Brighton & Hove City Council

DRAFT

PAN 05

Design Guidance for the Storage and Collection of Recyclable Materials and Waste

September 2007

Brighton & Hove City Council's Local Development Framework

Planning Advice Note

Introduction

The purpose of this planning advice note is to help developers to deliver efficient, adaptable storage facilities for recyclable materials and waste. Storage facilities must meet the needs of today's recyclable material markets, waste collection operations and be flexible enough to meet the demands of the future. It is important that all waste services are provided in a manner that delivers safe and efficient working practices whilst safeguarding the amenity of householders, workers and visitors within the city.

The way that waste is managed and treated is rapidly changing. Local authorities are striving for high diversion rates away from landfill. Recycling and separating waste is now the norm in most households and this desire to treat waste as a resource is also growing into the commercial sector. Brighton and Hove residents and business managers have a particularly strong drive to be sustainable and to help the city improve on its environmental performance.

This planning advice note is intended to help deliver modern expectations of householders and businesses and ultimately lead to more efficient management of waste and an increase in waste recycling, composting and diversion from landfill. It provides technical information to assist architects and developers when designing recycling and refuse storage areas for waste in proposals for new developments.

This planning advice note applies to all new build commercial and residential development, and, where reasonable, to conversions.

Design Guidance for the Storage and Collection of Recyclable Materials and Waste

Contents

Section One: Background information

General background information

Brighton & Hove City Council's household waste and recycling is managed and collected by the City Council. Commercial waste is collected through private waste contractors.

Over the next few years, arrangements for the collection of recyclable materials and waste will change, so designs for storage areas for recyclable materials and waste should be as flexible and as 'future-proof' as possible.

The information within this Planning Advice Note (PAN) provides developers and architects with the information necessary to design with sufficient flexibly to anticipate future changes.

Planning policy framework

Policies in the **Brighton & Hove Local Plan 2005** require regard to be given to facilities for recycling, composting and refuse disposal (see appendices for the full policies):

- Policy SU2: Efficiency of development in the use of energy water and minerals, seeks the provision of space within each planning unit and general facilities for refuse, waste recycling and composting; and

- Policy SU14: Waste management, applies to larger scale developments and requires well screened and landscaped areas for the recycling and reuse of waste.

Policies in the **East Sussex and Brighton & Hove Waste Local Plan** seek the minimisation of waste, increasing rates of recycling and the provision of waste handling and storage facilities (see appendices for the full policies):

- Policy WLP1: The Plan's Strategy, sets minimum targets for recycling household waste
- Policy WLP12: Recycling as part of major development, requires facilities for recycling and composting within individual properties, groups of properties and other premises for the source separation and storage of waste for collection, on site reuse or composting

This PAN aims to supplement the Local Plan and Waste Local Plan policies, to give more detailed guidance in respect of designing and incorporating recycling and refuse storage areas for waste in proposals for new developments.

Recycling targets & the regulatory powers

The ability of the City Council to meet the national waste recycling and diversion targets are increasingly reliant upon dealing with household waste at source. This starts at the point of manufacture and the retailer but also requires the involvement of individual householders.

Sorting and segregating materials in the home is essential to the success of recycling and diversion schemes. Proposals for new residential developments must provide adequate storage space for waste and recyclables in their design, not just outside but inside each dwelling.

The Council retains powers to make specific requirements for waste storage, including recyclable materials, under the provisions of Sections 46 and 47 of the Environmental Protection Act 1990. The Act requires Waste Authorities to ensure that developments have:

- Adequate provision for the storage of solid waste; and
- Adequate means of access to the point of collection (for people in the building to the place of storage, and for the Waste Collection Authority).

The Building (Amendment) Regulations 2001: Solid Waste Storage Requirements (Part H6, section (a), 2002 Edition) states:

- Adequate means of storing solid waste shall be provided.

This means that properties should be designed to allow for the storage of an amount of recyclable materials and residual refuse that could be reasonably produced in a specified period, in a container that complies with the Waste Collection Authority's collection schemes. This will generally require space to be designated in the kitchen area or in a cupboard that can be closed from view. This will be especially important where kitchens are designed as part of combined living spaces.

