Moriah College, 1 Queens Park Road Queens Park

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Operational, Construction and Demolition Waste Management Plan

WASTE AUDIT AND CONSULTANCY SERVICES
Level 21 / 133 Castlereagh Street
Sydney, NSW 2000

Telephone (02) 9199 4521
www.wasteaudit.com.au

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1 Introduction

This Operational, Construction and Demolition Waste Management Report accompanies an Environmental Impact Statement (EIS) in support of State Significant Development Application (SSD-10352) for new school buildings on the existing campus of Moriah College, Queens Park (the site). The site is legally described as 101 York Road, Queens Park/ Lot 22 DP 879582, 1 Queens Park Road, Queens Park/ Lot 1 DP 701512 and 3 Queens Park Road, Queens Park/ Lot 3 DP 701512.

The proposal seeks consent for:

- Staged demolition of existing buildings A, B, C, D, J, E and removal of demountable buildings S, D, Z.
- Staged construction of new school buildings.
- **Stage 1** - Construction of a part 3 and part 4 storey STEAM building containing:
    - science, technology, engineering, art and maths rooms
    - technology and applied science rooms
    - administration offices
    - canteen and cafe
    - independent learning centre (library)
    - meeting rooms and auditorium
    - enhanced pedestrian entry at Gate 3A off Baronga Ave
    - basement parking for staff, waste management and storage rooms
    - modified vehicular circulation internal to the site
    - Redesign of the York Road Gate 4 parking area to create improved circulation and on site staff parking
- **Stage 2** - Construction of a 3 storey Early Learning Centre (ELC) building and administration offices.
- Student population increase from 1680 students on the site to 1970 students across ELC, primary and high school.
- Modification to internal traffic and parking on the site.
- Active and passive landscape upgrades to the site.
- Removal of trees.

The Plan has been developed with consideration of Waverley Council's and other Authority's requirements. It is intended to inform the design of the waste services by identifying the estimated waste profile for the development and providing the total area required by the recommended equipment/systems.

In doing so this Plan, which includes waste estimates and related management requirements, has been developed in accordance with Waverley Council's *Waverley Development Control Plan 2012* and specifically *Part B1 Waste*.

Waste audit and management strategies are recommended for new developments to provide support for the building design and promote strong sustainability outcomes for the building. All recommended waste management plans will comply with council codes and any statutory requirements. The waste management plan has three key objectives:

1. ***Ensure waste is managed to reduce the amount of waste and recyclables to land fill*** by assisting staff to segregate appropriate materials that can be recycled; displaying signage to remind and encourage recycling practices; and through placement of recycling and waste bins to reinforce these messages.

2. ***Recover, reuse and recycle*** generated waste wherever possible.

3. ***Compliance*** with all relevant legislation, codes and policies.

The Demolition Waste Management Plan has been developed to ensure that all waste resulting from demolition activities is managed in an effective, safe and environmentally aware manner. Specifically,

- To minimise the generation of waste to landfill
- To maximise waste material avoidance and reuse on site
- To ensure that where practicable, an efficient recycling procedure is applied to waste materials
- To raise awareness among employees and subcontractors of their waste management responsibilities

Management strategies reflect current best-practice requirements, and relevant Sections of the *Protection of the Environment Operations Act 1997* and the NSW Environment Protection Authority *Waste Classification Guidelines, Part 1: Classifying Waste*, as well as consideration of industry best practice for this type of development.

In particular, there will be compliance with *Australian Standard AS2601: The demolition of structures.* This in summary requires that the demolition of structures:

- sets out requirements for the planned demolition of buildings and certain other structures so that the risk of injury to workers, other site personnel and the public, and the risk of damage to adjacent property and the immediate environment is minimised;
- covers the methods and safety procedures applicable to demolition work in general as well as procedures for some types of structures;
- deals with manual and mechanical demolition techniques including those employing specialised earth-moving type machinery;
- includes informative appendices covering some contractual considerations, a checklist for contractors and qualifications for site personnel;
- safety and health issues are addressed under the headings of:
    - Health and safety of the public - covering general requirements, lighting, falling materials, fencing, hoardings and warning notices, scaffolding, overhead protection for footpaths, and hazardous materials and conditions;
    - Safety and health of site personnel - covering general safety, personal protective clothing and equipment, cutting and welding, fire protection, first aid, amenities, removal of hazardous material and electrical safety;

- Protection of adjoining buildings and protection of immediate environment - covering requirements relating to access and egress, damage and structural integrity, vibration and concussion, weatherproofing, burning, dust control, noise control, protection of public roads and protection of sewers and water courses; and protection of the site.

