Waste Audit & Consultancy Services (Aust) Pty Ltd
Level 21, 133 Castlereagh Street
Sydney, NSW 2000
Telephone 02 9199 4521
www.wasteaudit.com.au

# Cockle Bay Park Redevelopment

# Appendix JJ_Rev 1

# Operational & Construction Waste Management Plan

## State Significant Development,

## Development Application (SSD DA)

## Prepared for DPT Operator Pty Ltd and DPPT Operator Pty Ltd

## October 6, 2021

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# 1 Introduction

This report has been prepared to accompany a detailed State Significant Development (SSD) Development Application (DA) (Stage 2) for a commercial mixed use development, Cockle Bay Park, which is submitted to the Minister for Planning and Public Spaces pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The development is being conducted in stages comprising the following planning applications:

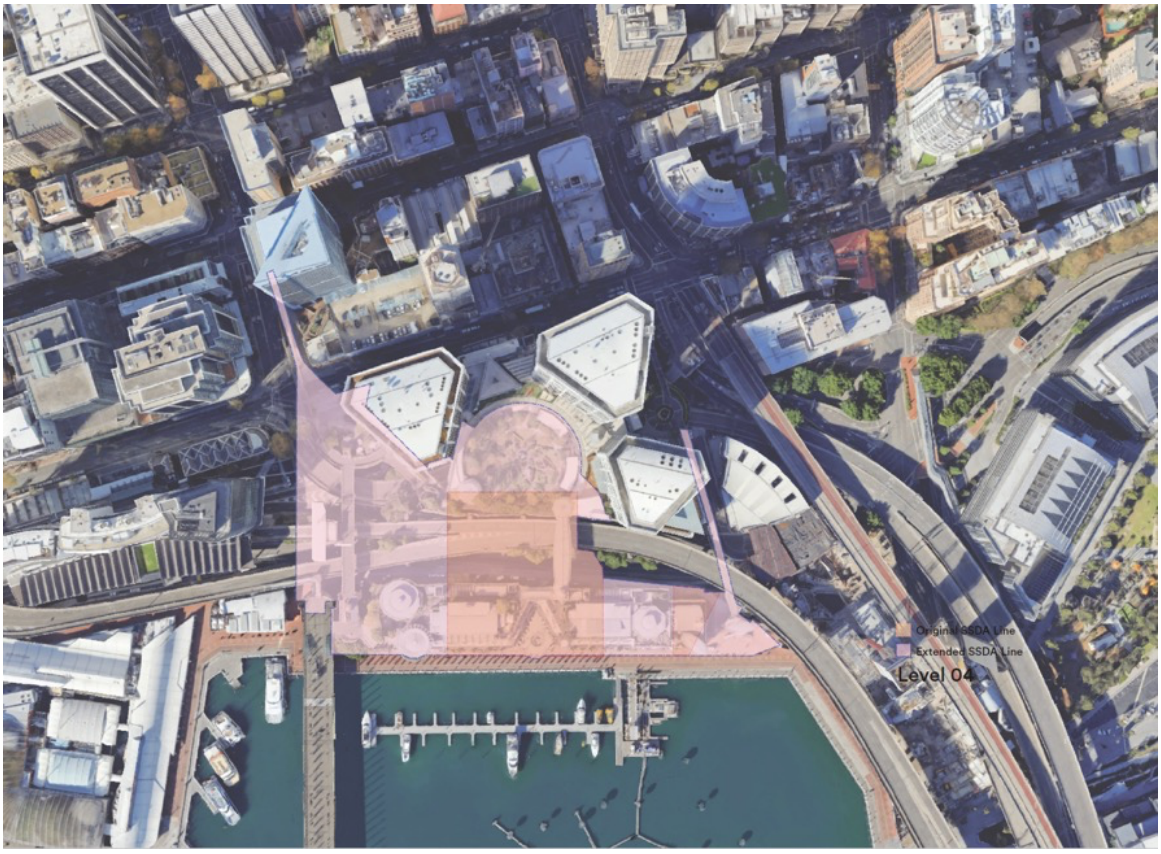
- Stage 1 – Concept Proposal setting the overall 'vision' for the redevelopment of the site including the building envelope and land uses, as well as development consent for the carrying out of early works including demolition of the existing buildings and structures. This stage was determined on 13 May 2019, and is proposed to be modified to align with the Stage 2 SSD DA.
- Stage 2 – detailed design, construction, and operation of Cockle Bay Park pursuant to the Concept Proposal.

# 2 The Site

The site is located at 241-249 Wheat Road, Sydney to the immediate south of Pyrmont Bridge, within the Sydney CBD, on the eastern side of the Darling Harbour precinct. The site encompasses the Cockle Bay Wharf development, parts of the Eastern Distributor and Wheat Road, Darling Park and Pyrmont Bridge.

The Darling Harbour Precinct is undergoing significant redevelopment as part of the Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP) including Darling Square and the IMAX renewal (W Hotel) projects. More broadly, the western edge of the Sydney CBD has been subject to significant change following the development of the Barangaroo precinct.

**Figure 1: Location Plan**



This report has been prepared in response to the Secretary's Environmental Assessment Requirements (SEARS) dated 12 November 2020 for SSD-9978934. Specifically, this report has been prepared to respond to those SEARS summarised in Table 1.

| **Table 1: SEARs Requirements** | | |
|---|---|---|
| **Item** | **Description of Requirement** | **Section Reference (this report)** |
| 78 | Future Development Applications shall include a Waste Management Plan to address storage, collection, and management of waste and recycling within the development. | Sections 6-19 |

This report has also been prepared in response to the following Stage 1 (SSD 7684) conditions of consent summarised in Table 2.

| **Table 2: Concept Approval of Conditions of Consent** | | |
|---|---|---|
| **Item** | **Description of Requirement** | **Section Reference (this report)** |
| 195 | The EIS must:<br>• Identify, quantify and classify the likely waste to be generated during the construction and operation of the proposed development and describe the measures to be implemented to minimise, manage, reuse, recycle and safely dispose of this waste, having regard to the City of Sydney's *Guidelines for Managing Waste in New Developments*<br>• Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones and mechanical plant) for the site. | Sections 6-19 |

# 3 Applicable Legislation, Standards & Guidelines

In addition to the SSD requirements, the following have been referred to in compiling this report:

- NSW *Protection of the Environment Operations Act 1997*
- NSW *Protection of the Environment Operations (Waste) Regulation 2014, Part 11*
- NSW *Protection of the Environment (General) Operations Act 1998*
- NSW *Waste Avoidance and Resource Recovery Act 2001*
- NSW EPA *Waste Classification Guidelines* 2014
- City of Sydney 2018 *Guidelines for Waste Management in New Developments*
- Better Buildings Partnership *Operational Waste Guidelines* 2015

# 4 Report Structure

Sections 5-11 address demolition and construction waste and recycling; Sections 12-20 address operational waste and recycling.

# 5 Scope of Demolition & Construction Works

The demolition and construction components of the project are proposed to take place across six separate phases as follows:

**Table 3: Scope of Works**

| Phase | Proposed Work Relevant to this Report |
|---|---|
| 0 | Demolition of Market Street Bridge |
| 1 | Survey and site establishment<br>Extensive potholing |
| 2 | Demolition of existing Cockle Bay Wharf structure<br>Demolition of pedestrian bridges<br>Demolition of Darling Harbour Monorail Station |
| 3 | Piling, ramps, paths, etc.<br>Landscaping and finishes |
| 4 | New retail podium construction<br>Excavation of lift core pits<br>New podium piling<br>Landscaping and finishes |
| 5 | Tower construction<br>Tower superstructure and façade<br>Fitout and finishes |

# 6 Risk Management & Reporting

Current legislation determines that the generator of waste is the owner of the material until it crosses a weighbridge into a licensed processing or disposal facility. Waste contractors including construction contractors will be the primary transporters of waste off-site; accordingly, contractors will be required to provide monthly reports to the Project Managers on waste reused, reprocessed or recycled, and waste sent to landfill.

All reports will include the following information:

- Date and time material removed
- Material type
- Amount of material (in kg and/or cubic metres)
- Processing facility material taken to
- Processing facility licensing information
- Vehicle registration and waste contractor's company details

This information will also be kept on site in a waste data file (printed and/or electronic) and made available for inspection to any authorised council officer at any time during site works. At the conclusion of site works, the construction contractor will retain all waste documentation and make this documentation available for inspection.

# 7 Demolition & Construction Waste Objectives & Targets

This Waste Management Plan will be implemented throughout the project's demolition and construction phases. The project's waste management objectives will include:

- Meeting all waste management standards while ensuring the health and safety of the workers on the project
- Maximising the quantities of materials diverted from landfill by reusing, recycling and reprocessing off-site
- Disposal of no more than 20% of residual waste materials to a licensed landfill in accordance with both regulatory and legal requirements
- The diversion from landfill of 80% of construction waste by weight, to meet the criteria of the NSW State Government's waste legislation, policy settings and regulatory regime

Management strategies and parties responsible for ensuring these objectives are achieved are detailed in Section 8.

# 8 Demolition & Construction Waste Management Strategies

The following waste management strategies for the project will operate over the design, procurement, demolition, and construction (including fitout) stages of the project:

**Table 4: Management Strategies**

| Management Strategies | Responsibilities |
|---|---|
| **Design:** | |
| Use of modular components in design | Architect & Engineer |
| Use of prefabricated components in design | Architect, Builder, Subcontractors |
| Design for materials to standard sizes | Architect, Subcontractors |
| Design for operational waste minimisation | Architect & Builder |
| **Procurement:** | |
| Select recycled and reprocessed materials | Architect, Engineer, Builder, Subcontractors |
| Select components that are reusable after deconstruction | Architect, Engineer & Builder |
| **Pre-Demolition:** | |
| Waste management plan to be reviewed and amended as required to address any changes in project scope | Project Manager, Builder |
| Hazardous materials survey to be undertaken prior to commencements of any demolition works | |
| **Construction On-Site:** | |
| Use the waste hierarchy principles of avoidance, reuse, reduction, and recycling | Builder & Waste Contractor |
| Minimisation of recurring packaging materials | Subcontractors |
| Returning packaging to the supplier | Builder & Subcontractors |
| Separation and recycling of materials off site | Waste Contractor |
| Monitor and audit correct usage of bins | Builder & Waste Contractor |
| Monitor and audit waste contractor(s) | Builder |

# 9 Demolition & Construction Waste Management Principles

## 9.1 General Principles

The following standard waste management hierarchy principles have been used to guide this waste management plan:

**Avoid:** Use practices that avoid the creation of waste products in the first place (e.g., the Design for Manufacture and Assembly (DfMA) process that combines the manufacture of building components, such as wall systems and facades, in an efficient factory environment, with on-site construction assembly. For details of this process please go to:

https://architectus.com.au/insight/design-for-manufacture-and-assembly-dfma/

**Reduce:** Reduce the use of materials during demolition that require treatment or disposal

**Reuse:** Ensure that wherever possible, materials are reused either on site or offsite:

- Identify and put systems in place to separate and store materials for onsite reuse
- Identify the potential applications for reuse offsite and facilitate this process

**Recycle/Recover:** Identify all recyclable waste products to be produced on site:

- Provide systems, bins, and signage for separating and stockpiling of recyclables
- Process the material for recycling either onsite or offsite

**Treat/Dispose:** Waste products which cannot be reused or recycled will be removed and treated/disposed of at appropriately licensed facilities. To minimise vehicle movements and transportation costs, bins should be monitored for fullness and collected on an efficient schedule.