Section Two: The planning application process

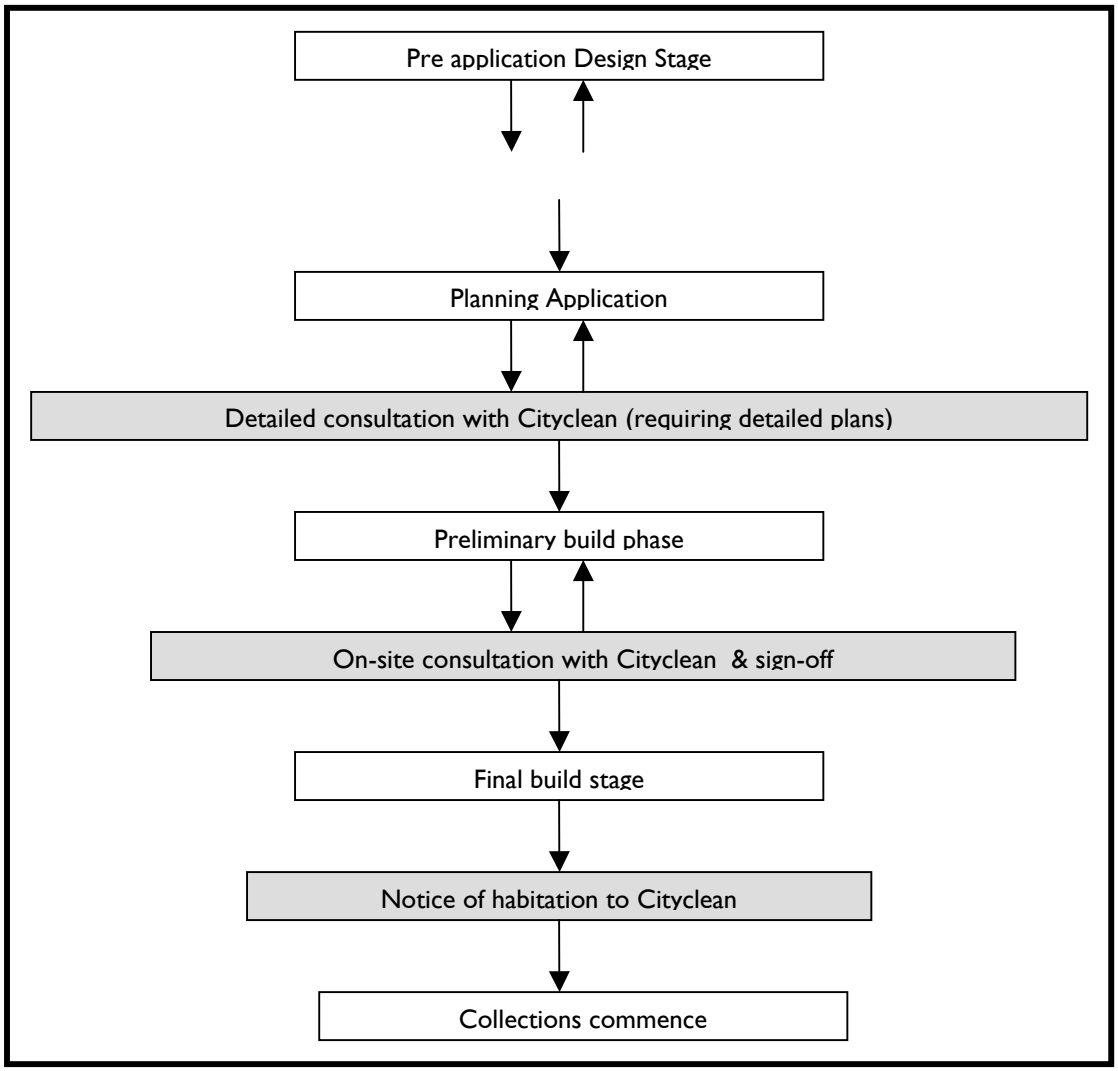
Brighton & Hove City Council will ensure that contemporary collection and operation information is provided and that storage and collection of recyclable materials and waste is given due regard at key stages in the development process.

For householders in Brighton and Hove, separating waste and presenting waste for recycling is the norm and as there are existing working practices, any new services must fit into the operation as it is currently being delivered. Cityclean will only collect from new properties that have been agreed with Cityclean and following the receipt of a 'notice of habitation'.

Cityclean will offer help, advice and support to developers to make sure that facilities are easy to use for householders and commercial building operators and should be consulted at each of the following design stages (this is shown in Figure 1 on the next page):

- Pre-application – Cityclean can offer suggestions for how successful waste services can be integrated into a development
- Planning application – Cityclean will offer technical guidance on the detail of the application
- Preliminary build phase – to make sure that the intentions of the architects and Cityclean have been correctly delivered
- Final build stage – to confirm the waste collection operation with building managers and householders

Figure 1 – Consultation process and timing



Section Three: Technical specification for recycling and waste storage

General waste storage principles

For all developments the following general principles apply to waste storage areas:

- Waste must be contained in appropriate waste containers, which can be collected by the City Council. For example, sacks in wheeled bins for semi-detached housing.
- Short-term storage areas for refuse and recycling must be provided within dwellings
- Easily accessible and safe facilities for all users. Access for residents should meet the requirements of the Disability Discrimination Act 1995 or reasonable adjustments should be available for residents who would be unable to use the facility because of a disability.
- Simple and safe access for collection vehicles and staff
- Adequate and flexible space for future changes in services
- Nuisances such as that from noise, odour, fire & smoke, ventilation, animal access and scavenging must be avoided
- Must be in-keeping with the aesthetics of the development
- Storage areas must be adequately lit & ventilated and landscaped

Waste must be stored in containers and provision must be made for collections to be made using these containers. The types of containers for residential properties must be agreed with Cityclean. Modern waste collection methods using large containers and mechanised lifting equipment have reduced manual handling requirements and the risk of injury to staff. Containers could be two and four wheeled or 55 litre boxes. Developments that propose the collection of waste using bags only (for containment) are unacceptable.

Within a dwelling or living space there must be a planned storage area for recyclable materials and waste that are generated in the short term. This should take the form of a ventilated cupboard or drawer with the facility to separate waste into at least three fractions. Ventilation must be designed carefully in dwellings where the kitchen and living areas are combined to avoid waste odours creating a nuisance in the living space. The total capacity should be at least 80 litres and will most likely be situated in the kitchen. It should be sufficient to store household waste for a maximum of two days under normal conditions and from where waste will be transported to a main waste container. An example of a built-in temporary storage facility is shown in Figure 2.

Figure 2 – Built-in temporary waste storage facility

Access to the main waste and recycling storage area must be available to all potential users. Attention is particularly drawn to Local Plan policy HO13, which requires that all new homes must be built to Lifetime Homes Standards and that larger developments must contain a proportion of wheelchair accessible homes. The Lifetime Homes Standards focus on adaptability of the accommodation to suit the needs of the individual. Wheelchair accessible housing must be fully accessible as built.

Individual residents are unlikely to be able to control future adaptations of the communal parts of a building so it is important that all shared waste and recycling storage and disposal facilities, even in small developments, should be designed and constructed to be easily accessible by residents with limited mobility. This is even more important on larger developments because the communal facilities must be accessible for wheelchair users from the outset.

Consideration should also be given to issues such as clear signage, logical layout to assist way finding and alarms which give visual as well as audible warning.

Refuse and recycling collection vehicles: design specification requirements

Collection vehicles are most often LGVs that will weigh up to 32 tonnes with single axel loads of up to 10 tonnes. All approach roads, standing areas and features in the highway, such as service access covers, will need to be specified to withstand vehicles of this weight and type.