Adherence to AS2601 is required under the Environmental Planning and Assessment Regulation 2000.

Section 143 of the Protection of the Environment Operations Act 1997 requires waste to be transported to a place that can lawfully accept it. It will be the responsibility of the site developers to ensure all contractors clearly specify where all wastes are to be transported, the capacity of the nominated facilities to receive/manage the waste and to ensure that reports on management aspects (types, quantities and disposal pathways) are provided.

Note: The testing and classification of any excavated material is not covered in this report.

Should any contaminated soil (or other materials be identified), then a management plan will be, if necessary prepared for those materials.

2 Waste Management

2.1 Waste Streams

Based on the development profile (as per Section 1), the following are the waste streams that would be expected on a regular basis:

- Comingled recycling (eg., cardboard/paper, glass and plastic containers);
- General waste; and
- Garden waste.

All garden waste will be managed by the appointed gardener. There will be a requirement that this waste be either used on site, or disposed of at a composting facility. Disposal to landfill will not be a permitted option.

2.2 Waste Generation Estimates

Calculations for the types and quantities of waste that will be generated have been based on current waste generation for the College and comparisons with similar size schools as determined by audits conducted by Waste Audit.

To manage the volumes, the following are provided:

- General waste: 49 x 240 litre and 19 x 66 litre Mobile Garbage Bins
- Commingled recycling: 68 x 240 litre Mobile Garbage Bins
- In addition, there is a 9.0 m^3 skip bin for larger maintenance and other wastes

2.3 Waste Management Servicing

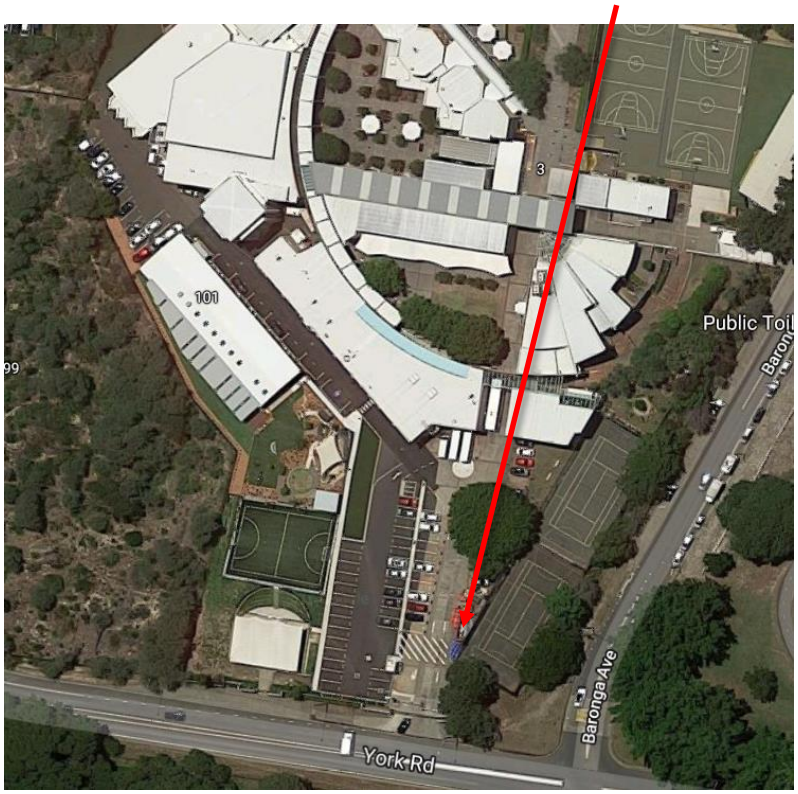
A private contractor (URM) is used for the collection of wastes and recyclables. This is a three per week service for general waste and two per week for commingled recycling. However, additional services can be arranged as required.

The 9.0 m^3 skip bin is serviced by Wasteline approximately 3 or 4 times a month.

2.4 Operational Procedures

The following summarises the recommended waste and recycling systems that will be implemented.