## 9.2 Liquid Waste Management

- 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
- Manage all wastewater and runoff in accordance with Sydney Water requirements

## 9.3 Asbestos Containing Materials

In regard 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. Should any materials be suspected of being (or containing), asbestos, the following process will be followed:

i. Treat the material as asbestos unless proven otherwise
ii. Do not disturb the material (i.e., shift or place into a container)
iii. Send the materials to a suitably qualified laboratory for testing
iv. If determined not to be asbestos, then the materials can be managed as an inert waste
v. If determined to be asbestos then the materials must be 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 the material is broken, it should be covered with a fine spray/mist of water.

Only workers trained in asbestos removal techniques will be allowed to manage the removal of asbestos-contaminated soil and any material contained in existing structures.

# 10 Demolition Phase

Table 5 shows estimated quantities of demolition waste to be generated, and management strategies for each type of material, based on our understanding of structures to be demolished and excavation works to be undertaken. Specific disposal/recycling facilities are not shown, as waste removal contractors have not yet been appointed for the project.

**Table 5: Demolition Waste - Expected Materials Streams**

| Materials on Site | | Destination/Treatment | | |
|---|---|---|---|---|
| **Type of Material** | **Estimated $m^3$** | **Onsite (Reuse/Recycle)** | **Offsite (Reuse/Recycle)** | **Disposal (Landfill)** |
| **Concrete** | **20,650** | No on-site reuse | Collected by contractor and taken to concrete recycling facility | No disposal to landfill |
| **Metal** | **5,200** | No on-site reuse | Collected by specialist metal subcontractor for separation into different metal types for recycling | No disposal to landfill |
| **General Waste** | **4,400** | No on-site reuse or recycling | Separated onsite into dedicated receptacles and collected by the waste contractor for disposal | Disposal to landfill |
| **Excavated Soil, Rock** | **1,500** | Possible onsite reuse | Material to be taken to dedicated facility for processing for reuse in landscaping works | No disposal to landfill |
| **Floor Coverings** | **500** | No on-site reuse | Collected in designated bin and sent for recycling if of required quality; otherwise sent to landfill | Material that cannot be recycled will be sent to landfill |
| **Tree & Vegetation Removal** | **350** | Possible onsite reuse | Material to be taken to organic waste facility for processing for reuse in landscaping works | No disposal to landfill |
| **Plasterboard** | **300** | No on-site reuse | Material to be separated onsite and collected by contractor for recycling for use as soil improver with gypsum removed by recycler | Material that cannot be recycled will be sent to landfill |
| **Glass** | **220** | No on-site reuse or recycling | Sent for reuse if feasible and/or recycling depending on condition | No disposal to landfill |
| **Timber** | **200** | Possible onsite reuse | Untreated recyclable timber will be collected and recycled at timber yard. Unrecyclable timber will be sent to landfill | Material that cannot be recycled will be sent to landfill |
| **Wiring** | **200** | No on-site reuse | Collected by specialist metal subcontractor for separation into different metal types for recycling | No disposal to landfill |
| **Plumbing, Fixtures** | **200** | No on-site reuse | | No disposal to landfill |
| **Lighting Fixtures, Lamps** | **150** | No on-site reuse or recycling | Collected by specialist subcontractor for recycling | No disposal to landfill |
| **Tiles** | **100** | No on-site reuse or recycling | Sent for reuse if feasible and/or recycling depending on condition | No disposal to landfill |
| **TOTAL MATERIALS** | **33,970** | The demolition phase will produce around **33,970 $m^3$** of waste materials, of which **29,570 $m^3$** or **87%** can potentially be diverted from landfill, by being reused on site, or recycled off-site at a dedicated facility. | | |

# 11 Construction Phase

Table 6 shows expected volumes resulting from the construction process, including materials generated from deliveries, such as pallets, pallet wrap, cardboard packaging, and general waste and recyclables disposed of by contractor staff, based on the works to be undertaken. Specific disposal/recycling facilities are not shown, as waste removal contractors have not yet been appointed for the project.

**Table 6: Construction Waste - Expected Materials Streams**

| Materials on Site | | Destination | | |
|---|---|---|---|---|
| **Type of Material** | **Estimated Volume ($m^3$)** | **Onsite (Reuse/Recycle)** | **Offsite (Reuse or Recycle)** | **Disposal (Landfill)** |
| **Soft Plastics (e.g. pallet wrapping)** | **276** | Possible onsite reuse | Collected by contractor and taken to recycling facility | No disposal to landfill |
| **Used Pallets** | **267** | Reuse on site for materials storage | Collected by contractor and taken to recycling facility | No disposal to landfill |
| **Paper/Cardboard Recycling** | **214** | Reuse cardboard boxes for storage where possible | Separated onsite into dedicated receptacles and collected by the waste contractor for recycling | No disposal to landfill |
| **Metal Offcuts, Wiring, etc.** | **187** | No on-site reuse | Collected by contractor for separation into different metal types for recycling | No disposal to landfill |
| **General Waste** | **178** | No on-site reuse or recycling | Separated onsite into dedicated receptacles and collected by waste contractor for disposal | Disposal to landfill |
| **Plasterboard Offcuts** | **169** | No on-site reuse | Material to be separated onsite and collected by contractor for recycling for use as soil improver with gypsum removed by recycler | Material that cannot be recycled will be sent to landfill |
| **Floor Coverings** | **160** | No on-site reuse | Collected in designated bin and sent for recycling if of required quality; otherwise sent to landfill | Material that cannot be recycled will be sent to landfill |
| **Recyclable Glass, Metal, & Plastic Containers** | **134** | No on-site reuse | Separated onsite into dedicated receptacles and collected by the waste contractor for recycling | No disposal to landfill |
| **Timber Offcuts** | **125** | Reuse for formwork where possible | Untreated recyclable timber will be collected and recycled at timber yard. Unrecyclable timber will be sent to landfill | Material that cannot be recycled will be sent to landfill |
| **Concrete (Excess)** | **107** | Separated on site and crushed for use in access road construction | Collected by contractor and taken to concrete recycling facility | No disposal to landfill |
| **Glass (Excess)** | **89** | No on-site reuse or recycling | Sent for reuse if feasible and/or recycling depending on condition | No disposal to landfill |
| **TOTAL MATERIALS** | **1,905 $m^3$** | The construction phase will produce around **1,905 $m^3$** of waste materials, of which **1,727 $m^3$** or **91%** can potentially be diverted from landfill, by being reused on site, or recycled off-site at a dedicated facility. | | |

# 12 Development Overview – Operational Phase

Cockle Bay Park (CBP) will be a mixed-use development consisting of an office tower, retail tenancies, and public spaces and gardens. The following key data and has been used in calculating future operational general waste and recycling volumes and management practices:

**Maximum Retail GFA:** **14,000 m$^2$**

**Maximum Commercial GFA:** **75,000 m$^2$**

**Expected Retail Mix:** **Up to 100% F&B**

# 13 Operational Waste & Recycling Volumes & Equipment

## 13.1 Generation Factors & Predicted Resource Streams

The following generation factors for different materials and tenancy types are based on those specified in the City of Sydney's 2018 *Guidelines for Waste Management in New Developments*. The unit of measurement used is litres of general waste or recyclable material per 100 square metres of floor area per day.

**Table 7: General Waste & Recycling Generation Factors**

| Tenancy Type | Litres/100 m$^2$/Day | | | | | |
|---|---|---|---|---|---|---|
| | General Waste | Cardboard Recycling | Commingled Recycling | Organics Recycling | Paper Recycling | Cooking Oil Recycling |
| Specialty Retail | 25 | 150 | 50 | 5 | 0 | 0 |
| Food Retail | 100 | 350 | 150 | 100 | 0 | 5 |
| Commercial Offices | 15 | 10 | 10 | 5 | 5 | 0 |

Expected operational base building resource streams (those for which the site's management will provide arrangements for collection and disposal) are shown in Table 8:

**Table 8: Tenancy Resource Streams**

| Resource Stream | Retail Tenancies | Office Tenancies | Base Building |
|---|---|---|---|
| General Waste | ✓ | ✓ | ✓ |
| Cardboard Recycling | ✓ | ✓ | |
| Commingled Recycling | ✓ | ✓ | |
| Food Organics Recycling | ✓ | ✓ | |
| Paper Recycling | | ✓ | |
| Cooking Oil Recycling | ✓ | | |
| E-Waste Recycling | | ✓ | ✓ |
| Lamp Recycling | | | ✓ |

Minor recycling streams such as toner cartridge recycling and secure paper destruction will be managed by individual tenancies who will make their own storage and collection arrangements from within their premises.

## 13.2 Public Area Waste Management

Suitable recycling infrastructure will be installed in the development's public areas including open spaces, parks, and gardens. The key elements required for effective public place recycling are:

- Colour coding consistent with household recycling
- Design prevents large objects from being deposited in bins
- Bins are locked and self-contained, preventing scavenging
- Located in high traffic areas
- Contain positive social messaging

Based on currently accepted best practices, a typical bin configuration is to have a recycling bin for recyclable packaging located next to a general waste bin, as shown below in Figure 2.

**Figure 2 - Bin Infrastructure Example**


The example above shows solar compactor bins installed at a Victorian shopping centre which compress the contents so that they need to be emptied less frequently, as well as providing e-mail/text alerts when the bin is 85% full, enabling 'just-in-time' collections by cleaners.

Use of 'smart bin' technology can reduce labour costs significantly by reducing the number of collections required to every second or third day, rather than a standard daily regime.

Cleaners and garden maintenance staff would use an electric maintenance buggy similar to the example below to bring general waste, recycling, and green waste back to the loading dock, where the materials will be deposited into the correct respective bins.

A separate 1100-litre bin for garden waste will be situated in the loading dock and collected as needed by the same truck that collects the development's food waste, as the green waste material can be processed at the same facility.

