



WASTE MANAGEMENT PLAN

The Mercantile Hotel
25-27 George St
The Rocks NSW 2000
Commercial Development

PREPARED FOR
WELSH+MAJOR

15/12/2017

Ph: 1800 025 073

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REVISIONS

Revision	Copy No.	Date	Prepared by	Reviewed by	Approved by	Remarks
A	1	11/10/2017	J Elliot	A Armstrong	N Beattie	Draft
B	1	4/12/2017	H Wilkes	A Armstrong	N Beattie	Amendment
C	1	15/12/2017	H Wilkes	A Armstrong	N Beattie	Final

DISTRIBUTION LIST

Recipient Name	Company	Revision
Dean Williams	Welsh+Major	C

EXECUTIVE SUMMARY

This waste management plan covers the ongoing management of waste generated by the commercial development located at 25-27 George Street, The Rocks, NSW 2000.

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

- i. ***Ensure waste is managed to reduce the amount of waste and recyclables to land fill*** by assisting residents to segregate appropriate materials that can be recycled; displaying signage to remind and encourage recycling practices; and through placement of recycling and waste bins in the retail precinct to reinforce these messages.
- ii. ***Recover, reuse and recycle*** generated waste wherever possible.
- iii. ***Compliance*** with all relevant codes and policies.

To assist in providing clean and well-segregated waste material, it is essential that this waste management plan is integral to the overall management of the building and clearly communicated to guests and staff.

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GLOSSARY OF TERMS

TERM	DESCRIPTION
<i>Baler</i>	A device that compresses waste into a mould to form bales which may be self-supporting or retained in shape by wire ties and strapping
<i>Collection Area/Point</i>	The position or area where waste or recyclables are actually loaded onto the collection vehicle
<i>Compactor</i>	A Machine for compressing waste into disposable or reusable containers
<i>Composter</i>	A container/machine used for composting specific food scraps
<i>Crate</i>	A plastic box used for the collection of recyclable materials
<i>Garbage</i>	All domestic waste (Except recyclables and green waste)
<i>Recycling</i>	Glass bottles and jars – PET, HDPE and PVC plastics; aluminium aerosol and steel cans; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines
<i>Green</i>	Garden organics such as small branches, leaves and grass clippings, tree and shrub pruning, plants and flowers, and weeds
<i>L</i>	Litre(s)
<i>Liquid Waste</i>	Non-hazardous liquid waste generated by commercial premises that is supposed to be connected to sewer or collected for treatment and disposal by a liquid waste contractor (including grease trap waste)
<i>Mobile Garbage Bin(s) (MGB)</i>	A waste container generally constructed of plastic with wheels with a capacity in litres of 120, 240, 660, 1000 or 1100
<i>Putrescible Waste</i>	Component of the waste stream liable to become putrid. Usually breaks down in a landfill to create landfill gases and leachate. Typically applies to food, animal and organic products.

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INTRODUCTION

The following waste management plan pertains to the commercial development located at 25-27 George Street, The Rocks, NSW 2000. This waste management plan is an operational waste management plan and will address the phases of the completed development. The development is a fit out of an existing heritage listed building.

For the purpose of this report the proposed development will consist of:

- 1 building with four levels with
 - 11 hotel rooms on levels 1 & 2
 - 210m² in total of dining areas
 - 315m² in total of Bar areas

All figures and calculations are based on area schedules as advised by our client and shown on architectural drawings.

CITY OF SYDNEY COUNCIL

The garbage and recycling will be guided by the services and acceptance criteria of the City of Sydney Council. All waste facilities and equipment are to be designed and constructed to be in compliance with the *Sydney Development Control Plan 2012*, City of Sydney Council's *Policy for Waste Minimisation in New Developments 2005*, Council Advices, Australian Standards and statutory requirements.

The restaurant, bar and hotel waste and recycling will be collected by private contractor.

COUNCIL OBJECTIVES

- Ensure that each dwelling has adequate space to manage waste.
- Ensure that buildings provide appropriate facilities to manage waste.
- Ensure that residential amenity is not impacted by waste systems and collection services.

COUNCIL REQUIREMENTS

Access – Ensure waste systems are easy to use and collection vehicles are able to access buildings to safely remove waste and recycling;

Safety – Ensure safe practises for storage, handling and collection of waste and recycling;

Pollution Prevention – Prevent stormwater pollution that may occur as a result of poor waste storage and management practises;

Ecologically Sustainable Development (ESD) – Promote the principles of ESD through resource recovery and recycling leading to a reduction in the consumption of finite natural resources;

Hygiene – Ensure health and amenity for guests, staff, visitors and workers in the City of Sydney.

GENERATED WASTE VOLUMES

The assessment of projected waste volumes is a calculated estimate only and will be influenced by the development's management and occupant's waste disposal and recycling practices.

CONSTRUCTION AND DEVELOPMENT WASTE

The head contractor will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements. Please refer to the separate waste management plan submitted for construction waste as part of the Development Application.

BUILDING MANAGER/WASTE CARETAKER

All waste equipment movements are to be managed by the building manager/cleaners at all times. No guests will be allowed to transport waste or recyclables from the waste room.

The building manager/cleaner duties include, but are not limited to, the following:

- Organising, maintaining and cleaning the general and recycled waste holding areas (Frequency will depend on waste generation and will be determined based upon building operation);
- Transporting of bins as required;
- Organising both garbage and recycled waste pick-ups as required;
- Cleaning and exchanging all bins;
- Ensure site safety for residents, children, visitors, staff and contractors;
- Abide by all relevant OH&S legislation, regulations, and guidelines;
- Assess any manual handling risks and prepare a manual handling control plan for waste and bin transfers; and
- Provide to staff/contractors equipment manuals, training, health and safety procedures, risk assessments, and PPE to control hazards associated with all waste management activities

***NOTE:** It is the responsibility of the building manager to monitor the number of bins required for the development. As waste volumes may change according to the development's management and occupants' attitudes to waste disposal and recycling, bin numbers and sizes may need to be altered to suit the building operation.*

REPORTING

It is recommended that building management ensure that all waste service providers submit monthly reports on all equipment movements and weights of any waste and recycling products removed from the development. Regular reviews of servicing should take place to ensure operational and economic best practise and to assist with sustainability reporting.

