

Leigh Design Pty Ltd ABN 37 139 522 437 PO Box 115 Carnegie VIC 3163

P +61 3 9958 0800

E info@leighdesign.com.au
I www.leighdesign.com.au

Waste Management Plan



Prepared for:

Goodman Property Services (Aust) Pty Ltd



Document Control

Report Date: 25 August 2023 (supersedes all prior reports)

Prepared By: Carlos Leigh, MIEAust

Leigh Design retains copyright and intellectual property rights on this document. Except for planning purposes associated with the above-referenced site, it may not be copied or used in whole or part by any person or entity for this or any other site without prior written consent from Leigh Design.



	TABLE OF CONTENTS	
SEC	CTION	PAGE No.
Wa	aste Management Summary	2
Glo	ossary	2
1	Space and System for Waste Management	3
2	Access for Users, Collectors, and Collection Vehicles	6
3	Amenity, Local Environment, and Facility Design	7
4	Management and Sustainability	9
5	Supplementary Information	11
6	Contact Information	12
7	Limitations	12
Enc	closure: Site Plan A1001.	

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the

- waste management Summand Environment Act 1987.
 The document must not be used for any define supplies with the managing the waste system and for developing and implementing safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall place sorted waste into designated collection bins.
- Waste shall be collected within the subject land. The collection contractor shall transfer bins between the waste areas and the truck.
- A private contractor shall provide waste collection services.

GLOSSARY

Tenant: refers to commercial/industrial tenants, who shall manage site operations at their respective tenancies (employing cleaners and contractors, if required). The Tenant shall report to the Owner(s) and/or Owners Corporation for overall site operations.

User: refers to site staff, who shall utilise the waste system.



This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

The document must not be used for any purpose which may breach any copyright

1 SPACE AND SYSTEM FOR WASTE MANAGEMENT

1.1 Development Description and Use

This development shall consist of commercial/industrial tenancies (refer to Table 1). The site is illustrated in the enclosed Site Plan.

1.2 Estimated Waste Generation

The following table summarises the waste estimate (m³/week):

Table 1: Waste Estimate

Waste Source	Base Qty (est.)		Garbage	Recycling
Café	area (m²) =	382	8.02	5.35
Warehouses/Offices	area (m²) =	115586	80.91	80.91
TOTAL (m³/wk)	88.93	86.26		

Note: Waste figures are based on Sustainability Victoria Guidelines. The Warehouse estimate is based on storage and administration uses of these premises (excludes industrial or process waste).

1.3 Collection Services

Based on the anticipated waste volume, a private contractor shall be required to collect waste. The Tenant shall choose a waste collection provider, negotiate a service agreement, and pay for these services.

1.4 Location, Equipment, and System for Managing Waste

The waste management system is summarised as follows:

- Internal receptacles at work/amenity areas.
- Bin Areas located within hardstands for Precincts 1 and 3, and within tenancies for Precincts 2 and 4.
- Collection bins (kept within the Bin Areas refer to Table 2).

The various collection waste streams are summarised as follows:

Garbage: General waste shall be placed in tied plastic bags and stored within bins.

<u>Recycling</u>: All recyclables shall be commingled into a single type of collection bin (for paper, cardboard, glass, aluminium, steel, and plastics). However, if glass separation is required in future, the Tenant shall provide dedicated glass bins.

<u>Green Waste</u>: Garden organics shall be collected and disposed by the landscape maintenance contractor.

<u>Food Organics</u>: Users shall place organic waste into Organics bins (a small caddy shall be employed at each tenancy). Certified compostable liners shall be adopted for bins and/or caddies.

<u>Minor Waste Streams</u>: Hard/electronic/liquid and other wastes (polystyrene, batteries, paint, chemicals and detox items, etc) shall be kept within each tenancy. Users shall organise a private collection from within the subject land. These items shall be removed on an "at call" basis, noting that e-waste must not be disposed in landfill.

Tenants with commercial kitchens shall arrange the storage of used cooking oil and its collection by a recycler. The Tenant shall organise Grease Interceptor Trap servicing.

Also, office managers shall arrange for the appropriate disposal of secured paper and toner/printer cartridges.