- MGB for waste and recyclables are located around the College grounds for use by staff and students.
- All MGB and bins are managed by College cleaning staff.
- Servicing of waste and commingled recycling MGB is undertaken prior to 7.00 am on collection days.
    - General waste (Monday, Wednesday and Friday)
    - Recycling (Tuesday and Thursday)
- All waste and recycling MGB are serviced from the garbage bin area located inside the Gate 4 car park. All MGB will be transported to the collection area (at Gate 4), from their locations on the College grounds by College cleaning staff and then emptied by the contractor. This will occur in the morning prior to any staff/students arriving, with bins returned to the storage rooms.
- The following illustrates the collection location (Gate 4):

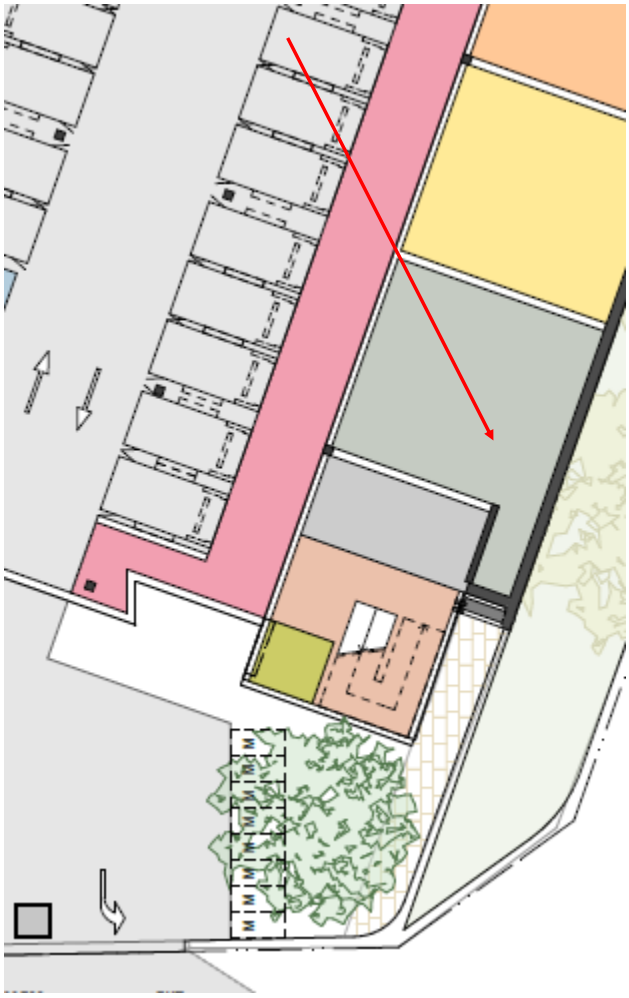


Other aspects for the management of wastes/recyclables include:

- Relevant rooms within the areas will be provided with small (15 litre) bins for both waste and recyclables in each room.
- Staff and students will be provided with information on the proper use of the waste management system and all will be encouraged to maximise the separation of general waste and mixed recyclables to aid the proper disposal of all materials.
- Cleaners will be responsible for emptying bins into the 240 litre MGB's.

2.5 Waste Management Storage

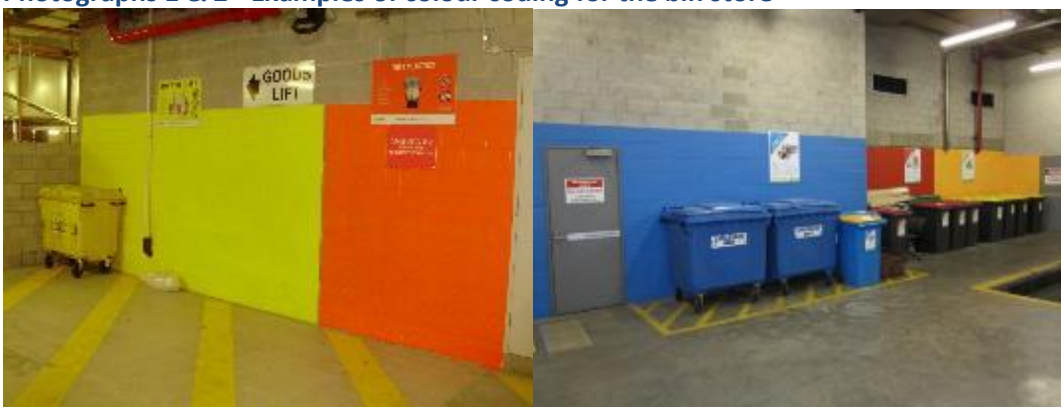
The waste storage area that is provided for the 240/660 litre MGB's is located as per the following diagram.