EDUCATION

Building management is responsible for creating and managing the waste management education process.

Educational material encouraging the correct separation of garbage and recycling items must be provided to staff to ensure the correct disposal of waste, including bulky goods (old furniture, large discarded items, etc.) It is recommended that information is provided in multiple languages to support correct practises and minimise the possibility of contamination in the collective waste bins.

HOTEL WASTE PLAN

City of Sydney's *Policy for Waste Minimisation in New Developments 2005* has been referenced to calculate the total number of bins required for the hotel areas including the bar and dining areas. Please note that calculations are based on generic figures; waste generation rates may differ according to the developments waste management practice. A seven day operating week has been assumed.

Table 1: Calculated Waste Generation - Hotel

Bar	NLA (m ²)	Waste Calculation (L/100m ² /day)	Generated Waste (L/week)	Recycling Calculation (L/100m ² /day)	Generated Recycling (L/week)
Ground Level Bar	125	50	438	50	438
Resturant Dinning Areas	NLA (m ²)	Waste Calculation (L/1.5m ² /day)	Generated Waste (L/week)	Recycling Calculation (L/100m ² /day)	Generated Recycling (L/week)
Ground Floor Bistro	55	10	2567	50	193
Ground Floor Dining	25	10	1167	50	88
Ground Floor Outdoor Dining	95	10	4433	50	333
Rooftop Bar/Restaurant	135	10	6300	50	473
Hotel Accomodation	Rooms#	Waste Calculation (L/bed/day)	Generated Waste (L/week)	Recycling Calculation (L/bed/day)	Generated Recycling (L/week)
	11	5	385	1	77
TOTAL			15289		1600

BIN SUMMARY

Garbage: 10 x 240L MGBs collected **daily**

Recycling – Cardboard: 1x 240L x MGB collected **daily**

Recycling – Plastics & Co-Mingled: 1x 240L MGB collected **3 times weekly**

Recycling – Glass: Glass generated the bar and restaurant areas will be separated and crushed in glass crushers. It is assumed, the glass crushers will deposit glass waste into 60L MGBs. (depending on the model of glass crusher) The glass will be collected by a separate waste collector as required.

NOTE: Subject to the stakeholders preference/capability (and as built constraints), bin sizes and quantities may be changed. As waste volumes may change according to the development's type, bin numbers and collection frequencies may be altered to suit the building operation.

HOTEL ROOM WASTE MANAGEMENT

The vast majority of people who stay in hotels generally spend a relatively short time at the facility, therefore the waste generated in each unit is managed by the staff. Most waste generated is from goods received at the loading dock in the form of packaging (cardboard and plastic film), food waste, recyclables (mixed containers), newspapers and magazines. Office paper may also be generated however this is generally a minimal quantity.

All guests of each hotel suite will be supplied with collection receptacles in each unit (generally in the main room and bathroom, under bench or similar alternate area) to deposit garbage and collect recyclable material suitable for one days storage. Garbage receptacles must be supplied with bin liners. Recycling must not be bagged. A separate non-lined bin will be provided for the collection of recyclables. The bins must be clearly labelled. It is expected that hotel guests will place clean and empty recycling items into the collection bins.

Nominated staff or cleaners will circulate around the hotel rooms and collect and transport sorted garbage and recyclable items to the 240L MGBs held in the storage room on Level 1. At the end of the day, the bins are transported to the collection area on the Ground level and will be collected daily.

NOTE: Subject to the stakeholders preference/capability (and as built constraints), bin sizes and quantities may be changed.

RESTURANTS AND BAR MANAGEMENT

Dining area and bar staff will be responsible for the waste management of their respective areas. The waste and recycling 240L MGBs will be placed in high waste generation areas, such as the kitchen, and bar areas back of house. On completion of each trading day, nominated staff/cleaners will transport their waste and recycling the collection are on the ground level. All bins will be collected daily.

Food handling for food cooked or prepared, served and consumed on site will produce a typical waste composition of food scraps from plates, packaging waste and some plastics.

Cardboard is a major component of the waste generated by cafes/restaurants. All cardboard should be flattened (to save bin space), placed in the cardboard 240L MGB. Whilst cardboard is bulky, it is generally lightweight however it can be contaminated with food or liquid which makes it unsuitable for recycling.

Reusable items such as kegs, pallets and creates will be kept back of house in basement storage.

It is recommended that:

- All waste should be bagged and waste bins should be plastic lined;
- Bagging of recyclables is not permitted;
- All waste collections located BOH during operations;
- Individual recycling programs are recommended for retailers to ensure commingled recycling is separated correctly;
- Any food and beverage tenant will make arrangements for storing used and unused cooking oil in a bunded storage area;
- The operator will organise grease interceptor trap servicing;

- A suitable storage area needs to be provided and affectively banded for chemicals, pesticides and cleaning products;
- Dry basket arresters need to be provided to the floor wastes in the food preparation and waste storage areas;
- Washroom facilities should be supplied with collection bins for paper towels (if used); and
- All flattened cardboard will be collected and removed to the waste room recycling MGB

NOTE: Subject to the stakeholders preference/capability (and as built constraints), bin sizes and quantities may be changed.

WASHROOM FACILITIES

Washroom facilities in bar, restaurant and staff areas should be supplied with collection bins for paper towels (if used). Sanitary bins for female restroom facilities must also be arranged with an appropriate contractor.

Building management will monitor use and ensure waste bins are exchanged and cleaned.

WASTE AREAS

The development is a fit out of an existing heritage listed building. In addition, it is expected that there the high volumes of turnover from the development in operation.

Therefore the bins will be place in high waste generation areas throughout the development and brought down to the court yard on Gloucester Walk every evening at the end of day for collection.

The bin locations and collection area are detailed in APPENDIX A.2.

A bin wash down area is situated in the bin store on Gloucester Walk.

The cardboard bin and co-mingled recycling bin will be placed in the bins store on the ground level. The various areas of the development will accumulate the cardboard and co-mingled recycling and transport it down to the recycling bins on the ground level as required.