**Figure 3 - Maintenance Vehicle Example**

Goods lift PG6 will be used to transport waste and recyclable items from the Crescent Garden to the Darling Park car park as shown in Figure 4; goods lift PG5 will be used to transport materials from the Northern and Southern Parks directly to the Cockle Bay Park main loading dock.

**Figure 4 - Movement Pathways**


General waste and recycling from major public events in the precinct would also be managed through this general process, with additional bins brought up from the loading dock to cater for the additional volumes of materials produced. Separate recycling streams for cardboard and food waste would also be added if the event featured catering.

The City of Sydney's *Events Guidelines* requires submission of a waste management plan with event planning documentation (depending on the event's size and nature) and this and other requirements including reducing packaging, encouraging recycling, and discouraging the use of single-use disposable items will be adhered to by the development's facilities management when planning any events in open space areas.

The *Cockle Bay Park Events Management Plan* produced by Cultural Capital will also be used to guide resource management practices for events held in the Cockle Bay Park precinct.

## 13.3 Predicted Operational Volumes

Applying the generation rates in Table 7 to the expected tenancy mix enables calculation of expected ongoing volumes, as shown in Table 9. Calculations are based on 7 days per week operations for retail tenancies, and 5 days per week for commercial offices, and include general waste and recycling generation from public areas.

Bulky waste requirements are stated on page 20 of the City of Sydney's 2018 *Guidelines for Waste Management in New Developments*, as follows:

There is to be space dedicated for storing bulky and problem waste for recycling of at least:

- 2m$^2$ for developments under 100 m$^2$
- 4m$^2$ for developments between 100 m$^2$ and 2,000 m$^2$
- An additional 4 m$^2$ is required for each retail, accommodation, or entertainment development over 2,000 m$^2$ and for every 20,000 m$^2$ of office space.

Calculations of bulky waste storage requirements are included in Tables 10-12. Providing dedicated space is important to prevent uncontrolled dumping of bulky items, which takes up critical space in storage areas and reduces the effectiveness of waste management overall.

**Table 9: Daily & Weekly General Waste & Recycling Volumes**

| Tenancy Type | GFA m$^2$ | General Waste & Recycling Generation Litres/Day | | | | | |
|---|---|---|---|---|---|---|---|
| | | General Waste | Cardboard Recycling | Commingled Recycling | Paper Recycling | Organics Recycling | Cooking Oil |
| Retail | 14,000 | 14,000 | 49,000 | 21,000 | 0 | 14,000 | 700 |
| Office | 75,000 | 11,250 | 7,500 | 7,500 | 3,750 | 3,750 | 0 |
| **Total Litres/Day** | | **25,250** | **56,500** | **28,500** | **3,750** | **17,750** | **700** |
| **Total Cubic Metres/Week** | | **154.25** | **380.50** | **184.50** | **18.75** | **116.75** | **4.90** |

Bin and equipment requirements are shown in Tables 10-12, based on disposal of commingled recycling and food organics recycling in rear lift bins, and general waste and cardboard recycling in separate compactors in the loading dock. Bin footprints include a 20% allowance for space between bins within the room for access and movement by site staff.

Standard rear lift bin sizes and compactor drawings are provided in Appendix D. Actual dimensions of installed equipment may vary slightly from those shown, and will depend on the waste contractor chosen to service the development in its operational stage.

## Table 10: Equipment & Infrastructure – Main Storage Room – Combined Retail & Commercial

| Material Stream | Tenancy | Bin Size (L) | No. | Collections/ Week | Weekly $m^3$ | Footprint $m^2$ | Central Storage | Comments |
|---|---|---|---|---|---|---|---|---|
| General Waste* | Office | 240 | 34 | 5 | 56.25 | 20.63 | | |
| General Waste* | Retail | 1100 | 13 | 7 | 98.00 | 24.39 | | |
| General Waste* | Spare Bins - Office | 240 | 12 | 0 | 0.00 | 5.63 | 2.81 | Can be stacked to reduce footprint by 50% |
| General Waste* | Spare Bins - Retail | 1100 | 4 | 0 | 0.00 | 5.55 | 5.55 | |
| Cardboard Recycling* | Office | 240 | 32 | 5 | 37.50 | 15.01 | | |
| Cardboard Recycling* | Retail | 1100 | 15 | 7 | 343.00 | 28.14 | | |
| Cardboard Recycling* | Spare Bins - Office | 240 | 11 | 0 | 0.00 | 5.16 | 2.58 | Can be stacked to reduce footprint by 50% |
| Cardboard Recycling* | Spare Bins - Retail | 1100 | 10 | 0 | 0.00 | 12.81 | 12.81 | |
| Paper Recycling | Office | 240 | 32 | 5 | 18.75 | 7.50 | 7.50 | |
| Paper Recycling | Spare Bins - Office | 240 | 11 | 0 | 0.00 | 5.00 | 2.50 | Can be stacked to reduce footprint by 50% |
| Commingled Recycling | Office | 240 | 32 | 5 | 37.50 | 15.01 | 15.01 | |
| Commingled Recycling | Retail | 1100 | 20 | 5 | 147.00 | 37.52 | 37.52 | |
| Commingled Recycling | Spare Bins - Office | 240 | 11 | 0 | 0.00 | 5.16 | 2.58 | Can be stacked to reduce footprint by 50% |
| Commingled Recycling | Spare Bins - Retail | 1100 | 8 | 0 | 0.00 | 10.25 | 10.25 | |
| Organics Recycling | Office | 120 | 32 | 5 | 18.75 | 9.56 | 9.56 | |
| Organics Recycling | Retail | 120 | 120 | 5 | 98.00 | 35.85 | 35.85 | |
| Organics Recycling | Spare Bins - Office | 120 | 10 | 0 | 0.00 | 2.99 | 1.49 | Can be stacked to reduce footprint by 50% |
| Organics Recycling | Spare Bins - Retail | 120 | 24 | 0 | 0.00 | 7.17 | 3.59 | Can be stacked to reduce footprint by 50% |
| Cooking Oil | Retail | | | | 4.90 | 2.00 | 2.00 | |
| E-Waste Recycling | All | | | | | 1.28 | 1.28 | |
| Fluorescent Lamp Recycling | All | | | | | 1.28 | 1.28 | |
| Bin Wash Facility | All | | | | | 2.50 | 2.50 | |
| Bulky Waste | Office | | | | | 19.00 | 19.00 | A single room with separate areas for retail and office bulky waste items will be provided |
| Bulky Waste | Retail | | | | | 8.00 | 8.00 | |
| Space for Bin Circulation | All | | | | | 30.00 | 30.00 | |
| **Total** | | | **431** | | **859.65** | **317.39** | **213.67** | |

*General waste and cardboard bins are for intermediate storage only and contents will be emptied into the designated respective compactors

## Table 11: Equipment & Infrastructure – Main Storage Room – Retail Only

| Material Stream | Tenancy | Bin Size (L) | No. | Collections/ Week | Weekly $m^3$ | Footprint $m^2$ | Central Storage | Comments |
|---|---|---|---|---|---|---|---|---|
| General Waste* | Retail | 1100 | 13 | 7 | 98.00 | 24.39 | | |
| General Waste* | Spare Bins - Retail | 1100 | 4 | 0 | 0.00 | 5.55 | 5.55 | |
| Cardboard Recycling* | Retail | 1100 | 15 | 7 | 343.00 | 28.14 | | |
| Cardboard Recycling* | Spare Bins - Retail | 1100 | 10 | 0 | 0.00 | 12.81 | 12.81 | |
| Commingled Recycling | Retail | 1100 | 20 | 5 | 147.00 | 37.52 | 37.52 | |
| Commingled Recycling | Spare Bins - Retail | 1100 | 8 | 0 | 0.00 | 10.25 | 10.25 | |
| Organics Recycling | Retail | 120 | 120 | 5 | 98.00 | 35.85 | 35.85 | |
| Organics Recycling | Spare Bins - Retail | 120 | 24 | 0 | 0.00 | 7.17 | 3.59 | Can be stacked to reduce footprint by 50% |
| Cooking Oil | Retail | | | | 4.90 | 2.00 | 2.00 | |
| Bulky Waste | Retail | | | | | 8.00 | 8.00 | |
| **Total** | | | **214** | | **690.90** | **171.69** | **115.57** | |

## Table 12: Equipment & Infrastructure – Main Storage Room – Commercial Only

| Material Stream | Tenancy | Bin Size (L) | No. | Collections/ Week | Weekly $m^3$ | Footprint $m^2$ | Central Storage | Comments |
|---|---|---|---|---|---|---|---|---|
| General Waste* | Office | 240 | 34 | 5 | 56.25 | 20.63 | | |
| General Waste* | Spare Bins - Office | 240 | 12 | 0 | 0.00 | 5.63 | 2.81 | Can be stacked to reduce footprint by 50% |
| Cardboard Recycling* | Office | 240 | 32 | 5 | 37.50 | 15.01 | | |
| Cardboard Recycling* | Spare Bins - Office | 240 | 11 | 0 | 0.00 | 5.16 | 2.58 | Can be stacked to reduce footprint by 50% |
| Paper Recycling | Office | 240 | 32 | 5 | 18.75 | 7.50 | 7.50 | |
| Paper Recycling | Spare Bins - Office | 240 | 11 | 0 | 0.00 | 5.00 | 2.50 | Can be stacked to reduce footprint by 50% |
| Commingled Recycling | Office | 240 | 32 | 5 | 37.50 | 15.01 | 15.01 | |
| Commingled Recycling | Spare Bins - Office | 240 | 11 | 0 | 0.00 | 5.16 | 2.58 | Can be stacked to reduce footprint by 50% |
| Organics Recycling | Office | 120 | 32 | 5 | 18.75 | 9.56 | 9.56 | |
| Organics Recycling | Spare Bins - Office | 120 | 10 | 0 | 0.00 | 2.99 | 1.49 | Can be stacked to reduce footprint by 50% |
| Bulky Waste | Office | | | | | 19.00 | 19.00 | |
| **Total** | | | **217** | | **168.75** | **110.64** | **63.03** | |

### Table 13: Equipment & Infrastructure – Commercial Floors

For each commercial floor, we recommend the following equipment, to be stored near the goods lifts on each level, based on standard generation rates for office waste and recycling and GFA of 2,500 $m^2$:

| Material Stream | GFA | Litres/Day | Bin Size (Litres) | Number | Collections/ Week | Footprint $m^2$ |
|---|---|---|---|---|---|---|
| General Waste | 2,216 | 375 | 240 | 2 | 5 | 0.86 |
| Cardboard Recycling | 2,216 | 250 | 240 | 2 | 5 | 0.86 |
| Commingled Recycling | 2,216 | 250 | 240 | 1 | 5 | 0.43 |
| Organics Recycling | 2,216 | 125 | 120 | 1 | 5 | 0.30 |
| **Total** | | **1,000** | | | | **2.45** |

Please note that the above figures do not include secure document destruction and toner cartridge recycling bins, which are normally housed within tenancy print rooms.