This area is adequate for the number of bins required. The waste areas will be accessed by cleaning staff only.

The waste and recycling bins will be colour coded and clearly signed. Each stream will be located in a designated area. This will assist in easy identification of correct bins by those with authorised access.

Photographs 1 & 2 - Examples of colour coding for the bin store



The bin store will contain the following to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area:

- waste room walls and floor surface is flat and even;
- all corners coved and sealed to eliminate build-up of dirt;
- all walls painted with light colour and washable paint;
- waste area must be well lit (sensor lighting recommended);
- conform to the Building Code of Australia, Australian Standards and local laws; and
- childproofing and public/operator safety shall be assessed and ensured.

Occupational Health and Safety issues such as slippery floors in waste rooms and the weight of the waste and recycling receptacles will need to be monitored. Cleaners will monitor the bin storage area and all spills will be attended to immediately by cleaners.

Signage will be a crucial element of the waste management system. Appendix A contains examples of signage. These are the type of signs that should be used throughout the buildings and waste storage area. Other signs can be accessed from the NSW EPA website at: http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm.

2.6 Education

Staff and students will be advised as to correct segregation by information conveyed via newsletters, signage and staff advising students, regarding the waste management systems including how to use the system, which items are appropriate for each stream and collection regimes.

2.7 Container Deposit Scheme

The NSW container deposit scheme, Return and Earn, has commenced across NSW on 1 December 2017. Under Return and Earn, most empty 150-millilitre to 3-litre drink containers will be eligible for a 10-cent refund when presented to an approved NSW collection point. Container materials that may be eligible for a refund include

- PET
- HDPE
- glass
- aluminium
- steel
- liquid paperboard

This initiative by the NSW Government can be viewed as an opportunity for the College to collect eligible containers and the transport them to a collection point in order to obtain the refund. College staff and students could also deposit eligible containers from other sources as a means of fund raising.

The following NSW Government website provides details and the College can find collection locations (https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/return-and-earn).

2.8 Public Place Recycling

With public open spaces, consideration needs to be taken regarding public place recycling (PPR). General waste and recycling facilities will be provided in public realm areas throughout the development.

Simple, colour-coded and consistent representation of common recycling and waste streams makes it easier for people to know how and what to recycle - whether at work, the College or a public event. Introducing a public recycling system has environmental, social and financial benefits including:

- Responding to community expectations to 'Do the Right Thing'.
- Reducing the amount of waste sent to landfill and recovering valuable resources to be made into new products.
- Financial benefits over time as materials are diverted from landfill and into recycling.
- Contributing to triple bottom line reporting.

It is important that general waste and recycling bins are always located together in order to make recycling as accessible as general waste disposal. Recycling bins should never be located on their own in isolation from a general waste bin as patrons are likely to contaminate the recycling bin with general waste if there is no other option to dispose their general waste.

The implementation of organics recycling bins is not recommended in public places due to the high levels of contamination commonly observed in such systems.

All bins should be clearly signed and appropriately colour-coded to ensure the streams are readily identifiable. Signage for PPR should be:

- Colour-coded: red for general waste and yellow for recycling
- Large and easily viewed from all angles: this may mean that signs are placed on all sides of the bin or above the bin.
- Simple: don't use jargon (words such as PET, comingled, HDPE and even the recycling triangle can be confusing as this symbol can appear on a number of items that are not necessarily recyclable.
- Unambiguous and uses visual imagery

All public domain waste and recycling bins will be managed and collected by the cleaners as part of their existing waste and recycling operations.

The following are some examples of public place recycling bins that could be used within the College precinct. Contacting providers of these type of bins will enable the development to obtain bins that are "fit for purpose" as well as integrating into the College design.

3 Demolition & Construction Waste Management Principles

3.1 Introduction

This Plan details the management of waste during the demolition and construction phases of the development.

