

## Capacity requirements

### **Introduction**

This document contains a summary of various capacity requirements for waste and recycling for flats taken from different local authorities. It is based on guidance available on council websites. This guidance is typically provided for architects and developers to use to use when planning and designing a new development, undertaking refurbishment, modernising or changing the use of a building so that effective waste and recycling storage and collection is included at the design stage.

As demonstrated below the methods of calculating and communicating capacity requirements vary between local authorities.

Further guidance on waste and recycling requirements for flats is available in the [Code for Sustainable Homes Technical Guidance 2010](#).

### **The London Borough of Brent**

#### Summary of storage capacity requirements

Table one: Waste and recycling storage capacity requirements

<b>Property type</b>	<b>Receptacle position</b>	<b>Residual waste (litres)</b>	<b>Dry recycling (litres)</b>	<b>Organics (litres)</b>
House conversions and residential developments of up to 8 households	External	120L per household	120L per household	1 x 23L kerbside container per household (1 x 240L wheeled bin can be provided for garden flats)
	Internal	30L min per conversion	30L min per conversion	5L per conversion
Residential developments over 8 households	External	60L per bedroom	60L per bedroom	21L per household (up to a maximum of 20 households)
	Internal	30L min per household	30L min per household	5L per household

#### Summary of services

Summary of services for flats taken from guidance:

- Food waste collection scheme: According to the 2010 guidance the Council is trialling a food waste collection scheme for residents living in blocks of flats using

240l communal bins. The Council expects architects and developers to make provision, where possible, for the introduction of a food waste collection scheme for new developments or refurbishments in blocks of flats of up to 20 units. Food waste collections will not be provided for blocks of flats where there are 20 units or more.

- Dry recycling collection scheme. Communal bins of either 240l or 1,100l are provided to collect the following materials weekly: paper, cardboard, metal tins and cans, glass bottles and jars, plastic bottles, aluminium foil, mixed plastic containers, food and beverage cartons.

Information source: [Waste and Recycling Storage and Collection Guidance for Residential Properties, 2010.](#)

## Dudley Metropolitan Council

### Summary of storage capacity requirements

Table 2: Appropriate number of residual waste and recycling bins for the number of apartments being planned.

<b>Number of Apartments</b>	<b>Required number of 1100L residual waste bins</b>	<b>Number of 360L recycling bins</b>
4	1	0 (4 x 55L boxes)
5	2	0 (5 x 55L Boxes)
6	2	3
7	2	3
8	2	3
9	3	3
10	3	3
11	3	3
12	3	3
13	4	6
14	4	6
15	4	6
16	4	6
17	5	6
18	5	6
19	5	6
20	5	6
21	6	6

### Summary of services for flats

Summary of services for flats taken from guidance:

- Wherever provision is made for un-recyclable (residual) waste, there should also be provision for recycling a full range of materials. As a minimum requirement, each bin room must therefore house separate bins for residual waste, mixed glass, food and drink cans, and papers. These are the materials which are currently collected by Dudley MBC, however, changing legislation and attitudes

may result in a need for additional containers. It would therefore be prudent to allow space for additional recycling bins.

- For each apartment being built, it should be assumed that 2.5 black bags will be produced each week. Dudley MBC will only collect residual waste (from bin rooms) in 1100L Euro style bins, which have a capacity of approximately 10 black bags. Therefore a development of eight apartments will require two 1100L bins, whereas nine apartments will require three 1100L bins.
- Developments of less than 6 apartments should allow for one 55 litre black box per apartment; between 6 – 12 apartments will require 3 x 360L recycling bins (glass, cans and papers); developments of between 13 – 20 apartments will require 6 x 360L recycling bins.

Information source: [Waste management guidance notes for residential developments, 2011.](#)

## East Northamptonshire Council

### Summary of storage capacity requirements

Table 3. The Council's Wheeled Bin Policy (April 2011) defines minimum space (volume) requirements for outdoors provision for domestic dwelling houses as follows:

Containment type	Capacity (Litres)		
	1 bed dwellings	2-3 bed dwellings	4+ bed dwellings
Residual waste bin (waste for landfill)	180	180	240
Recyclable waste (dry)	180	240	240
Food waste (outdoor caddy)	25	25	25
Total storage capacity required	385	445	505
Garden waste (optional)	240	240	240
TOTAL storage capacity required (inclusive of garden waste bin)	625	685	745

The Council has set waste storage standards for flats based upon the overall standards for dwelling houses (i.e. numbers of bedrooms) in Table 1 above. A typical block/group of 8 flats would be provided with:

- Two 1100 litre recycling bins;
- One 1100 litre residual waste bin;
- One 240 litre food waste bin.

