

**WASTE & RECYCLING**

**STORAGE AND COLLECTION**

**REQUIREMENTS**

**Guidance for Architects & Developers**

For consultation and advice on any scheme, please contact:

Streetcare  
Environment & Culture Department  
1<sup>st</sup> Floor, Service Team House  
185-205 Shakespeare Road  
London  
SE24 0PZ

Tel: 020 7926 9000

Fax: 020 7926 0530

E-mail: [StreetCareCallCentre@lambeth.gov.uk](mailto:StreetCareCallCentre@lambeth.gov.uk)

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# 1. Introduction

## 1.1

Lambeth Council is constantly trying to improve the quality of life for residents, workers and visitors to the borough and is actively pursuing measures to minimise the volume of waste placed on pavements for collection. There needs to be an opportunity for consultation on the design of any new development with regard to waste and recycling facilities. Through consultation, it can be ensured that any introduced facilities are compatible with the collection systems operated by the Council and its contractors. To achieve this objective, all premises must have adequate storage space to contain waste, including separate storage for dry recyclable material.

## 1.2

Planning conditions or obligations are an important means of securing suitable provisions for both refuse and recycling storage and servicing. They can also assist wider objectives of reaching new recycling targets by facilitating recycling. When a new development, extension or change of use is submitted for approval the scheme will be assessed to ensure that adequate storage facilities are provided for waste and dry recyclable material. This requirement should therefore be considered at the earliest stages of the design process and details included on drawings submitted to the Council when applying for planning permission.

## 1.3

Storage space and waste management facilities within commercial and residential developments are determined by the frequency of the Council's waste collection service. This provision must also take into account occasional and seasonal peaks in waste output. The use of a waste compactor and/or a cardboard baler may be required in certain types of development.

## 1.4

These notes, which apply only to the London Borough of Lambeth, are intended as a guide for architects when planning any new development, modernisation or change of use. They indicate methods of waste storage and the criteria by which the Street Care service estimates waste production and they should not be considered an alternative to consultation. Discussion with a representative of the Street Care service is essential.

## 1.5

Further documents for reference and some useful web addresses are given in Appendices IV and V but please always bear in mind the following:

- Waste is unwanted or discarded materials. Categories include Municipal, Controlled, Household, Commercial, Industrial, Hazardous and Clinical waste.
- A Waste Collection Authority (WCA) collects municipal waste, which includes household waste and recycling, street sweepings, litter, fly-tipped materials, commercial waste, industrial waste and municipal parks & gardens waste.
- Household waste continues to grow by approx. 3% per year.
- Most of the waste produced in the UK is currently sent to landfill.
- Landfilling is unsustainable and is being increasingly restricted by EU Directives.
- Much waste has a hidden value and can be re-used, composted or recycled. This, following the reduction of waste produced, constitutes the 'waste hierarchy' in terms of acceptable sustainable waste management.

## **2. Submitting Planning Applications**

### **2.1**

It is essential to discuss waste and recycling issues at an early stage to ensure that proposed systems are compatible with the requirements of the Council and/or its contractors, the location and size of the refuse/recycling area, types of containers and anticipated servicing requirements. Facilities must be provided within all new developments for storage of refuse. This includes conversions of single dwellings into two or more units and change of use.

### **2.2**

Waste increasingly needs to be considered in terms of its separate components. There is a need to ensure that sufficient space is afforded in all new developments, re-developments and conversions to enable segregated storage of waste. When a planning application is submitted, the Council will expect details of the proposed storage accommodation for waste and recyclable material to be specified and agreed. The Planning service consults Street Care on the following types of application:

- New developments
- Residential conversions
- Major extensions to existing buildings
- Re-developments
- Most changes of use, especially those providing hospitality services

### **2.3**

In determining planning applications, such as those listed above, Planning will take into account the views of Street Care. Permission will not normally be granted in advance of submission of details indicating satisfactory storage arrangements for waste and recyclable material. However, in exceptional circumstances it may be considered appropriate to reserve details of the waste storage accommodation for approval prior to commencement of construction work.

### **2.4**

Planning applications should clearly identify the proposed refuse and recycling storage points and the access routes for collection vehicles. Particular care needs to be taken when designing the access to bin storage arrangements above ground floor level, which have to be accessed by the collection vehicles using a ramp. Any access ramps need to be capable of supporting vehicles having a gross weight (i.e. vehicle plus load) of 26 tonnes and minimum single axle loading of 11 tonnes.

### **2.5**

Street Care requires the provision of sufficient storage space for waste and recyclable material for two days, four days or seven days output, depending on the frequency of collection. This provision must be clearly marked on the relevant plans submitted with the planning application.

Where large amounts of waste are likely to be generated, the installation of a waste compactor and cardboard baler is recommended. However, as Lambeth Council does not provide skip and bale collections, the developer would need to arrange a contract with a private licensed waste collector. Wash down and drainage facilities are also desirable in order to facilitate required hygiene standards.

### **2.6**

In order to further reduce the environmental impact of waste being placed on the pavement for collection, buildings will be expected to have an off-street collection area at ground floor level. In most cases waste should be contained in an enclosed store.

## **2.7**

For commercial developments in areas where the Council's collection service is:

- Daily: provision must be made for at least two days output of waste.
- Three times a week, or less: provision must be made for at least four days output of waste.
- Once a week: provision must be made for at least seven days output of waste

In areas where there are mixed residential and commercial units, residential dwellings will be required to have four days storage, irrespective of the frequency of collection. Additional space is required for the storage of recyclable material, as the collection frequency is normally less than that given for general waste.

## **2.8**

In all applications where clinical waste is likely to be generated (medical, dental and veterinary establishments, etc), separate storage and collection arrangements are required for clinical and non-clinical waste.