The aim of this Plan is to ensure that all waste resulting from demolition and construction activities are managed in an effective, safe and environmentally aware manner. Specifically,

- To minimise the generation of waste to landfill
- To maximise waste material avoidance and reuse on site
- To ensure that where practicable, an efficient recycling procedure is applied to waste materials
- To raise awareness among employees and subcontractors of their waste management responsibilities

This Plan has been developed with reference to Waverley Council's requirements and relevant Sections of the *Protection of the Environment Operations Act 1997* and the NSW Environment Protection Authority *Waste Classification Guidelines, Part 1: Classifying Waste*, as well as consideration of industry best-practice for this type of development.

3.2 Waste Management Principles

The following waste hierarchy will be used as a guiding principle:

Avoid and Reduce

Minimise the production of waste materials in the demolition/construction process by:

- Assessing and taking into consideration the resultant waste from different demolition, design and construction options
- Purchasing materials that will result in less waste, which have minimal packaging, are pre-cut or fabricated.
- Not over ordering products and materials

Reuse

Ensure that where ever possible, materials are reused either on site or offsite.

- Identify all waste products that can be reused
- Put systems in place to separate and store reusable items
- Identify the potential applications for reuse both onsite and offsite and facilitate reuse

Recycling

Identify all recyclable waste products to be produced on site.

- Provide systems for separating and stockpiling of recyclables
- Provide clear signage to ensure recyclable materials are separated
- Process the material for recycling either onsite or offsite

Note: In some cases, it may be more economical to send the unsorted waste to specialised waste contractors who will separate and recycle materials at an offsite location.

Disposal

Waste products which cannot be reused or recycled will be removed and disposed of. The following will need to be considered:

- Ensure the chosen waste disposal contractor complies with regulatory requirements
- Implement regular collection of bins

Section 143 of the Protection of the Environment Operations Act 1997 requires waste to be transported to a place that can lawfully accept it. It will be the responsibility of the site developers to ensure all contractors clearly specify where all wastes are to be transported, the capacity of the nominated facilities to receive/manage the waste and to ensure that reports on management aspects (types, quantities and disposal pathways) are provided.

3.3 Liquid Waste

Liquid waste may be produced on site for environmental control measures such as:

- Site and vehicle cleaning
- Dust control waste

The following measures will be taken to minimise the impact of liquid waste:

- Ensure water is used in moderation and no taps are left continuously running
- Use any grey water produced on site for irrigation or for dust suppression
- Only discharge clean water into storm water

3.4 Stormwater Pollution Prevention

All actions will be undertaken to avoid pollution entering stormwater drains and for litter generation. The following will be initiated:

i. Prior to commencement of any works a Safe Work Method Statement will be completed and reviewed to determine potential for stormwater pollution and/or litter generation

ii. The proponent (contractor), will need to develop a management strategy to manage the potential for these issues to be realised

iii. Site inspections will be conducted during the working day to monitor potential for stormwater pollution generation and where identified, works will cease until appropriate controls are implemented

iv. Waste water and storm water will be managed and disposed of in accordance with Water Authority requirements.

3.5 Litter Management

i. Daily site inspections will be conducted to identify litter, remedy the situation and investigate the cause so as to reduce the potential for the issue to occur in the future.

ii. Sufficient quantities of bins (and/or bin space), will be made available so as to avoid dumping of materials outside bins

iii. All waste/recycling bins will have covers so as to ensure that wastes cannot be blown out during windy conditions. This will also apply to relevant stocks of materials to be used in construction.

iv. Personnel will be allocated the role of litter management in that they will periodically inspect the site and surrounds for litter and if identified collect and dispose of it.

3.6 Records

Records will be kept of all wastes and recyclables generated and either used on site, or transported off–site during the demolition and construction stages of the development.

It will be a condition of appointment that all waste/recycling contractors involved in the demolition and/or construction stages provide these records, and that they also contain details of the facilities that the materials are transported to.

These records will be made available to Council on request.

3.7 Waste/recyclables storage (on-site)

All waste and recycling materials will be stored in bins provided by the appointed contractor(s). These bins will be appropriately coloured and signed to indicate what materials are to be deposited into them and located so as to maximise the recovery of reusable/recyclable materials.

As construction activities progress, the designated bins will be moved so as to maximise the collection of materials that will be diverted from landfill. This will also involve relocating signage advising as to correct waste management.