The following table summarises bin quantity/capacity, collection frequency, and area requirements (based on Table 1):

Waste Source	Waste Stream	Bin Qty	Bin Litres	Collections per Week	Net Area m ²
	Garbage	2	1,100	3	3.2
Cafe (dedicated	Food Organics	4	240	3	2.0
private bins)	Recycling	2	1,100	3	3.2
	Future Glass	3	240	3	1.5
	Garbage	26	1,100	2	41.6
Warehouses/Offices	Food Organics	26	120	2	13.0
(dedicated private bins)	Recycling	26	1,100	2	41.6
- /	Future Glass	26	120	2	13.0
Net Waste Storage Area (excludes circulation), m ² :			119.1		

Table 2: Bin Schedule and Collection Frequency

Notes:

- Bins shall be sourced by the Tenant.
- For Warehouses/Offices, bins shall be distributed in accordance with areas and uses of each tenancy. A minimum of one bin for each waste stream is needed at each tenancy. The total number of bins may vary.
- Pending the introduction of glass collections, the above glass bins could be used as recycling bins if additional recycling capacity is required.
- For waste volumes greater than the above bin allocation (such as process waste), additional bins shall be required.
- Subject to stakeholders' preference/capability (and as built constraints), bin sizes and quantities can be changed. Also, recyclables can be either commingled or split into bins for separate recycling streams.



1.5 Planning Drawings, Waste Areas, and Management of the Waste System

Sufficient space for onsite bin storage shall be provided in accordance with the above schedule.

Notwithstanding the above, collection days shall be staged appropriately and the Tenant shall stipulate procedures for effective management of the available space.

1.6 Collection Bin Information

The following bins shall be utilised (see Sect. 4.4 for signage requirements):

Table 3: Bin Details

Capacity (litres)	Height (mm)	Width (across front, mm)	Depth (side on, mm)	Empty Weight (kg)	Average* Gross Weight (kg)
120	930	480	545	10	26
240	1060	585	730	13	45
660	1250	1240	780	43	130
1100	1330	1240	1070	65	210

Notes:

- * = Average Gross Weight is based on domestic waste studies (which vary subject to locality and waste-type). Expect greater weight for wet or compacted waste.
- Use the above details as a guide only variations will occur. The above is based on Sulo plastic flat-lid bins.

Table 4: AS 4123.7-2006 Plastic Bin Colour Coding

Bin Garbage		Recyclables	Green Waste	
Lid	Red	Yellow	Lime Green	
Body	Dark Green / Black	Dark Green / Black	Dark Green / Black	

Note: Victorian publications illustrate bins with lime-green lids for food/green waste and purple lids for glass bins. Private bins shall be labelled to identify the waste generator and site address.



2 ACCESS FOR USERS, COLLECTORS, AND COLLECTION VEHICLES

2.1 User Access to Waste Facilities

Users shall dispose sorted waste into designated collection bins located within their Bin Areas (if required, using a suitable trolley).

<u>Note</u>: If required, the Tenant shall have access to the Bin Areas to rotate the bins, ensuring that empty bins are available along the circulation area so that users are able to reach the bins.

2.2 Collection Arrangements and Access to Waste Facilities

- A private contractor (driver and assistant) shall collect waste within the subject land (refuse trucks shall prop near each Bin Area). Bin Areas in Precincts 2 and 4 shall be located within tenancies with collection from shared hardstand. Bin Areas in Precincts 1 and 3 shall be per standard Goodman set up / operation.
- The collector's assistant shall have access to the Bin Areas and transfer bins to the truck and back to the waste areas. Alternatively, the relevant user may assist the driver with bin transfers.
- The waste collection shall be carried-out by rear-lift vehicles (nom. 8.8m long, 4m operational height, and 24 tonnes gross vehicle mass).





3 AMENITY, LOCAL ENVIRONMENT, AND FACILITY DESIGN

3.1 Noise Minimisation Initiatives

- Collection bins shall feature rubber wheels for quiet rolling during transfers.
- The waste system and collections shall meet relevant acoustic requirements.
- Local laws shall be observed for all operations in public and private areas.
- For private services, the hours of waste collections shall be as specified in Council's local laws. Also, Section 6 of the Victorian EPA Noise Control Guideline Publication 1254 (see below) shall be observed to protect the acoustic amenity of the development and surroundings.

Victorian EPA Noise Control Guideline Publication 1254.2 May 2021 (excerpt)

[Section] 6. Industrial Refuse Collection [for commercial waste]

Annoyance created by industrial waste collection tends to intensify in the early morning period. To this end, early morning collections should be restricted to non-residential areas to minimise early morning disturbances. Where a residential area is impacted by noise from the collection of refuse then collections should be restricted to the times contained within the schedule.

- Refuse bins should be located at sites that provide minimal annoyance to residential
- Compaction should be carried out while the vehicle is moving.

 Bottles should not be same available
- Routes which service fored missarity presidential faces believed regularly to reduce early morning disturbanges consideration and review as
 - Noisy verbal communication between operators should be avoided where possible.

SCHEDULE

One collection per week

Planning and Environment Act 1987.