In this latter case, the total storage volume required is 3540 litres. Overall, it is critical that these requirements are taken into account when designing new domestic waste storage facilities.

### Information source

NB: The table provided for houses is referred to for flats.

Source: [Domestic Waste Storage and Collection Supplementary Planning Document Consultation Draft, 2011.](#)

## **Woking Borough Council**

### Summary of storage capacity requirements

#### Internal storage capacity for apartments:

- Refuse 60 litre bin
- Mixed dry recyclables 60 litre bin, box or bag
- Compostable kitchen waste 7 litre kitchen caddy

#### External storage capacity for apartments

- Apartment buildings may apply the following guide where communal facilities are used:
  - Refuse: 2 Wheeled bins in accordance with the capacity for houses. Or, one 1,100 litre wheeled black eurobin with black lid per every five households
  - Mixed dry recyclables: Wheeled bins in accordance with the capacity for houses. Or, one 1,100 litre wheeled black eurobin with blue lid per every five households
  - Compostable kitchen waste: one 23 litre green collection bin per household, and/or one 140 litre black wheeled bin with a brown lid for every 8 households.
- NB: There are a number of footnotes within this document to highlight that the ratios above regarding households per container is to be used as a guide only. The number of eurobins required could be increased or decreased according to the number of residents per apartment and/or the number of properties with greater or less than two bedrooms per unit.

#### Composting

- Home composting areas should be designed into all new housing developments including the communal gardens space in apartment developments, as treatment of waste at source is recognised as the most sustainable method of treatment. This should include sites where management contracts are in place and these should use on-site composting of garden waste.
- Communal composting facilities should be provided for apartment developments. Communal composting areas must be carefully designed as part of the garden and not merely placed in a convenient area, which may be inappropriate. Issues such as odour and vermin must be addressed in the design of the facilities.

Source: [Waste and recycling provisions for new residential developments; Good practice guide for developers, 2010.](#)

## **Local Government Guidance produced for Northern Ireland**

### Summary of storage capacity requirements

For dwellings, a recent NI-wide study shows that the total waste disposed of via kerbside collection breaks down roughly (by weight) as follows:

- 30% Residual
- 35% Dry Recyclable
- 35% Organic Waste (25% Food Waste + 10% Garden Waste)

This is an average and it is assumed to account for only a portion of garden waste; the total arising indicated in Table [4] should not be reduced for dwellings which do not have gardens. This is a breakdown by weight, rather than volume. The fractions tend to vary in form and density, so the volume breakdown is different to the weight breakdown.

Note also that the appropriate breakdown will vary between councils depending on the services that they provide. Services will vary, depending on factors such as the technologies currently available to them, economic viability and environmental benefit.

Table 4: Typical Weekly Waste Arisings

<b>Building</b>	<b>Weekly Waste Calculation</b>	<b>Example</b>	<b>Weekly Waste Arising (Litres)</b>
Dwelling (not HMO)  This estimate assumes residential purposes only; if the dwelling is also used for any non-domestic purposes, the relevant arisings should be separately estimated and planned for.	70L per bedroom + 30L per dwelling	3-bedroom house	240
House in Multiple Occupation	100L per bedroom + 60L per dwelling	3-bedroom house	360

Scenario provided

This example assumes that you intend to build an apartment complex, comprising:

- Thirty 2-bedroom apartments and
- Ten 3-bedroom apartments

and you have talked to the relevant council who advised that:

1. They will be carrying out alternate-weekly collections<sup>11</sup> for residual waste and dry recyclable waste;
2. You should plan for a 50:50 split between residual and dry recyclable waste; and
3. They can collect Euro Bins.