3.8 Waste/recyclables treatment (on-site)

There will be no treatment of wastes or recyclables on-site except for possible removal of contaminants prior to forwarding to off-site recyclers.

4 Demolition Materials

4.1 Introduction

All waste contractors/sub-contractors will be required to detail all intended disposal facilities to ensure that legislative and safety requirements are met, the guiding principles of the waste hierarchy are upheld and maximum diversion from landfill is achieved. As previously stated, records will be required to be maintained by all contractors and made available to Council so as to validate management pathways.

The potential for reuse of materials on-site (and this will be encouraged for both demolition activities as well as considering what could be used for the construction phase of the development), will depend on the quality of the materials once demolition proceeds.

4.2 Waste Volumes

The following table details the estimated composition by m^3 of demolition waste to be generated and management strategy. It is important to note that these are estimates and the important issue is that the materials will be managed so as to avoid wherever possible disposal to landfill.

This process and the management of any excavation and removal of contaminated soil and waste (if identified), from the site will be undertaken and managed by qualified contractors and consultants in accordance with all the relevant standards and regulations and is not addressed in this report.

Waste management systems - demolition

Materials on site		Destination		
Type of material	Estimated volume (m^3/tonnes)	On-site	Off-site	Disposal
Excavation material	2,000m^3	Will either be stockpiled for use during construction if required and if not disposed off-site.	Excavation materials will be collected and used as clean fill by the appointed contractor and/or forwarded to various facilities such as garden landscapers, or roadworks	Facility TBA upon appointment of contractor. No disposal to landfill.

Materials on site		Destination		
Type of material	Estimated volume (m^3/tonnes)	On-site	Off-site	Disposal
Concrete	120m^3	Separated on site and crushed for use in pavement and/or temporary access road construction where possible.	Collected by contractor and disposed at concrete recycling facility	Facility TBA upon appointment of contractor. No disposal to landfill.
Asphalt	35m^3	Separated on site and used in pavement and/or temporary access road construction where possible.	Collected by contractor and disposed at recycling facility	Facility TBA upon appointment of contractor
Bricks	65m^3	Bricks will be stockpiled and reused wherever possible.	Acceptable quality bricks collected by a contractor and sold for reuse. Unusable bricks will be collected and recycled at an appropriate brick/rubble recycling facility	Facility TBA upon appointment of contractor. No disposal to landfill.
Timber	75m^3	No on-site reuse	Recyclable timber (untreated) will be collected and recycled at appropriate timber yard. Non-recyclable timber will be disposed at landfill	Facility TBA upon appointment of contractor. No disposal to landfill.
Plasterboard	60m^3	No on-site reuse	Collected by the waste subcontractor on a weekly basis (or as required) for recycling	Facility TBA upon appointment of contractor. No disposal to landfill.

Materials on site		Destination		
Type of material	Estimated volume (m^3/tonnes)	On-site	Off-site	Disposal
Metals	$80m^3$	No on-site reuse	Collected by specialist metal subcontractor for recycling. Facility	Facility TBA upon appointment of contractor. No disposal to landfill.
Green waste (Vegetation, Trees)	$45m^3$	All green waste material will remain onsite and be reused in landscape areas around the development.	Collected and disposed at green waste/mulching facility	Facility TBA upon appointment of contractor. No disposal to landfill.
Mixed hard plastics	$20m^3$	No on-site reuse	Collected by contractor for recycling.	Facility TBA upon appointment of contractor. No disposal to landfill.
Glazing	$10m^3$	No on-site reuse	Recyclers consulted as to potential for recycling	Facility TBA upon appointment of contractor. No disposal to landfill.
Mixed Recyclables)	$25m^3$	No on-site reuse or recycling	Separated onsite into dedicated receptacles. Collected by the waste subcontractor for recycling.	Facility TBA upon appointment of contractor. No disposal to landfill.
General waste	$90m^3$	No on-site reuse or recycling	Separated onsite into dedicated receptacles. Collected by the waste subcontractor for disposal to landfill.	Facility (TBA) upon appointment of contractor

4.3 Other Materials

A range of other materials may be present on the site once the demolition activities commence.

All potentially recyclable materials are to be separated and stored on-site for an appointed waste/recycling contractor to inspect and to determine the suitability of the material for recycling (or even reuse). If approved for either action, then the contractor can then remove the items.