## **2.9**

In major residential or commercial developments the Council may require a waste management plan to be submitted. This should indicate:

- Estimated volumes and types of waste produced by the development
- The size and location of waste and recycling stores
- How recyclable material and other waste is delivered to these stores
- The equipment specified for compacting and/or containing the waste
- The proposed collection point and the method for transferring waste to this location.

## **2.10**

Discussions concerning the provision of waste storage accommodation should take place directly with Street Care. These guidance notes seek only to provide some basic advice on the storage and collection requirements for waste and recyclable material.

## 3. Calculation of Storage Capacity Required

### 3.1 General Requirements

When considering the amount of storage space needed for any particular development the following requirements will help to calculate the volume of waste generated. They should be taken as a guideline only, since individual developments may need specific storage requirements.

### 3.2 Residential

For developments of up to 10 households:

- 80 litres storage capacity per bedroom
- The Council provides sacks and/or a green box for dry recyclable material.

This requirement relates and refers to storage of waste provided by wheeled containers with a capacity of 360 litres or below.

For developments of more than 10 households, using communal bulk waste containers:

- 60 litres storage capacity per bedroom
- An additional 50% storage capacity for dry recyclable material (1280 litre recycling bins). In developments where 660 litre wheeled containers are used, the council might consider providing sacks and/or green boxes for dry recyclable material.

This requirement relates and refers to storage of waste provided by wheeled containers with a capacity of 660 litres or above.

Note: For large residential developments additional storage space is required for redundant bulky household goods, such as furniture, cookers, beds, etc.

### 3.3 Offices

- 2,600 litres waste storage for every 1,000 m<sup>2</sup> gross floor space.

One third of the waste storage capacity should be retained for the storage of separated waste for recycling. The Council doesn't currently offer recyclable material collections to commercial developments. However, information about private recyclable material licensed collectors can be obtained from the Council.

### 3.4 Retail

- 5,000 litres waste storage for every 1,000 m<sup>2</sup> gross floor space.

This is not a generally applicable minimum requirement. Certain food outlets, especially those of the fast food type, would generate substantially greater amounts of waste. Streetcare will assess each proposal individually.

One third of the waste storage capacity should be retained for the storage of separated waste for recycling. The Council doesn't currently offer recyclable material collections to commercial developments. However, information about private recyclable material licensed collectors can be obtained from the Council.

### 3.5 Restaurants & Fast Food Outlets

- 10,000 litres waste storage for every 1,000 m<sup>2</sup> gross floor space.

This is not a generally applicable minimum requirement. Certain food outlets, especially those of the fast food type, would generate substantially greater amounts of waste. Streetcare will assess each proposal individually.

One third of the waste storage capacity should be retained for the storage of separated waste for recycling. The Council doesn't currently offer recyclable material collections to commercial developments.

However, information about private recyclable material licensed collectors can be obtained from the Council.

### **3.6 Hotels**

- 7,500 litres waste storage for every 1,000 m<sup>2</sup> gross floor space.

This is not a generally applicable minimum requirement. The volume of waste produced depends to a large extent on the type of hotel, since these range from short stay bed and breakfast to luxury banqueting facilities. Streetcare should be contacted at an early stage in the design process to advise on storage space and equipment requirements.

One third of the waste storage capacity should be retained for the storage of separated waste for recycling. The Council doesn't currently offer recyclable material collections to commercial developments. However, information about private licensed recyclable material contractors can be obtained from the Council.

### **3.7 Schools**

- 1,500 litres waste storage for every 100 pupils.
- 1,000 litres recycling storage for every 100 pupils.

Note: Streetcare should be contacted at an early stage in the design process to advise on storage space and equipment requirements.



## **4. Storage Systems & Requirements**

### **4.1 General Requirements**

#### **4.1.1**

Where multi-storey residential developments are proposed, the developer must provide a purpose built area for the storage of chamberlain bins or wheeled Eurobins (generally 660 litre or 1100 litre for refuse and 1280 litre for recycling). Alternatively, the developer might consider installing underground containers for waste and dry recyclable material. The bin store must be capable of housing the maximum number of containers required, based on an assessment of projected arisings.

#### **4.1.2**

Wherever possible, refuse containers should be located within an enclosure to prevent nuisance from the spread of rubbish, odour and noise, especially in the case of multi-storey developments. The enclosure should be constructed of material in keeping with the surroundings and screened as much as possible, using boundary walls, fencing or planting. Doors/gates to any such enclosure are not permitted to open out over the public highway.

#### **4.1.3**

Any enclosure, compound or storage area should allow room for filling and emptying and provide a clear space of 150mm between and around containers and be a minimum of 2m high. Communal storage areas should have an impervious floor and permit washing down and draining into the floor via a system for receiving polluted runoff. Unless the waste is to be stored in secure containers with close fitting lids, the compound should be secure to inhibit entry of vermin.

#### **4.1.4**

A rubber buffer should be affixed to the surrounding wall and placed at an appropriate height to prevent damage to the storage area walls and unnecessary noise. Doors to the storage area should also be fitted with a hook back facility to prevent damage from bins colliding into doors upon entry or exit.

#### **4.1.5**

Adequate lighting that is easily maintained is required within in any enclosed storage area

#### **4.1.6**

Consideration should be given to providing separate rooms for the storage of waste and recyclables within any storage area. If separate storage areas are to be provided for each dwelling, an area of 1.2m<sup>2</sup> is recommended for storage of waste.

#### **4.1.7**

Residents or, in some cases, caretakers, are responsible for moving their bins/bags to the collection point on the collection day. Access for collection of refuse and recycling must be provided between 6am - 9pm and any provision of refuse/recycling storage should not result in the placement of containers on the public highway at any time or interfere with pedestrian or vehicle access to buildings.