Glass crushers will be placed behind each bar area for the collection of Glass recycling. Full glass bins will be stored BOH. Prior to collection, the glass bins will also be brought down to the ground level for collection.

COLLECTION OF WASTE

After each day of operation, the waste and recycling bins from around the development will be brought down to the court yard on the ground level adjacent Gloucester Walk for collection by a private contractor.

The glass bins will be collected by a separate private contractor.

Each day, after the bins have been serviced, the building manager or staff will be responsible for returning each bin to its designated location.

COLLECTION AREA

It is Elephant Foot's understanding that the collection areas have been reviewed by a traffic consultant (or equivalent) to confirm the swept paths for waste collections, access and egress, internal manoeuvring to assume parked position for loading and to exit, load requirements as well as collection vehicle. It must be ensured that that the collection vehicle (and other trucks if required) can enter and exit the collection location. The final number of truck movements will depend on management of waste contract; final configuration of waste and recycling arrangements therefore number of bin lifts and additional irregular truck movements for hard waste.

GARBAGE ROOMS

CONSTRUCTION REQUIREMENTS

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

- Waste room floor to be sealed with a two pack epoxy;
- 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;
- For residential: a hot and cold water facility with mixing facility and hose cock must be provided for washing the bins;
- For retail/commercial: a cold water facility with hose cock must 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. (Sydney water);
- 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);
- Optional automatic odour and pest control system installed to eliminate all pest types and assist with odour reduction – this process generally takes place at building handover – building management make the decision to install;
- 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

SIGNAGE

The building manager/caretaker is responsible for waste room signage including safety signage (see *APPENDIX B.2*). Appropriate signage must be prominently displayed on walls and above all bins, clearly stating what type of waste or recyclables is to be placed in the bin underneath.

VENTILATION

Waste and recycling rooms must have their own exhaust ventilation system either;

- Mechanically - exhausting at a rate of 5L/m² floor area, with a minimum rate of 100L/s minimum; or
- Naturally - permanent, unobstructed, and opening direct to the external air, not less than one-twentieth (1/20) of the floor area

Mechanical exhaust systems shall comply with AS1668 and not cause any inconvenience, noise or odour problem.

STORM WATER PREVENTION & LITTER REDUCTION

Building management shall be responsible for the following to minimise dispersion of site litter and prevent stormwater pollution to avoid impact to the environment and local amenity:

- Promote adequate waste disposal into the bins;
- Secure all bin rooms (whilst affording access to staff/contractors);
- Prevent overfilling of bins, keep all bin lids closed and bungs leak-free;
- Take action to prevent dumping or unauthorised use of waste areas; and
- Ensure collection contractors clean-up any spillage that may occur when clearing bins

ADDITIONAL INFORMATION

Transfer of waste and all bin movements require minimal manual handling therefore the operator must assess manual handling risks and provide any relevant documentation to building management. If required, a bin-tug, trailer or tractor consultant should be contacted to provide equipment recommendations. Hitches may require installation to move multiple bins to the collection area. Council must be informed of any hitch attachments required to be installed on bins.

LIMITATIONS

The purpose of this report is to document a Waste Management Plan as part of a development application and is supplied with the following conditions:

- Drawings, estimates and information contained in this waste management plan have been prepared by analysing the information, plans and documents supplied by you and third parties including Council and government information. The assumptions based on the information contained in the WMP is outside the control of EFRS;
- The figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the building managements approach to educating residents and tenants regarding waste management operations and responsibilities;
- The building manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly;
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures;
- The report has been prepared with all due care however no assurance or representation is made that the WMP reflects the actual outcome and EFRS will not be liable to you for plans or outcomes that are not suitable for your purpose, whether as a result of incorrect or unsuitable information or otherwise;
- EFRS offer no warranty or representation of accuracy or reliability of the WMP unless specifically stated;
- Any manual handling equipment recommended should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply;
- Design of waste management chute equipment and systems must be approved by the supplier.

USEFUL CONTACTS

Elephants Foot Recycling Solutions does not warrant or make representation for goods or services provided by suppliers.

City of Sydney Council Customer Service

Phone: 02 9265 9333

Email: council@cityofsydney.nsw.gov.au

SULO MGB (MGB, Public Place Bins, Tugs and Bin Hitches)

Phone: 1300 364 388

CLOSED LOOP (Organic Dehydrator)

Phone: 02 9339 9801

ELECTRODRIVE (Bin Mover)

Phone: 1800 333 002

Email: sales@electrodrive.com.au

RUD (Public Place Bins, Recycling Bins)

Phone: 07 3712 8000

Email: Info@rud.com.au

CAPITAL CITY WASTE SERVICES

Phone: 02 9359 9999

REMONDIS (Private Waste Services Provider)

Phone: 13 73 73

SITA ENVIRONMENTAL (Private Waste Services Provider)

Phone: 13 13 35

NATIONAL ASSOCIATION OF CHARITABLE RECYCLING ORGANISATIONS INC. (NACRO)

Phone: 03 9429 9884

Email: information@nacro.org.au

PURIFYING SOLUTIONS (Odour Control)

Phone: 1300 636 877

Email: sales@purifyingsolutions.com.au

Elephants Foot Recycling Solutions (Chutes, Compactors and eDiverter Systems)

