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CITROEN SITE, BRENTFORD

WASTE MANAGEMENT STRATEGY UPDATE

MAY 2018

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L&Q

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1 INTRODUCTION

1.1 APPOINTMENT

1.1.1 WSP has been commissioned by L&Q to prepare an updated Waste Management Strategy for the planning application for the Citroen Site, Brentford which is located in the London Borough of Hounslow (LBH) (hereafter referred to as the 'Proposed Development').

1.1.2 This Waste Management Strategy revises and supersedes the Waste Management Strategy prepared by WSP in September 2017 for the Proposed Development (planning application number 01508/A/P6). This is due to a number of amendments made to the original scheme since planning submission, including increasing the height of Core 3 by 2 storeys and the number of units increasing from 427 to 441.

1.1.3 This Waste Management Strategy considers the potential impacts that may arise from waste generated during the operational phase with the overall aim of developing a strategy for legislative compliance and good practice in the separation, storage, collection, treatment and/or disposal of waste arising.

1.2 SITE LOCATION

The site is located on the northern side of the South Circular Road with Capital Interchange flanking the south-western and north-western edges. The site is bounded by Fountain Leisure Centre to the south-east and a car dealership to the north-east.

1.3 PROPOSED DEVELOPMENT

1.3.1 Redevelopment of the site to provide a mixed use scheme of 441 residential units (Class C3) including 50% affordable housing with ancillary facilities, flexible uses within classes (Class A1, A2, A3 and B1) and a nursery (Class D1). Comprising buildings of 12, 13, 16, 17 and 18 storeys in height, with associated cycle parking, car parking, playspace, landscaping and public realm improvements.

1.4 STRATEGY AIMS

1.4.1 The aim of this strategy is to consider the key issues associated with sustainable management of waste at the Proposed Development during the operational phase, with particular reference to:

- Identifying procedures and processes that should be adopted that will encourage tenants to maximise the recycling and recovery of waste and thereby minimising disposal, in line with Government policy;
- Identifying opportunities for waste segregation and the transfer of waste to appropriate processing facilities; and
- Producing a flexible waste strategy that can adapt to future recycling markets and developing regulatory control.

1.5 METHODOLOGY

1.5.1 The development of this strategy has involved a number of tasks including:

- A desk-top review to collate information relating to waste generation, collection and disposal options;
- Review of LBH waste management requirements and identification of any forthcoming policy changes for developments in the area;
- A review of available and accessible planning and policy guidance information; and
- Identification of opportunities for reuse and recycling during the operational phase of the Proposed Development.

2 WASTE LEGISLATION, POLICY AND GUIDANCE

2.1 INTRODUCTION

2.1.1 The development and implementation of European Union (EU) waste policy and legislation is delivered by EU Directives e.g. Landfill Directive, Waste Electrical and Electronic Equipment Directive etc. Member States must implement the policy drivers and requirements of these Directives through national legislation.

2.1.2 The revised Waste Framework Directive (rWFD) is a unique EU Directive because it clarifies the definition of 'waste' and of other concepts such as 'recycling' and 'recovery'. It implements a revised Waste Hierarchy, expands the 'polluter pays' principle by emphasising producer responsibility and applies more stringent waste reduction and waste management targets for Member States. It also requires Member States to take measures to promote high quality recycling and to set up separate collections of paper, plastic, metal and glass.

2.1.3 This section contains focusses on the details of the national legislation that is relevant to the Proposed Development, much of which is influenced by the rWFD. National, London and local waste policy and guidance reviewed during the preparation of this Waste Management Strategy are listed below.

2.2 NATIONAL LEGISLATION

2.2.1 A list of relevant items of national waste legislation is outlined below in reverse chronological order:

- **Waste Management, The Duty of Care Code of Practice (2016 update) -** This code of practice replaces the 1996 Code and is pursuant to Section 34(9) of the Environmental Protection Act 1990. It sets out practical guidance on how to meet waste duty of care requirements and is admissible as evidence in legal proceedings i.e. its rules will be taken into account where relevant in any case based on breach of the duty of care.

- **The Waste (England and Wales) Regulations 2011 (as amended) -** From 1 January 2015, waste collection authorities must collect waste paper, metal, plastic and glass separately. It also imposes a duty on waste collection authorities, from that date, when making arrangements for the collection of such waste, to ensure that those arrangements are by way of separate collection.

- **Environmental Permitting (England and Wales) Regulations 2010 (as amended) –** These regulations require organisations that manage waste to apply for an environmental permit or relevant exemption. Collecting and storing waste apply. However, exemptions from permitting exist for certain low risk activities, including Non Waste Framework Directive (NWFD) exemptions. The most commonly used is NWFD2 which allows a waste producer to temporarily store any waste at the place of production before it's collected.

- **Environmental Protection Act 1990 -** Part II of the act was originally implemented by the Duty of Care Regulations 1991. The Duty of Care is a legal requirement for those dealing with certain kinds of waste to take all reasonable steps to keep it safe and is set out in Section 34 of the Act. The Waste (England and Wales) Regulations 2011 repealed the Environmental Protection (Duty of Care) Regulations 1991 and apply the Duty of Care requirements brought in by the Environmental Protection Act 1990.

2.3 NATIONAL, LONDON & LOCAL WASTE POLICY

2.3.1 The relevant existing and emerging national, London and local waste policy that was reviewed during the preparation of this Waste Management Strategy is outlined below and further detail provided in **Appendix A**:

- National Planning Policy Framework (2012);
- National Planning Policy for Waste (2014);
- Waste Management Plan for England (2013);
- London's Wasted Resource: The Mayor's Municipal Waste Management Strategy (2011)
- Making Business Sense of Waste: The Mayor's Business Waste Strategy for London (2011);
- The London Plan: Spatial Development Strategy for London Consolidated with Alterations since 2011 (2016);
- Draft New London Plan (2017);
- LBH, Local Plan (2015); and
- LBH, Guidance for Planning Applications: Recycling and Non-Recycling Provision for New Developments within the London Borough of Hounslow for Residential and Commercial Sites Supplementary Guidance Document (2012).