#### **4.1.8**

For commercial waste, careful consideration needs to be given to the likely composition and quantities of waste expected to arise and whether the type of handling system proposed is compatible with that being operated by contractors, in case the tenant opts to use the Council as the waste carrier. Sufficient space should be designed to accommodate the appropriate number of bins, both refuse and recycling, to meet the needs of the user.

#### **4.1.9**

As a general rule, every development should be provided with the minimum number of separate containers in which to store waste and recyclable material. The provision of a compactor, and cardboard baler if necessary, should be considered in order to reduce the volume of waste to be stored and collected. However, when a compactor or baler are considered, a private collection contract will need to be arranged, as Lambeth Council does not offer a compacted and/or baled waste collection service.

#### **4.1.10**

In most planning applications space should be allocated for the storage of dry recyclable material. This not only encourages recycling, but can also significantly reduce overall collection charges for commercial tenants.

In residential developments space provision for recyclable material must be around 50% of the estimated total volume of waste output.

#### **4.1.11**

Some of the larger waste storage systems (such as skips and skip compactors) require access for heavy vehicles, which may not always be acceptable in environmentally sensitive locations such as Conservation Areas or in the vicinity of listed buildings. Design constraints mean that provision of access and accommodation for such vehicles is only likely to be possible in new, purpose-built developments, which could be designed to accommodate off-street servicing. In all instances consideration must be given to the sensitivity of location, the requirements for a vehicular crossover and the likely constraints of headroom and turning space. Please note that Lambeth Council does not offer a skip collection service.

#### **4.1.12**

Any locks to storage areas must have a standard 'Fire Brigade' 1, 2 or 4 pattern. Where there are electronic gates and/or barriers controlling access to such areas, codes should be provided to the Council. The door must not open over a public footway or road.

#### **4.1.13**

In new buildings, the siting of storage containers should, wherever possible, allow movement of containers to the nominated collection point without being taken through a building, unless it is a porch, garage or carport or other open covered space. Waste storage areas must be large enough to allow access to all containers.

#### **4.1.14**

If it is proposed to locate bulk waste storage containers, such as Eurobins, in a basement area inaccessible to a standard waste collection vehicle, a suitable ground floor collection area must be indicated on drawings submitted for approval. In addition, a written statement must be attached describing the proposed method for transporting the containers to ground level, including parking arrangements for a tractor unit and trailer, if these are required.

#### **4.1.15**

If the waste containers are to be transported to ground level by a goods lift, it must be large enough to accommodate the waste container as well as the porter. In large schemes more than one waste container will need to be accommodated. The lift doors must be sized to allow free access for the waste containers. In addition, a written statement must be attached describing the proposed method for transporting the containers to ground level, including parking arrangements for a tractor unit and trailer, if these are required.

#### **4.1.16**

Large residential developments must be provided with space for redundant bulky household goods, such as furniture, cookers and refrigerators.

#### **4.1.17**

Storage areas for waste and recyclable material should be clearly designated for this use only, by a suitable door or wall sign and, where appropriate, with floor markings.

#### 4.1.18

Medium to large restaurants and hotels must include suitable separate storage provision for waste cooking oil.

#### 4.1.19

The floor and walls of waste stores must be constructed and finished in materials that are impervious and easily kept clean. Where appropriate, a trapped gully and water supply should be provided.

#### 4.1.20

In residential dwellings, adequate separate provision must be made for disabled persons, where appropriate.

#### 4.1.21 Above Ground Containers

- A dropped kerb should be sited within 10m of the facilities and the pulling area should be free from obstructions and have a sound surface
- The developer must ensure that they do not obstruct sight lines for pedestrians, drivers and cyclists
- The facility should not obstruct any utility service points
- Receptacles should be sited away from windows and ventilators to minimise odour and noise nuisance, and away from perimeter walls to deter illegal access from being gained
- It should be observed and advertised where possible that the hours of deposit/emptying are 6am-9pm
- Consideration should be given to installation of wheel locks or another suitable type of locking device to secure bins
- Where any communal facilities are proposed for direct use by residents, designs of the facility should be forwarded to the Crime Prevention Design officers at the Metropolitan Police for comment. The positioning of facilities should permit safe use and ensure there is no potential to encourage crime

#### 4.1.22 Underground Containers

For underground facilities, the void space required would have to be completely clear of services and cables to a depth of 3 metres and have a minimum clearance space overhead of approximately 8.8-9.8m, free from overhanging obstructions, to permit the lifting and emptying of containers. The formula for calculating this minimum clearance space is set out below. When considering site locations the installation must also not be within 5m of any overhead power-line.

MINIMUM CLEARANCE SPACE = height of vehicle + size of container + height of attachment + height of crane			
3.8m	3m <sup>3</sup> : 3m	1.5m	0.5m
	4m <sup>3</sup> : 3.5m		
	5m <sup>3</sup> : 4m		

In addition, the distance between the centre line of the bin installation (or the container lifting hooks, whichever is the furthest) and the roadside should not exceed 2.5m to facilitate the lifting & emptying operation.

#### 4.2 Limitations and Requirements

The following limitations and requirements should be noted in relation to the storage and collection of waste and recyclable material.

#### 4.2.1

The recommended maximum storage provision for waste and recyclable material is 8 Eurobins or wheeled bins of any type.

#### **4.2.2**

Waste collection operatives should not be required to:

- Carry waste sacks or move wheeled bins (up to 360 litres) more than 25m in total
- Transport a Eurobin, or similar wheeled waste container, more than 10m in total
- Transport sacks or bins from basements or above ground floor level

#### **4.2.3**

The path between the container housing or chamber and the nearest vehicular access should:

- Be free of steps or kerbs (a dropped kerb may be required)
- Have a solid foundation
- Be rendered with a smooth continuous finish (a cobbled surface is unsuitable for any type of wheeled container)
- Be level, unless the gradient falls away from the housing or chamber, in which case it should not exceed 1:12
- Have a minimum width of 2 metres

#### **4.2.4**

In residential developments where a chute system is proposed, in the case of multi-storey buildings they should be a minimum of 45cm in diameter, have a smooth non-absorbent surface, close fitting access doors and be ventilated at the top and bottom. Each floor must be provided with additional space for at least two containers to store separated dry recyclable material.