### Table 14: Equipment & Infrastructure – Compactors

Recommended compactor equipment is shown below. Operating footprints include 1.5 m clearance around units. Weekly generation is based on a compaction factor of 2.5:1 for general waste and 3:1 for cardboard multiplied by the number of weekly collections.

| Material Stream | Size ($m^3$) | Dimensions (L x W x H) | Operating Footprint $m^2$ | Collections/ Week | Capacity ($m^3$) | Ave. Daily Generation ($m^3$) |
|---|---|---|---|---|---|---|
| General Waste | 25 | 6.7 x 2.5 x 2.75 | 53.35 | 5 | 62.50 | 22.04 |
| Cardboard | 30 | 7.5 x 2.5 x 2.75 | 57.97 | 7 | 90.00 | 54.36 |

The above assumed collection frequencies are standard for developments in the Sydney CBD. We have also checked these with Cockle Bay Wharf/Darling Park's current waste contractor ORG and updated the relevant tables in this report accordingly.

Collections will take place in late evening or early morning, well outside normal retail and commercial operating hours (currently expected to be 6 am-8 pm), so conflicts with delivery vehicles in the dock are highly unlikely. All collections and vehicle movements will be managed through the Loading Dock Management Plan that will be implemented once the development commences operations.

The compactors will be situated in the loading dock and will be installed at grade level. Empty compactor weights will, depending on the capacity (size in $m^3$) of the equipment, be between 4 and 6 tonnes.

All collections of all bins and compactors will take place from within the loading dock.

# 14 Resource Recovery Systems

Table 15 summarises the planned management systems for general waste and recycling for retail and office tenancies.

**Table 15: Resource Recovery Systems: Summary**

| Area | Material Streams | Management, Storage, & Collection Systems |
|---|---|---|
| **Retail** | *General Waste*<br>*Cardboard Recycling*<br>*Commingled Recycling*<br>*Organics Recycling*<br>*Cooking Oil Recycling* | Retail tenants will be responsible for bringing general waste and recyclables to the central bin storage room and compactors at specified times throughout the trading day. All materials must be cleared from each tenancy by the end of each trading day, so that no materials are left in internal tenancy bins overnight.<br>Site cleaning staff will collect separated materials from retail tenancies and bring them to the loading dock where they will be emptied into the larger collection bins or either of the two compactors (general waste or cardboard).<br>The site's private waste contractor will collect all materials on a schedule to be set once the development is operational. Collections will take place outside 6am-8pm trading hours to minimise vehicle congestion in the loading dock area and hazards to site users.<br>Cleaning staff will maintain the organisation and cleanliness of the bin storage rooms and the waste collection and compactor areas. Facility management will also ensure the cooperation of retail tenants in this regard. |
| | *Bulky Waste Items* | These materials (furniture, equipment, and other items unsuitable for disposal in the general waste compactor) will be stored in a dedicated room of 8 square metres within, but separate from, the main waste storage room.<br>Where possible, any materials in good condition will be donated to charities or other re-use opportunities explored.<br>Bulky items will be collected from this area on an on-call basis, preferably in coordination with collections from the office bulky waste room. |
| **Office** | *General Waste*<br>*Cardboard Recycling*<br>*Commingled Recycling*<br>*Organics Recycling*<br>*Paper Recycling*<br>*E-Waste Recycling*<br>*Lamp Recycling* | Cleaners will collect all materials from office floors nightly in mobile bins and bring them to Ground Floor via goods lift TG1 or TG2, then take them to the loading dock and deposit the materials in either of the two compactors (general waste, cardboard) or the mobile bins stored in the bin room (for all other recycling streams).<br>The site's private waste contractor will collect all materials on a schedule to be set once the development is operational. Collections will take place outside 6am-8pm trading hours to minimise vehicle congestion in the loading dock area and hazards to site users.<br>Cleaning staff will maintain the organisation and cleanliness of the bin storage rooms and the waste collection and compactor areas. |

| Area | Material Streams | Management, Storage, & Collection Systems |
|---|---|---|
| **Office** | *Bulky Waste Items* | These materials (furniture, equipment, and other items unsuitable for disposal in the general waste compactor) will be stored in a dedicated room of 19 square metres within, but separate from, the main waste storage room.<br>Where possible, any materials in good condition will be donated to charities or other re-use opportunities explored.<br>Bulky items will be collected from this area on an on-call basis, preferably in coordination with collections from the retail bulky waste room. |
| **Public Open Space** | *General Waste*<br>*Commingled Recycling*<br>*Green Waste*<br>*Food Waste (events only)*<br>*Cardboard Recycling (events only)* | Fixed bins for general waste and commingled recycling will be distributed throughout public open spaces and serviced as required by cleaners These materials will be brought to the main waste storage room using the goods lift linking the loading dock to the Southern Park.<br>Where possible, any materials in good condition will be donated to charities or other re-use opportunities explored. |

# 15 Tenant Induction & Education

An intensive education program will be implemented for all office and retail tenants upon occupation of the development, to ensure the highest possible standard of waste management and diversion from landfill/resource recovery.

Tenancy leases will contain clauses outlining compliance with the development's systems, and a continuing tenant education program will be implemented on an ongoing basis throughout the development's operational phase for all tenancies. New tenants will receive detailed information on the waste management and recycling programs as part of their leasing documentation.

Specific waste management clauses will also be written into cleaning contract specifications, including requirements for cleaning contractors to monitor contamination of recycling streams and condition of bins and compactor equipment, and provide the property managers with feedback on the ongoing performance of the waste management and recycling programs.

# 16 Tenancy Bins

## 16.1 Office Tenancies

All office areas will be equipped with 4-stream bin hubs for:

- Paper/Cardboard Recycling
- Commingled Recycling
- Organics Recycling
- General Waste

Bins will be situated in areas which service a group of workstations and offices, as opposed to having bins under every desk; this improves cleaner efficiencies by reducing the number of bins that require collection and reduces the number of bin liners required. Also, when staff leave their desk to dispose of materials, they are required to make a conscious decision about how they do so and are more likely to separate recyclable items from general waste. Offices with these types of systems show higher recycling rates than those with bins at desks or workstations.

The following photo shows an example of bins commonly used in office applications. Colour-coded translucent bin liners are recommended to assist cleaning staff to distinguish the three recycling streams from general waste and from each other and enable them to identify contamination prior to final disposal in the bins in the central storage room.

**Figure 5: Four Stream Stand-Alone Bin Setup**


For tenancies wishing to have bins within pull-out drawers in kitchens and central areas, care must be taken to ensure these systems are properly designed to ensure correct separation of recycling and general waste. Figure 3 shows an example of good design and colour-coding.

**Figure 6: Four Stream Pull-Out Drawers**


## 16.2 Retail Tenancies

Retailers will be responsible for the separation of general waste and recyclables within their tenancy according to the processes detailed in Section 14, using appropriate receptacles similar to those shown in Section 16.1. Tenants will collect these materials and transfer them to the central storage room for disposal at specified times throughout the trading day.

Retail tenancy fitouts will be designed with sufficient dedicated space to accommodate separate bins for general waste and the designated recycling streams.

# 17 Operational Resource Recovery Targets

Specific targets for diversion of operational waste from landfill to resource recovery outcomes will form part of the contract between Cockle Bay Park and its selected waste and recycling contractor(s). Using similar developments as a guide, we suggest the following targets:

**Year 1: 50% diversion/resource recovery**

**Year 2: 55% diversion/resource recovery**

**Year 3: 60% diversion/resource recovery**

To monitor progress towards these targets, an ongoing reporting system will be implemented as detailed in Sections 18 and 19.

# 18 Ongoing Performance Reporting

Following implementation of the new systems, a monthly reporting system, based on the Better Buildings Partnership (BBP) *Operational Waste Guidelines*, will be instituted. This will ensure the accurate tracking of performance, continued improvement, and cost-effective waste removal.

Specific performance clauses and KPIs in waste and cleaning contracts will ensure that all parties actively participate in the resource recovery initiatives and meet regularly to resolve performance issues and identify new improvement opportunities for.

Contractors will be required to report actual volumes and tonnages by stream so that site management can monitor performance and feed this back to stakeholders. Further waste contractor requirements are specified in Section 19.

# 19 Waste Contractor Requirements

To achieve and maintain best practice, the site's waste and recycling contractor(s) will be required to demonstrate high standards of service and comply with the following requirements:

- Reliable and efficient servicing, and meeting all agreed schedules
- Suitably sized collection vehicles to be able to access the building's loading dock (4.8 m internal clearance, entrance height 4.5 m, entrance width 7 m, exit width 6.7 m)
- Maintaining accurate and comprehensive tracking systems for all materials collected
- Working with the site to achieve continuous improvements in resource recovery rates, including providing tenant education materials
- Providing detailed monthly and annual reports on diversion and financial outcomes
- Maintaining current details of processing facilities used, and providing information on these if requested by the property managers
- Provide an accurate and reliable process for measuring and reporting all materials streams by weight, using truck mounted scales
- These processes should be supported by an annual weight-based physical audit of all non-hazardous materials streams, to be conducted by a qualified independent third party