  NOTE: The waste generation metrics used in the waste management strategy are based on updated metrics provided by Yassin Hussein via email on 28th July 2017 – refer to ***Appendix B****.*

3 MANAGEMENT OF OPERATIONAL WASTE – HOUSEHOLD

3.1 INTRODUCTION

3.1.1 This section outlines the strategy which will be adopted to successfully manage the household waste arising from the Proposed Development once operational.

3.2 WASTE GENERATION METRICS (FLAT DEVELOPMENT)

Estimated residential waste generation levels from the flats within the Proposed Development have been quantified based on weekly waste generation metrics provided by the waste officers (Yassin Hussein) at LBH.

3.2.1 **Table 3-1** summarises the waste generation metric for residual waste.

Table 3-1: Waste Generation Metric (Residual Waste)

WASTE STREAM	METRIC
Residual Waste	Total Number of Bedrooms / 15 = Total Number of 1,100 Litre Bins

3.2.2 **Table 3-2** summarises the waste generation metrics for recyclable wastes.

Table 3-2: Waste Generation Metrics (Recyclables)

WASTE STREAM	NUMBER OF BEDROOMS	CARD / PAPER	PLASTIC / CANS	GLASS
Recyclables	7 – 12	1 x 240 Litre	1 x 240 Litre	1 x 240 Litre
	12 – 20	1 x 240/360 Litre	1 x 240/360 Litre	1 x 240/360 Litre
	21 – 35	1 x 1100 Litre	1 x 1100 Litre	1 x 1,100 Litre
	36 – 50	2 x 1100 Litre	2 x 1100 Litre	1 x 1,100 Litre
	50+	To be Agreed with the Developer		

3.2.3 In addition to the waste metrics outlined in **Tables 3-1** and **3-2**, LBH requested that each waste storage area has sufficient space to accommodate additional bins to accommodate future additional recycling streams such as food waste.

3.2.4 LBH don't provide specific waste metrics to calculate the additional space requirement. Therefore WSP has assumed the following waste metric for food waste.

3.2.5 **Table 3-3** summarises the waste generation metrics for recyclable wastes.

Table 3-3: Waste Generation Metrics (Additional Space)

WASTE STREAM	WASTE METRIC
Food Waste	12.5 Litres per Property

3.3 WASTE STORAGE REQUIREMENTS (HOUSES)

The individual houses within the Proposed Development will be provided with the waste containers outlined on LBH's website.

3.3.1 **Table 3-4** summarises the waste containers required for each individual house.

Table 3-4: Waste Container Requirements[1]

WASTE STREAM	CONTAINER TYPE / CAPACITY	WASTE STREAM
Residual Waste	140 Litre Wheeled Bin*	Non-recyclable wastes
Recycling Box (Red)	55 Litre Box	Plastic and metal cans
Recycling Box (Blue)	55 Litre Box	Cardboard and paper
Recycling Box (Green)	55 Litre Box	Glass bottle and jars
Small WEEE	Carrier Bag	Small electrical items
Textiles	Carrier Bag	Clothes and other textiles
Food Waste	25 Litre Caddy	Bio-degradable kitchen/food waste
Garden Waste*	Wheeled Bin/90 Litre Reusable Bags	Bio-degradable garden waste

* *Residents can apply for a 240 litre wheeled bin where the 140 litre bin is too small to store their waste for a fortnight.*

** *Garden waste is a chargeable service that residents need to opt into.*

As the individual houses don't have large gardens, it is assumed that garden waste will not be collection from the residents.

3.4 WASTE GENERATION MODEL

3.4.1 Based on the residual waste metric in **Table 3-1**, **Table 3-5** outlines the number and types of bins that will be required, assuming a **weekly collection**.

[1] Information sourced from LBH's website - https://www.hounslow.gov.uk/info/20128/

Table 3-5: Estimated Weekly Household Residual Waste Arising per Core (Flat Development)

WASTE STORE LOCATION	BEDROOMS	TOTAL UNITS (NO.)	TOTAL BEDROOMS (NO.)	1,100 LITRE EUROBINS (NO.)
Core 1	1	39	39	
	2	53	106	
	3	11	33	
	TOTAL (No.)	**103**	**178**	**12**
Core 2	1	28	28	
	2	38	76	
	3	0	0	
	TOTAL (No.)	**66**	**104**	**7**
Core 3	1	61	61	
	2	47	94	
	3	0	0	
	TOTAL (No.)	**108**	**155**	**11**
Core 4	1	13	13	
	2	37	74	
	3	11	33	
	TOTAL (No.)	**61**	**120**	**8**
Core 5	1	49	49	
	2	49*	98	
	3	0	0	
	TOTAL (No.)	**98**	**147**	**10**

* 5 No. individual houses removed from the accommodation schedule

3.4.2 The location of the cores outlined in **Table 3-5** are shown in **Figure 3-1**.

Figure 3-1: Core Locations

3.4.3 Based on the recyclables waste metrics in **Table 3-2**, **Table 3-6** outlines the number and types of bins that will be required, assuming a **weekly collection**.

3.4.4 It should be noted that in addition to the recyclables waste metrics outlined (**Table 3.2**), the number of bins summarised in **Table 3-6** has also been validated against guidance provided by Yassin Hussein to Michael Berney on 28th July 2017 for a similar project in LBH. The guidance provided is shown in **Appendix B**.

Table 3-6: Estimated Weekly Recyclables Storage Requirements (per Core)

WASTE STORE LOCATION	BEDROOMS	TOTAL UNITS (NO.)	TOTAL BEDROOMS (NO.)	CARD / PAPER	PLASTICS / CAN	GLASS
				1,100 LITRE EUROBIN (NO.)	1,100 LITRE EUROBIN (NO.)	1,100 LITRE EUROBIN (NO.)
Core 1	1	39	39			
	2	53	106			
	3	11	33			
	TOTAL (No.)	**103**	**178**	**6**	**6**	**3**
Core 2	1	28	28			
	2	38	76			
	3	0	0			
	TOTAL (No.)	**66**	**104**	**4**	**4**	**2**
Core 3	1	61	61			
	2	47	94			
	3	0	0			
	TOTAL (No.)	**108**	**155**	**5**	**5**	**3**
Core 4	1	13	13			
	2	37	74			
	3	11	33			
	TOTAL (No.)	**61**	**120**	**5**	**5**	**3**
Core 5	1	49	49			
	2	49*	98			
	3	0	0			
	TOTAL (No.)	**98**	**147**	**6**	**6**	**3**

* 5 No. individual houses removed from the accommodation schedule

3.4.5 In addition to the waste streams shown above, LBH also require additional space to be provided for future enhancements to the waste collection process, but don't provide any guidance on how to assess this requirement.