Space will need to be made to allow collections to take place without reversing manoeuvres having to be made, and for refuse to be loaded in containers without causing 'crushing zones' in dead-ends or loading areas. This may require the location of facilities to be altered with this in mind or for necessary turning areas to be incorporated. An example of a turning area and crushing zones is shown in Appendix 1. The make and model of collection vehicles is likely to change over time, please contact Cityclean for the latest vehicle information.

Recycling collections will be made by either a left-hand-side or rear loading vehicle, and refuse will generally be collected by rear loading vehicles. Care must be taken to ensure that space is provided for both methods of collection at all properties. Particular attention must be drawn to developments that require vehicles to stop in the highway to make collections. If a development allows for vehicles to stop adjacent to the waste storage area, safe working areas must be available to collect recyclable material using left-hand collection vehicles without staff having to work within the on-coming traffic. See illustration in Appendix 1.

External waste storage for households (individual and multiple occupancy)

Some key principles that should underlay layout and design to allow effective and efficient waste storage and collection include:

- Ensuring a safe means of getting waste containers from the storage area to the point of collection;
- Provision of adequately sized areas;
- Ensuring that individual and communal waste storage areas are sympathetically designed and accessible to householders;
- Provision of a collection point near to the highway from where containers can be easily collected. This will be particularly relevant to communal properties or those developments that have access roads that are unsuitable for use by standard collection vehicles; and
- Ensuring that waste can be safely contained and easily moved in containers to reduce the need for manual handling.

The Building Regulations Approved Document H (2002 edition) sets out the following basic requirements for waste storage:

- Waste storage areas should be within 30m of the dwelling and 25m of the collection point. These are minimum standards and where possible shorter distances should be provided for;
- Pathways should have a maximum gradient of 1:12 and should not have any steps; and
- Waste storage areas should be located away from windows or ventilators, preferably in the shade or under cover, not interfering with pedestrian/ vehicle access to the building. These standards are set out for the amenity of residents and to allow residents to get waste containers from the property to the collection point.

For the purposes of waste collection, Cityclean categorise properties into three distinct groupings:

a) Single dwellings with a single entry point: that is detached, semi-detached/end of terraces and terraced properties;
b) Flats, converted houses and bedsits with up to 5 flats/bedsits per entry point; and
c) Flats, converted houses and bedsits with more than 6 flats/bedsits per entry point.

Type a and b properties are delivered identical services in the form of refuse collections in two wheeled bins (in some cases four wheeled bins for houses of multiple occupancy), collapsible boxes / bins and recycling collections in 55 litre black boxes. Properties in-group c should have shared waste storage facilities with both refuse and recycling being collected in large two or four wheeled bins dependant on need.

Waste storage areas for large properties (those in category c) should be 2.5 times greater than the planned floor space of the containers. This will allow safe easy manoeuvring of containers inside the store.

Waste storage for detached, semi-detached, end of terrace, and converted houses

Planning and building proposals for detached, semi-detached, end of terrace houses, and converted houses, (category a and b properties) should include unobtrusive outside areas suitable for accommodating the appropriate type and number of containers for waste and recyclables. The containers presently in use for these types of property are wheeled bins for refuse and kerbside collection boxes for recyclable waste. Cityclean are likely to alter this to collecting all waste in wheeled bins, so developers are advised to provide flexible waste storage facilities.

- The correct amount of storage required is set out in Table 1 and Table 2 in Appendix 3;
- Such areas must be convenient for use by residents with easy access to the roadside;
- There will be no specific need for screening unless the storage area is prominent in views or is close to dwelling space;
- There should be no steps between the points of storage and of collection; and
- Proposals that have shared entries must include provision for individual bins for each dwelling.

Refer to appendix 4 for capacity of waste containers.

Waste storage for purpose built flats (6 or more dwellings)

Communal waste storage areas in type c properties, purpose built flats, should be designed as an integral part of the development and:

- Must be easily accessible to all residents;
- Provided with appropriate drainage to assist cleaning;
- The site and design of communal bin storage areas should also have regard to the impact of noise and smells on the occupiers of neighbouring properties, both existing and proposed;
- Waste storage areas should be of adequate height to allow the lids of containers to be fully opened;
- Internal layouts need to allow all containers to be accessed by occupants without the need for bin rotation. This is 2.5 times the footprint of the required bins;
- Slopes greater than 1:12 should be avoided between the bin store and the HGV parking area;
- There should be no steps between the storage area and the point of collection and all kerbs stones should be dropped to between 6mm and 12 mm;

- Ventilation: odours or dense flammable gases may escape from waste, permanent ventilators should be provided giving a total ventilation area of not less than 0.2m^2. Passive ventilators should not be louvered doors and may need to be fire resistant, should be fly and vermin proof and located as near the ceiling and the floor of the chamber as possible, but away from windows of dwellings;
- Fitted with double doors giving a clear opening of 1830mm and a height of 1830mm;
- The housing of the bin store, and access to it, should be lit so that it is safe to use and service during the hours of darkness;
- Lighting should be electrical sealed bulkhead fittings (housings rated to IP65 in BSEN 60529:1992) for the purpose of cleaning down with hoses and inevitable splashing. Lights should be low energy light fittings or low energy lamp bulbs. Switching should be either proximity detection or on a time delay button to prevent lights being left on; and
- Natural lighting should be used where possible.

Refer to appendix 4 for capacity of waste containers.

Waste disposal chutes in purpose built flats

Waste disposal chutes must only be used where separation of recyclable materials is possible. An example of how this can be achieved is shown in Figure 3 below.