# 20 Storage & Loading Areas

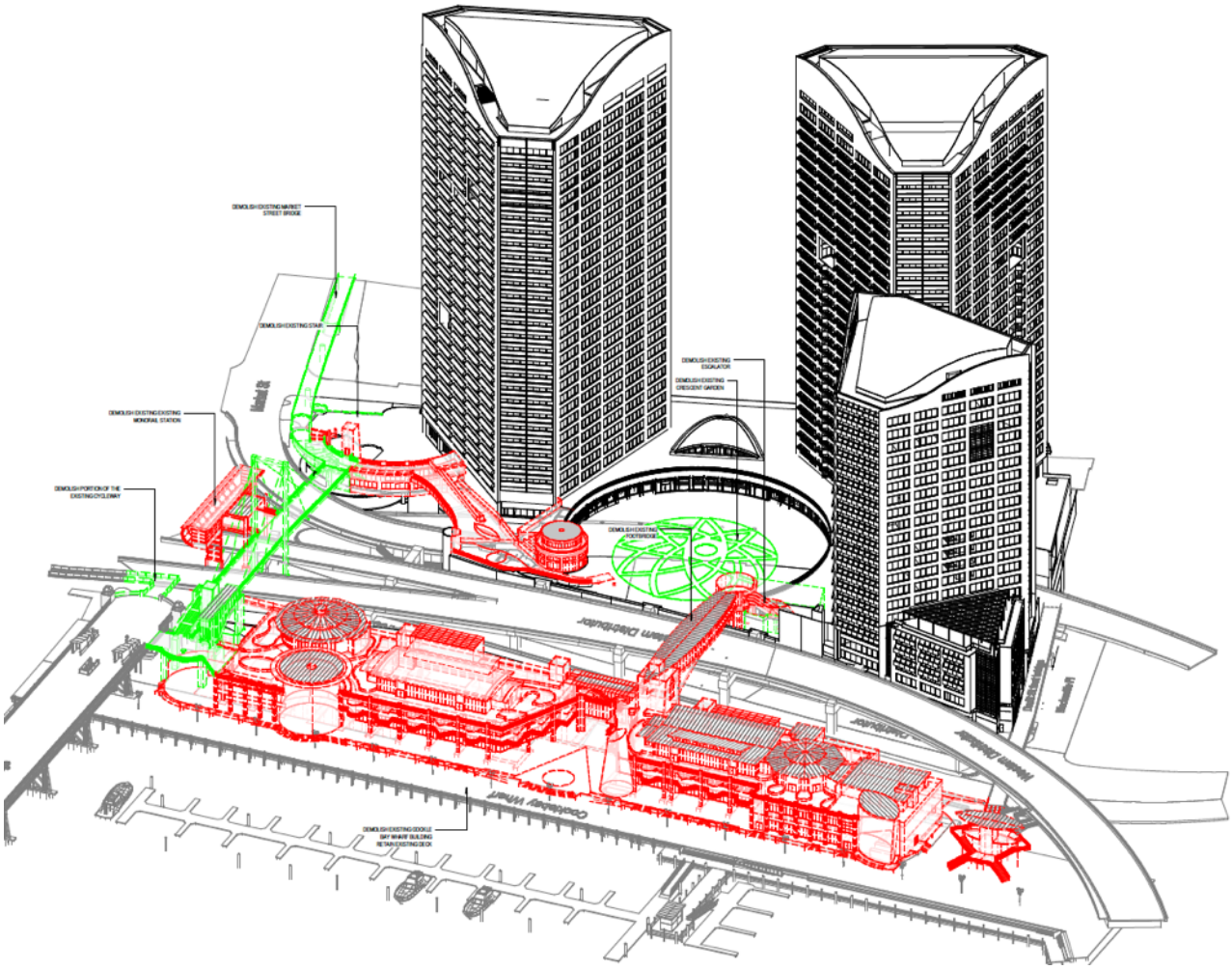
The development's central waste and recycling storage facilities will be located in the loading dock with dedicated areas for storage of general waste and recycling, including a bin wash area, and space for bulky goods storage. All rooms will be locked and accessible by authorised staff only, and will have the following features and maintenance practices to minimise odours, deter vermin, and maintain it a user-friendly and safe area:

- Suitable mechanical or natural ventilation
- Walls to be constructed from masonry or similar, washable, and painted with light colour
- Floors to be sealed, with flat and even surface and graded drains to sewer connection
- All corners coved and sealed 100 mm up to eliminate build-up of dirt
- Brightly lit to Australian standard and light switches at 1.6 m height (sensors recommended)
- All doors are lockable, tightly fitted, hinged, and self-closing and of at least 2 m width
- Conformance with the Building Code of Australia, Australian standards, and local laws
- A regular cleaning schedule and documented pest control regime
- All bin lids to be kept closed when not being used

All waste and recycling containers will be clearly differentiated through appropriate signage and colour coding to reflect the materials contained, with each stream located in a designated area within storage rooms, with large and clear signage to assist in easy identification by users. Other best practice standards for storage and handling areas include:

- Ensuring the loading dock and waste loading areas are level and free of kerbs, steps, etc.
- Line markings showing the loading area and positions of bins within the storage room
- Highly visible signage as illustrated in Appendix E

# Appendix A: Overall Site Demolition Plan



## Appendix B: City of Sydney Waste Management Guidelines

The relevant sections of the City of Sydney's 2018 *Guidelines for Waste Management in New Developments* pertaining to **construction and demolition** waste and recycling from non-residential developments are shown below.

Guidelines for Waste Management in new developments

# Section F
# Construction and demolition waste requirements

**This section details the requirements for the management of waste from construction and demolition activities.**

**The City's target is to divert 80 percent of waste from construction and demolition activities away from landfill by June 2021**

1.1 The management of waste from construction and demolition activities is to be minimised by avoidance and reduction practices, re-use on-site and the recycling of materials.

1.2 A Waste and Recycling Management Plan detailing these practices is to be completed and included with any new DA (this includes DAs for the change-of-use of a development). The plan should include a target for resource recovery that aims to achieve a minimum 80 per cent recovery rate.

1.3 Materials should be sorted on-site for separate recycling collection. If this is not possible, sorting and recycling after the collection of mixed materials from construction and demolition is required. If the ability to recycle a material is adversely affected by being mixed with other waste types, the material is to be stored and collected separately.

1.4 On-site or off-site re-use of materials is allowed for unscheduled waste materials not hazardous to human health or safety. Any use of waste materials off-site is subject to the provisions within the *Protection of the Environment Operations Act 1997* and associated regulations.

1.5 The Waste and Recycling Management Plan is to address construction and demolition waste and include:

1.5.1 Full disclosure of any asbestos-contaminated material known to be at the site, details of quantities, the licence details of any asbestos removalist, and the designated disposal site licensed to accept asbestos-related waste.

1.5.2 Details regarding how all other waste is to be minimised within a development; and estimations of quantities and types of materials to be re-used or left over for removal from the site.

1.5.3 Details regarding the types of waste and likely quantities of waste to be produced.

1.5.4 Details to re-use or recycle at least 80 per cent of construction and demolition waste, either on-site or diverted for re-use and recycling, with receipts sufficient to demonstrate the target will be achieved.

1.5.5 Details of the off-site recycler's primary destination for materials for multi-unit residential developments over three storeys and all non-residential developments.

1.5.6 A site plan showing storage areas away from public access for re-usable materials and recyclables during demolition and construction, and the vehicle access to these areas.

1.5.7 Nomination of the role/person responsible for ensuring targets are met and the person responsible for retaining waste dockets from facilities.

1.5.8 Designation of appropriately licensed facilities to receive the development's construction and demolition waste.

1.5.9 Confirmation that all waste going to landfill is not hazardous.

The relevant sections of the City of Sydney's 2018 *Guidelines for Waste Management in New Developments* pertaining to **operational** waste and recycling from non-residential developments are shown below.

Guidelines for Waste Management in new developments

# Section D
# Non-residential developments

**This section includes special provisions for waste and recycling management in industrial and commercial developments including food and drink premises, small-scale commercial premises, offices, accommodation and entertainment premises (e.g. hotels, restaurants and pubs) and retail outlets (e.g. supermarkets, groceries and convenience stores). This section also applies to community facilities.**

**The City's target is to divert 70 per cent of waste from operating businesses in the local government area away from landfill by June 2021**

## Space

1.1 There is to be space dedicated for storing bulky waste and problem waste for recycling of at least:

- 1.1.1 2m² for developments under 100m²
- 1.1.2 4m² for developments between 100m² and 2,000m²
- 1.1.3 An additional 4m² is required for each retail, accommodation or entertainment development over 2,000 m² and for every 20,000 m² of office space.

1.2 Dedicated space (in or attached to the waste and recycling storage area) is to be provided for the storage and recycling of food waste for collection.

1.3 Space is to be provided on-site in reasonable proximity to retail or commercial premises to store re-usable commercial items such as crates, pallets, kegs, stripout waste and similar items so that storage in a public place is completely avoided.

1.4 Kitchens, office tearooms, and service and food preparation areas are to be designed with sufficient, dedicated space to collect and recycle food waste; this is to be indicated on plans.

1.5 Secure space is to be allocated for the separate storage of each waste stream including liquid wastes, commercial cleaning products, chemicals, paints, solvents, and motor and cooking oil. These areas for liquid waste storage are to be bunded, and drained to a grease trap, in accordance with legislation and the requirements of State government authorities and agencies.

1.6 The use of cardboard balers/compactors and glass crushers for developments with a high generation of cardboard and glass recyclable waste should be considered. The space allocation for storage of recycling in MGBs may be reduced if alternative systems demonstrate the need for less storage space.

1.7 Space should be provided for the separate collection of beverage containers suitable for redemption under the NSW Container Deposit Scheme.

1.8 Separate dedicated space such as a room or screened area should be provided for the separate interim storage and management of stripout waste for re-use or recycling. Alternatively, this space is not required if the removal of old furniture and material is conducted by a professional stripout service or by the company hired for installing new items. Refer to Better Buildings Partnership, *Stripout Waste Guidelines* at www.betterbuildingspartnership.com.au.

## Access

2.1 Where collection takes place inside a building, appropriate clearances need to be allowed for the collection vehicle to enter the premises, clear the waste and recycling containers, and exit the premises. Note that some systems require the container to be lifted above the collection vehicle in order to be emptied (such as front-lifted bulk bins or hook lift bins).

## Collection

3.1 The location of collection points for waste will be located wholly within the boundary of a development and in an area that minimises any noise or odour impacts on the amenity of nearby premises.

3.2 Commercial waste collection vehicle specifications should be matched to Council waste collection vehicle specifications as set out in *Design requirements for collection vehicle access*.

## Management

4.1 Businesses, commercial building tenants and building managers should have written evidence of a valid and current contract (held on-site) with a collector for waste and recycling collection for disposal or processing. If glass crushers will be used, recycling contracts that accept crushed glass would need to be provided.

4.2 All businesses should include provisions in their waste contracts that allow for the collection and recycling of high-grade and low-grade office paper, cardboard packaging, paper from secure document destruction, soft plastics, food waste and other recyclable resources from the waste stream.

4.3 Contracts with cleaners, building managers and tenants are to clearly outline the waste management and collection system, and are to clearly allocate responsibilities.

4.4 Waste management systems should preference on-site weighing of materials.

4.5 Where communal composting or worm farming is proposed, it is to be managed and well maintained by the building (preferably by a caretaker, gardener or facilities management) and located in an accessible and visible area to increase awareness and to ensure minimal impacts from any potential odours and that potential run-off is away from site drainage points.

4.6 Fittings should be deconstructed or demolished by methods that permit re-use or storage of items such as workstations, and allow for the separation of valuable resources such as metals for recycling.

## Requirements for specific non-residential premises

### Offices

5.1 Provision is to be made on each floor, and in the waste and recycling storage area or any interim holding area, for the separation and storage of all recyclable items (including mixed containers, cardboard, paper and paper products) likely to be produced from the premises.