3.4.6 WSP has therefore used the waste metrics in **Table 3-3** assuming that the additional space will be used for food waste collections. **Table 3-7** outlines the estimated household food waste arising per core, and the number and type of bins that will be required, assuming a **weekly collection**.

Table 3-7: Estimated Weekly Food Waste Storage Requirements (per Core)

WASTE STORE LOCATION	BEDROOMS	TOTAL UNITS (NO.)	FOOD WASTE 240 LITRE WHEELED BIN (LITRES)
Core 1	1	39	
	2	53	
	3	11	
	TOTAL (No.)	**103**	**6**
Core 2	1	28	
	2	38	
	3	0	
	TOTAL (No.)	**66**	**4**
Core 3	1	61	
	2	47	
	3	0	
TOTAL (No.)		**108**	**6**
Core 4	1	13	
	2	37	
	3	11	
	TOTAL (No.)	**61**	**4**
Core 5	1	49	
	2	49	
	3	0	
	TOTAL (No.)	**98**	**6**

3.5 PROPOSED HOUSEHOLD WASTE MANAGEMENT STRATEGY – GENERAL

3.5.1 The proposed household waste management strategy has been prepared to provide a high quality service to the tenants whilst also complying with the Guidance.

3.5.2 The strategy has been split into the following sections:

- Individual Residential Properties (**Section 3.6**);
- Waste Storage Areas (Flat Development) (**Section 3.7**);
- Waste Storage Areas (Individual Houses) (**Section 3.8**);

- Waste Collection (Flat Development) (**Section 3.9**);
- Waste Collection (Individual Houses) (**Section 3.10**); and
- Bulky Waste (**Section 3.11**).

3.6 INDIVIDUAL RESIDENTIAL PROPERTIES

3.6.1 Each residential property regardless of style (i.e. flat or house) will be provided with a segregated waste bin, which will be fixed into an appropriate kitchen unit.

3.6.2 The segregated waste bin will contain sufficient individual receptacles to allow the segregation of the waste in accordance with the Guidance.

3.6.3 An example of a suitable segregated waste bin is shown in **Figure 3-2**.

Figure 3-2: Example Segregated Waste Bin[2]

3.6.4 In addition each residential property will be provided with a 'Store and Sort Sack' which are provided free of change by LBH.

3.6.5 It is assumed that LBH will provide each residential property with a suitable 7 litre food waste caddy prior to the commencement of a future food waste collection service.

3.7 WASTE STORAGE AREAS (FLAT DEVELOPMENT)

3.7.1 Each of the following sections outlines the waste management strategy for the waste storage areas located in Cores 1, 2, 3, 4 and 5. The waste management strategy for the individual houses is outlined in **Section 3.8**.

3.7.2 The locations of each of the waste storage areas provided for the flat development (Cores 1 to 5) are shown in **Figure 3-1**.

[2] The Code Store: http://www.thecodestore.co.uk/shop/details/277/213/waste/was1-storage-of-non-recyclable-waste-and-recyclable-household-waste/built-in-kitchen-bins/code-48-litre-city-pull-out-waste-bin,-4-x-12-litres.html

CORE 1 WASTE STORAGE AREA

3.7.3 It is proposed that a waste storage area will be provided at ground floor level (refer to **Figure 3-1**) to Core 1. This waste storage area will be the location that all household residual waste and recyclables generated from the flats serviced by Core 1 will be stored prior to collection.

3.7.4 Based on the Guidance, the unit mix, and the waste generation levels of residual waste, recyclables and food waste outlined in **Table 3-5** to **3-7** above, **Table 3-8** outlines the number and types of bins that will be required to store a week's waste.

Table 3-8: Core 1 Waste Storage Area – Bin Provision

WASTE STREAM	RESIDUAL WASTE	RECYCLABLES	
	1,100 Litre Eurobins (No.)	1,100 Litre Eurobins (No.)	240 Litre Eurobins (No.)
Residual Waste	12		
Cardboard/Paper		6	
Plastics/Cans		6	
Glass		3	
Food			6

3.7.5 The dimensions of the proposed bins are shown in **Table 3-9** below.

Table 3-9: Bin Dimensions

BIN CAPACITY (LITRES)	WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)
1,100 Litre Eurobin	1,260	980	1,370
240 Litre Wheeled Bin	580	740	1,100

* *All dimensions are based on technical information obtained from Taylor UK (http://taylorbins.co.uk/).*

3.7.6 It is proposed that the waste storage area within Core 1 will have sufficient space to accommodate the numbers of bins shown in **Table 3-8** above.

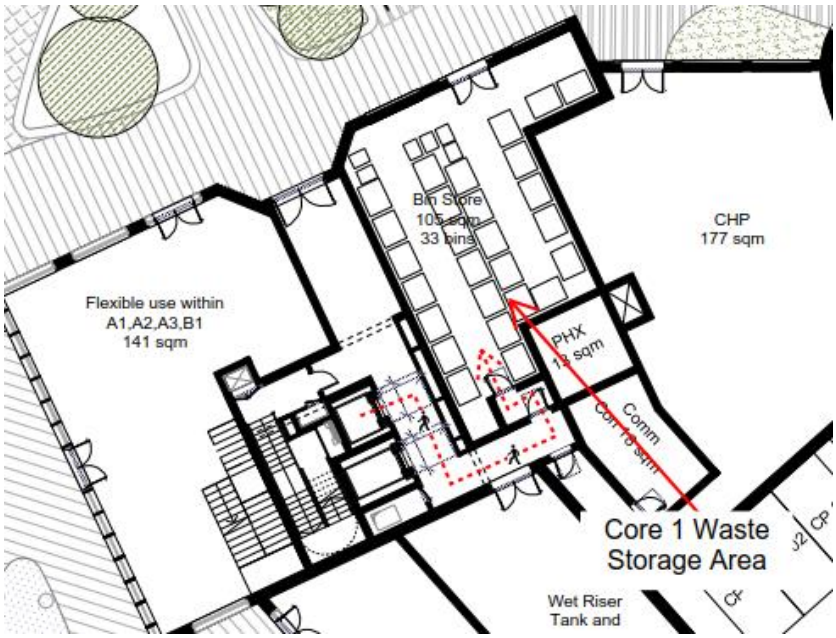
3.7.7 Residents will be required to transport their waste from their individual apartments directly to the waste storage area using the residential passenger lifts.