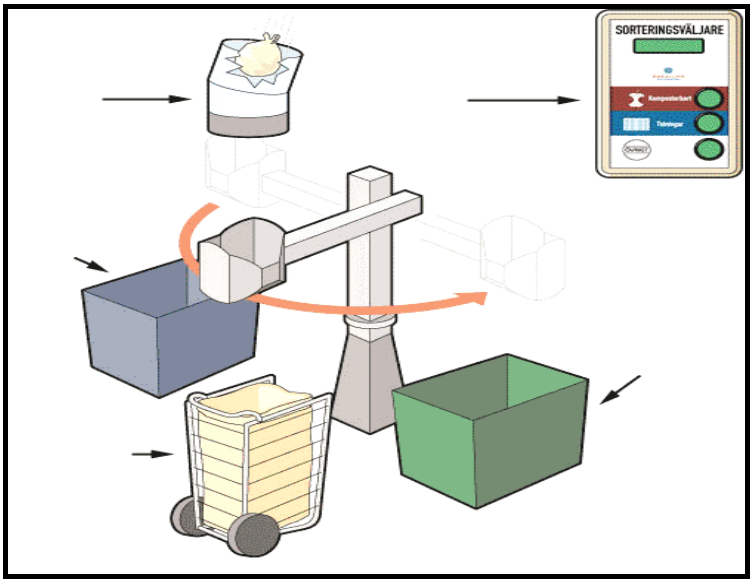


Figure 3 – waste disposal chute

If waste disposal chutes are proposed (e.g. in a high rise development) applicants should enter into discussions with Cityclean at an early stage of the design process in order to ensure that the design and technology of the chutes and waste collection areas enable the

separation at source of recyclables to the current and potential future requirements of the waste collection authority.

Underground waste and recycling containers – single and multiple occupancy houses

Underground waste containers are used throughout Europe and are becoming an increasingly popular choice of waste containment. There are a number of manufacturers currently producing these types of containers and incorporating the swipe card mechanism (to discourage trade waste misuse and variable charging systems).

These bin systems are ideal for developers that wish to blend waste and recycling storage containers into the development. They can be integrated into multiple occupancy developments and also single occupancy housing (new estates). 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 the surrounding environment
- Noise and odours normally associated with above ground recycling sites are minimised
- Minimal street furniture reduces the often associated problems of fly-tipping and fly-posting around recycling sites
- User friendly

The location of communal refuse and recycling sites should be easily accessible for both users and collection vehicles. Cityclean also recommend an underground system using swipe card access, this will ensure no trade waste misuse and will also be preparation for variable charging schemes i.e. paying for waste as its thrown.

Figure 4 – example of underground waste containers
See appendix 5 for details.

Skips and compactors

For details on developments requiring the provision of compactors see appendix 6.

Composting in private gardens

Space needs to be provided in all developments with private gardens for composting bins. Balconies of flats should be sufficient to provide space for wormeries to compost putrescible waste.

Composting of communal grounds maintenance waste

The landscaping plan should show where arrangements have been made in the development of flats with gardens or on site landscaped areas for the on-site composting of materials from the maintenance of communal grassed areas and shrub planting. The appropriate siting of a composting bin for grass cuttings and chipped woody material will save costs of disposal and provide compost for re-use on site. Advice on composting can be obtained from Cityclean.

Where on-site composting for communal areas is not possible, private arrangements will need to be made to enable the off-site composting of green waste by maintenance contractors.

Food Waste disposal arrangements

Food waste represents a large proportion of the household waste stream. With variable charging for waste collection looming, composting and recycling need to be maximised. The separation of food waste from the main waste stream can be performed in different ways but requires forward planning in order to develop suitable storage space in properties, storage outside the property and processing facilities.

Purpose built flats

Consideration of the following options:

- On site in-vessel food waste digesters – storage space including maturing areas
- Storage areas for communal food waste containers
- Storage space inside kitchen for 7 litre containers.
- Food waste disposal units (underneath sinks)

Detached, semi-detached, end of terrace, and converted houses

Consideration of the following options:

- Collection container storage inside and outside
- Food waste disposal units (underneath sinks)
- Garden space for food waste digesters/wormeries/composters

Commercial premises

Waste collections from commercial premises are made by third party waste collectors and are not the responsibility of Cityclean. Individual businesses will need to make arrangements to have their waste collected, although Cityclean can offer advice about operators working in the area and the services they provide.

At present the local commercial recycling collections market in the city is in its infancy, but the industry is growing and as landfill becomes scarcer and eventually exhausted, there is likely to be rapid expansion of the waste management services available. The nature of a commercial business will define the volume and type of waste containers required as detailed in the following sections.

All waste from commercial properties must be contained; bag collections will not be permitted.

Where mixed developments are proposed access to commercial waste storage areas should be separated from the access to the domestic waste storage areas should be precluded. Effort should be made to provide waste separation facilities within developments. This should include such things as paper, card, glass, cans, and plastic bottles recycling collection points in offices and retail units, and facilities for separating food waste in kitchens.

As for all other properties the general principles for storage and access should be followed. At least half of the waste generated is likely to be recyclable, separation facilities must be made available in any waste stores:

Information on the composition of waste from commercial premises is not available at this time, however research has been completed on gross waste production and the figures are listed for each property type:

Offices

2,600 litres of waste storage for every 1,000m^2 gross floor space.

Retail

5,000 litres of waste storage for every 1,000m^2 gross floor space.

Restaurants and Fast food Outlets

10,000 litres of waste storage for every 1,000m^2 gross floor space.

Hotels

7,500 litres of waste storage for every 1,000m^2 gross floor space.

Schools

1,500 litres of waste storage for every 1,000m^2 gross floor space.
1,000 litres of waste storage for every 1,000m^2 gross floor space.