6:30am to 8:00pm Monday lie Statutdayent must not be used for any 9:00am to 8:00pm Sunday & Public Holidays Two or more collections per week

copyright

7:00am to 8:00pm Monday to Saturday 9:00am to 8:00pm Sunday & Public Holidays

3.2 Litter Reduction and Prevention of Stormwater Pollution

The Tenant shall be responsible for:

- Promoting adequate waste disposal into the bins (to avoid waste-dumping).
- Securing the waste areas (whilst affording access to users/staff/contractors).
- Preventing overfilled bins, keeping lids closed and bungs leak-free.
- Abating any site litter and taking action to prevent dumping and/or unauthorised use of waste areas.
- Requiring the collection contractor to clean-up any spillage that might occur when clearing bins.

The above will minimise the dispersion of site litter and prevent stormwater pollution (thus avoiding impact to the local amenity and environment).

3.3 Ventilation, Washing, and Vermin-Prevention Arrangements

Waste areas shall feature:

- Ventilation in accordance with Australian Standard AS1668.
- Adequate vermin-proofing and tight-fitting doors.
- Impervious flooring (also, smooth, slip-resistant, and appropriately drained).

The Tenant shall regularly clean waste areas/equipment. Also, access doors and bin-lids shall be kept closed.

3.4 Design and Aesthetics of Waste Storage Areas and Equipment

Waste shall be placed within collection bins and stored in designated onsite areas (hidden from external view). Following waste collection activities, bins shall be returned to the storage areas as soon as practicable.

Waste facilities shall be constructed of durable materials and finishes, and maintained to ensure that the aesthetics of the development are not compromised. These facilities and associated passages shall be suitably illuminated (this provides comfort, safety, and security to users, staff, and contractors). Access doors shall feature keyless opening from within.

The design and construction of waste facilities and equipment shall conform to the Building Code of Australia, Australian Standards, and local laws.





This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

The document must not be used for any purpose which may breach any copyright

4 MANAGEMENT AND SUSTAINABILITY

4.1 Waste Sorting, Transfer, and Collection Responsibilities

Garbage shall be placed within tied plastic bags prior to transferring into collection bins. Cardboard shall be flattened and recycling containers un-capped, drained, and rinsed prior to disposal into the appropriate bin. Bagged recycling is not permitted.

Refer to Section 1.4 for all other waste streams and details of the waste system. Also, Section 2 outlines waste transfer requirements and collection arrangements.

4.2 Facility Management Provisions Including Maintenance & Improvements

The Tenant shall be responsible for managing the waste system and for developing and implementing safe operating procedures (refer to the glossary in page 2).

It shall be the responsibility of the Tenant to maintain all waste areas and components, to the satisfaction of users, staff, and the relevant authority (users shall maintain their internal waste receptacles).

The Tenant shall ensure that maintenance and upgrades are carried-out on the facility and components of the waste system. When required, the Tenant shall engage an appropriate contractor to conduct services, replacements, or upgrades.

4.3 Arrangements for Protecting Waste Equipment from Theft and Vandalism

It shall be the responsibility of the Tenant to protect the equipment from theft and vandalism. This shall include the following initiatives:

- Secure the waste areas.
- Label the bins according to property address.
- Waste shall be collected within the subject land (waste shall not be placed for collection outside the site boundary).

4.4 Communication Strategy - Arrangements for System Labelling and Ensuring Users and Staff are Aware of How to Use the System Correctly

- The Tenant shall provide appropriate signage for the bins. Signage is available at the following internet address: www.sustainability.vic.gov.au.
- The Tenant shall publish/distribute "house rules" and educational material to:
 - Inform users/staff about the waste management system and the use/location of the associated equipment (provide the summary in page 2 of this report).
 - Improve facility management results (lessen equipment damage, reduce littering, and achieve cleanliness).
 - Advise users/staff how to sort waste with care to minimise contamination of various waste streams.
- For user safety when disposing waste, the Tenant shall develop and provide safety instructions.

4.5 Sustainability and Waste Avoidance/Reuse/Reduction Initiatives

The *Environment Protection Amendment Act 2018* (and the principal EPA Act of 2017) includes fundamentals of environment protection and guidance for waste management decision making. Also, the *Sustainability Victoria Act 2005* established Sustainability Victoria as the statutory authority for delivering programs on integrated waste management and resource efficiency.

From a design perspective, the development shall support the acts by providing an adequate waste system with ability to sort waste.

The Tenant shall promote the observance of the acts (where relevant and practicable) and encourage users and staff to participate in minimising the impact of waste on the environment. For improved sustainability, the Tenant shall consider the following:

- Observe the *Environment Protection Amendment Act 2018* principle of waste management hierarchy, which states that waste should be managed in accordance with the following order of preference, so far as reasonably practicable: a) avoidance, b) reuse, c) recycling, d) recovery of energy, e) containment, and f) waste disposal.
- Peruse the Sustainability Victoria website: www.sustainability.vic.gov.au.
- Participate in Council and in-house programs for waste minimisation.
- Establish waste reduction and recycling targets; including periodic waste audits, keeping records, and monitoring of the quantity of recyclables found in landfillbound bins (sharing results with users/staff).