#### **4.2.5**

In large residential developments where it is proposed not to use chutes, but for the management to provide an internal waste collection service for residents, a waste storage area is required on each floor. In addition to a suitable waste container, this store should have sufficient space to accommodate at least two containers for the storage of separated dry recyclable material.

### **4.3 Additional Considerations for Mixed Use Developments**

#### **4.3.1**

Each separate user should have its own independent store for waste and recyclable material. Waste storage may be combined when 1100 litre wheeled containers, skips or skip compactors are used, providing a private contract is arranged by the managing agent.

In any case, business owners are under legal obligation to comply with the Duty of Care.

#### **4.3.2**

The siting of storage areas for waste containers and chutes should not cause householders to carry refuse further than 25m (excluding vertical distance).

#### **4.3.3**

Residential units will normally be expected to have independent storage (unless full portorage is provided) but the developer must give consideration to the provision of communal recycling facilities, using either conventional above ground banks or underground containers.

#### **4.3.4**

Smaller sack compactors are not suitable for mixed developments.

### **4.4 Commercial Usage**

#### **4.4.1**

If the Council is to be the intended waste carrier, each business needs to take out a waste and/or recycling agreement with the Council in advance of supply of bins. Fees apply on the basis of bin rental charges plus a collection charge according to the number and frequency of collections. Developers should consult the appropriate officer.

#### **4.4.2**

If the developer is considering engaging a private licensed waste contractor to handle waste arising from commercial premises, they should consult potential waste contractors on the design of purpose-built facilities at an early stage, copying their proposals to the Council. The specification details of the kinds of containers that are commonly used by the Council and the private sector are very similar.

#### **4.4.3**

Each application will be assessed to ensure that the number of bins provided will meet the need of the business. Normally, this would be on the basis of a weekly collection, except in the case of food premises. However, where this frequency is not sufficient, consideration will be given to more frequent collections where more space cannot be afforded for storage.

#### **4.4.4**

Owing to the nature of the waste, food premises should have adequate space to store waste in one or more wheeled bins or Eurobins of a suitable size. It is recommended that in order to avoid potential odours, a minimum of two collections per week should be allowed for.

#### **4.4.5**

It is recommended that contractors do not empty bins outside of the hours 6am – 9pm to minimise disturbance to residents. Storage areas for waste & recycling should be clearly defined and a sign erected indicating each area to identify the zone in the event of change in ownership or letting.

### **4.5 Containers & Maintenance**

#### **4.5.1**

Eurobins and Chamberlains are acceptable for the storage of refuse. Developers should check the dimensions to ensure that adequate space between bins is provided when siting a number of units together, allowing for their manoeuvre; for example, in and out of enclosures and where necessary through doorways and gates for collections. Also, if the applicant intends to install wheel locks to secure the bins, allowance needs to be made for the width of the lock as well as room for manoeuvre.

#### **4.5.2**

The Council does **not** provide bins or bags free of charge for commercial users.

#### **4.5.3**

Suitable containers may be hired from the Council to businesses or multi-storey residential blocks where a waste or recycling agreement is taken out. The maintenance, repair and replacement of containers are included within the terms of the hire agreement, except where damage is caused through vandalism or the negligence of the leasee.

#### **4.5.4**

Where they intend to use the Council as a waste carrier, it is recommended that developers do not supply their own bins, as the management company would then be responsible for all repairs and replacement bins. However, should they opt to supply their own bins, these must be compatible with Council vehicles and lifting equipment.

#### **4.5.5**

Suitable arrangements must be made for the management and maintenance of any refuse/recycling areas, including cleansing of the site and upkeep of any soft landscaping.

### **4.6 Refuse Collection Vehicles**

#### **4.6.1**

Roads providing access to the building should have foundations and a hard-wearing surface capable of withstanding a fully laden refuse vehicle of 26 tonnes gross vehicle weight (GVW), with a maximum axle weight of 11 tonnes.

**4.6.2**

Roads should have a minimum width of 5m and arranged so that the collection vehicle can continue mainly in a forward direction.

**4.6.3**

If turning space is necessary, the road layout should permit a turning circle of 18.5m, kerb to kerb or 21.1m wall to wall.

**4.6.4**

Any gates or arches on the vehicle route to the refuse/recycling storage area should give a minimum clearance of 3.72m width and 4.3m height.

## **5. Developments Where a Compactor is Recommended**

### **5.1**

Compactors are recommended for the following types of development.

Please note that Lambeth Council does not offer a compacted waste collection service.

Where compactors are provided, separate provision must also be made for the storage and collection of dry recyclable material.

### **5.2 Residential**

Compactors for residential developments only tend to be effective if the development has a managed waste system with portorage.

### **5.3 Offices**

Compactors are recommended for all office developments larger than 2,500m<sup>2</sup>. For offices over 10,000m<sup>2</sup> in size, a rotary compactor is recommended and for those in excess of 15,000m<sup>2</sup> a portable skip compactor is recommended.

### **5.4 Light Industrial**

For units of 1,500m<sup>2</sup> or more or for small units where the gross combined floor space exceeds 1,500m<sup>2</sup> a small sack compactor is recommended.

### **5.5 Retail**

The most appropriate type of compactor for units of 1,500m<sup>2</sup> or more is the small sack compactor. This type of compactor may also be used for small units where the gross combined floor space exceeds 1,500m<sup>2</sup>. For major retail developments of over 5,000m<sup>2</sup> a rotary compactor is recommended, and for those over 10,000m<sup>2</sup> a portable skip compactor or a larger static compactor are recommended.