Businesses and cigarette related waste/litter arrangements

Smoking related litter must be addressed by businesses. If smoking related litter is deposited on private land (i.e. business premises) the clearance is the responsibility of the business. If this waste is deposited as litter on public land (i.e. pavements) Cityclean have a duty to clear the waste during street cleansing. Where a litter problem can be clearly traced back to a business, Cityclean will issue a Street Litter Control Notice. This can be used to compel the business to clear up the litter and implement measures to prevent land from becoming defaced. This situation can be applied to designated smoking areas, frequently located outside the business on public land i.e. pavements outside doorways.

Developers are advised to consider the provision of containers for cigarette related litter into building plans. These containers should be in the designated smoking areas outside the building. This waste will become more prevalent with the impending (implementation July 2007) smoking ban in public places for example public houses, leisure centres and restaurants. Cigarette waste containers should incorporate the following:

- Sufficient amount of containers for staff, clients and customers
- In a convenient location and easily identifiable (signs)
- Ensure bins are emptied on a regular basis
- Secured to a wall or the ground and secure against weather and wildlife
- Locations for smoking and cigarette waste disposal containers should not be sited near windows, where an inconvenience may be experienced inside the building

Commercial Food Waste disposal arrangements

As landfill tax continues to rise, charges for commercial waste collection (and disposal) will continue to increase accordingly. In order to plan for this, recycling and composting of food waste should be considered.

There are several options for dealing with food waste other than disposal, this should be considered during design process. The provision for dealing with food waste relies heavily on the design of a building i.e. storage for this type of material. In commercial premises (for example a restaurant) the most feasible option for dealing with food waste would be a dedicated collection. In order to plan for this, storage areas and containers need to be considered in design i.e. ventilated, easily accessible containers in storage areas. Containers will need to be secured to inhibit tampering and wildlife.

There are other options, including:

- On site in-vessel food waste digesters
- Reducing amount of waste to dispose through reuse - Food share

City Council contacts

Planning policy

City Planning Team 01273 292505

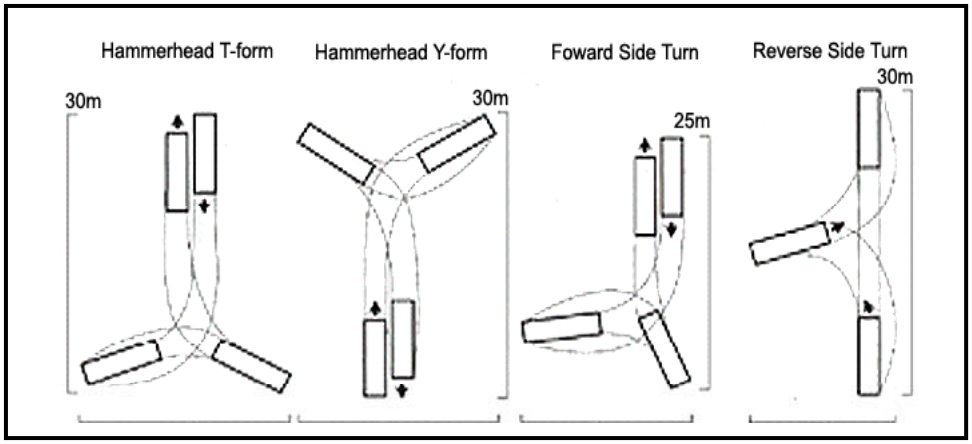
Waste collection and disposal

Cityclean 01273 292929

Appendix 1 – Vehicle Maneuvering Space

Figure 4 – As a Minimum, Turning Area Design for an HGV Refuse or Recycling Collection Vehicle:

Appendix 1 – Vehicle manoeuvring space



Area should have either yellow lines, a keep clear loading bay or restricted parking near the bin stores to allow access for waste and recycling collection

Standard dimensions of a waste collection vehicle:

(Dennis Eagle Ltd Elite 2 – 6x4 Euro 3 Wide Track)							
Wheelbase (mm)	5200	5300	5400	5600	5800	6000	6200
Theoretical Wheelbase (mm)	4500	4600	4700	4900	5100	5300	5500
Standard GVW (kg)	26000						
Front Plated Weight (kg)	7100						
Rear Plated Weight (kg)	19000						
Tyres – Front	295/80R						
Tyres – Rear	11R 22.5						
Total Unladen Weight (kg)	6980	7020	7060	7120	7220	7280	7330
Front Unladen Weight (kg)	3960	3990	4020	4080	4100	4120	4130
Rear Unladen Weight (kg)	3020	3030	3040	3040	3120	3160	3200
Overall Length (mm)	7415	7515	7615	7815	8015	8215	8415
Turning Circle (mm)	17700	18000	18400	18500	19000	19500	20000
Chassis Height (unladen) (mm)	1000 to 1005 at centre of rear bogie						
Chassis Height (laden) (mm)	925 at centre of rear bogie						

Note: Cityclean vehicles can be larger than the standard size indicated above; this needs to be considered during design.