44 – 46 Gibson Avenue

Padstow NSW 2211

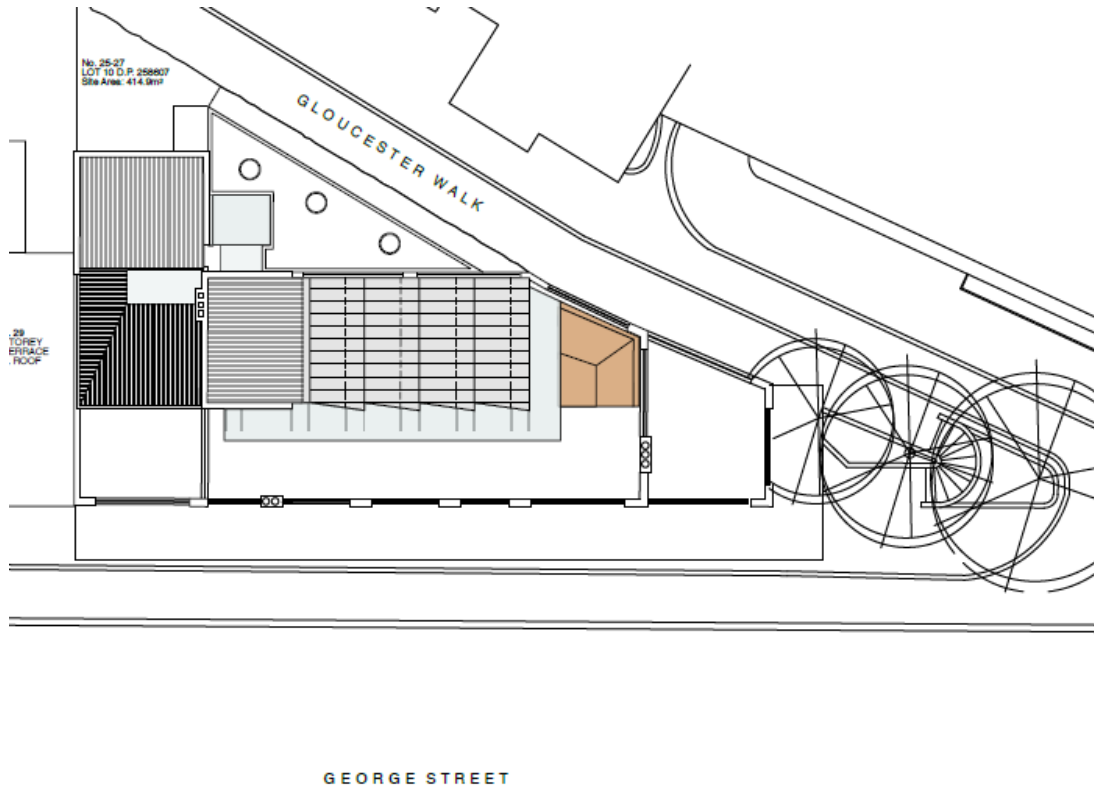
Free call: 1800 025 073

Email: natalie@elephantsfoot.com.au

APPENDICES

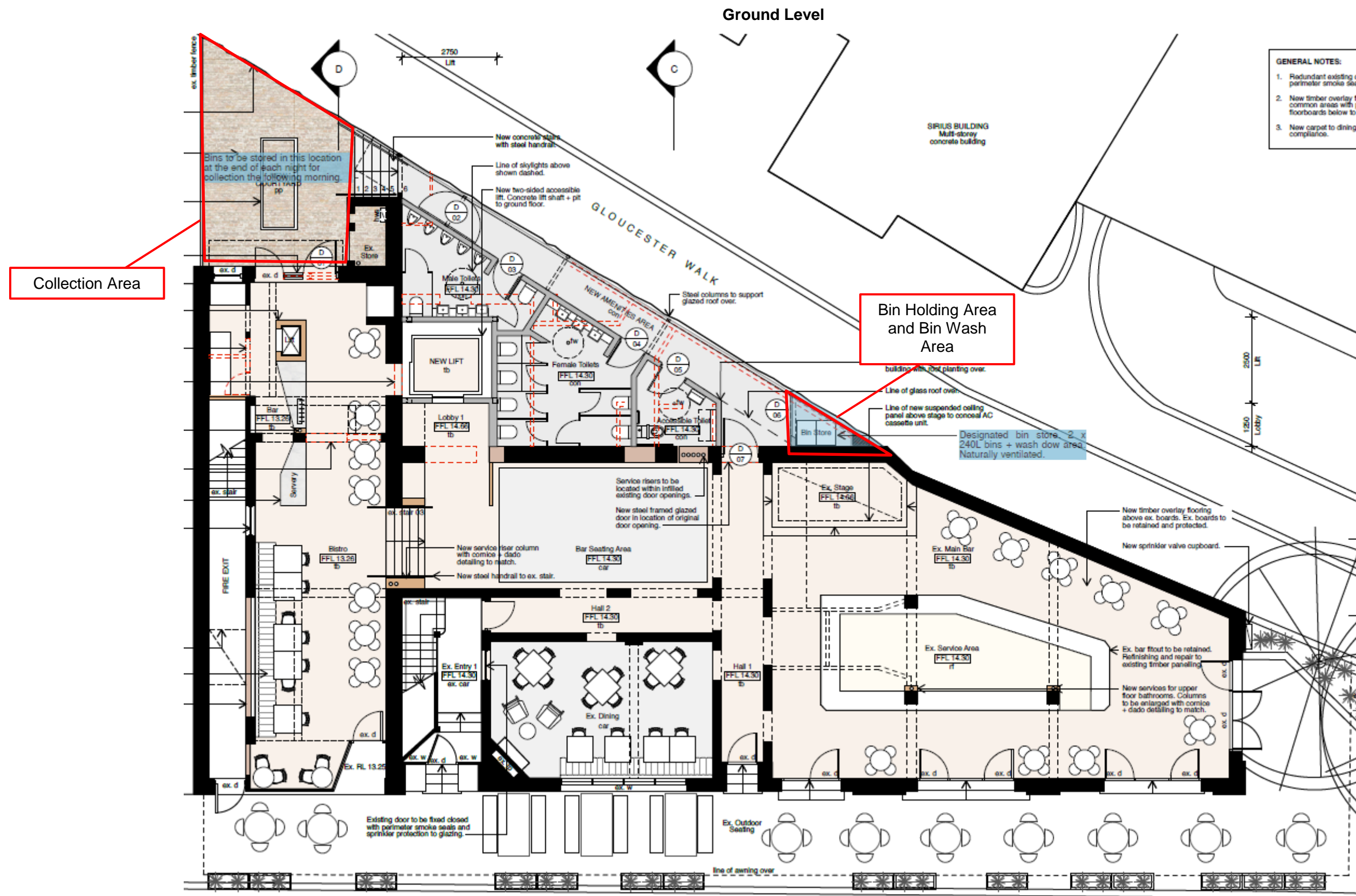
APPENDIX A DRAWING EXERPTS

APPENDIX A.1 SITE PLAN



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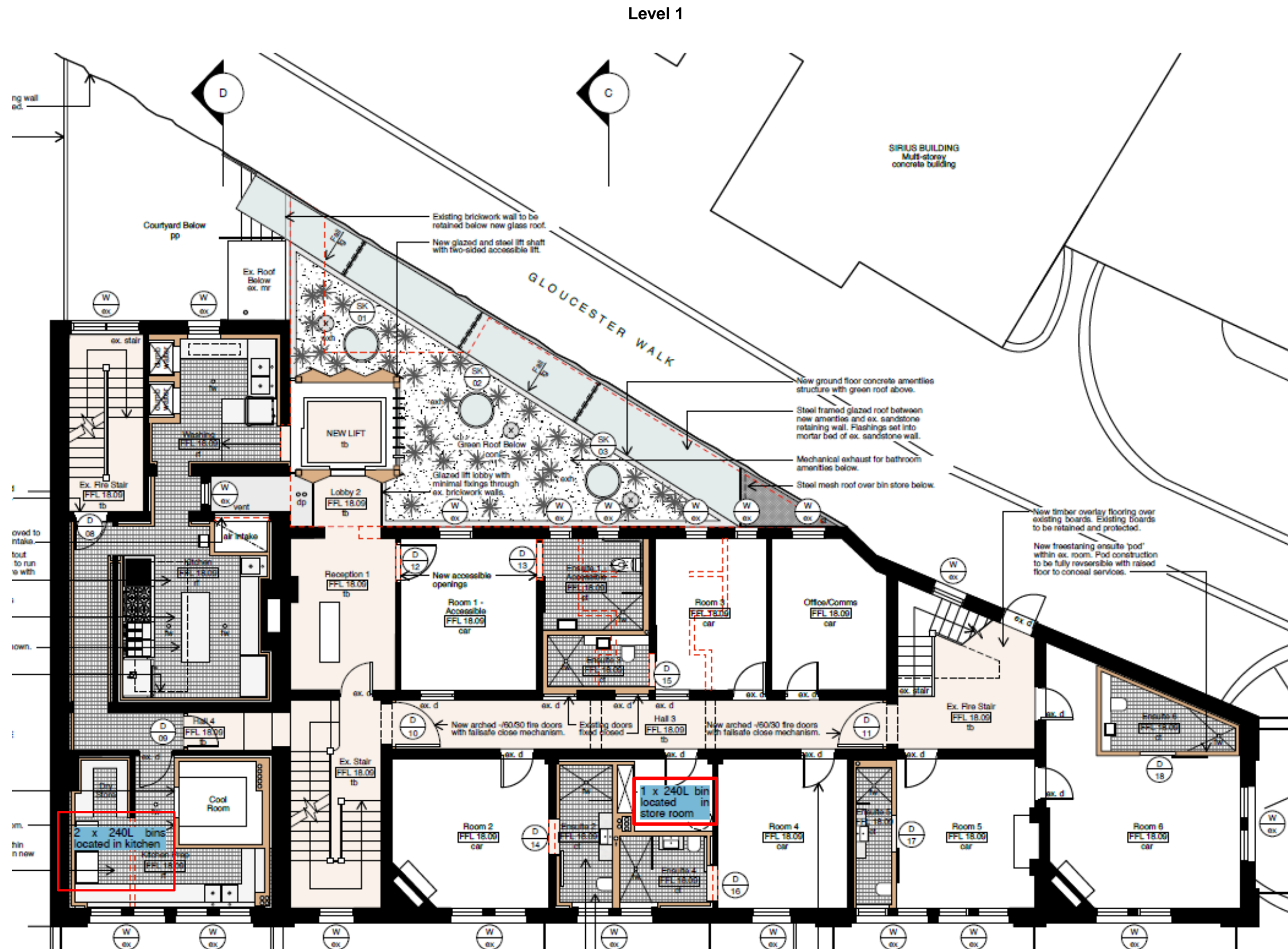