### **5.6 Restaurants/Fast Food Outlets**

Compactors are recommended for fast food outlets with an eat-in facility and for other restaurants. A small sack compactor, or the type using wheeled containers, is suitable for most applications, although the rotary compactor is preferable for restaurants with potentially high output.

### **5.7 Hotels**

For hotels of up to 250 bedrooms the most appropriate type of compactor is the small bag compactor, or the type that compacts waste into wheeled containers. For larger hotels a rotary compactor, portable skip compactor or a static compactor is recommended, particularly for those with banqueting facilities.

## 6. Recycling

### 6.1

The Council has been set the challenge by Government of recycling one-third of all household waste produced in Lambeth by 2015 ('Waste Strategy 2000'). All planning applications for residential properties will be required to take account of this recycling target and incorporate additional space for the storage of waste for recycling. The Government is by other means promoting recycling from businesses and account will be taken of these objectives when determining planning applications. Lambeth Council does not offer recyclable material collections for businesses, but it can provide information on private licensed companies offering this service.

### 6.2

The provision of space for recyclable material in commercial developments is likely to result in lower commercial waste collection charges, as well as providing a practical demonstration of the occupant's concern for environmental issues.

### 6.3

The Council endorses the objectives of BREEAM (Building Research Establishment Environmental Assessment Method) and in particular its aim to persuade developers, property owners and architects to provide separate storage facilities for recyclable material.

### 6.4

There is a weekly doorstep collection from most **low-rise households** of recyclable materials placed within Council orange sacks or green boxes. Items that can currently be collected for reprocessing are:

- All paper and card/cardboard
- All glass bottles and jars
- All drinks cans, food tins and aerosols
- Plastic bottles only

The sacks or boxes are to be placed at the inside edge of the property for collection by 6.30 am on the collection day. If there is no frontage to the property then they can be left on the pavement no earlier than 6 pm on the day before collection.

### 6.5

For premises that may generate a significant quantity of cardboard, e.g. large office buildings, retail units, hotels or restaurants, a baler is recommended. Balers enable cardboard to be stored in an efficient and safe manner and will encourage staff to withdraw cardboard from the general waste stream.

### 6.6

The Council can also provide the details of private collection contractors for other recyclable material and difficult wastes (e.g. cooking oil and fluorescent tubes). For information on this or any other aspect of recycling please contact us on 020 7926 9000 or email [recycling@lambeth.gov.uk](mailto:recycling@lambeth.gov.uk)

### 6.7

There are two types of basic recycling installations:

**Conventional** above ground sites will normally use 1280 litre wheeled steel Eurobin containers that can be emptied using bin lifting equipment like that found on refuse vehicles. In particular locations (e.g. supermarkets, hostels, etc.), an alternative model of conventional recycling bank is the "bell" type container, which is static and needs to be lifted and emptied using a lorry mounted crane.



**Underground** systems are less common and only very few of them have so far been installed in the borough, although there are a number of manufacturers currently producing these systems. The Council would obviously wish to standardise on one type of underground collection system throughout the borough. Of the options currently available, the "Egbert H. Taylor" model appears to offer maximum flexibility and the best range of options.

If developers are made aware of the issues at an early stage, mitigation measures can be incorporated into the design of new developments with minimal additional expenditure. Purpose built features will have the advantage of providing sufficient room both to permit recycling and to blend in with the development.

Underground containers have a much larger capacity than the conventional Eurobins normally used in above ground installations. Containers are available in three main sizes: 3, 4 & 5m<sup>3</sup>. They have a number of advantages:

- Optimisation of space above ground
- Small discrete reception units, a bit larger than a litter bin, that can be customised to blend in with surrounding environment
- Noise and odours normally associated with above ground recycling sites are minimised
- Minimal street furniture reduces the often associated problems of flytipping and flyposting around recycling sites
- Less traffic and therefore less air and noise pollution from vehicles servicing the site, due to the reduced frequency of collections necessary
- User friendly
- Reduced collection costs

The containers and reception units can be split and customised to meet specific requirements, e.g. to handle more than one material. They are lifted out of the ground by lorry-mounted crane and a safety platform rises automatically to cover the hole during the emptying operation.

## **6.8**

In most cases, in new developments such as block of flats/estates, the Council will require the provision of a communal recycling site/s, to provide recycling facilities for the residents. This will need to have storage space for one or more co-mingled 1280 litre Eurobins to provide one or more small multi-material recycling collection points. Alternatively, an underground storage system can be proposed. Materials collected are the same as described at paragraph 6.4.

### **6.8.1**

The location of communal recycling sites should be easily accessible for both users and collection teams. In terms of users, entrance/exit points to housing, particularly high-density housing. In terms of collections, please refer to points above.

## **7. Provisions of the Environmental Protection Act 1990**

### **7.1**

The provisions of the Environmental Protection Act have conferred powers on the Council as a “Principal Litter Authority” to serve notices on the occupiers of the following types of premises:

- (a) Premises used wholly or partly for the sale of food or drink for consumption off the premises,
- (b) Premises used wholly or partly for the sale of food or drink for consumption on a part of the premises forming open land adjacent to the street,
- (c) Service stations and other premises, on which fuel for motor vehicles is sold to the public,
- (d) Premises used wholly or partly as a cinema, theatre, concert hall, bingo hall, casino, dance hall, swimming baths, skating rink, gymnasium or area for other indoor or outdoor sports or recreations, or as an amusement arcade or centre, or
- (e) Banks, building society offices or other premises with automated teller machines located on an outside wall of the premises.

### **7.2**

The Council must first be satisfied that the premises have a frontage on a street. It must then be satisfied that:

- There is recurrent defacement by litter or waste of any land, being part of the street or open land adjacent to the street, which is in the vicinity of the premises, or
- The condition of any part of the premises which is open land in the vicinity of the frontage is, and if no notice is served is likely to continue to be, detrimental to the amenities of the locality by reason of the presence of litter or waste, or
- There is produced, as a result of the activities carried out on the premises, quantities of litter or waste of such nature and in such amounts as are likely to cause the defacement of any part of the street, or of open land adjacent to the street, which is in the vicinity of the premises.