Figure 5 - Crushing Zones

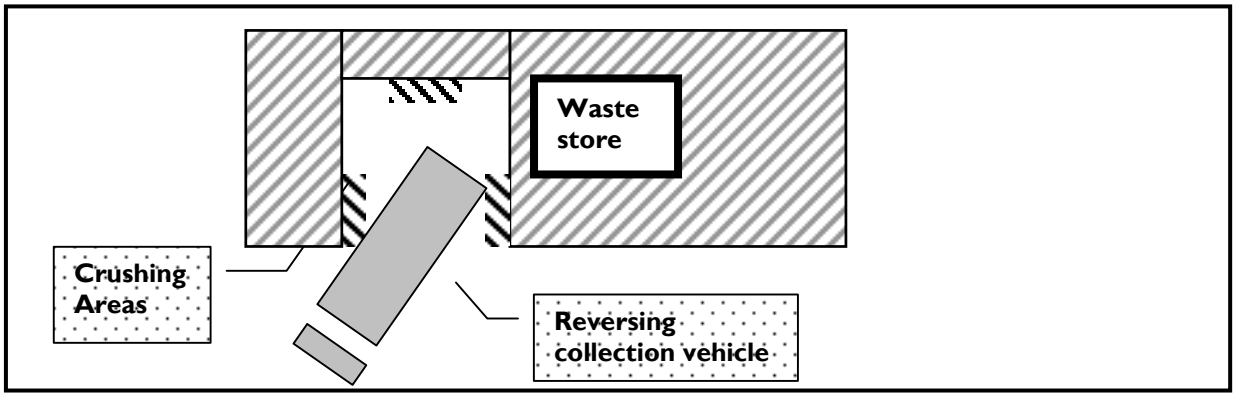
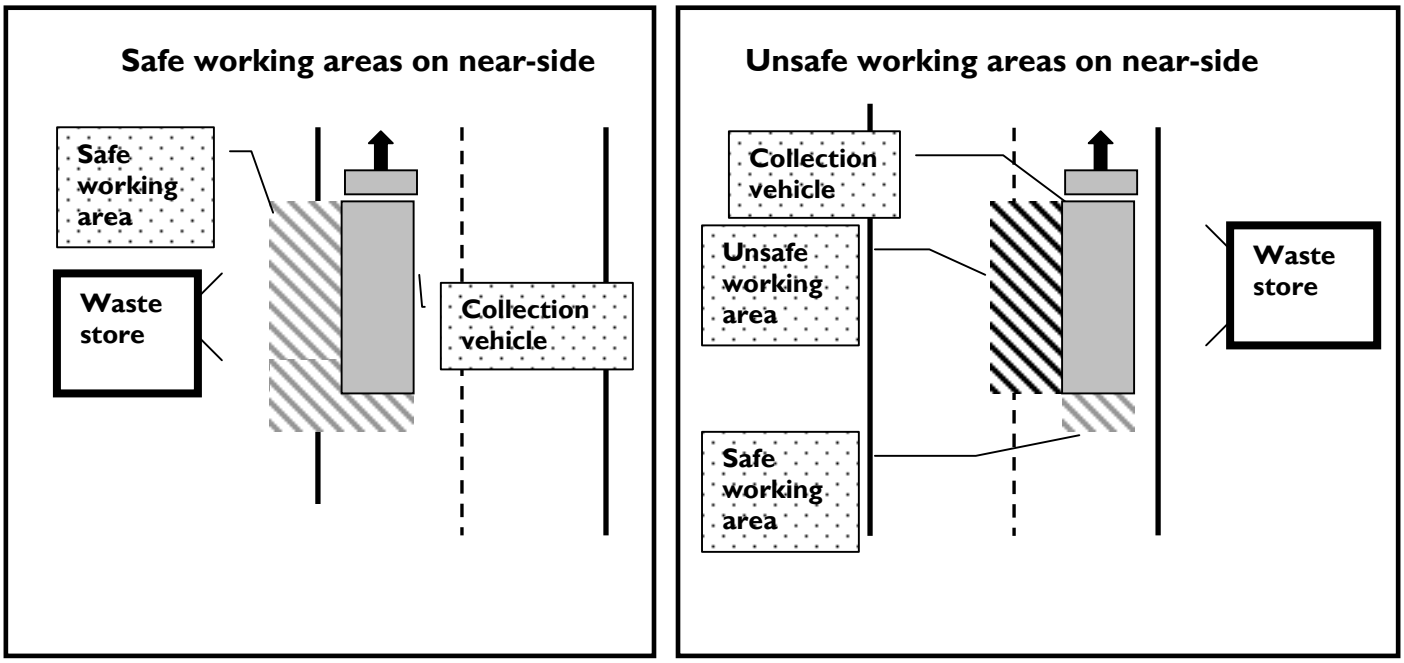


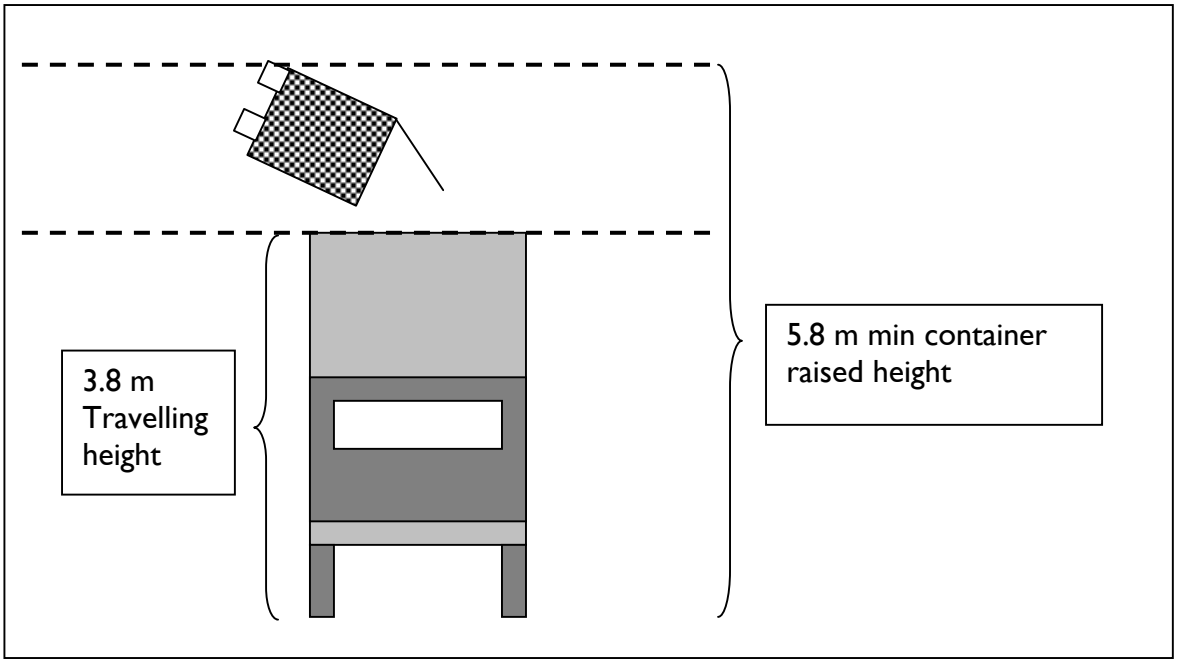
Figure 6 - Safe Working Areas for an HGV Refuse or Recycling Collection Vehicle



