

**Guidance Document for the Storage and Collection Of
Domestic Waste and Recycling For New and Existing
Developments**

Guidance for Architects and Developers

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Version 3**

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1. Introduction

- 1.1 Test Valley Borough Council (TVBC) is constantly seeking to improve the quality of life for residents, workers and visitors to the borough. The Council's Environmental Service is working to maximise the amount of materials that be recycled and minimise the amount of waste created. In the case of new developments, it is essential that waste management is considered at an early design stage, so that it is fully integrated into the planning and design process. Adequate bin storage space is an important part of this. This will lead to more successful and attractive developments and help to protect the environment by maximising recycling and minimising problems with general waste accumulations.
- 1.2 This document provides developers and architects with all the guidance and information they need to effectively design for waste and recycling storage and collection. The Environmental Service Waste and Recycling Team should also be consulted on all major developments at an early stage to ensure that an effective and efficient refuse and recycling collection service is provided for residents.
- 1.3 When a new development, extension or change of use is submitted for approval, the planning application will be reviewed to ensure that adequate storage facilities are provided for the collection of refuse and recyclable materials.

2. Waste Collections within Test Valley

- 2.1 TVBC is responsible for the collection of waste and recyclable materials from all domestic properties within its boundary. This service is currently provided using wheeled bins for both refuse and recyclable materials.
- 2.2 Waste collection occurs from the edge of a property. Residents are asked to place their wheeled bins at the edge of their property, which is the nearest point accessible to the Refuse Collection Vehicle (RCV). In the case of householders with private drives, they should present their bins at the edge of the driveway. In the case of flats collections will take place from a bin store(s).

3. Bin Charging Policy

3.1 Scope of charging for bins

240 litre and 140 litre Wheeled Bins

All wheeled bins must meet a minimum design specification as provided by the Council in order to ensure that they are compatible with the lifting equipment on the Council's refuse collection vehicles. See Appendix I.

TVBC can provide bins to households. There is a delivery and administration charge, please bear in mind the bins remain the property of the purchaser. Please see TVBC website for current charges.

<http://www.testvalley.gov.uk/resident/wasteandrecycling/wheeled-bins>

Property developers are expected to meet the cost of providing all wheeled bins for individual houses and houses of multi-occupancy. Householders will have to pay for any additional or replacement bins.

1100 Wheeled Bins

All 1100 litre wheeled bins must meet a minimum design specification as provided by the Council in order to ensure that they are compatible with the lifting equipment on the Council's refuse collection vehicles. See Appendix I.

TVBC can provide bins to residents. There is a delivery and administration charge, please bear in mind the bins become the property of the purchaser. Please see TVBC website for current charges.

<http://www.testvalley.gov.uk/resident/wasteandrecycling/wheeled-bins>

Property developers are expected to meet the cost of providing 1100 litre wheeled bins for new multiple occupancy developments. Owners or managing agents will have to pay for additional or replacement bins.

4. General Design Specifications for Bin Store

4.1 Waste and Recycling Needs and Design Specification

Effective planning and design of bin stores is essential for the benefit of both residents managing their refuse and recycling and the Council's waste collection crews.

- Needs of Residents. The aim should be to make it as quick, easy and convenient as possible for residents to dispose of their refuse and recyclable materials.
- Needs of Collection Teams. This should be carefully considered to facilitate the safe and easy collection of refuse and recyclable materials and so prevent future problems.