3.7.8 The architects have confirmed that each apartment is within 30m (excluding vertical distance) of the waste storage area.

3.7.9 Once in the waste storage area, the residents will be required to segregate their waste into the appropriately labelled bins.

3.7.10 The layout of, and the residents access route to the proposed Core 1 waste storage area is shown in **Figure 3-3**.

Figure 3-3: Layout of the Core 1 Waste Storage Area



3.7.11 The waste storage area shall be designed to BS5906:2005 – Waste Management in Buildings Code of Practice. In summary the facility should include the following:

- A suitable water point should be provided in close proximity to allow washing down;
- All surfaces shall be sealed with a suitable wash proof finish;
- All surface shall be easy to clean;
- Suitable floor drainage shall be provided; and
- Suitable lighting and ventilation shall be provided.

CORE 2 WASTE STORAGE AREA

3.7.12 It is proposed that a waste storage area will be provided at ground floor level (refer to **Figure 3-1**) to service Core 2. This waste storage area will be the location that all household residual waste and recyclables generated from the flats serviced by Core 2 will be stored prior to collection.

3.7.13 Based on the Guidance, the unit mix, and the waste generation levels of residual waste, recyclables and food waste outlined in **Table 3-5** to **3-7** above, **Table 3-10** outlines the number and types of bins that will be required to store a week's waste.

Table 3-10: Core 2 Waste Storage Area – Bin Provision

WASTE STREAM	RESIDUAL WASTE	RECYCLABLES	
	1,100 Litre Eurobins (No.)	1,100 Litre Eurobins (No.)	240 Litre Eurobins (No.)
Residual Waste	7		
Cardboard/Paper		4	
Plastics/Cans		4	
Glass		2	
Food			4

3.7.14 The dimensions of the various bins are shown in **Table 3-9** above.

3.7.15 It is proposed that the waste storage area within Core 2 will have sufficient space to accommodate the numbers of bins shown in **Table 3-10** above.

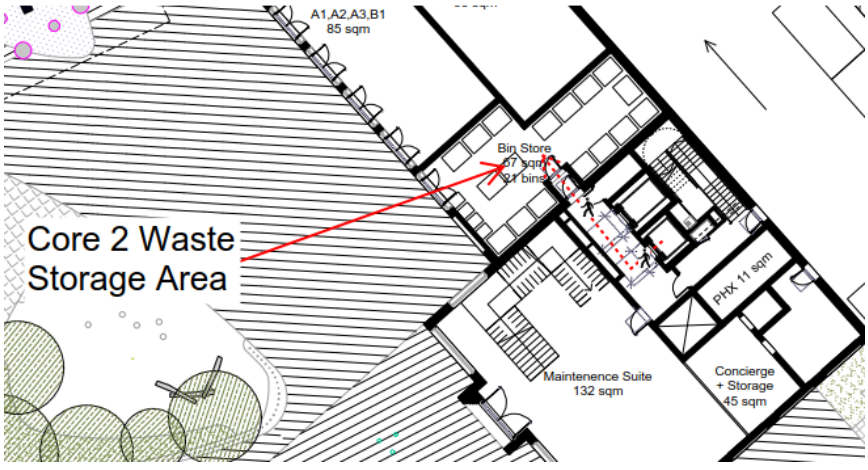
3.7.16 Residents will be required to transport their waste from their individual apartments directly to the waste storage area using the residential passenger lifts.

3.7.17 The architects have confirmed that each apartment is within 30m (excluding vertical distance) of the waste storage area.

3.7.18 Once in the waste storage area, the residents will be required to segregate their waste into the appropriately labelled bins.

3.7.19 The layout of, and the residents access route to the proposed Core 2 waste storage area is shown in **Figure 3-4**.

Figure 3-4: Layout of the Core 2 Waste Storage Area



3.7.20 The waste storage area shall be designed to BS5906:2005 – Waste Management in Buildings Code of Practice. In summary the facility should include the following:

- A suitable water point should be provided in close proximity to allow washing down;

- All surfaces shall be sealed with a suitable wash proof finish;
- All surface shall be easy to clean;
- Suitable floor drainage shall be provided; and
- Suitable lighting and ventilation shall be provided.

CORE 3 WASTE STORAGE AREA

3.7.21 It is proposed that a waste storage area will be provided at ground floor level (refer to **Figure 3-1**) to service Core 3. This waste storage area will be the location that all household residual waste and recyclables generated from the flats serviced by Core 3 will be stored prior to collection.

3.7.22 Based on the Guidance and the unit mix, and the waste generation levels of residual waste, recyclables and food waste outlined in **Table 3-5** to **3-7** above, **Table 3-11** outlines the number and types of bins that will be required to store a week's waste.

Table 3-11: Core 3 Waste Storage Area – Bin Provision

WASTE STREAM	RESIDUAL WASTE	RECYCLABLES	
	1,100 Litre Eurobins (No.)	1,100 Litre Eurobins (No.)	240 Litre Eurobins (No.)
Residual Waste	11		
Cardboard/Paper		5	
Plastics/Cans		5	
Glass		3	
Food			6

3.7.23 The dimensions of the various bins are shown in **Table 3-9** above.

3.7.24 It is proposed that the waste storage area within Core 3 will have sufficient space to accommodate the numbers of bins shown in **Table 3-11** above.