Appendix 2 - Recycling vehicle working heights

Particularly important for access to areas under bridges and anywhere collections are to be made from under-cover or basement access

Figure 7 - Terberg side loader heights



Appendix 3 – Average volumes of waste generated

	Volume of waste material generated in a single week (litres)				
	Paper & Cardboard	**Cans & Plastic Bottles**	**Glass**	**Residual refuse**	**Total waste arisings**
1 Bedroom Property	30	25	20	150	225
2 Bedroom Property	38	31	25	200	294
3 Bedroom Property	47	39	31	250	367
4 Bedroom Property	59	49	39	300	447
Attention: Recyclable materials are collected fortnightly in some areas of the city, please ask Cityclean for collection information					

Appendix 4 – Capacity of waste containers

Waste Container Sizes			
Type	**Height (mm)**	**Width (mm)**	**Depth (mm)**
Kerbside Box 55 litres	350	585	390
140 litres (2 wheeled bin)	1070	480	550
240 litres (2 wheeled bin)	1070	585	740
360 litres (2 wheeled bin)	1090	600	880
660 litres (4 wheeled bin)	1190	1220	770
1100 litres (4 wheeled bin)	1475	1250	1115
1280 litres (4 wheeled bin)	1470	1280	1000

All containers used for the storage of waste should conform to any applicable UN, European and British standard. Container types are shown below. From left; 55 litre kerbside box, 140 litre wheeled bin, 1280 litre wheeled bin.

Appendix 5 – Underground waste containers

There are various manufacturers of underground waste container systems, with a range of functions and different collection arrangements. Cityclean are only able to collect underground waste containers that can be collected (lifted) with a side-loading vehicle.

OMB Underground Waste Container System:

Functional specifications of the system

Capacity of the drum of the waste entry column	60L
Capacity of the waste collection tank	4500L
Dimensions of the ground plate (mobile cover)	2200x1700mm
Maximum external dimensions of the concrete cocoon	2300x1800x2500mm
Total height of the system (excluding column)	2700mm
Area required for installation	2500x2000mm
Weight of the collection tank	335kg
Maximum weight of tank's contents	600kg
Total maximum weight of the system (incl. tank)	Approx. 10000kg
Power supply (AC, three phase + earth)	230V, 50Hz
Power of electricity motor	1,1 W
Pressure of the hydraulic system	125-150 kg/cm2
Opening and closing time (excluding emptying)	80 sec
Possible upper lining of ground plate: responsibility of developer, max. thickness 30 mm and max weight 200kg	
The system resists a distributed load on the cover of 500kg/m2	
The concrete cocoon must be positioned parallel to the edge of the road or pavement with a maximum angular error of 0.2 degrees	
If installation is made on a pavement, the distance between the external wall of the concrete cocoon and the edge of the pavement must not exceed 850mm and the height of the pavement must not exceed 200m	
The upper edge of the ground plate (or lining) must be fixed at a height between +10 and +20mm from the surrounding ground.	

Please note, the table represents the maximum required capacity and if volumes of waste generated are lower then bins can be subsequently removed. During the planning of bin storage areas, the indicated capacity should be accounted for in every property.

Appendix 6 - Skips and Compactors

Skips- we will only consider skips in very extreme cases

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

a) Skip container (10.5m^3)
b) Rolonof skip container (27m^3. Only used where a waste output is considerable, e.g. a major shopping complex. Normally combined with a static compactor)

Dimensions (m)	10.5m^3 skip		27m^3 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	4.9	2.8	6.0

Minimum width of entrance to service bay 4.0

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 distance of:

a) 12.0m for a 10.5m^3 skip*
b) 19.0m for a 27m^3 skip*

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

Developments where a compactor is recommended

Compactors are recommended for the following types of development. Please note Cityclean do 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 waste.

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

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

Light Industrial – For units of 1,500m^2 or more, or for small units where the gross combined floor space exceeds 1,500m^2 a small sack compactor is recommended.

Retail – The most appropriate type of compactor for units of 1,500m^2 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^2. For major retail developments of over 5,000m^2 a rotary compactor is recommended. Those over 10,000m^2 should be provided with a portable skip compactor or a large static compactor.

Restaurants/Fast Food Outlets - Compactors are required for fast food outlets with an eat-in facility and are recommended 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.

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 hotels a rotary compactor, portable skip compactor or static compactor is recommended, particularly for those with banqueting facilities.

Appendix 7 - Planning Policy

Policy SU2: Efficiency of development in the use of energy, water and materials

Planning permission will be granted for proposals which demonstrate a high standard of efficiency in the use of energy, water and materials provided that they are otherwise in accordance with the other policies of the development plan.

Proposals will be required to demonstrate how the following factors have been integrated into their siting, layout and design:

a. measures that seek to reduce fuel use and greenhouse gas emissions;
b. the incorporation / use or the facilitation of the use, of renewable energy resources;
c. measures that seek to reduce water consumption;
d. measures that enable the development to use grey-water and rainwater; and
e. the use of materials and methods to minimise overall energy and / or raw material inputs.

When considering these factors, particular regard should be given to the following:

i) daylight / sunlight;
ii) orientation;
iii) building form;
iv) materials;
v) the use of natural ventilation;
vi) fenestration;
vii) landscaping;
viii) provision of space within each planning unit and general facilities for refuse, waste recycling and composting; and
ix) suitable space for occupier and visitor cycle parking.

