The Brewery Yard (Central Park Chippendale) Operational Waste Management Plan

AUGUST 2020

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

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

This report contains confidential information. It has been compiled by Waste Audit and Consultancy Services (Aust) Pty Ltd on behalf of Johnstaff for the Brewery Yard Development.

This Waste Management Plan is not a substitute for legal advice on the relevant environmental legislation, which applies to Johnstaff its contractors or other bodies. Accordingly, Waste Audit and Consultancy Services (Aust) Pty Ltd will not be liable for any loss or damage that may arise out of this project, other than loss or damage caused as a direct result of Waste Audit and Consultancy Services (Aust) Pty Ltd's negligence.

Table of contents

1 Introduction

This Waste Management Plan (WMP) has been prepared on behalf of Johnstaff to accompany a Development Application for the Brewery Yard located at Central Park, Chippendale. The development will be a Class 9B building and used for retail and commercial purposes with associated infrastructure.

This development will comprise:

- Commercial Tenancies – 4,352 m^2
- Food & Beverage Tenancies – 906 m^2

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.

To assist building 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** – 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 to 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 relevant areas to remind and encourage avoidance and recycling to staff; and through associated signage in the commercial areas to reinforce these messages.

This Plan has been developed with reference to the City of Sydney's *Guidelines for Waste Management in New Developments, 2018*, and other Authority's requirements in the development of the waste estimates and related requirements. In addition, industry data for the development profile has also been referred to.

2 Waste Generation

2.1 Waste Streams

Based on the development profile, the following waste streams would be expected:

- General waste
- Commingled recycling (including paper & cardboard recycling)
- Organics

Ongoing management of wastes will also apply to identification of other waste/recyclables and if so identified, appropriate management strategies will be implemented – focussed on reducing materials to landfill.

2.2 Waste Generation Estimates

Based on averages for quantity of waste generated and composition as determined by industry data (ie., data/information provided by WACS' waste audits conducted in a broad range of sectors) as well as consideration of the waste generation rates as detailed in the City of Sydney "*Guidelines for Waste Management in New Developments, 2018*", it is estimated that the development will generate a total of 25,647 litres of waste and recyclables per week. The estimated weekly generation volumes are:

- Commercial – 3,264 litres waste, 5,440 litres recyclables per week and 1,088 litres of organics
- Retail (F&B) – 4,530 litres waste and 9,060 litres recyclables per week and 2,265 litres of organics

Note that the estimations for waste generation have been based on floor space as required by the City of Sydney. In addition, as their will be a compactor for general waste, the volume for that stream has been reduced by 50% for the total litres per week.

2.3 Waste Management System

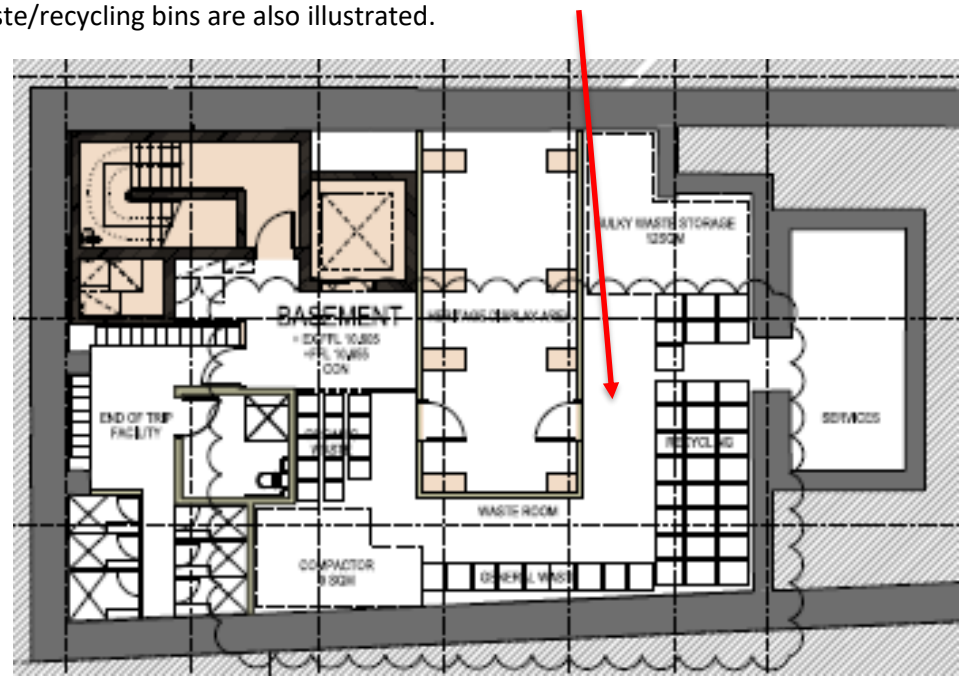
Based on the volume of waste/recyclables generated and the twice weekly collection service for waste and weekly for recyclables, the following table illustrates the number of bins per stream and associated footprint. Note also that the volume for general waste has been reduced by 50% due to the use of a garbage compactor.