APPENDIX A.2 GROUND LEVEL COLLECTION AREA AND BIN HOLDING AREA



Source: Mark Up by Welsh & Major, Welsh & Major 25-27 George St, Ground Floor Plan, Drawing No SSDA 102

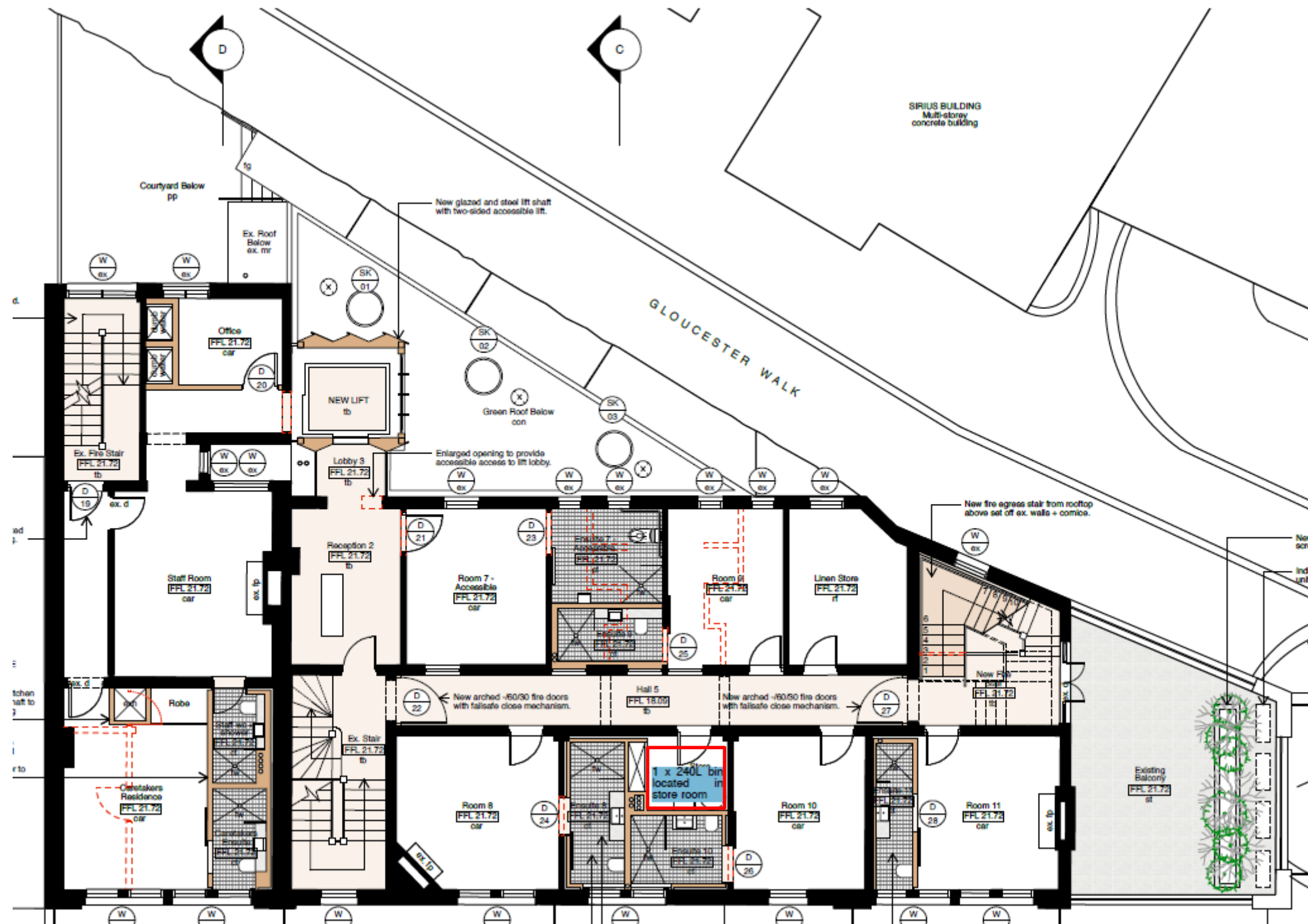
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APPENDIX A.3 LEVEL 1 BIN HOLDING AREA