To achieve these objectives all developers should consider the following key points:

- Provide sufficient internal and external space for each house or block of flats for separate refuse and recycling storage.
- Ideally householders should not have to carry waste more than 30 metres from the building to their bin store.
- Provide clear segregation of bin stores from parking areas, bike stores and mobility scooter stores. The use of barriers and other physical devices will prevent the disruption of waste collection from the properties i.e. by preventing bins from being emptied if blocked in by parked cars.
- The ground surface should have a smooth finish free from steps, shingle, cobbles or other such obstructions which are unsuitable for moving wheeled bins.
- All bin stores should have good ventilation.
- Refuse collection vehicles must be able to gain safe and easy access to all bins. The collection vehicle should be able to get within **15 metres** of all bins. The route between the bin store and where the collection vehicle parks needs to be flat (with no steps or sudden changes in level). If a development contains flats, a 2 metre wide hard and flat surfaced area is essential to allow 1100 litre 'Eurobins' to be safely moved between bin stores and the proposed collection point.
- Where slopes occur; these should not exceed 1:12 or 8.5% (ODPM, 2002).
- The design needs to comply with all applicable legislation.
- Include a site plan showing bin collection and storage points/bin stores and a collection route, minimum scale of 1/500.

Flats - The following points need to be incorporated in to bin stores:

- It is essential to accommodate bins for refuse and recycling. These must be in the same bin store and not left in separate areas or left outside the store.
- They are an integral part of the development and must be easily accessible for the households that they serve. The siting and design of the bin store should also have regard to the impact of noise and smell on the occupiers of neighbouring properties, existing and proposed.
- They must be secured to allow access for designated users only. The stores need to be sturdily built with a roof and robust lockable doors with a digi lock. The code must be provided to the Council to ensure bins can be emptied. (see photo appendix II)

- Adequate space is required to store the bins so that householders can gain easy and full access to each bin and this will also allow the collection crews to quickly and easily remove bins for emptying. A minimum of 2 meters clearance is required to manoeuvre the bins out of the store. The bin store should be a minimum height of 2.4 metres.
- Lighting is essential inside the bin store to ensure the safety of all users and to make sure that residents can see the bins clearly so that they use them correctly.
- Bin stores should be built on a flat area so that the bins can be easily removed for emptying i.e. there should be no door frames, ledges or steps.
- All bin stores should have good ventilation.
- Bin stores should have a water supply so that floors can be washed down with adequate drainage in the floor for receiving polluted run-off.

5. Individual Houses and Houses of Multi Occupancy

5.1 External Storage of Wheeled Bins

TVBC provides each household with separate bins for waste and recyclable materials. There is a charge for all bins: please see Section 3. The size and total number of bins provided depends on the number of people in the household (please see Appendix I, tables 1- 3).

Provision of bins for households

Size of Household	Number of Refuse Bins	Number of Recycling bins	Bin Size (Litres)
1 - 4 Persons	1	1	240
5 + Persons	2	2	240

Please Note: Some households with 1- 4 people may have 2 black bins (for instance if they have a medical condition)

All bins should be located within the boundary of each property, away from windows and ideally in a shaded area. The location should be able to accommodate the necessary number of bins for that property. The bins should be carefully located to avoid causing a nuisance to adjoining properties.

5.2. Collection of Wheeled Bins

On the allotted collection day residents are required to place their wheeled bin at the edge of their property from 07:00. The vehicle should be able to get as close as possible to all collection points: certainly within 15 meters.

Please note the Council's collection vehicle will only travel along roads that have been constructed to Hampshire County Council's adoptable standards. Developers must provide written evidence that all roads have been constructed to this standard if collection vehicle access is required.

6. Flats

6.1 Internal Storage

To enable residents to recycle their waste, developers should provide adequate internal storage for the separation of refuse and recyclable material into two separate containers. TVBC provides a heavy duty reusable bag to allow resident to transfer their recyclable materials into to the recycling bin. See Appendix II for bag sizes.

TVBC does not consider the use of internal waste disposal chutes to be an acceptable alternative to the use of bins because they do not enable separation of recyclable material.

6.2 External Storage of Bins

For flats, a property of 6 separate households will require an 1100 litre euro bin for refuse and another one for recyclable materials (table 4). Therefore for a development comprising of 48 flats, space for 16 x 1100ltr bins should be provided. Each bin must be fully accessible.

But in a development comprising of 1 – 5 households, each household should be provided with space for two 240ltr bins.