5.2 Provision is to be made in cleaning contracts for this material to be transferred to a central waste and recycling storage area at least once daily. Refer to the *Better Buildings Partnership Best Practice Operational Waste Guidelines* at www.betterbuildingspartnership.com.au. for examples of best practice waste management in commercial office.

5.3 Storage of paper and cardboard is to be in a dry, vermin-proof area. Paper and cardboard is not to be stored for more than two weeks to prevent breeding of vermin in the stored material.

5.4 Rooms or areas designated for printing or photocopying are to provide space for the interim storage of waste paper (in MGBs up to 240 litres) and used toner and/or printer cartridges for recycling.

5.5 Each tenancy and common areas should have centrally located bin stations for each stream to remove the need for individual waste bins under desks.

5.6 If the development includes more than 20,000 $m^2$ of office space, an area for a cardboard baler or compactor is to be provided within or in close proximity to the waste and recycling storage area.

### Food retailers and producers

**Food retailers and producers can include restaurants, cafes, grocery stores, supermarkets, pubs, clubs and commercial kitchens.**

5.7 Food premises are to comply with the requirements of AS 4674-2004 Design, construction and fit-out of food premises, including the general waste and recyclable materials requirements. These Guidelines are not intended to alter obligations under that Standard, and in the event of any conflict between these Guidelines and the Australian Standard, the Standard prevails.

5.8 The following waste is to be collected daily or stored in a refrigerated waste room until collection (refer to reference section *Waste and Recycling Storage Area construction*):

- 50 litres of seafood, poultry, and/or meat waste in total each day of operating
- Waste that contains 20 per cent fish, poultry or meat by weight or volume

5.9 Premises preparing food for wholesale distribution or retail should include waste separation systems within or in close proximity to the preparation area to allow for plastic and cardboard waste to be collected and handled separately from food waste. If within the preparation area, all waste is to be removed daily.

5.10 Waste oils should be kept separate from food and other wastes.

### Retail

5.11 For premises with high volumes of cardboard waste, consideration should be made to allocate space for a cardboard compactor, baler, shredder or other volume-reduction equipment.

5.12 If the development includes more than 2,000 $m^2$ of retail space, an area for a cardboard baler/compactor is to be provided within or in close proximity to the waste and recycling storage area.

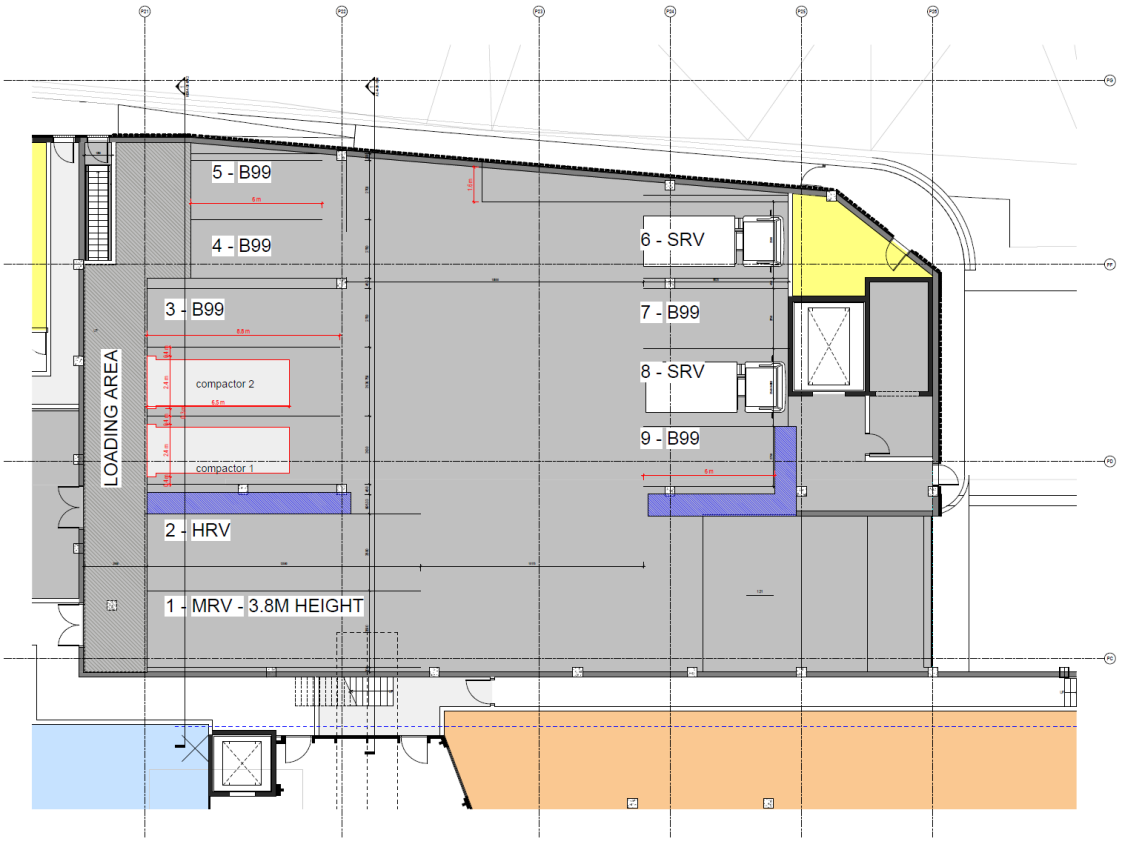
5.13 Additional space or reduction systems for handling and storing plastic shrink-wrap should be allocated where applicable.