### **7.3**

The notice will detail the Council's requirements with respect to the provision of litterbins and sweeping. In respect of those listed in (e), it concerns land within 10 metres and for the remainder it is up to 100 metres. The requirements will relate to the clearing of litter or waste from a specified area and, in relation to so much of the specified area as is not part of the premises, the Council will take account, in determining what requirements to impose, their own duties and of any similar duties of any other local authority in relation to the land.

### **7.4**

The Council would therefore recommend the provision of both on and off street litter bins in respect of developments involving any of the above.

### **7.5**

Details covering the provision and type of litter bins, together with any additional cleansing requirements, should be discussed with the Streetcare (020 7926 9000).

### **7.6**

Each collection authority is required, under part II of EPA 1990, to collect household waste from all residential properties in the borough and, if requested, make provisions for the collection of commercial waste. Each collection authority may also, under section 46 of the Act, specify the type and number of receptacles to be used and where they should be placed in order to ensure compatibility with council collection methods and to facilitate collections.

## 7.7

The Act imposes a 'Duty of Care' on persons concerned with controlled waste. The duty applies to any person who produces, imports, carries, keeps, treats or disposes of controlled waste. Breach of the Duty of Care is an offence, with a penalty of an unlimited fine if convicted on indictment. The purpose of this code is to set out practical guidance for waste holders subject to the Duty of Care. It recommends a series of steps that would normally be enough to meet the duty. The code cannot cover every contingency; the legal obligation is to comply with the Duty of Care itself rather than with the code. Anyone subject to the Duty of Care who has some "controlled waste" should establish what the waste is. Waste left for collection outside premises, whether on the public highway or private land, should be in containers that are strong and secure enough to resist not only wind and rain but also animal disturbance, especially food waste. All containers left outside for collection will therefore need to be secured or sealed (for example drums with lids, bags tied up, skips covered). To minimise the risks, waste should not be left outside for collection longer than necessary. Anyone subject to the Duty of Care must ensure that, if waste is transferred, it is transferred only to a registered waste carrier. Further information regarding the Duty of Care can be obtained from the HMSO, quoting ISBN 0-11-752557-X.

# Appendix I – Storage Equipment for Waste & Recyclable Material

## RECYCLING

### a) Low Rise Properties

The Council supplies orange sacks and/or green plastic boxes suitable to store recyclable material.

Space required for green box recycling container.

Width	390
Length	530
Height	280

### b) Block of Flats/Estates

#### Co-Mingled Eurobins

These are co-mingled wheeled bins with four wheels, which conform to British Standard BS EN 840: 1997. They have a fixed lid supplied with a lock, and a smaller flap for insertion of the recyclable materials by residents. These containers are custom designed for Lambeth Council and are provided by Lambeth Streetcare (tel. 0207 926 9000). The standard size is 1280 litre.

CAPACITY (litres)	1280
DIMENSIONS (mm)	
Width (lid open)	990
Length	1260
Height	1470

#### Co-Mingled Underground Containers

Co-Mingled Underground containers are available in three sizes. The units are emptied with standard lifting equipment.

CAPACITY (litres)	5m <sup>3</sup>	4m <sup>3</sup>	3m <sup>3</sup>
DIMENSIONS (mm)			
Width (container -underground)	1430	1430	1430
Width (receptacle –above ground)	620	620	620
Length (container -underground)	1430	1430	1430
Length (receptacle –above ground)	909	909	909
Height (container -underground)	2674	2139	1604
Height (receptacle –above ground)	890	890	890

### c) Other developments (e.g. supermarkets)

#### 'Bell' type

These are free standing flame retardant moulded plastic suitable for the collection of glass, drink/food cans, plastic bottles, paper and cardboard with apertures on either side for the deposit of items. There is a galvanized steel 2-hook lifting mechanism on the top to raise the unit over a collection vehicle; the 'trap door' mechanism underneath the unit is released to allow the material to be transferred

CAPACITY (litres)	2500
DIMENSIONS (mm)	
Width	1200
Length	1400
Height	1750 (1950 including lifting hook)

## REFUSE

### d) Plastic Sacks

These should conform to British Standard BS 6642: 1985. All plastic sacks used for waste storage should be of maximum dimensions 860mm long by 750 mm overall width (gussets extended).

### e) Wheeled Bins

These are plastic wheeled bins with two wheels and should conform to British Standard BS EN 840: 1997. These waste containers are easy to transport and may be used as an alternative to sacks.

CAPACITY (litres)	240	360
DIMENSIONS (mm)		
Width	580	665
Length	740	880
Height	1100	1100

### f) Eurobins

These are wheeled bins with four wheels and should conform to British Standard BS EN 840: 1997. They have a fixed lid, which can be supplied with a lock if required, and are suitable for residential and mixed developments and also offices of up to 2,500m<sup>2</sup> in size. These containers are not suitable for developments utilising a chute fed waste storage system. Several manufacturers supply Eurobins, some of which may be incompatible with the Council's waste collection vehicles. Streetcare can advise which type of Eurobin would be acceptable.

CAPACITY (litres)	660	1100
DIMENSIONS (mm)		
Width (lid open)	730	990
Length	1260	1260
Height	1310	1370

### g) Underground Containers

Underground containers are available in three sizes. The units are emptied with standard lifting equipment.