Source: Mark Up by Welsh & Major, Welsh & Major 25-27 George St, Level 1 Floor Plan, Drawing No SSDA 103

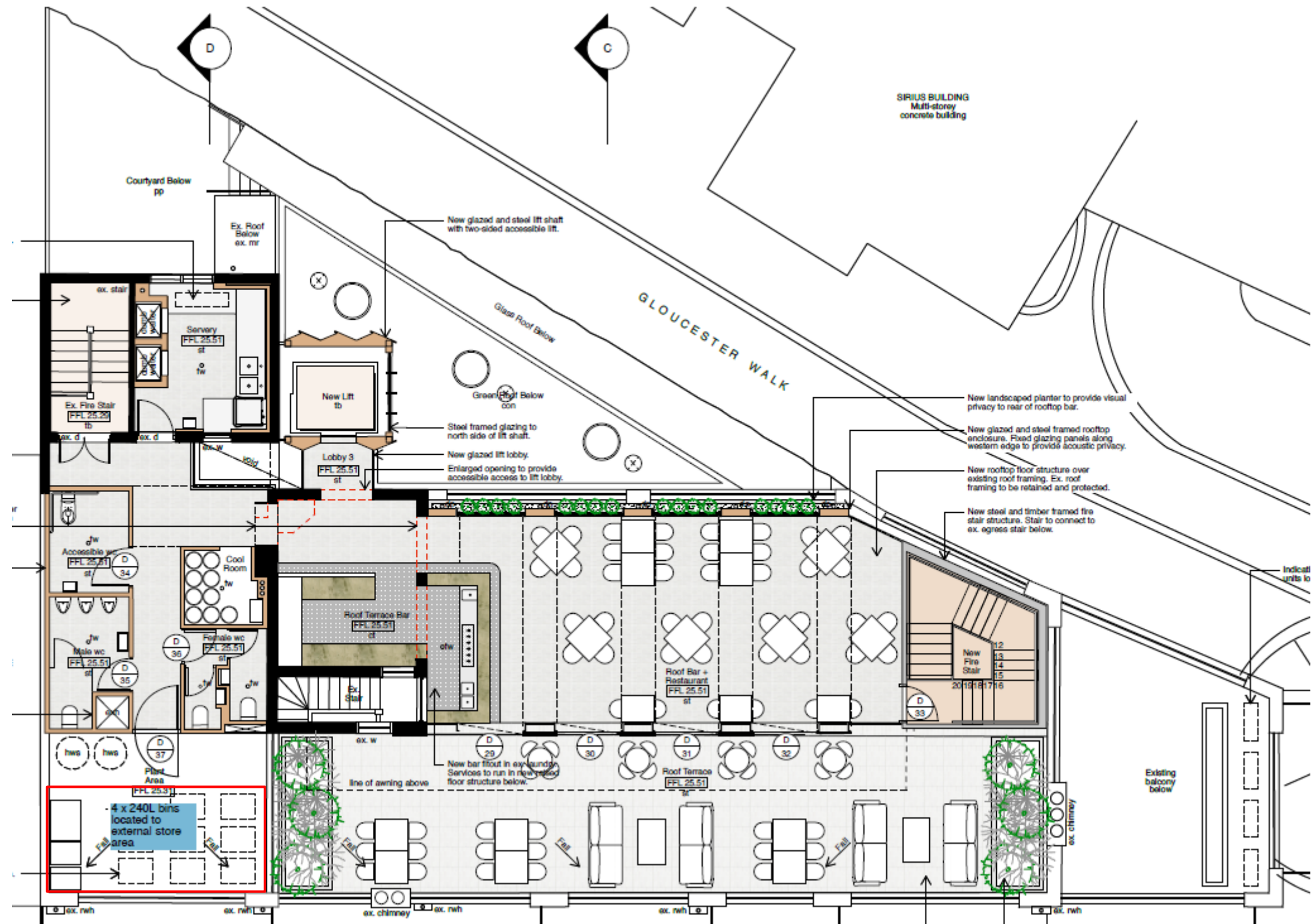
APPENDIX A.4 LEVEL 2 BIN HOLDING AREA



Source: Mark Up by Welsh & Major, Welsh & Major 25-27 George St, Level 2 Floor Plan, Drawing No SSDA 105