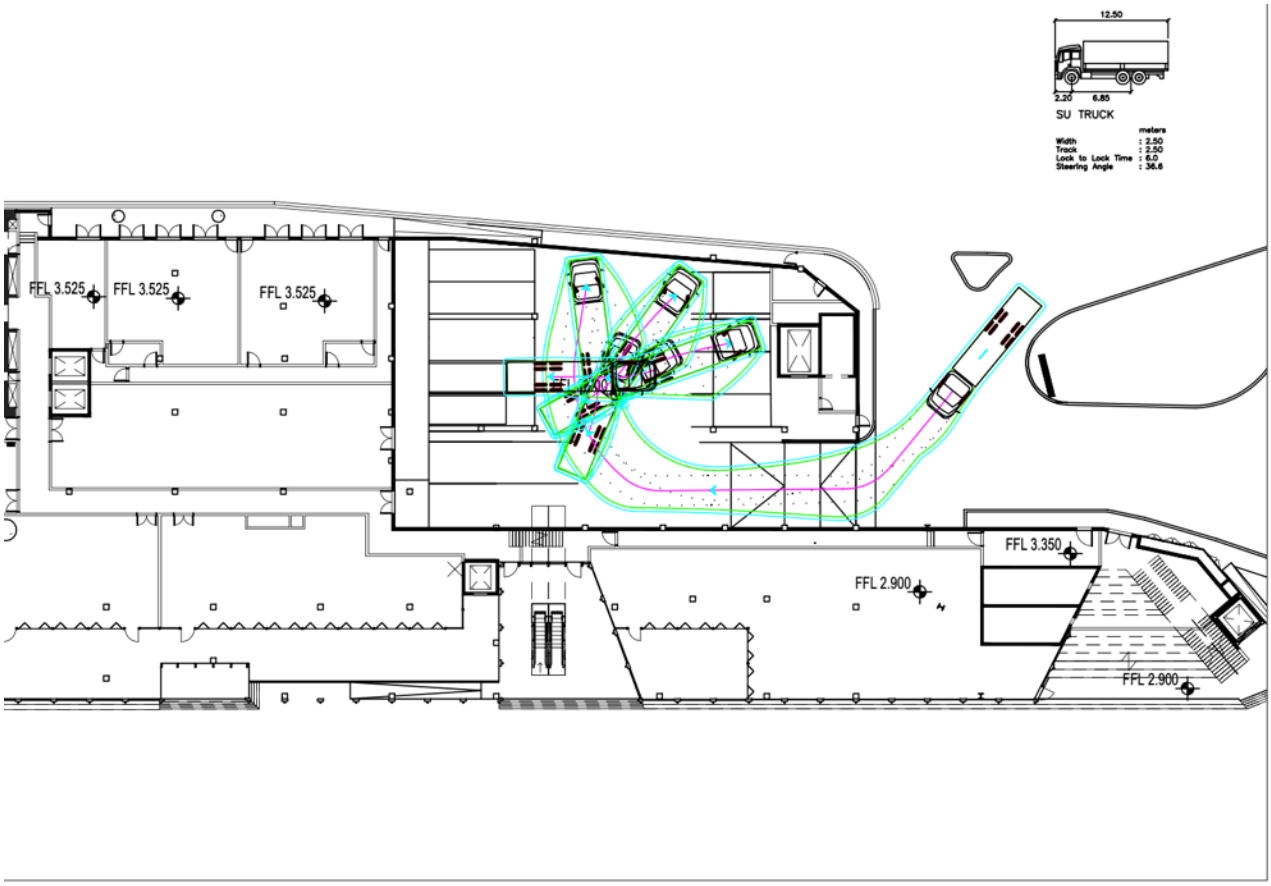
### Pubs, clubs and hotels

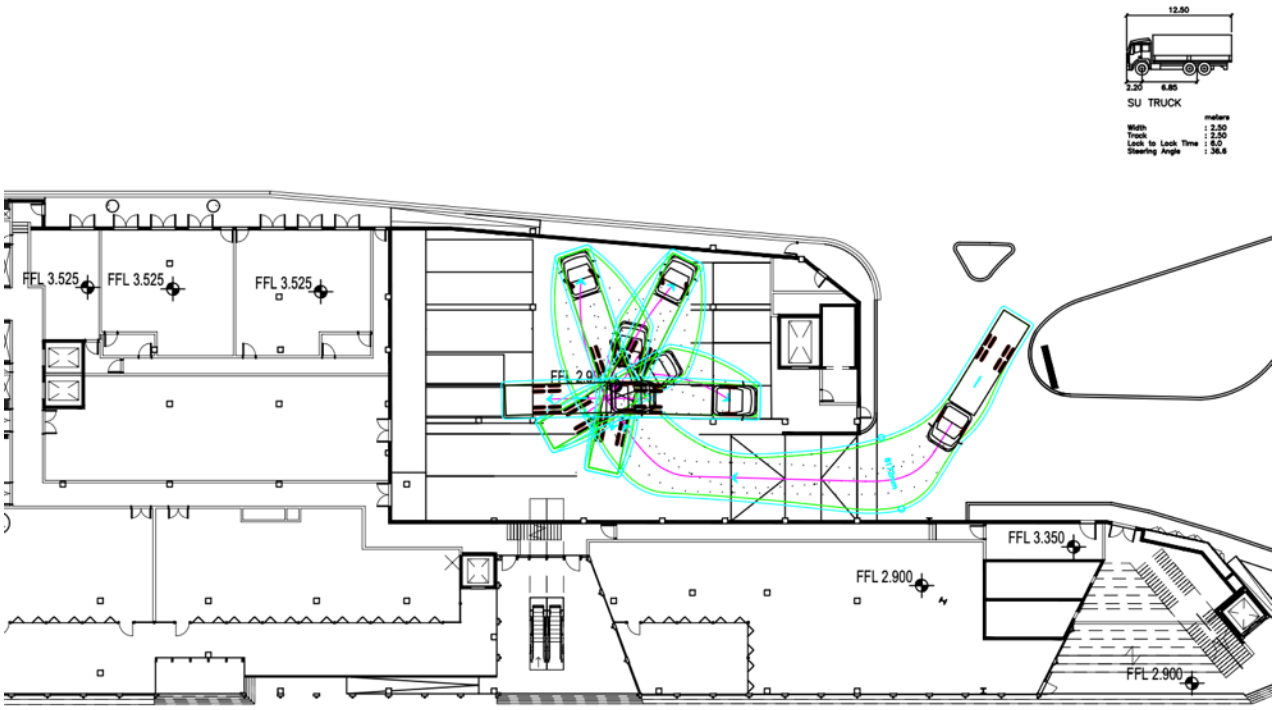
5.14 Clubs and hotels should consider the use of glass crushers to minimise the noise impacts of recycling practices on neighbouring premises. Both glass crushers and cardboard balers/compactors reduce the dedicated space needed to manage recycling, and eliminate the unnecessary collection of bins filled to less than capacity. Use of glass crushers and the allocation of interim storage areas may reduce the space required for recycling storage bins.

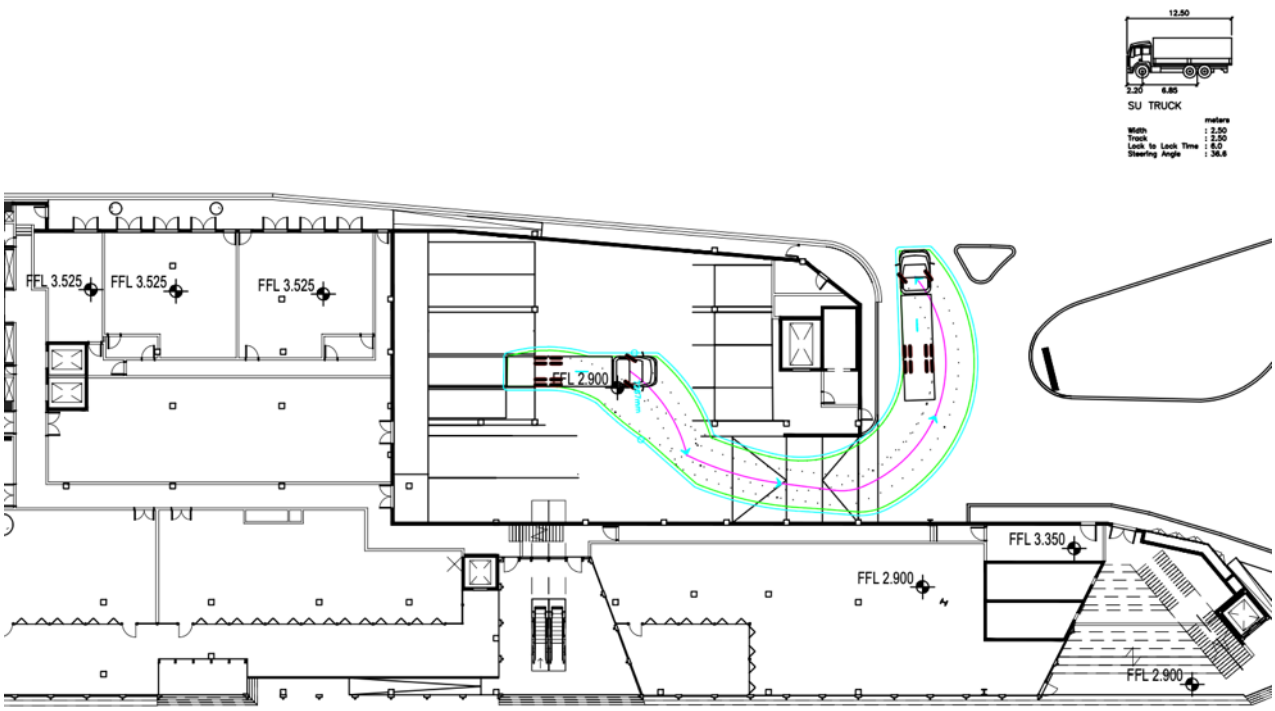
5.15 If the internal serving area of a club or hotel is larger than 1,000 $m^2$, space for a glass crusher is to be allocated.

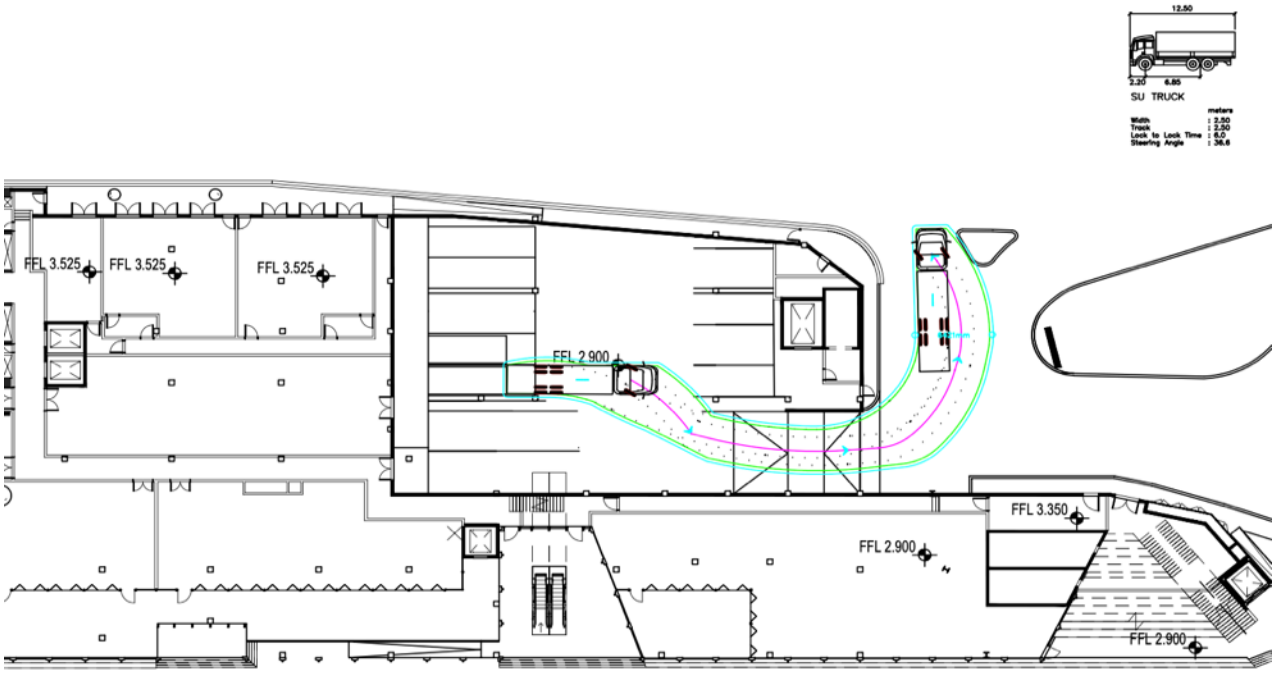
# Appendix C: Loading Dock & Vehicle Access Pathways