CAPACITY (litres)	5m <sup>3</sup>	4m <sup>3</sup>	3m <sup>3</sup>
DIMENSIONS (mm)			
Width (container -underground)	1430	1430	1430
Width (receptacle –above ground)	620	620	620
Length (container -underground)	1430	1430	1430
Length (receptacle –above ground)	909	909	909
Height (container -underground)	2674	2139	1604
Height (receptacle –above ground)	890	890	890

## h) Chamberlains

These waste storage containers should conform to British Standard BS EN 840: 1997, and are available with nominal capacities of 720 litre (replacing Paladin Round 850 litre) and 940 litre (replacing Paladin Elliptical 830 litre). They are ideal for residential developments as they can be utilised for chutes and should be located in a suitably designed chamber with the following features:

- a) A suitable cover or roof
- b) At least one external wall. The walls to be constructed of impervious material
- c) A double door of minimum width 1.6m
- d) A water supply and a trapped gully to allow for regular cleansing
- e) Adequate lighting
- f) Means of natural ventilation (air bricks or louvers)
- g) A minimum headroom of 2.2 m
- h) Sufficient space to allow access to all containers
- i) The floor surface should incorporate an integral coving to facilitate cleaning
- j) A rubbing strip should be attached to the wall surfaces and doors to prevent scuffing
- k) The floor must be level with the adjacent path or highway

CAPACITY (litres)	720	940
DIMENSIONS (mm) – including handles		
Width	780	975
Length	1020	1020
Height	1410	1500

## i) Skips

These bulk storage containers may be used with or without a compactor and are available in two sizes:

### Skip Container

10.5m<sup>3</sup>

### Rolonof Skip Container

27m<sup>3</sup>. Only used where waste output is considerable, e.g. a major shopping complex. Normally combined with a static compactor.

DIMENSIONS (m)	10.5m <sup>3</sup> skip		27m <sup>3</sup> skip	
	CONTAINER	SERVICE BAY	CONTAINER	SERVICE BAY
Width	1.80	4.5	2.5	5.0
Length	3.70	5.8	6.2	8.2
Height	2.34	4.8	2.8	6.0

In developments where the service bay opens directly on to the street, the distance from the entrance to the rear of the service bay should be a minimum of:

- 12.0 m for a 10.5m<sup>3</sup> skip
- 18.5 m for a 27m<sup>3</sup> skip

This is to prevent the vehicle encroaching on to the footway when loading or unloading the skip.

## **j) Compactors**

These utilise accommodation provided for waste storage to its best advantage by minimising the space required. The five main types of compactor are:

### **Small Bag Compactors**

These are small compactors using plastic waste sacks of 300 gauges. Such compactors are either of a cylindrical or cabinet type occupying a floor area of 1 square metre and require minimum headroom of 2.5 metres. They significantly reduce the volume of waste and can achieve a compaction ratio of up to 4:1. A bag of compacted waste may weigh up to 30kg and it is therefore advisable to site the compactor at ground floor level near a street access. Collection of compacted waste in sacks is made only at street level. Small compactors are not suitable for mixed developments.

#### **DIMENSIONS (m)**

Width 0.78

Length 0.98

Raised Height (Standard Model) 2.68

Raised Height (Short Model) 2.38

Power Supply 240 volts, 15 amp earthed socket

### **Wheeled Bin Compactors**

These compactors are of two main types; a small compactor using 360 litre wheeled bins and a larger compactor using 660 or 1100 litre bins. Adequate floor space is required (given in the table below) to allow for working space for the container. These compactors can achieve volume reductions of around 3:1 (a higher compaction ratio would result in damage to the 360 litre plastic bin, and caster damage to the 660 & 1100 litre bin). It is advisable to site the compactor at ground floor level near a street access as collection of wheeled bins containing compacted waste is only made at street level. These compactors are not suitable for mixed developments unless fully managed. Note: a 660 litre Eurobin containing compacted waste may weigh up to 280 kg and an 1100 litre Eurobin may weigh in excess of 400 kg.

BIN CAPACITY (litres)	360	660 & 1100
<b>DIMENSIONS (m)</b>		
Width	0.90	1.8
Length	1.60	2.7
Working length	2.90	4.0
Height	2.00	2.5
Floor area required (m <sup>2</sup> )	2.60	7.2
Power Supply 240 volts, 15 amp earthed socket		

Note: for the Eurobin compactor (660 & 1100 litres) a minimum space of 1m is required at one side of the compactor for servicing requirements and a nominal 150 mm clearance is required at the other side. The Council does not supply 360 litre bins for use with waste compaction equipment.

### **Rotary Compactors**

This compactor utilises a heavy duty spiked rotating head, which tears and compacts waste placed in the machine and can achieve high compaction ratios. One compactor of this type compacts waste into a very large bag supported on a wooden pallet. A full bag has a diameter of around 1.5 m and may weigh up to 600kg. Rotary compactors are suitable for use in hotels, offices, retail units and supermarkets, but are not recommended for mixed developments unless fully managed.

#### **DIMENSIONS (m)**

Width 1.35

Working length 2.37

Raised Height 2.90

Power Supply 415 volts, 32 amps. Three phase neutral and earth.

Note: a minimum space of 600 mm is required at each side of the compactor for servicing requirements.



### **Portable Skip Compactor**

These have a capacity of 9.5m<sup>3</sup> and can achieve volume reductions of up to 4:1. They require direct access by a skip vehicle. Additional length is required to that given below for the service bay to accommodate the collection vehicle. These compactors are suitable for use in premises where a significant volume of waste is likely to be produced, such as large offices, retail units and hotels as well as mixed developments.

DIMENSIONS (m)	9.5m <sup>3</sup> skip compactor	
	COMPACTOR	SERVICE BAY
Width	1.75	4.5
Length	4.28	5.8
Height	2.34	4.8

Minimum width of entrance to service bay: 4.0 metres.

Power Supply 415 volts, 32-45 amps (depending on model) three-phase neutral & earth. The power supply should terminate with an RCD box located within two metres of the compactor.