For all bin dimensions see Appendix I

Table 4: Allocation of bins per No of households

Number of households	Number of Refuse Bins	Number of Recycling Bins	Bin Size (Litres)
1 - 5	1 per household	1 per household	240
6+	1 bin per 6 households	1 bin per 6 households	1100

6.3 Retirement Complexes

Developments which are specifically built for elderly residents need to consider the height and the weight of the bins and access to the bin lids before deciding how big to design a bin store. Smaller bins may help residents to continue to live independent lives for as long as possible and this includes managing their own waste and recycling in the bin store. Large bins are tall and have heavy lids and this can cause difficulty for residents who are frail, and who maybe losing height and strength.

Another option is to use a modified version of the large 'Euro-Bins' (1100 litre) black bins which have a lid within a lid or a 'lid in lid' option. This 'lid in lid' adaption is helpful for elderly or disabled residents as it allows them to use 1100 litre black refuse bins without lifting the entire large heavy lid. It features a smaller lid built in that is far lighter and easy to use – please see pictures on page 8. This allows residents to dispose of their general household waste more

easily. This option is available directly from Egbert Taylor. Contact them on +44 (0)1299 251 333 or see their website <http://egberttaylorgroup.com>

Please note: The brown 1100 litre recycling bins have a slot built into them so residents do not need to lift the entire lid to dispose of their recycling materials.



7. Home Composting

TVBC request consideration is given for a suitable area for home composting by residents. Test Valley Borough Council has an agreement for compost bins that can be purchased at a reduced rate these are available for developers or residents to buy. Please see www.getcomposting.com for further information.

8. Incorporating Local Recycling Centres (LRCs) into New Developments

Local Recycling Centres (LRCs) complement the existing range of materials collected by TVBC. These additional items include glass, textiles, shoes, paper, books, DVDs, tetra paks and aluminium foil. To meet the needs of local residents all new leisure and community facilities are requested to accommodate LRCs. TVBC recognises the importance of LRCs, which is a resource local residents highly value. LRCs should be located so that they provide convenient and safe access for both residents and the collection contractors.

Key Site Requirements:

- Flat ground with no sudden change of level i.e. there should be no steps or kerbs to interfere with the use or emptying of banks.
- LRCs should be positioned away from tall trees and overhead cables.
- Parking areas for the users and also for the vehicles emptying the banks.
- The site needs to be large enough to accommodate all the banks identified, but also provide some extra space if the LRC needs to be expanded in the future to collect other materials such as waste electrical equipment.
- Adequate signage is required to ensure that users understand what items can be recycled at these sites. TVBC's Waste and Recycling Team will provide sign specifications.
- Consideration must be given to local residents, sound-proof fencing will be required if the LRC is adjacent to neighbouring properties.

The LRC should be clearly identified on the proposed plans and the TVBC's Waste and Recycling Team consulted at the earliest opportunity.

Recycling Bank Emptying Methods

- Glass banks – are emptied by being lifted using a Hi-ab crane.
- Brown recycling bin 1100 Litre collect paper, cardboard, food and drinks cans, aerosols cans and plastic bottles – are emptied by a standard-sized recycling collection vehicle every two weeks.
- Textile, shoe, book and music banks are emptied by hand.
- Aluminium foil bank - emptied by hand.

Bank sizes / Specifications

Bank Type	Foot Print Size
Glass Bank	1.2m x 1.2m
Textile Bank	1.6m x 1.6m
Recycling bin 1100l	1.5m x 1.5m
Aluminium Foil bank	75cm x 75cm

See appendix V pictures of all the recycling containers.

9 Vehicles – Technical Data

All roads providing access to buildings should be able to meet the following specifications:

- Road surfaces - capable of withstanding the maximum gross vehicle weight of 26 tonnes including inspection covers.
- Width – Minimum width of 4.8 metres.
- Road layout – these should be designed to minimise the need to reverse, if this is unavoidable then the distance should not exceed 12 metres.
- Turning area – this should be accommodated in the design where needed. The Refuse Collection Vehicle (RCV) dimensions are listed in Appendix IV see below.

