

# **Liverpool Health Multi Storey Carpark**

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## **Operational Waste Management Plan**



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# 1. Introduction

This Plan details the management of waste generated during the operational phases of the Liverpool Health Multistorey Carpark development. It has been prepared on behalf of Johnstaff to accompany a Development Application for the development at this site.

Liverpool Hospital is located within the Liverpool Central Business District (CBD), on the corner of Elizabeth Street and Goulburn Streets, Liverpool. The hospital campus includes land east and west of the Main Southern Railway, which forms an eastern and western campus. The proposed works are located in the western portion of the western hospital campus. The site is legally described as Lot 501 in DP1165217.

The application seeks consent for the construction and operation of a 6-storey car park, connections to the existing road work and associated landscaping.

A detailed project description is provided by Ethos Urban within the EIS.

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.

This Operational Waste Management Plan addresses the appropriate segregation, containment and disposal of waste required with waste avoidance being the primary focus. To assist Hospital management in achieving effective waste and recycling management, this waste management plan has three key objectives:

- i. **to minimise the environmental impacts of the operations of the development on the environment** – this will be achieved by ensuring maximum diversion of waste from landfill; correct containerisation and transport of materials; correct segregation of materials into appropriate management streams; awareness among tenants of waste avoidance practices.
- ii. **to minimise the impact of the management of waste within the development on local residents** – this will be achieved by ensuring waste is managed so as to avoid odour and litter and collected during suitable times.
- iii. **to ensure waste is managed so as to reduce the amount landfilled and minimise the overall quantity generated** – this will be achieved by implementing systems that assist tenants to segregate appropriate materials that can be recycled; displaying signage in all tenant areas to remind and encourage avoidance and recycling to staff; and through associated signage in the retail precinct to reinforce these messages.

The Liverpool City Council Development Control Plan 2008 (various Sections including Sections 14 and 25) has been referred to in the development of the waste estimates and related requirements.

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.

## 2. Operational Waste Management Plan

### 2.1 Waste Generation

#### 2.1.1 Waste Streams

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

- General waste; and
- Comingled recycling (including).

Other wastes may be generated, but these would be in small volumes and irregular in terms of when generated. Hospital management will conduct a waste assessment once the new development is operational to determine the additional types and quantities of wastes that may be generated. Following this, appropriate management systems will be implemented and where necessary systems implemented (eg., collection schedules), to manage all wastes and recyclables.

It is not expected that significant quantities of garden waste will be generated.

### 2.2 Waste Generation Estimates

This type of development is difficult to quantify waste generation due to potential fluctuations in utilisation of the carpark as well as seasonal issues such as weather impacting on type and quantities of waste/recyclables generated.

To manage, a separate waste and commingled recycling bin will be located on each level of the carpark adjacent to the lifts as well as the entrance area on the Ground level.

It is estimated that the development will generate a total of approximately **360 litres** of waste and recyclables per day – a total of **2,520 litres** per week.

### 2.3 Waste Management System

The following summarises the waste and recycling system that will be implemented for the development.

Note that the system to be implemented is one that integrates with the current waste management system and procedures currently used within the Hospital.

Waste and recycling bins will be located on each level of the carpark near the lift/stairwells. The bins and/or contents are collected by Hospital General Services staff and transported to the central waste storage areas as appropriate to the location where wastes are collected from (eg., either the Basement Clinical Services building or Basement Integrated Services Building).

As part of the hospital's continual improvement program, reviews of the location, type and size of waste/recycling containers will be undertaken on a regular basis.

General waste will be stored in the on-site compactor and recyclables stored on the loading dock in bins while awaiting collection.

The waste and recycling bins will be colour coded and clearly signed. Signage will be a crucial element of the waste management system. The waste contractor should provide all signage for bins and walls in waste storage rooms. Below are examples of the types of signage that can be used for the development.



## 2.4 Ongoing Management

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

### Cleaners:

Cleaners should be required to provide feedback to management about any non-compliance issues they observe during their cleaning activities, such as contamination, non-participation, or missing or damaged bins. This allows issues to be dealt with promptly by management.

### Waste Contractors:

The waste/recycling contractor will be required to report actual quantities collected by stream so that management can monitor performance and feed this back to staff. Specific Key Performance Indicators for performance should be included in waste and recycling contracts.

The waste contractor should also be required to participate in ongoing reviews and provide updates on new opportunities that may allow the Hospital to further increase their diversion from landfill.