For materials that are not designated as potentially able to be reused or recycled, then they are to be disposed of at a landfill licenced to receive those specific materials.

5 Hazardous Waste Materials

5.1 Management Procedures

No hazardous materials have been identified on the site.

Should any contaminated soil (or other materials be identified), then a management plan will be, if necessary prepared for those materials. However, the principles as described in this Section will apply and be adopted.

If any are identified all contractors employed to manage any identified hazardous wastes will be required (prior to appointment), to demonstrate their compliance with NSW EPA and WorkCover requirements for management of the specific materials they are contracted to manage.

The following are the recommended approaches for managing and hazardous wastes if they were to be identified during the site analysis.

The key principles that need to be adhered to are[1]:

1. All hazardous wastes need to be correctly identified and managed in accord with all relevant legislation and Codes of Practices.

2. Hazardous materials need to be separated into their individual categories and not mixed with any other materials

Prior to commencing any clean-up activities, a Workplace Health & Safety Plan will be developed, implemented and monitored with all relevant site personnel receiving specific training in management of hazardous waste materials (including suspected hazardous materials).

5.2 Asbestos

While no asbestos has been identified, the following summarises the management processes should any be identified. This also includes any materials suspected of being asbestos.

According to the NSW EPA:

> *Exposure to airborne asbestos fibres, even in small quantities, can lead to significant health risks. Whilst environmental risks caused by asbestos are minimal, potential life-threatening illnesses caused by asbestos fibre exposure include asbestosis, lung cancer and mesothelioma.*

[1] Reference should be made to the NSW EPA publication, Waste Classification Guidelines Part 1: Classifying Waste.

Illegal dumping of asbestos may lead to increased exposure of individuals to asbestos fibres and thus increase the incidence of asbestos-related illnesses. The risk of exposure increases when asbestos is dumped close to communities or sites that people frequently visit.

Exposure to airborne asbestos should be kept as low as reasonably practicable below the mandated exposure standard of 0.1 fibres per millilitre of air.

The process for managing what has initially been suspected of being or containing asbestos waste is as follows[2]:

i. Treat the material as asbestos unless proven otherwise

ii. Do not disturb the material (ie., shift or place into a container) at all

iii. Seek advice from a suitably qualified laboratory to test the material(s) to determine if it is or is not asbestos.

iv. If determined not to be asbestos, then it can be managed as an inert waste.

v. If determined to be asbestos then managed by a licenced contractor for packaging, removal and disposal.

vi. If the material has accidently been uncovered, then the area should be cleared, barriers erected to prevent access, NSW WorkCover and EPA notified, and if broken, covered with a fine spray/mist of water.

For what has been conclusively identified as asbestos containing materials (including soils), a specialist/licenced asbestos contractor will be used. As required, only workers trained in asbestos removal techniques will be allowed to manage the removal of asbestos contaminated soil and any contained on the buildings.

In regards to disposal of asbestos containing materials, there are regulatory requirements under clause 42 of the Protection of the Environment Operations (Waste) Regulation 2005 that apply to the management of asbestos waste, including:

- Waste must be stored on the premises in an environmentally safe manner.
- Non-friable asbestos material must be securely packaged at all times.
- Friable asbestos material must be kept in a sealed container.
- Asbestos-contaminated soil must be wetted down.
- All asbestos waste must be transported in a covered, leak-proof vehicle.
- Asbestos waste must be disposed of at a landfill site that can lawfully receive this waste. Always contact the landfill beforehand to find out whether asbestos is accepted and any requirements for delivering asbestos to the landfill.
- It is illegal to dispose of asbestos waste in domestic garbage bins.
- It is also illegal to re-use, recycle or dump asbestos waste

[2] It may be that any material suspected of being asbestos is simply classified as such, and then managed accordingly. This though may result in excessive costs.

6 Construction Waste Profile

6.1 Introduction

Finalisation of the system(s) that will be implemented for the recovery of materials and for disposal of others to landfill will occur following appointment of contractor(s). A component of the appointment will be that contactors will be required to provide data as to the disposal pathway (eg., materials, volumes and final disposal site), as well as a validation process for this information.

The appointed contractor(s) will also be responsible for sourcing speciality recycling facilities for the materials that cannot be reused on site.