10. References

British Standards, 2005. *BS 5906:2005: Waste Management in Buildings – A Code of Practice.*

HMSO, 1990. *Environmental Protection Act.*

http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900043_en_1.htm

ODPM, 2002. *The Building Regulations 2000 – Drainage and Waste Disposal.*

http://www.planningportal.gov.uk/uploads/br/BR_PDF_ADH_2002.pdf

11. Designer Checklist – Summary

Summary Checklist

The following checklist summarises all the key points from this guidance document:

Individual Houses and Houses of Multiple Occupancy

- Provide sufficient internal space within each house or flat for separate refuse and recycling segregation and storage.
- Householders should not have to carry waste more than 30 metres from their building.
- Ensure there is adequate space for each household to access all bins.
- Provide clear segregation of parking areas from bin stores.
- Include a site plan showing bin storage point(s) and collection point(s).

Flats

- Bin stores needs to be sturdily built with a roof and robust lockable doors i.e. with a Digi lock.
- Bin stores should be built on a flat ground and the bins should be easily moved out of the store i.e. there should be no door frames, ledges or steps which prevent the easy removal of the bins.
- There should be adequate space in the bin store to easily access all the bins and to easily remove the bins for emptying. A minimum 2 metre clearance is required to manoeuvre the bins out of the store.
- Bin stores should accommodate bins for both refuse and recycling.
- The route between the bins and where the RCV parks, needs to be flat (with no steps or sudden changes in level).
- Bin stores should not have a dual use; bikes and mobility scooters should have a separate store.
- Bin stores must have adequate lighting.
- Bin stores should have a water supply for a wash down and adequate drainage.
- Good ventilation is required.

Needs of the Waste Collection Teams

- Ensure the RCV can get within 15m of all bins.

- Provide safe and easy access for RCV.
- Ensure both bin store doors and path widths are 2m wide, to allow the bins to be easily moved to and from the RCV.
- Paths between the bin store and the RCV should be flat and free from changes in level.
- Road Surfacing. RCV should only travel on roads that have been constructed to adoptable standards.
- All road and vehicle access routes must accommodate the needs of the Council's RCVs:
 - be at least 4.8 metres wide
 - be able to withstand a maximum weight of 26 tonnes
 - be able to incorporate a turning area (where required). If this is not possible then the developer must ensure that the vehicle does not need to reverse a distance greater than 12 metres.
 - ensure that the RCV does not need to reverse up or down a slope or ramp with a gradient greater than 1:12 or 8.5%.

Composting

- Give consideration to the provision of an area on the site where householders can compost food waste and garden waste.

The Provision of Local Recycling Centres

- The developer should liaise with The Environmental Service Waste and Recycling Team to ensure the specific needs of LRCs are incorporated into the plan.
- Be aware of the needs of people using LRCs and how the collection crews will empty the banks.
- Accommodate key site requirements
 - flat ground
 - away from tall trees and overhead cables
 - suitable parking for all users
 - adequate signage
 - size to accommodate future growth
 - design to minimise noise nuisance to neighbours
- Awareness of recycling banks sizes and bank emptying methods

Appendices

Appendix I Bin Specifications

In line with the Council's Bin Charging Policy, all wheeled bins must meet a minimum design specification in order to ensure that they are compatible with the lifting equipment on the Council's refuse collection vehicles.