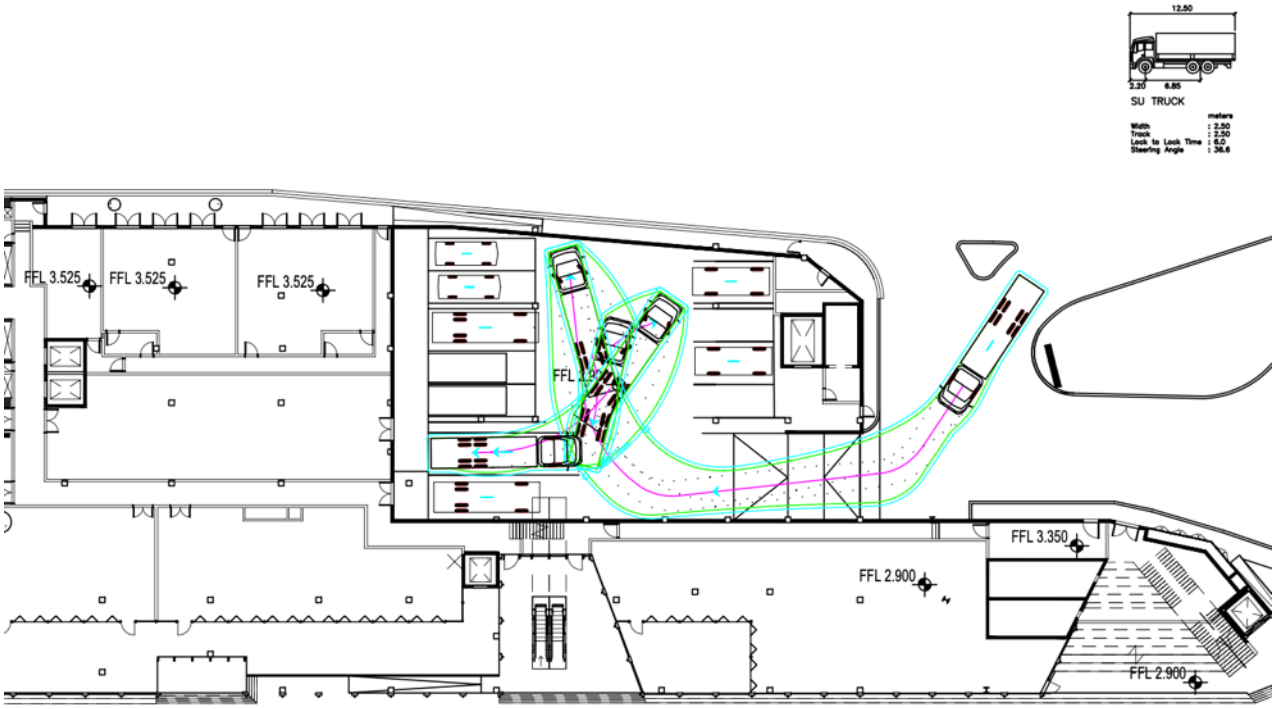


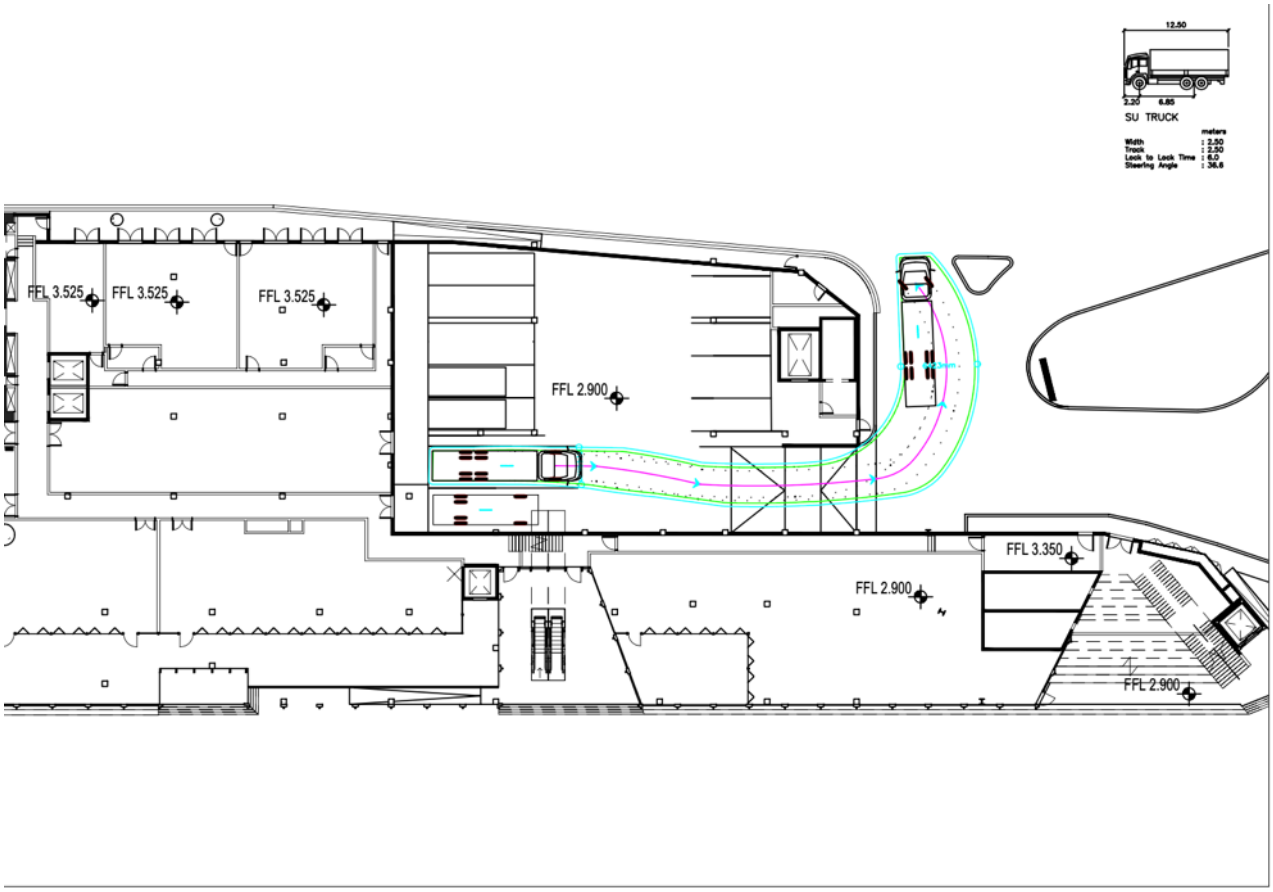







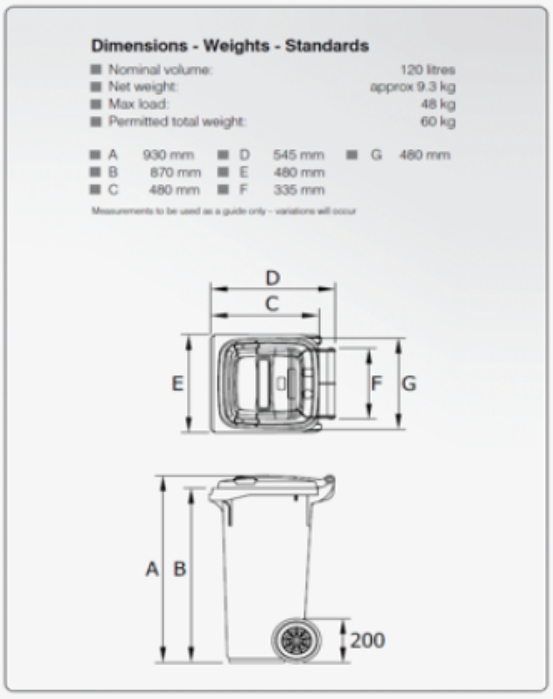





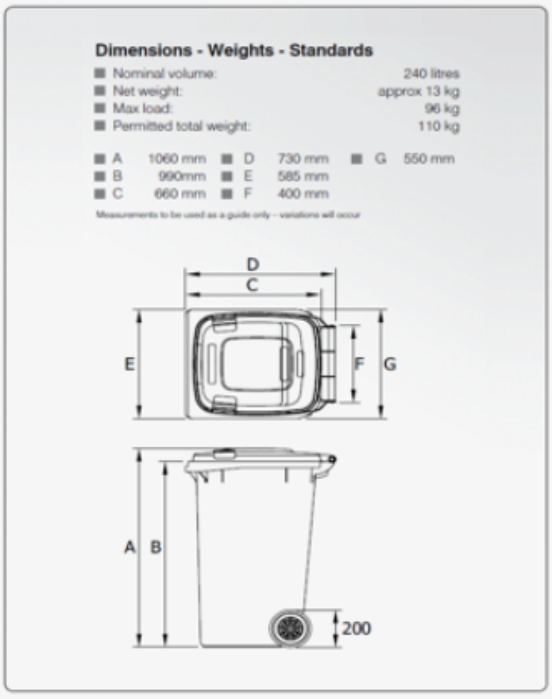
# Appendix D: Waste Management Bins & Equipment

The dimensions shown below are indicative only and will be dependent on the waste contractor selected to service the development in its operational stage.

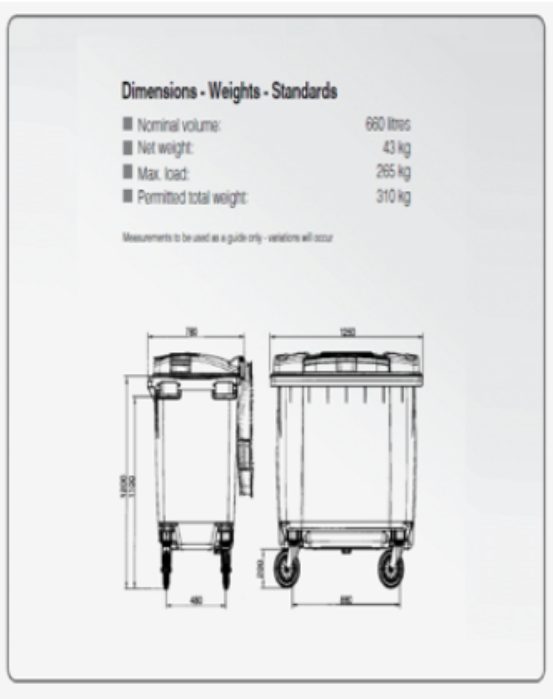
120-litre MGB




240-litre MGB




660-litre MGB



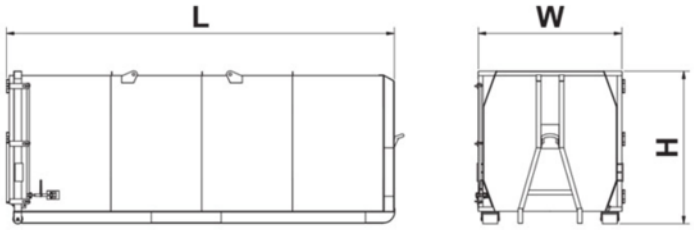

1100-litre MGB

## Compactor Equipment

**STANDARD SIZES**

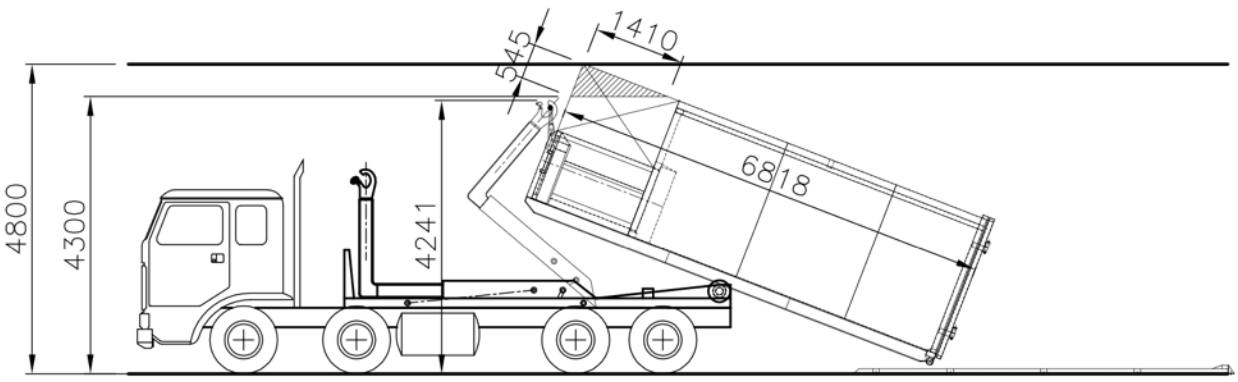
- 23m
- 25m
- 30m
- 32m
- 35m
- 38m

**DIMENSIONS**




| CODE | CAPACITY | LENGTH (L) | WIDTH (W) | HEIGHT (H) |
|---|---|---|---|---|
| CP23 | 23 M3 | 6500 | 2400 | 2150 |
| CP25 | 25 M3 | 6500 | 2400 | 2250 |
| CP30 | 30 M3 | 6500 | 2400 | 2600 |
| CP32 | 32 M3 | 6500 | 2400 | 2750 |
| CP35 | 35 M3 | 6500 | 2400 | 2750 |
| CP38 | 38 M3 | 7100 | 2400 | 2750 |

**All dimensions are in millimeters (mm) unless otherwise stated.*




25cum TRANSPORTABLE HOOK BIN

## Bin Movers and Tugs

## Waste Oil Recycling Equipment

## Appendix E: Loading Dock & Tenancy Signage

The signage examples below are for illustration purposes only. Actual signage will be made site-specific to Cockle Bay Park with suitable branding.