Waste/recycling bin and storage requirements

Waste Stream	Bin Type	No. of Bins	Clearance Frequency (week)	Capacity - Litres (weekly)	Estimated volume / weekly (litres)	Footprint per bin (m2)	Total Footprint
General Waste	240	9	2	4,320	3,897	0.44	3.96
Recycling	240	31	2	14,880	14,500	0.44	13.64
Organics	120	14	2	3,360	3,353	0.28	3.92
TOTAL		**54**		**22,560**	**21,750**		**21.5**

Note that 240 litre Mobile Garbage Bins have been selected to allow for ease of movement throughout the development.

The following illustrates the location of the waste (bin) room. Indicative positions of the waste/recycling bins are also illustrated.



The design of the waste room is approximately 68.0 m^2. As indicated above, there is a requirement for bins of 21.5 m^2. An allowance of 30% is recommended so this results in a space requirement of 28.62 m^2.

In addition, an allowance should be made for the compactor for the general waste as well as for placing waste into it. While there are several models on the market, as a

general rule, coupling the compactor with a carousel is an efficient means of managing this stream. This would require a footprint of approximately 9.0 m^2.

These bin, compactor and carousel requirements (along with the 30% allowance), results in a need to allow 37.62 m2. Given the waste room is 68.0 m^2, this allows an additional 20.9 m^2 for the bulky wastes, contingencies and transporting bins through the room.

2.4 Waste Storage Room Design

All storage areas will be constructed in accordance with the Council's and Department of Environment and Climate Change NSW *Better Practice Guide for Waste Management in Multi-Unit Dwellings 2008*.

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 cleaners and tenants.

Photographs 1 & 2 - Examples of waste room colour coding

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

- waste room floor to be sealed;
- waste room walls and floor surface is flat and even;
- all corners coved and sealed 100mm up, this is to eliminate build-up of dirt;
- a water facility with hose cock be provided for washing the bins;
- any waste water discharge from bin washing must be drained to sewer in accordance with the relevant water board;
- tap height of 1.6m;
- storm water access preventatives (grate);
- all walls painted with light colour and washable paint;
- equipment electric outlets to be installed 1700mm above floor levels;

- the room must be mechanically ventilated;
- light switch installed at height of 1.6m;
- waste rooms must be well lit (sensor lighting recommended);
- all personnel doors are hinged and self-closing;
- waste collection area must hold all bins – bin movements should be with ease of access;
- 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 will attend to all spills immediately, as they occur.

2.5 Waste Management System

Appendix A contains illustrations of bins (and other waste management equipment) that could be used for the management of waste/recycling bins within the development – these are designed to both assist in segregation as well as to promote safe work practices for bin movement(s). The pictures provide examples of the different options for equipment such as MGB, tugs for transporting bins, trolley unit and a wheelie-safe trolley.

Signage will be a crucial element of the waste management system. Appendix B contains examples of signage. These are the type of signs that should be used throughout the development and waste storage area(s).

Waste and recycling collection services will be provided by a commercial waste contractor (TBA). Utilising a commercial waste contractor affords the building management greater flexibility regarding collection schedules and the appropriate collection frequencies will be determined in consultation with the waste contractor once appointed – however once operational, collection schedules may need to be adjusted accordingly depending on actual waste generation.

Building management will be responsible for ensuring that contracts with waste/recycling contractors are in place for all tenancies prior to them commencing operations. Contractual arrangements with the appointed contractor will detail the timing and processes for collections.

