposal, the following measures apply:

Spoil, topsoil and mulch are to be stockpiled onsite in allocated areas, where appropriate, and mitigation measures for minimizing cross contamination of waste streams, dust control and surface water management will be implemented. Stockpiles will be stabilized and erosion control measures such as bunds will be used to prevent any sediment erosion.

Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the Environmentally Hazardous Chemicals Act 1985 and the EPA waste disposal guidelines.

All other recyclable or non-recyclable wastes are to be stored in appropriate receptacles (e.g. bins or skips) in appropriate locations onsite and contractors commissioned to regularly remove/empty the bins to approved disposal or recycling facilities. Should bins or skips not be available, hoarded waste areas shall be constructed to hold the waste till it is removed from site.

5.4 Waste Disposal

Waste (and spoil) disposal is to be in accordance with the *Protection of the Environment Operations Act 1997,* Protection of the Environment Operations (Waste) Regulation 2014 and the *Waste Avoidance and Resource Recovery Act 2001*. Wastes that are unable to be reused or recycled will be disposed of offsite to an EPA approved waste management facility following classification (refer to section 5.1).

Approved waste management facilities located in the vicinity of the Project include:

Facility	Wastes Received at Facility
Victoria Street Waste Management Facility Victoria Street Young NSW 2594 Phone: (02) 6382 2980	General domestic waste Building & Demolition waste Asbestos Bricks and Concrete Garden Organics/Vegetation Waste Oil Steel and Metal E-Waste
Young Metal Recyclers Temora Road Young NSW 2594 Phone: (02) 6382 2091	Scrap metal recycling

6 Hazardous Materials

6.1 Management of Hazardous Materials

Currently there are no hazardous materials identified in the areas of Young High School where works are planned to take place.
However should any hazardous materials be identified during the course of the construction works, Joss will follow the Unexpected Contamination Procedure to safely isolate and manage the hazard. Once the immediate risk has been controlled, specialized contractors will be engaged to manage the hazardous materials.

6.2 Containment of Fibres

Should the hazardous material that is identified be found to be fibrous, Joss will work with the specialized removalist contractor to contain these fibres.

The specific means of containment will vary dependent on the type of contamination that is found. Some forms of containment may include:

- Negative air pressure
- Use of moisture
- Use of industrial vacuums

6.3 Monitoring of Fibres

Before the removal of any fibrous material commences, air monitoring will be established to the perimeter of the removal zone. This air monitoring will be checked and recorded to ensure that there are no hazardous fibres being release to the open atmosphere.

At the completion of the removal process these air monitoring results will included with the clearance certificates and provide to the relevant authorities.

7 Review and improvement

7.1 CWMP update and amendment

As per Joss' quality procedures all documents are reviewed on an annual basis, and this will also the be case for this CWMP, it will be reviewed 12 months from date of creation, and any improvements of adjustment will be made. It will also be amended during the course of the construction works if deemed necessary