4.6 Waste Management Plan Revisions

For any future appropriate Council request, changes in legal requirements, changes in the development's needs and/or waste patterns (waste composition, volume, or distribution), or to address unforeseen operational issues, the Tenant shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required):

- A waste audit and new waste strategy.
- Revision of the waste system (bin size/quantity/streams/collection frequency).
- Re-education of users/staff.
- Revision of the services provided by the waste collector(s).
- Any necessary statutory approval(s).



This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

The document must not be used for any purpose which may breach any copyright

5 SUPPLEMENTARY INFORMATION

- The Tenant shall observe local laws and ensure that bins aren't overfilled or overloaded.
- Waste incineration devices are not permitted, and offsite waste treatment and disposal shall be carried-out in accordance with regulatory requirements.
- For bin traffic areas, either level surfaces (smooth and without steps) or gentle ramps are recommended, including a roll-over kerb or ramp. Should ramp gradients, bin weight, and/or distance affect the ease/safety of bin transfers, the Tenant shall consider the use of a suitable tug.
- The Tenant and waste collector shall observe all relevant OH&S legislation, regulations, and guidelines. The relevant entity shall define their tasks and:
 - Comply with Worksafe Victoria's Occupational Health and Safety Guidelines for the Collection, Transport and Unloading of Non-hazardous Waste and Recyclable Materials (June 2003).
 - Assess the Manual Handling Risk and prepare a Manual Handling Control Plan for waste and bin transfers (as per regulatory requirements and Victorian COP for Manual Handling).
 - Obtain and provide to staff/contractors equipment manuals, training, health and safety procedures, risk assessments, and adequate personal protective equipment (PPE) to control/minimise risks/hazards associated with all waste management activities. As a starting point, these documents and procedures shall address the following:

Task (to be confirmed)	Hazard (TBC)	Control Measures (TBC)
Sorting/disposing waste and cleaning the waste system	Bodily puncture. Biological & electrical hazards	Personal protective equipment (PPE). Develop a waste-sorting procedure
Waste/bin manual handling	Sprain, strain, crush	PPE, staff training. Maintain bin wheel- hubs. Limit waste/bin weight. Provide mechanical assistance to transfer bins
Bin transfers and emptying into truck	Vehicular strike, run- over	PPE. Develop a Hazard Control Plan for transfers and collections. Maintain visibility. Use a mechanical bin-tipper
Truck access (reversing & manoeuvring)	Vehicular incident, strike, run-over	PPE. Use a trained spotter. Develop a truck-manoeuvring and traffic-control procedure

Note: The above shall be confirmed by a qualified OH&S professional who shall also prepare site-specific assessments, procedures, and controls (refer to Section 6).



6 CONTACT INFORMATION

City of Kingston (local Council), ph 1300 653 356

KS Environmental (private waste collector), ph 03 9551 7833

Remondis (private waste collector), ph 13 73 73

Iron Mountain (office paper recycler), ph 1300 476 668

Shred-X (office paper recycler), ph 1300 747 339

Eco-Safe Technologies (odour control equipment supplier), ph 03 9706 4149

FJP Safety Advisors (OH&S consultant), ph 03 9255 3660

Electrodrive (tug & trailer supplier - for bin transfers), ph 1300 934 471

Sabco Commercial (supplier of cleaner's trolleys), ph 1800 066 522

Sulo MGB Australia (bin supplier), ph 1300 364 388

One Stop Garbage Shop (bin supplier), ph 03 9338 1411

<u>Note</u>: The above includes a complimentary listing of contractors and equipment suppliers. The stakeholders shall not be obligated to procure goods/services from these companies. Leigh Design does not warrant (or make representations for) the goods/services provided by these suppliers.

ADVERTISED PLAN

7 LIMITATIONS

The purpose of this report is to document a Waste Management Plan, as part of a Planning Permit Application.

This report is based on the following conditions:

- Ongoing use of the development (excludes demolition/construction phases). In particular, for occupation and fit-out phases, the Tenant shall determine specific waste procedures.
- Drawings and information supplied by the project architect.
- The figures presented in this report are estimates only. The actual amount of waste will depend on the development's patronage, occupancy rate, waste generation intensity, the user's disposition toward waste and recycling, and the Tenant's approach to waste management. The Tenant shall make adjustments, as required, based on actual waste volumes (if the actual waste volume is greater than estimated, then the number of bins and/or the number of collections per week shall be increased. STCA).
- This report shall not be used to determine/forecast operational costs, or to prepare feasibility studies, or to document operational/safety procedures.