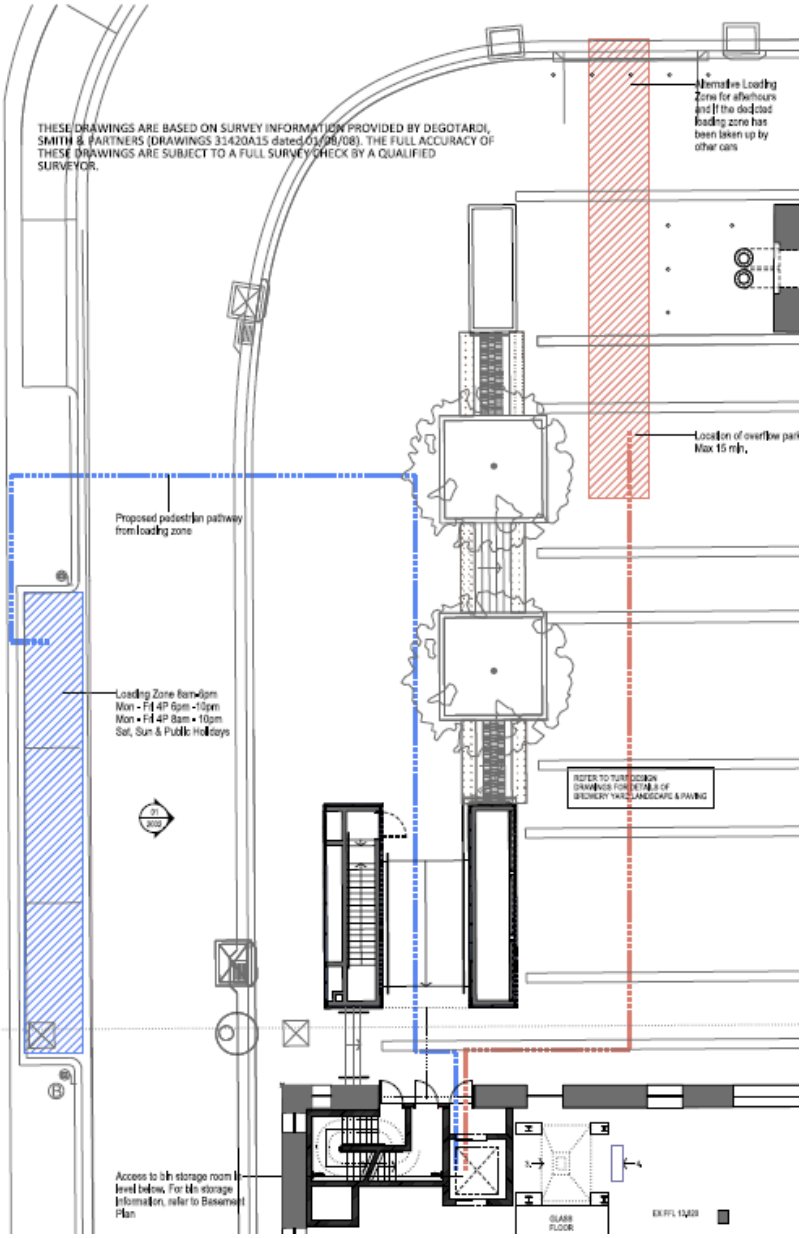
In addition, contracts with the appointed waste/recycling contractors will specify

- *Commercial waste service collection services and waste storage arrangements must be conducted in accordance with the City's Waste Policy – Local Approvals Policy for Managing Waste in Public Places (2017).*

Waste and recycling bins will be serviced by the appointed contractor directly from the waste storage room – no bins will be left on the kerbside prior to, and post collection.

The waste collection vehicle will park in an area that has been agreed upon with the City of Sydney so as to minimise the distance the waste contractor has to move bins as well as to ensure that this movement is undertaken safely.

The following illustrates the location for the waste collection points and path of access for both the vehicle and personnel.



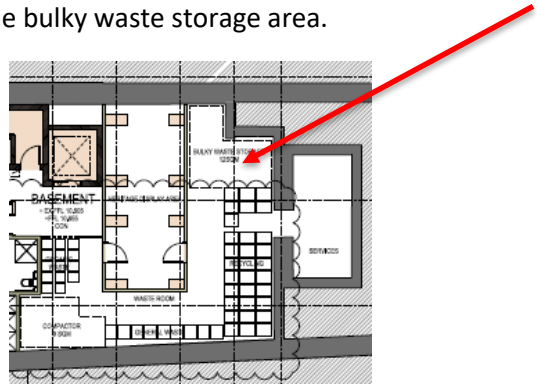
Collection of bins from waste storage areas and moving to where collection vehicles are parked is a process that the waste contractors have developed appropriate procedures for.