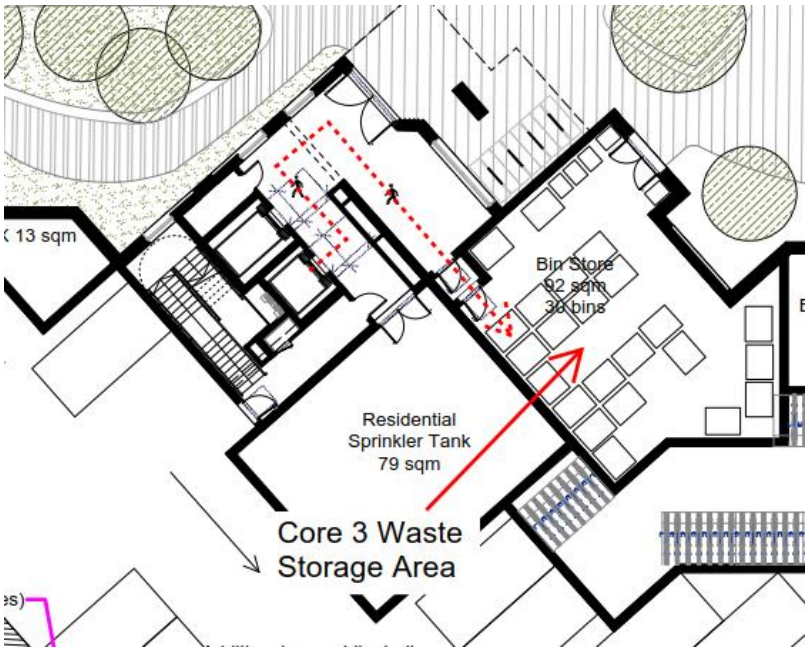
3.7.25 Residents will be required to transport their waste from their individual apartments directly to the waste storage area using the residential passenger lifts.

3.7.26 The architects have confirmed that each apartment is within 30m (excluding vertical distance) of the waste storage area.

3.7.27 Once in the waste storage area, the residents will be required to segregate their waste into the appropriately labelled bins.

3.7.28 The layout of, and the residents access route to the proposed Core 3 waste storage area is shown in **Figure 3-5**.

Figure 3-5: Layout of the Core 3 Waste Storage Area



3.7.29 The waste storage area shall be designed to BS5906:2005 – Waste Management in Buildings Code of Practice. In summary the facility should include the following:

- A suitable water point should be provided in close proximity to allow washing down;
- All surfaces shall be sealed with a suitable wash proof finish;
- All surface shall be easy to clean;
- Suitable floor drainage shall be provided; and
- Suitable lighting and ventilation shall be provided.

CORE 4 WASTE STORAGE AREA

3.7.30 It is proposed that a waste storage area will be provided at ground floor level (refer to **Figure 3-1**) to service Core 4. This waste storage area will be the location that all household residual waste and recyclables generated from the flats serviced by Core 4 will be stored prior to collection.

3.7.31 Based on the Guidance and the unit mix, and the waste generation levels of residual waste, recyclables and food waste outlined in **Table 3-5** to **3-7** above, **Table 3-12** outlines the number and types of bins that will be required to store a week's waste.

Table 3-12: Core 4 Waste Storage Area – Bin Provision

WASTE STREAM	RESIDUAL WASTE	RECYCLABLES	
	1,100 Litre Eurobins (No.)	1,100 Litre Eurobins (No.)	240 Litre Eurobins (No.)
Residual Waste	8		
Cardboard/Paper		5	
Plastics/Cans		5	
Glass		3	
Food			4

3.7.32 The dimensions of the various bins are shown in **Table 3-9** above.

3.7.33 It is proposed that the waste storage area within Core 4 will have sufficient space to accommodate the numbers of bins shown in **Table 3-12** above.

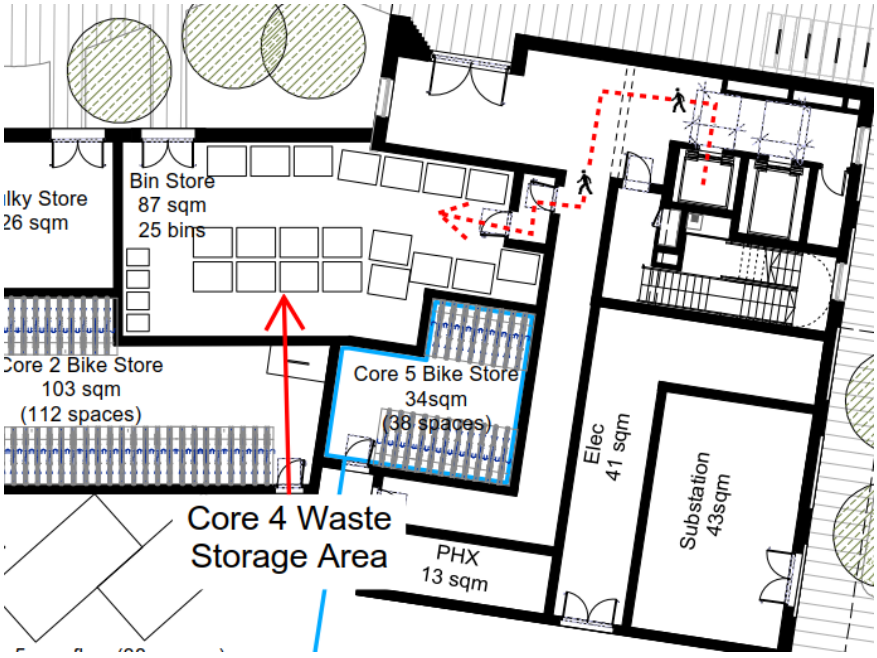
3.7.34 Residents will be required to transport their waste from their individual apartments directly to the waste storage area using the residential passenger lifts.

3.7.35 The architects have confirmed that each apartment is within 30m (excluding vertical distance) of the waste storage area.

3.7.36 Once in the waste storage area, the residents will be required to segregate their waste into the appropriately labelled bins.

3.7.37 The layout of, and the residents access route to the proposed Core 4 waste storage area is shown in **Figure 3-6**.

Figure 3-6: Layout of the Core 4 Waste Storage Area



3.7.38 The waste storage area shall be designed to BS5906:2005 – Waste Management in Buildings Code of Practice. In summary the facility should include the following:

- A suitable water point should be provided in close proximity to allow washing down;
- All surfaces shall be sealed with a suitable wash proof finish;
- All surface shall be easy to clean;
- Suitable floor drainage shall be provided; and
- Suitable lighting and ventilation shall be provided.

CORE 5 WASTE STORAGE AREA

3.7.39 It is proposed that a waste storage area will be provided at ground floor level (refer to **Figure 3-1**) to service Core 5. This waste storage area will be the location that all household residual waste and recyclables generated from the flats serviced by Core 5 will be stored prior to collection.