Note: In developments where the service bay opens directly on to the street, the distance from the entrance to the rear of the service bay should be a minimum of 12m.

This is to prevent the vehicle encroaching on to the footway when loading or unloading the skip.

### **Static Compactor**

These units are fixed and used in conjunction with a removable fully enclosed skip. They can achieve volume reductions of up to 5:1. Skips are available in a range of sizes from 10.5 to 27m<sup>3</sup>.

Static compactors are ideal for developments where a considerable volume of waste is likely to be produced, including large retail, hotel and commercial developments. Static compactors may be used in conjunction with Eurobin wheeled containers.

## Appendix II – Cardboard Balers

The use of a baler enables cardboard to be stored in an efficient and safe manner. Four types of baler, recommended for use in the borough, are outlined below. Please note that Lambeth Council does not offer a baled waste collection service.

### Top Loading Mini Baler

These are small top loading balers, which would be used where space is limited and cardboard output is not likely to be excessive. They require a floor area of 1 m<sup>2</sup> and minimum headroom of 2.2 metres.

### Top Loading Baler

These are versatile top loading balers, which are suitable for use in most restaurants and retail units. They require headroom of 2.7 metres.

### Top Loading Twin Chamber Baling Press

These are efficient top loading balers, which are ideal for use where a reasonable output of cardboard is possible, e.g. hotels, mixed retail developments and large restaurants. One advantage of this unit is that the second chamber can be loaded while the first is in operation. They require minimum headroom of 2.2 metres.

### Front Loading Baling Press

These are efficient front loading balers, which are ideal for use where a reasonable output of cardboard is possible, e.g. hotels and mixed retail developments. They require minimum headroom of 2.2 metres.

It is advisable to site the baler at ground floor level near a street access, as collection of baled cardboard is only made at street level. Adequate space must be provided to allow for servicing the baler. Balers are not suitable for mixed developments unless fully managed.

DIMENSIONS (m)	(a)	(b)	(c)	(d)
Width	0.71	0.78	1.74	1.00
Length	1.10	1.20	0.88	0.83
Working length	1.60	1.70	1.80	1.80
Height	2.20	2.70	2.20	2.20
SIZE OF BALE (mm)	700 x 500	700 x 700	700 x 700	800 x 700
WEIGHT <sub>MIN</sub> OF BALE (kg)	20	30	40	60
WEIGHT <sub>MAX</sub> OF BALE (kg)	40	60	60	80

Power Supply a) to c) 240 volts, 15 amp earthed socket d) 415 volts, 20 amp. Three phase neutral & earth.

## Appendix III – Vehicle Dimensions

### Waste Collection Vehicle

(Three Axle 21.2-26.00 tonnes)

DIMENSIONS (m)		
Width		2.5
Overall length		8
Height		3.8
KERB TURNING CIRCLE (m)		19.6 Ø
SWEPT CIRCLE (m)		21.1 Ø
WALL TO WALL TURNING CIRCLE		21.28
AXLE WEIGHTS	– 1 <sup>st</sup> & 2 <sup>nd</sup>	8000 kg
	– 3 <sup>rd</sup>	10500 kg

Note: any part of a building through which a waste collection vehicle passes must have a minimum clear height of 4.5m, to allow for overhead fixtures and fittings.

### Underground Storage & Mixed Material Recycle Bank Collection Vehicle

(26 tonne DAF 6x4 75 Series)

DIMENSIONS (m)		
Width		2.5
Overall length		5.3
Working height		5.8
KERB TURNING CIRCLE (m)		17.7 Ø
SWEPT CIRCLE (m)		18.8 Ø

## Appendix IV – Reference Documents

London County Council (General Powers) Act 1959

Building Regulations 2000, requirement H4, Solid waste storage.

Building Regulations 2000, requirement K1, Stairs, ladders and ramps.

Environmental Protection Act 1990

British Standards Institution Codes and Standards

BS 1703: 1977 Specification for Refuse Chutes and Hoppers

BS 5906: 1980 Code of Practice for Storage and On-site Treatment of Solid Waste from Buildings

BS 6642: 1985 Disposable Plastic Refuse Sacks Made From Polyethylene

BS EN 840: 1997 Mobile waste containers

Chartered Institution of Waste Management. Publication No.3 Advice on Storage and On-Site Treatment of Household, Commercial and Industrial Wastes

BREEAM (Building Research Establishment Environmental Assessment Method)

a) An Environmental Assessment For New Offices

b) An Environmental Assessment For New Homes

c) Household waste: storage provision and recycling

Designing for Deliveries, Freight Transport Association

Department of Transport Design Bulletin 32, Residential Roads and Footpaths

Disability Discrimination Act 1995

Household Waste Recycling Act 2003

Waste Strategy 2000

EU Landfill Directive (Council Directive 1999/31/EC)

LB Lambeth Unitary Development Plan

WRWA Constituent Council Planning Guidance – Land use Planning for waste & recycling

## **Appendix V – Web Addresses**

[www.bre.co.uk](http://www.bre.co.uk) (Building Research Establishment)

[www.bsi-global.com](http://www.bsi-global.com) (British Standards Institution)

[www.ciwm.co.uk](http://www.ciwm.co.uk) (Chartered Institution of Wastes Management)

[www.defra.gov.uk/environment](http://www.defra.gov.uk/environment) (Dept. for Environment, Food & Rural Affairs)

[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk) (Environment Agency)

[www.lambeth.gov.uk](http://www.lambeth.gov.uk) (London Borough of Lambeth)

[www.londonremade.com](http://www.londonremade.com) (London Remade – changing the way London manages its waste)

[www.recycle.mcmill.com](http://www.recycle.mcmill.com) (the 'Wastebook' – a compendium of information sources relating to the sustainable management of waste)

[www.wastewatch.org.uk](http://www.wastewatch.org.uk) (Waste Watch – general guidance on waste and recycling)