The minimum design specifications are as follows:

140 Litre Bin Specifications

Table 1

Container	Dimensions	Space Required
140 litre	Width – 505mm	505mm x 555mm Width x Depth
	Depth – 555mm	
	Height – 1005mm	
	Height (with open lid) – 1050mm	

Colour Anthracite Grey (RAL 7016) - Household Waste

Brown (RAL 8024) - Recyclable Materials

Nominal Volume litre 140+6/-12

Payload kg 56

Wheel (diameter) 200mm

Body Plastic

Requirement EN 840 Approved

240 Litre Bin Specification

Table 2

Container	Dimensions	Space Required
240 litre bin	Width – 585mm	585mm x 740mm Width x Depth
	Depth – 740mm	
	Height – 1068mm	
	Height (with open lid) – 1168 mm	

Nominal Volume litre 240 +15/5

Payload 96Kg

Wheel (diameter) 200mm

Body Plastic

Requirement EN 840 Approved

1100 Litre Bin Specification

Table 3

Container	Dimensions	Space Required
1100 Litres Euro bin	Width – 1250mm	1250mm x 980mm Width x Depth
	Depth – 980mm	
	Height – 1370mm	
	Height (with open lid) – 2400mm	

Colour Black (PO 1034) - Household Waste

Brown (PO 1077) - Recyclable Materials

Flap - Recyclable Materials

Lid Colour Black - Household Waste

Black with Brown Flap - Recyclable Materials

Lid Lock Standard - Household Waste

New Forest - Recyclable Materials

Casters Standard 200 - Household Waste

C/L 200 - Recyclable Materials

Drain Plug Standard

Body Metal

Requirement EN 840 Approve

The 1100 black (household waste) bin is also available with a (lid in lid) option available direct from Egbert Taylor. This option is ideal for elderly or disabled residents as it allows them to use the 1100 bin without lifting the heavy large lid, it features a smaller lid built in that is far lighter and easy to use. See *section 6.3*



Appendix II
Recycling Bags Sizes & Photo



The flats bag dimensions 44cm height and 44cm wide

Digi Lock



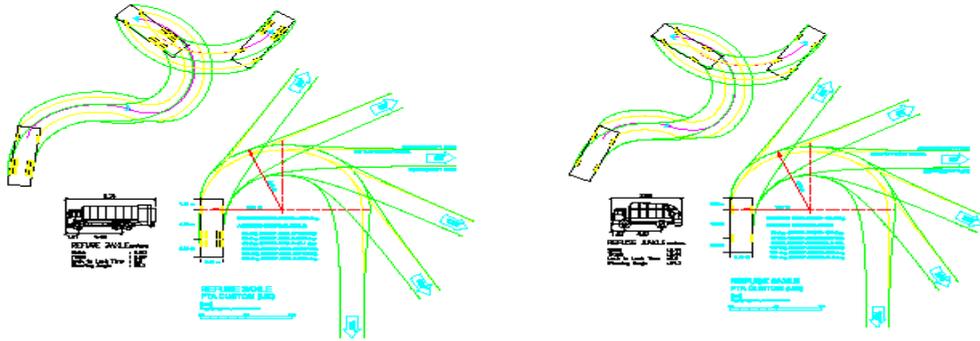
Appendix III
Example of bin store with poor access for both residents and/or collection teams



Picture 1: Example of bin stores with good access for both residents and collection team