All areas will be designed so as to allow effective segregation of recyclables. These areas will be provided with sufficient bins to allow for effective segregation of wastes/recyclables. This will include:

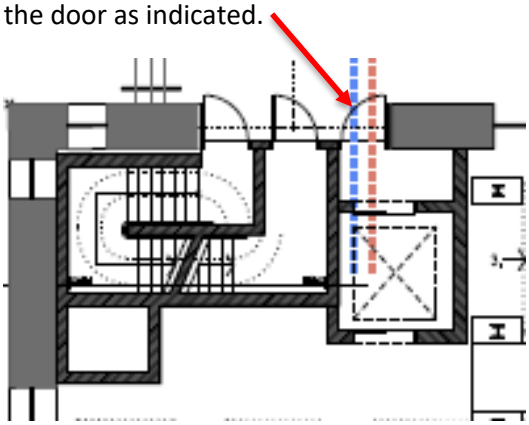
- General waste
- Comingled recycling (including paper/cardboard)
- Organics

Appointed cleaners will be responsible for transporting waste and recyclables from the office areas to the waste storage room.

Bins will be transported to the storage area by the lift as indicated[1]. The diagram below also shows the location of the bulky waste storage area.



Access to this lift will be from the ground floor. Cleaners/tenants will access the lift from the door as indicated.



Bins will be transported to the door (and thus lift), from outside of the ground floor.

Bins transported to the waste room will be left, and replacement bins then taken to the relevant level and/or tenancy.

The waste will be compacted by cleaning staff only. No tenant will be allowed to compact waste and this will be controlled by the provision of locking systems to prevent unauthorised use of this equipment. There will also be a lock on the storage area so that only authorised personnel can access it. The responsibility for this will be with building management.

[1] The heritage display area is contained with gyprock walls. Should maintenance staff require entry to the heritage zone, then they will need to go through the waste room not the other way around. The bulky store is accessible through the waste area not the heritage display area.

To ensure that wastes and recyclables are managed correctly (ie., deposited into the correct container) tenants will be provided with information on the proper disposal of wastes and recyclables – that is correct segregation requirements.

In addition:

- General waste bins will be distinguished by having a red lid, the commingled recycling bins have a yellow lid and the organics a lime green lid.
- In keeping with best practice sustainability programs, all waste areas and waste and recycling bins will be clearly differentiated through appropriate signage and colour coding to Australia Standards to reflect the materials contained.
- Cleaners will also have included in the contract the above responsibilities as well as having the responsibility for ensuring that all bins are maintained in a hygienic condition at all times.
- Cleaning staff will also liaise with the development management to ensure that all signage is maintained in good readable condition and when necessary replaced.

3 Waste Management Education

All tenants will receive information regarding the waste collection systems including how to use the system, which items are appropriate for each stream and collection times. Appropriate signage and updated information will also be provided, as well as receiving feedback on issues such as contamination of the recycling stream or leakage of the recyclables into the general waste. Facilities management will have the responsibility for these tasks.

All waste receptacles will be appropriately signed and additional room signage is usually provided from most waste contractors during implementation of the waste contract. Examples of signage are included in Appendix B.

It is recommended that all signs should:

- Clearly identify the waste/recycling stream;
- Use correct waste/recycling stream colour coding;
- Identify what can and cannot be disposed of in the receptacle; and
- Include highly visual elements to accommodate for individuals from non-English speaking backgrounds.
- As part of the staff induction and welcoming process, a waste and recycling toolkit will be provided. This toolkit will include the details of each of the systems in place; acceptance criteria for each stream and how each stream is managed.

An active waste monitoring program will be employed. The waste and cleaning contracts will ensure that contractors actively participate in the waste reduction program for the site and meet regularly to identify performance and new opportunities for diversion and avoidance.

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 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.

Appendix A – Waste Management Equipment

The following diagrams illustrate colours and sizes of different bins that could be used within the development.

Figure 1 – MGB bin

Figure 2 – MGB bin

Figure 3 – Indicative size of MGB

Figures 4, 5, 6 and 7 – Bin movers and tugs


MOVEXX AUSTRALIA
www.movexx.com.au 1300 188 198

Appendix B – Example Signage