3.7.40 Based on the Guidance and the unit mix, and the waste generation levels of residual waste, recyclables and food waste outlined in **Table 3-5** to **3-7** above, **Table 3-13** outlines the number and types of bins that will be required to store a week's waste.

Table 3-13: Core 5 Waste Storage Area – Bin Provision

WASTE STREAM	RESIDUAL WASTE	RECYCLABLES	
	1,100 Litre Eurobins (No.)	1,100 Litre Eurobins (No.)	240 Litre Eurobins (No.)
Residual Waste	10		
Cardboard/Paper		6	
Plastics/Cans		6	
Glass		3	
Food			6

3.7.41 The dimensions of the various bins are shown in **Table 3-9** above.

3.7.42 It is proposed that the waste storage area within Core 5 will have sufficient space to accommodate the numbers of bins shown in **Table 3-13** above.

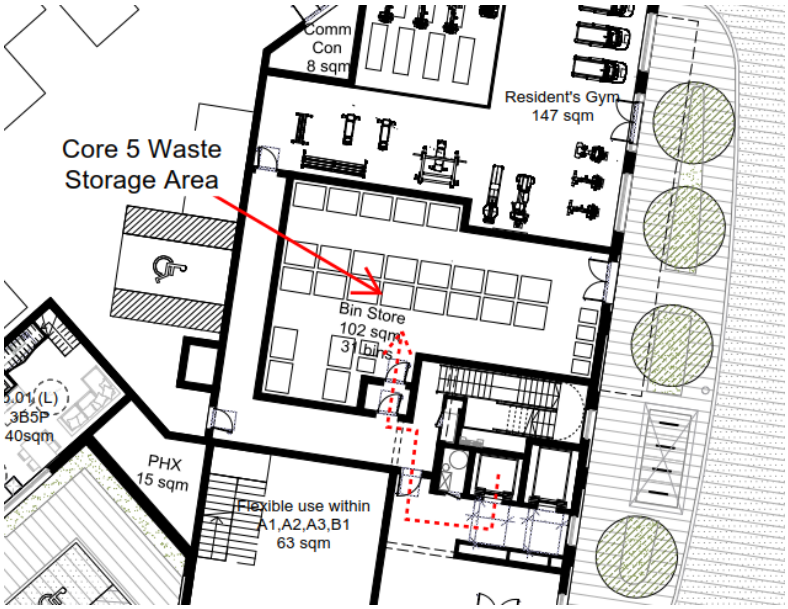
3.7.43 Residents will be required to transport their waste from their individual apartments directly to the waste storage area using the residential passenger lifts.

3.7.44 The architects have confirmed that each apartment is within 30m (excluding vertical distance) of the waste storage area.

3.7.45 Once in the waste storage area, the residents will be required to segregate their waste into the appropriately labelled bins.

3.7.46 The layout of, and the residents access route to the proposed Core 5 waste storage area is shown in **Figure 3-7**.

Figure 3-7: Layout of the Core 5 Waste Storage Area



3.7.47 The waste storage area shall be designed to BS5906:2005 – Waste Management in Buildings Code of Practice. In summary the facility should include the following:

- A suitable water point should be provided in close proximity to allow washing down;
- All surfaces shall be sealed with a suitable wash proof finish;
- All surface shall be easy to clean;
- Suitable floor drainage shall be provided; and
- Suitable lighting and ventilation shall be provided.

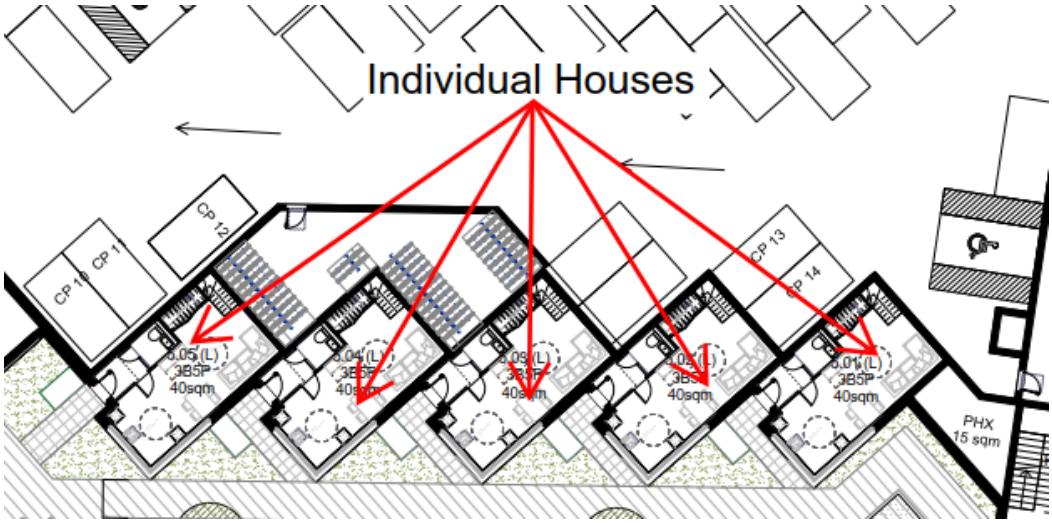
3.8 WASTE STORAGE AREAS (HOUSES)

3.8.1 Each of the five houses will be provided with a dedicated waste facility that complies with LBH's requirements as detailed in **Table 3-4**.

3.8.2 Each of the individual houses only has a small external space and therefore it is not proposed to provide waste storage facilities for garden waste.