Planning permission will not be granted for proposals that have not taken into account efficiency in the use of energy, water and materials and incorporated measures suitable to the proposal.

This benchmark policy seeks to promote a sustainable approach to energy, water and materials used in all new development in Brighton and Hove. An example of how this policy can be implemented is provided by the Brighton Station site where efficiency issues are being successfully incorporated within the proposed development.

The conservation of energy, water and materials and the use of renewable resources can make a significant contribution toward sustainable development objectives by reducing the need for finite resources, greenhouse gas emissions and other harmful environmental impacts. Energy conservation measures can also improve the home environment and in so doing, can help to deliver improvements in health and alleviate fuel poverty. Efficiency in energy and water use should also lead to financial benefits, for both homeowners and businesses, by virtue of reduced fuel and water bills. In addition to this, energy conservation can be assisted by locating development so that the consumption of energy resources, particularly those which are non renewable, is minimised. The

strategy of this Plan is therefore, for new development to be located wherever possible where it will keep to a minimum the need for travel, especially by private motor vehicle.

As the main objective of Policy SU2 is to help deliver sustainable development, the planning authority will seek a high standard of 'efficiency' in proposals and require the measures adopted to be sustainable in themselves. For example, where appropriate, renewable energy resources should be suitably designed and incorporate filters and other such measures in order to ensure they do not generate significant quantities of pollution harmful to the environment and human health.

In accordance with the Waste Local Plan, major developments, or developments employing or attracting a large number of people, will be expected to include as an integral part of the development:

- *facilities* for the public to recycle / compost waste; and
- *facilities* within individual or groups of properties or premises for the source separation and storage of waste for collection.

Applicants should therefore ensure there is sufficient space to make it easy for households to separate and store recyclable waste such as paper, glass, cans and to compost other waste. Consideration must also be given to the minimisation of overall energy inputs, for example, generally the re-use of existing buildings is preferable to their redevelopment. (See Policy SU13 Minimisation and re-use of construction industry waste.) New developments should be designed and located in order to reduce the need to travel.

The implementation of Policy SU2 will be supported by the council's Home Energy Efficiency Strategy and greater use of Design Advice and BREEAM analysis.

It will be further assisted by application of energy efficiency assessment procedures such as the Standard Assessment Procedure (SAP) and the National Home Energy Rating (NHER). It will also require close liaison with building control services and architects. In addition to this, one of the requirements of Private Finance Initiatives (PFIs) is that they must have a very strong environmental element. Policy SU2 affects all proposals and has links with all other policies of the development plan. The efficient and effective use of land is addressed in Policy QD3 'Design: efficient and effective use of sites'.

Policy SU14: Waste management

Applicants proposing large-scale developments or developments that employ or attract a large number of people, such as supermarkets or industrial units, will be required to provide appropriately designed facilities for the recycling or re-use of the waste that they, their customers and staff generate. Hard surfaced, screened and landscaped areas will be required to be provided by developers in safe and convenient locations in substantial new housing developments within which recycling facilities, appropriate for waste generated by households, can be located if adequate facilities do not exist in the vicinity.

The land use planning system has an important role to play in helping to achieve the goal of sustainable waste management. The waste management hierarchy set out in the government's document entitled 'Making Waste Work' is as follows: Reduction; Re-use; Recovery - recycling/composting/incineration; Disposal. Policy SU14 therefore seeks to facilitate the re-use and recovery of waste whilst Policy SU13, relating to construction industry waste seeks to facilitate the reduction, re-use and recovery of waste.

The planning authority will expect the facilities to be provided by virtue of this Policy to be appropriately located within the development and to form an integral part of the design. They must be easily accessible whilst at the same time they must not detract from the area or adversely affect the amenities of the area, for example, they must not be visually harmful or create a significant noise nuisance to surrounding occupiers. Policy SU14 will be assisted and complemented by the Waste Strategy and the emerging Waste Local Plan. It has particular links with the following in this Plan: the policies relating to design, including landscape design; efficiency in development; minimisation and re-use of construction industry waste; and major shopping, residential, commercial and leisure developments.

East Sussex and Brighton & Hove Waste Local Plan

Context for Designing for Recycling in Major Developments:
The layout and design of the built environment can have a bearing on the ability of users to recycle. The provision of convenient facilities within new developments can make recycling and re-use of waste easier for users of the site, and the resulting increase in such practices can significantly reduce the amount of waste which needs to be removed from the site for final disposal.

Facilities can include bring banks for recyclable materials, and composting facilities for green waste. Examples of the type of developments which can benefit from the provision of such facilities are residential developments (such as new estates or flats), retail developments (such as new shopping centres or large stores), major industrial / commercial development, new car parks, and community facilities (such as schools). Opportunities may also exist in smaller scale developments in rural or more isolated areas which are in locations which are poorly served by existing recycling facilities.

Policy WLP12: Recycling as Part of Major Development

All development proposals employing, attracting or accommodating a large number of people shall have regard to the extent to which the proposals include as an integral part of the development:

a) facilities for the recycling /composting of waste; and/or

b) facilities within individual or groups of properties or premises for the source separation and storage of waste for collection or on site re-use or composting.

Appendix 8 – British Standards and other reference information

- Department of the Environment Working Party Report (1967) - Refuse Storage and Collection.
- Building Regulations 2000 as amended by SI 2001/3335 – The Requirement - Solid Waste Storage (6).
- B.S. 1703: 1977 - Refuse chutes and hoppers.
- Institute of Wastes Management Publication No. 3 - Advice on storage and on treatment of household, commercial & industrial wastes. (Obtainable from C.I.W.M., 9 Saxon Court, St. Peter's Gardens, Northampton, NN1 1UD. Tel. 01604 620426.)
- Health and Safety at Work Act 1974
- Environmental Protection Act 1990
- Town and Country Planning Act 1990
- 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)
- An Environmental Assessment For New Offices
- An Environmental Assessment For New Homes
- 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)