Section 1: Calculate the estimated residual and recyclable waste (in litres) arising from the property on a weekly basis:

- According to Table 1 you can expect 70L per bedroom plus 30L per apartment:
  - $30 \times ( (70 \times 2) + 30 ) = 30 \times 170L = 5100L$  weekly arisings from the 2-bedroom apartments and
  - $10 \times ( (70 \times 3) + 30 ) = 10 \times 240L = 2400L$  weekly arisings from the 3-bedroom apartments

- 5100L + 2400L = 7500L weekly total from the apartment complex
- A 50:50 split means 3750L residual and 3750L dry recyclable waste per week.

#### Bulky household waste

- Any apartment complex should be designed to provide a designated bulky household waste storage area. This area should:
  - provide at least 10sqm for every 50 households or part thereof;
  - be reasonably square, with no dimension being less than 2m; and
  - be designed in accordance with the detailed guidance provided in Section 7 [of the Waste Storage Guidance NB: see link for details].

Information source: [Waste Storage Guide for Northern Ireland, 2010, Issue #1.](#)

### **London Borough of Barking and Dagenham**

#### Summary of storage capacity requirements

##### Internal storage capacity:

- As with houses, consideration needs to be given to providing sufficient space within each flat for the storage of recyclables and residual waste. Space will be required for storing household refuse, the Orange Bag for dry recyclables and a separate box or bag for storing glass.
- Additional space for a compost bin may be provided on the balcony or within the unit to allow residents to compost their kitchen waste.

##### External storage capacity

- The formula the Council uses to determine the number of Eurobins needed for a particular development is 1 refuse Eurobin of 1100/ 1280litres per every 6 flats, based on a two bedroom flat. The number of bins required may vary based on the number of bedrooms and type of development
- Based on an approximate 50% participation rate by residents in recycling scheme, the Council estimates that the number of recycling Eurobins needed will be half the number of refuse Eurobins.
- Collection frequency will also influence the amount of bins required. Usually, the Council collects both refuse and recyclable materials once a week from low rise flats and twice to three times from high-rise developments. Frequency of collection will be established on a case-by-case basis in consultation with the Council
- Glass is not currently collected in the Orange Bag recycling scheme nor does the Council run a separate collection for glass at the present time. However, this situation may change and developers are strongly advised to make provision in bin compounds for space to accommodate an extra 1280 Eurobin for mixed glass

Table 5: The table below provides an indication on the number of both communal refuse and recycling Eurobins required in flatted accommodation for different collection frequencies. Space for an extra 1280L Eurobin for mixed glass should be provided as stated above.

<b>No of flats:</b>		<b>6</b>	<b>12</b>	<b>18</b>	<b>24</b>	<b>30</b>	<b>36</b>	<b>42</b>	<b>48</b>	<b>54</b>	<b>60</b>	<b>66</b>	<b>72</b>	<b>78</b>
<b>Once weekly collection</b>	Refuse 1100/1280 litre Eurobin	1	2	3	4	5	6	7	8	9	10	11	12	13
	Recycling 1100/1280 litre Eurobin	1	1	2	2	3	3	4	4	5	5	6	6	7
<b>Twice weekly collection</b>	Refuse 1100/1280 litre Eurobin	1	1	2	2	3	3	4	4	5	5	6	6	7
	Recycling 1100/1280 litre Eurobin	1	1	1	1	2	2	2	2	3	3	3	3	4
<b>Thrice weekly collection</b>	Refuse 1100/1280 litre Eurobin	1	1	1	2	2	3	3	3	3	4	4	4	5
	Recycling 1100/1280 litre Eurobin	1	1	1	1	1	2	2	2	2	2	2	2	3

#### Bulky waste

- An additional dry storage room needs to be provided for the storage of bulky waste such as furniture, large electrical items and mattresses. This may be a designated section of the waste and recycling compound, if this is enclosed, or a separate room or enclosure. Storage capacity must be a minimum of 10m<sup>2</sup> for every 50 housing units.
- Location considerations listed in chapters 5 [of the guidance document] for communal bin compounds apply to the bulky waste storage room also as the Council's bulky waste collection operatives will need access to the dry storage room.

Information source: [Planning Advice Note 3, Refuse and Recycling Provisions in New and Refurbished Residential Developments, 2011.](#)