3.8.3 The locations of the houses are shown in **Figure 3-8**.

Figure 3-8: Individual Houses Locations



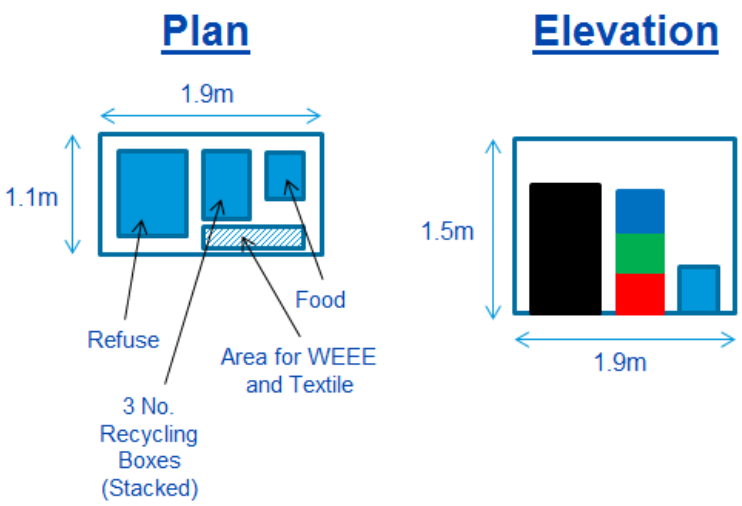
3.8.4 The bin, boxes and bags will be stored in a suitable enclosure which will be provided within the front garden of each house.

3.8.5 It should be noted that each residential property will be provided with a 140 litre wheeled bin for residual waste, but can apply to LBH for a larger 240 litre wheeled bin where they can demonstrate that the smaller bin is too small to store a fortnights waste. It therefore proposed that the enclosure shall be design to accommodate a 240 litre wheeled bin for residual waste.

3.8.6 The proposed enclosure shall be secure and will screen the area from public view, but will be easily accessible for the waste collection crew.

3.8.7 The approximate dimensions of the enclosure are shown in **Figure 3-9**.

Figure 3-9: Waste Enclosure Dimensions



3.9 WASTE COLLECTION (FLAT DEVELOPMENT)

3.9.1 The LBH's waste management contractor will collect the residual waste and recyclables directly from each of the Core waste stores using the loading bays provided on Capital Interchange Way and the new service road within the Proposed Development.

3.9.2 The servicing plan confirms that: '*The development will contain two on-site servicing and delivery bays that are located near the core internal refuse storage areas and access points, and three on-street bays as agreed with London Borough of Hounslow (LBH). The access road has been designed to accommodate a Hounslow Council Refuse vehicle'*

3.9.3 **Table 3-14** summarises the walking distances between the access door to each of the core waste stores and the nominated loading bays.

Table 3-14: Walking Distances – Waste Store to Loading Bays

WASTE STORE REFERENCE	WALKING DISTANCE
Core 1	16m
Core 2	22m
Core 3	11m
Core 4	16m
Core 5	13m

3.9.4 The walking distance from each of the waste stores exceeds the maximum walking distances stated within the Guidance. The design team have reviewed the scheme and have confirmed that these cannot be reduced without compromising the design principals encouraged by both the GLA and the LBH planning team, to provide a large landscaped public square and setbacks from the adjacent streets including Capital Interchange Way.

3.9.5 The locations of the loading bays are shown in **Figure 3-10**.

Figure 3-10: Loading Bay Locations (Flat Development)

3.9.6 Once the bins have been emptied the LBH collection crew will return the bins to the core waste storage areas.

3.10 WASTE COLLECTION (HOUSES)

3.10.1 The LBH's waste management contractor will collect the residual waste and recyclables directly from each of the dedicated waste storage areas provided for the houses.

3.10.2 It is not proposed to provide a loading bay for the collection of waste from the houses as it is assumed that LBH will operate a normal kerbside waste collection service where the Refuse Collection Vehicle (RCV) is loaded while proceeding along the highway.

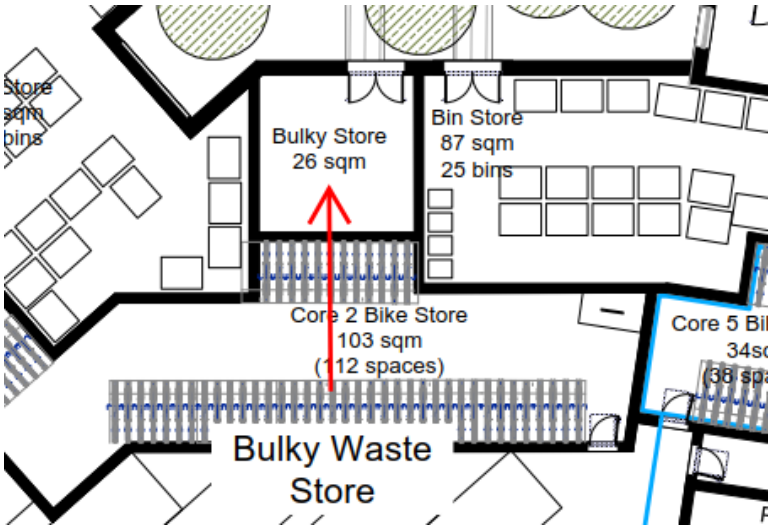
3.10.3 Once the bins have been emptied, the LBH collection crew will return the bins to the dedicated waste storage areas.

3.11 BULKY WASTE

3.11.1 As required by the Guidance a bulky waste store will be provided at ground floor level.

3.11.2 The location of the Bulky Waste Store is shown in **Figure 3-11**.

Figure 3-11: Location of the Bulky Waste Store



3.11.3 The bulky waste store will be for the use of the residents within the flat development only.

3.11.4 In order to minimise the misuse of the bulky waste store, it will be locked and managed by the on-site Facilities Management (FM) team.

3.11.5 Residents will be required to contact the on-site FM team to arrange for the store to be unlocked.

3.11.6 The on-site FM team will require evidence that the resident has paid the appropriate fee to LBH before they will accept the waste.

3.11.7 The LBH waste management contractor will collect the bulky waste directly from the bulky waste store.

4 MANAGEMENT OF OPERATIONAL WASTE – RESIDENTIAL AMENITY SPACE

4.1 INTRODUCTION

4.1.1 This section outlines the strategy which will be adopted to manage the waste arising from the communal residential amenity and the residents' gym (hereafter referred to as Amenity Space) within the Proposed Development once operational.

4.2 WASTE GENERATION MODEL

4.2.1 The proposed Amenity Spaces are located at ground and first floors and are designated for the sole use of the residents.

4.2.2 As the Amenity Spaces are in effect an extension to the residential dwellings within the Proposed Development, it is considered that waste generation levels will be minimal and that the waste will be classified as municipal waste and is therefore included within the residential waste calculations detailed in **Section 3** of this report.