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APPENDIX A.5 ROOF TERRACE BIN HOLDING AREA



Source: Mark up by Welsh & Major, Welsh & Major 25-27 George St, Roof Terrace Plan, Drawing No SSDA 105

APPENDIX B BETTER PRACTICE GUIDE FOR WASTE MANAGEMENT SPECIFICATIONS

APPENDIX B.1 BIN DIMENSIONS

Crates



Crate size	50L Crate	70L Crate	90L Crate
Height	320 mm	395 mm	420 mm
Length	575 mm	575 mm	450 mm
Width	445 mm	445 mm	450 mm

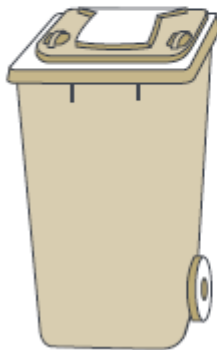
The above dimensions are indicative only of common crate sizes

Mobile garbage bins (MGBs)

MGBs with capacities up to 1700L should comply with the Australian Standard for Mobile Waste Containers (AS 4123). AS 4123 specifies standard sizes and sets out the colour designations for bodies and lids of mobile waste containers that relate to the type of materials they will be used for.

Indicative sizes only for common MGB sizes are provided below. Note that not all MGB sizes are shown; the dimensions are only a guide and differ slightly according to manufacturer, if bins have flat or dome lids and are used with different lifting devices. Refer to AS 4123 for further detail.

Mobile containers with a capacity from 80L to 360L with two wheels



Bin Type	80 Litre MGB	120 Litre MGB	140 Litre MGB	240 Litre MGB	360 Litre MGB
Height	870 mm	940 mm	1065 mm	1080 mm	1100 mm
Depth	530 mm	560 mm	540 mm	735 mm	885 mm
Width	450 mm	485 mm	500 mm	580 mm	600 mm

Mobile containers with a capacity from 500L to 1700L with four wheels

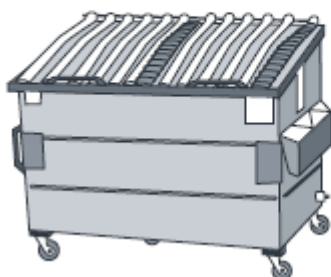


Dome or flat lid containers

Bin Type	660 Litre MGB	770 Litre MGB	1100 Litre MGB	1300 Litre MGB	1700 Litre MGB
Height	1250	1425	1470	1480	1470
Depth	850	1100	1245	1250	1250
Width	1370	1370	1370	1770	1770

Bulk bins greater than 1700L capacity

The following bulk bin dimensions are a guide only and may differ slightly according to manufacturer.
Not all available bulk bin sizes are shown.



Bin Type	2.0 m³ Skip	3.0 m³ Skip	4.5 m³ Skip
Height	865 mm	1225 mm	1570 mm
Depth	1400 mm	1505 mm	1605 mm
Width	1830 mm	1805 mm	1805 mm

APPENDIX B.2 SIGNAGE FOR WASTE & RECYCLING BINS

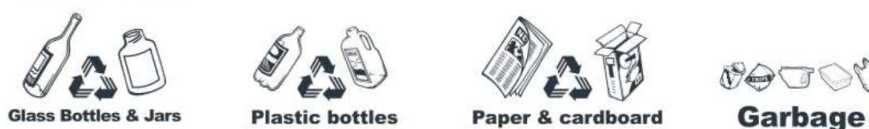
WASTE SIGNS

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the Department of Environment and Heritage.

Example wall posters



Example bin lid stickers



SAFETY SIGNS

The design and use of safety signs for waste rooms and enclosures should comply with AS1319 Safety Signs for Occupational Environment. Safety signs should be used to regulate and control safety behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Each development will need to decide which signs are relevant for its set of circumstances and service provided.

Examples of Australian Standards:



Australian Standards are available from the SAI Global Limited website (www.saiglobal.com).

Source: *Better Practice Guide to Waste Management in Multi-Unit Dwellings*, 2008, DECC

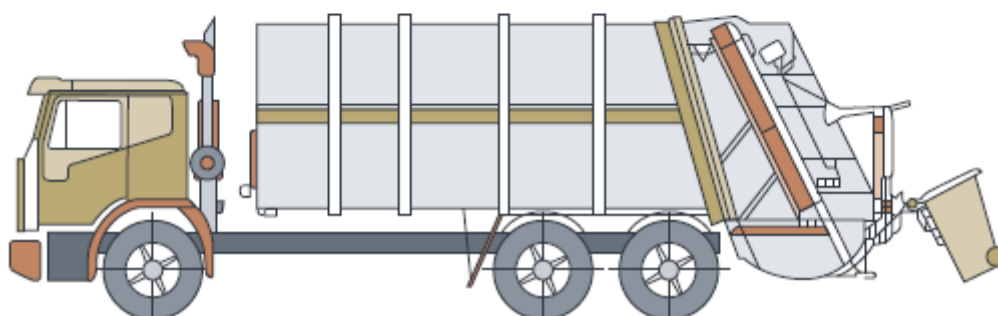
APPENDIX B.3 TYPICAL COLLECTION VEHICLE INFORMATION

Collection vehicles

Waste collection vehicles may be side loading, rear-end loading, front-end loading or crane trucks. The size of vehicle varies according to the collection service. Thus it is impossible to specify what constitutes the definitive garbage vehicle. Developers should consult the local council and/or relevant contractors regarding the type of vehicle used in that area.

The following characteristics represent the typical collection vehicle, however, these are only for guidance.

It may be possible to engage a collection service provider to use smaller collection vehicles to service developments with narrow roadways and laneways, or for on-site collections. However, as the availability of smaller vehicles to make services varies between councils and private contractors, wherever possible the development should be designed to accommodate vehicles of a similar size to that reported below.