6.2 Waste Volumes

The quantity of waste materials to be generated onsite are estimates and therefore the systems that will be put in place need to incorporate flexibility to allow for variation in the total quantities generated. Active site management during the construction phase will ensure all waste/recyclable materials are disposed of appropriately and that all waste receptacles are of sufficient capacity to manage onsite activities.

The following table details the estimated composition by m^2 of construction waste to be generated for the total site.

Composition and Management of Construction waste by m^2

Materials on site		Destination		
Type of material	Estimated volume (m^3)	On-site (Reuse or recycle)	Off-site	Disposal
Concrete	$5m^3$	Separated on site and crushed for use in pavement construction where possible	Collected by contractor and disposed at concrete recycling facility	Facility TBA upon appointment of contractor
Timber (formwork)	$25m^3$	Separated and where feasible, reused for further formwork	Unused material separate and stockpiled onsite. Collected by specialist timber subcontractor for recycling	Facility TBA upon appointment of contractor

Materials on site		Destination		
Type of material	Estimated volume (m^3)	On-site (Reuse or recycle)	Off-site	Disposal
Plasterboard	$8m^3$	Unused material taken back by supplier for reuse where possible	Material to be separated and stockpiled onsite.	Facility TBA upon appointment of contractor
Metal	$15m^3$	No on-site reuse	Collected by specialist metal subcontractor for recycling	Facility TBA upon appointment of contractor
Carpet	$2m^3$	No on-site reuse	This will be disposed of into a designated bin and collected for recycling if of the required quality or disposal to landfill.	Facility TBA upon appointment of contractor
Mixed hard plastics	$25m^3$	No on-site reuse	Collected by contractor for recycling. Facility TBA upon appointment of contractor.	No disposal to landfill
Glazing	$1m^3$	No on-site reuse	Recyclers consulted as to potential for recycling and if suitable separated for recycling.	Facility TBA upon appointment of contractor

Materials on site		Destination		
Type of material	Estimated volume (m^3)	On-site (Reuse or recycle)	Off-site	Disposal
Soil/Sand/Gravel	$10m^3$	Will be stockpiled for reuse.	Excavation materials will be collected and used as clean fill by the waste contractor with appropriate notification as to location	All remaining material will be disposed at landfill – facility (or other sites as fill), TBA upon appointment of contractor
Mixed Recyclables	$45m^3$	No on-site reuse	Contractor appointed to collect and recycle	No disposal to landfill
General waste	$110m^3$	No on-site reuse	No recycling or reuse	Facility TBA upon appointment of contractor

7 Contracts and purchasing

Each subcontractor working on the site will be required to adhere to this Waste Management Plan.

The Head Contractor will ensure each subcontractor:

- Takes practical measures to prevent waste being generated from their work
- Implements procedures to ensure waste resulting from their work will be actively managed and where possible recycled, as part of the overall site recycling strategy or separately as appropriate
- Ensures that the right quantities of materials are ordered, minimally packaged and where practical pre-fabricated. Any oversupplied materials are returned to the supplier
- Implements source separation of off cuts to facilitate reuse, resale or recycling.

The Site Manager will be responsible for:

- Ensuring there is a secure location for on-site storage of materials to be reused on site, and for separated materials for recycling off site.
- Engaging appropriate waste and recycling contractors to remove waste and recycling materials from the site
- Co-coordinating between subcontractors, to maximise on site reuse of materials
- Monitoring of bins on a regular basis by site supervisors to detect any contamination or leakage
- Ensuring the site has clear signs directing staff to the appropriate location for recycling and stockpiling station/s. And that each bin/skip/stockpile is clearly sign posted
- Proving training to all site employees and subcontractors in regards to the WMP as detailed below.

Should a subcontractor cause a bin to be significantly contaminated, the Site Manager will be advised by a non-conformance report procedure. The offending subcontractor will then be required to take corrective action, at their own cost. The non-conformance process would be managed by the Head Contractors' Quality Management Systems

8 Training and Education

All site employees and sub-contractors will be required to attend a site specific induction that will outline the components of the WMP and explain the site specific practicalities of the waste reduction and recycling strategies outlined in the WMP.

All employees are to have a clear understanding of which products are being reused/recycled on site and where they are stockpiled. They are also to be made aware of waste reduction efforts in regards to packaging.

The site manager will post educational signage in relation the recycling activities on site in breakout areas, lunch rooms etc.

Appendix A – Example Signage