Appendix IV Refuse Collection Vehicle Tracking Path

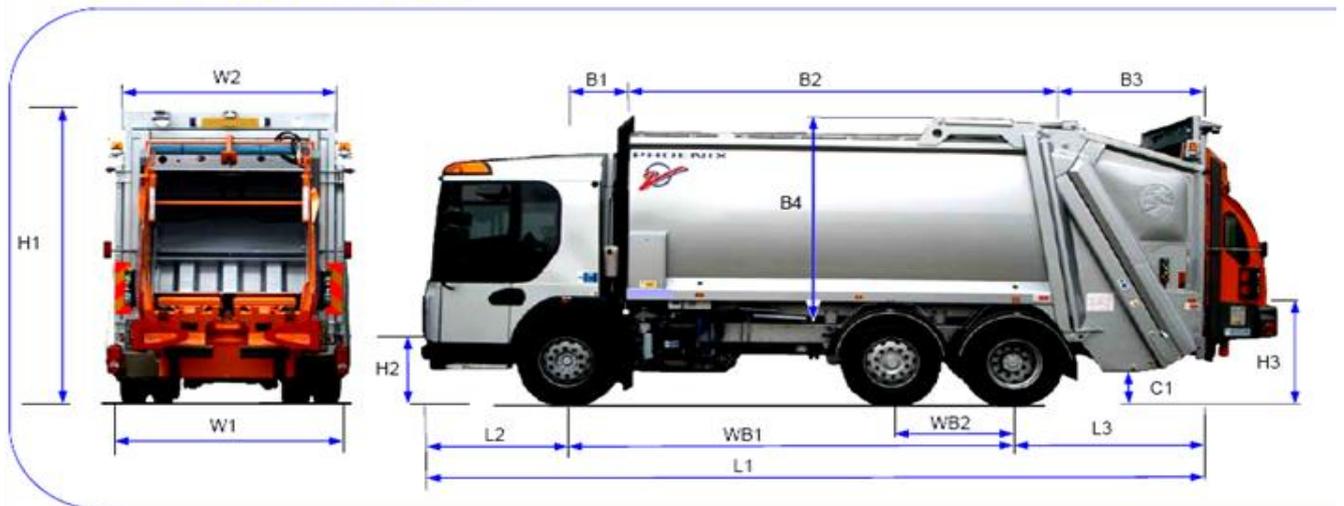


Appendix V Recycling banks



Phoenix 2 Series - Smooth Body RCV 6 x 2 Narrow ML

EURO 5i - NARROW TRACK



Vehicle Model	Phoenix 2-12N 6x2 ML	Phoenix 2-15N 6x2 ML	Phoenix 2-17N 6x2 ML
Compacting body volume (m ³)	14.31	16.93	19.35
Chassis type	Elite 2 6x2 Mid Lift	Elite 2 6x2 Mid Lift	Elite 2 6x2 Mid Lift
Maximum GVW (kgs)	22000	24000	26000
Unladen weight - no options (kgs) (a)	11800	12120	12540
Front axle plated weight	7100 kgs	7100 kgs *	8000 kgs
Rear bogie plated weight	16000 kgs	17800 kgs	18600 kgs #
WB1 Wheelbase	4050	4700	5200
WB2 Axle 2 to 3	1214	1318	1318
TWB Theoretical wheelbase for model as shown	3708	4233	4696
L1 Overall length (excluding binlift)	7840	8490	9090
Overall length - tailgate raised	8970	9620	10220
L2 Front overhang		1665	
L3 Rear overhang	2125	2125	2225
Rear overhang - tailgate raised		3255	
W1 Overall width		2250	
W2 Width inside hopper		1900	
H1 Overall height at exhaust tip (nominal)		3500	
Overall height - tailgate raised		5050	
Overall height - at RCV body		3420	
H2 Floor height (inside cab)		790	
H3 Manual loading height - open-back		1050	
B1 Axle 1 to front of RCV body		650	
B2 Body floor length	4010	4660	5260
B3 Tailgate length		1515	
B4 RCV body height from chassis		2455	
C1 Ground clearance - rear unladen		410	
Approach angle		15.5°	
Departure angle		16°	
Turning circle - metres (b)	15.7	17.9	21.1

- (a) Typical bin-lifting equipment will add up to 900kg
 (b) Turning circles quoted are kerb-to-kerb with standard tyres, for wall-to-wall figures add 1600mm.
 * Front axle optional plating at 8000kg with 315/80R 22.5 tyres.
 # Rear air suspension required above 18000 kg plating.

NOTE: Unless otherwise stated, all dimensions are nominal, in mm and represent an unladen condition. All specifications are subject to manufacturers tolerances. An allowance of +/- 2% should be made for all weights. All weights are in kgs and include AdBlue, 50 litres of fuel, oil and water. Additional equipment may alter dimensions and weights quoted. Weight data is based on Volvo D7E engine and Allison MD3000 series gearbox.

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