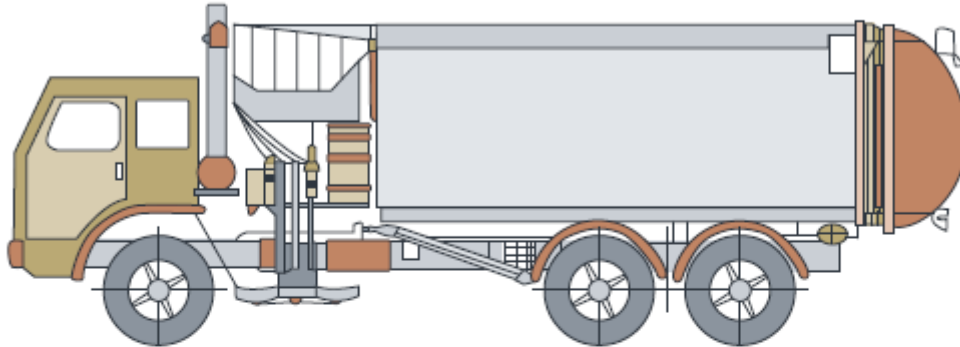


Rear loading collection vehicle

Rear loading collection vehicle	
Length overall	10.24m
Width overall	2.5m
Operational height	3.5m
Travel height	3.5m
Weight (vehicle only)	12.4 tonnes
Weight (payload)	9.5 tonnes
Turning circle	18.0m

This is commonly used for domestic garbage and recycling collections from MUDs. It can be used to collect waste stored in MGBs or bulk bins, particularly where bins are not presented on the kerbside.

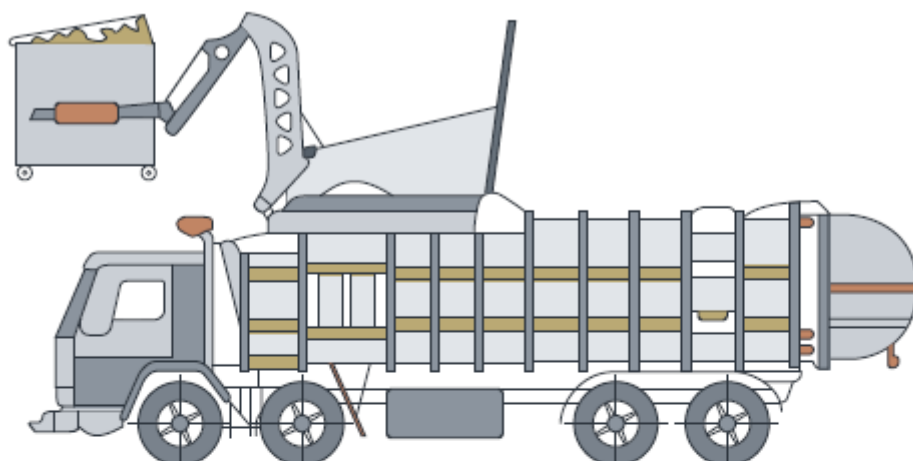
Side-loading collection vehicle



Side-loading collection vehicle	
Length overall	9.64m
Front overhang	1.51m
Wheelbase	5.20m
Rear overhang	2.93m
Turning circle kerb to kerb	17.86m
Turning circle wall to wall	20.56m
Front of vehicle to collection arm	3.8m
Maximum reach of side arm	3.0m
Travel height	3.63m
Clearance height for loading	3.9m

This is the most commonly used vehicle for domestic garbage and recycling collections. It is only suitable for collecting MGBs up to 360 litres in size.

Front-lift loading collection vehicle



Front-lift loading collection vehicle	
Length overall	10.52m
Front overhang	1.51m
Wheelbase	5.84m
Rear overhang	3.17m
Turning circle kerb to kerb	22.10m
Turning circle wall to wall	23.66m
Travel height	3.82m
Clearance height for loading	6.1m

This is mainly used for collecting commercial and industrial waste, and is only suitable for bulk bins with front lift pockets (not MGBs).

APPENDIX C WASTE MANAGEMENT EQUIPMENT SPECIFICATIONS

APPENDIX C.1 TYPICAL BIN MOVER



Typical applications:

- Move trolleys, waste bin trailers and 660litre/1100 litre bins up and down a ramp incline. Ideal for Apartment Buildings (to move waste bins located at a basement level to road level).
- Quiet, smooth operation with zero emissions and simple to use, no driver's licence required

Features:

- Up to 1 Tonne on a ramp surface (depending on ballast and incline)
- Anti-rollback system on slopes
- Foot print: 1548L x 795W x 1104H (handle in the drive position)
- Pin Hitch is standard however alternate hitching options may be available to suit your specific application (e.g. tow ball)

Safety Features:

- Intuitive paddle lever control
- Stops and repels the unit if activated when reversing.
- Site assessment recommended to assess ramp incline steepness (*See Useful Contacts*)

APPENDIX C.2 BOTTLECYCLER

BOTTLECYCLER

BottleCycler Machine	
Unit dimensions:	Height 150 cm, width 50 cm, depth 65 cm
Unit weight:	90 kg
Noise level:	68 dB (approx.. speaking voice level)
Processing speed:	Approximately 60 wine bottles or 80 beer bottles per minute

BottleCycler Bin	
Bin dimensions:	Height 60 cm, width 48 cm, depth 52 cm
Full bin weight:	65 kg rolling weight
Holding capacity:	Approximately 300 crushed beer bottles or 200 crushed wine bottles
Volume reduction:	2 x 120 litre bins = Approximately 1 x small 60 litre BottleCycler bin 10 x bar bins = Approximately 1 x small 60 litre BottleCycler bin

Technical Requirements	
Power:	Standard 240 V, single phase, 10 amp 3-phase can be supplied on request
Installation:	Freestanding or built-in joinery Allow 30 cm space on top to insert bottles
Ventilation space:	Free flow underneath The unit is on feet and is partly adjustable
Drip tray:	Unit has a rubber protection iris, which can be removed and cleaned easily
Glass colour separation:	In Australia no separation is required, as BottleCycler provides a glass collection service in all metropolitan areas. The glass collected is then recycled.

Preferred Location On Site	
Close to basin:	For emptying liquids out of bottles Although the machine will accept liquids, the machine will become dirty faster with residue
Close to the serving area:	In order to eliminate double-handling

Optional Extras	
Chute:	Machine can be installed in the cellar with only the top box being in the bar area
Wheels:	Wheels under the unit, which add 40 mm on each side and 10 mm in height