4.3 PROPOSED WASTE MANAGEMENT STRATEGY

4.3.1 Any waste generated within the Amenity Space will be stored in domestic-style waste containers/bins (**Figure 4-1**) within the various amenity areas.

Figure 4-1: Examples of Domestic Style Waste Containers/Bins

4.3.2 The waste will be regularly removed from the bins by the on-site FM team as part of their on-going daily cleaning activities, and will be transported to the local residential waste store where it will be placed in the appropriate bins.

5 MANAGEMENT OF OPERATIONAL WASTE – NON-RESIDENTIAL

5.1 INTRODUCTION

5.1.1 This section outlines the strategy which will be adopted to successfully manage the non-residential waste arising within the Proposed Development once operational.

5.2 WASTE GENERATION MODEL

5.2.1 **Table 5-1** summarises the location and the area of non-residential space within the Proposed Development.

Table 5-1: Proposed Non-Residential Area Schedule

UNIT REFERENCE	LOCATION	LEVEL	USE CLASS	AREA (M^2)
Unit 1	Adjacent Core 1	Ground and First Floor	A1/A2/A3/B1	255
Unit 2	Adjacent Core 2	Ground Floor	A1/A2/A3/B1	85
Unit 3	Adjacent Core 3	Ground and First Floor	D1	250
Unit 4	Adjacent Core 5	Ground and First Floor	A1/A2/A3/B1	139
			TOTAL (m^2)	**729**

5.2.2 **Figure 5-1** shows the location of the non-residential units at ground floor level.

Figure 5-1: Non-Residential Unit Locations

5.2.3 The estimated waste generation levels have been quantified based on a metric for weekly waste generation arising sourced from BS5906:2005 Waste Management in Buildings – Code of Practice. The British Standard stimulates the following waste generation metric (**Table 5-2**).

Table 5-2: BS5906:2005 Waste Generation Metric

WASTE STREAM	WASTE GENERATION METRIC	ASSUMPTIONS
Restaurant (A3)*	75 Litres per Cover	1 Cover per 4 m^2
Nursery (D1)	5 Litres per m^2**	

* *Assumed Worst Case Scenario for A1/A2/A3/B1 Class Uses.*

** *BS5906:2005 does not provide a suitable metric for a nursery. It is therefore proposed to use the metric for an industrial unit.*

5.3 PROPOSED NON-RESIDENTIAL WASTE MANAGEMENT STRATEGY – GENERAL

5.3.1 The general waste strategy for the non-residential units detailed in **Table 5-1** will be as summarised below:

- Each of the tenants will provide a suitable internal waste storage area within their tenanted area that encourages their employees to segregate waste. The materials that are segregated and the method of storage (i.e. co-mingled or source segregated) within the tenanted area will need to reflect the types of waste generated and should include food waste if generated in sufficient quantities.
- Each of the tenants will be responsible for arranging for the collection of their own waste through a suitable waste management contractor. The waste management contractor will collect the waste directly from the tenant's internal waste storage area.

5.4 INTERNAL WASTE STORAGE

5.4.1 Each of the retail/commercial/nursery tenants will be required to provide an internal waste storage area within their tenanted demise.

5.4.2 The processes used to manage the waste that is generated by each tenant will ultimately be their responsibility to develop and implement, but their facilities must be designed to comply with prevailing legislation and guidance.

5.4.3 The internal waste storage areas provided by each tenant shall be provided as part of the units fit-out and should have sufficient capacity to accommodate the waste generated. The size of the internal waste storage areas will depend upon:

- The tenants' business activities;
- The space that they occupy; and
- The frequency that the tenants' appointed waste management contractor will collect the waste.

5.4.4 The internal waste storage areas will be the location that the appointed waste management contractor will collect the waste from.

5.4.5 Based on the areas shown in **Table 5-1** and the waste generation metric shown in **Table 5-2, Table 5-3** summarises the estimated weekly waste arising from each of the non-residential units.

Table 5-3: Estimated Retail Waste Arising (Weekly)

UNIT REFERENCE	USE CLASS	AREA (M^2)	NUMBER OF COVERS*	WASTE GENERATION (LITRES / WEEK)
Unit 1	A1/A2/A3/B1	255	64	4,800
Unit 2	A1/A2/A3/B1	85	21	1,575
Unit 3	D1	250	n/a	1,250
Unit 4	A1/A2/A3/B1	139	35	2,625

* *Assumes 1 Cover per 4 m^2*

5.4.6 **Table 5-4** summarises the number of bins required to store the volume of waste summarised in **Table 5-3** assuming a weekly collection, and that 50% of the total volume of waste will be recyclable materials.

Table 5-4: Proposed Waste Equipment (Weekly Collection)

UNIT REFERENCE	WASTE STREAM	VOLUME (LITRES / WEEK)	TYPE OF CONTAINER / SIZE	CONTAINERS PER WEEK (NO.)
Unit 1	Residual Waste	2,400	1,100 Litre Eurobin	3
	Recycling	2,400	1,100 Litre Eurobin	3
Unit 2	Residual Waste	788	660 Litre Eurobin	1
	Recycling	788	660 Litre Eurobin	1
Unit 3	Residual Waste	625	1,100 Litre Eurobin	1
	Recycling	625	1,100 Litre Eurobin	1
Unit 4	Residual Waste	1,313	660 Litre Eurobin	2
	Recycling	1,313	660 Litre Eurobin	2

5.4.7 It is worth noting that **Table 5-4** assumes all waste will be collected on a weekly basis. The actual collection frequency and number and types of bins will be decided by the individual commercial/retail/nursery tenants based on their actual waste generation levels and the types of waste that they produce.

5.4.8 Where a commercial/retail/nursery tenant produces sufficient food waste to warrant a separate collection, they will be required to provide sufficient 240 litre wheeled bins to store the waste prior to collection.

5.4.9 To ensure that each of the commercial/retail/nursery tenants provides a suitable internal waste storage area with sufficient space to store the required number of bins (including, where relevant food waste), suitable contractual provision will be made within their tenancy agreement requiring that they obtain approval from the developer prior to them commencing fit-out work.

5.5 WASTE COLLECTIONS

5.5.1 Each non-residential tenant's appointed waste management contractors will park their RCV in the nearest layby, and will collect the waste directly from the internal waste storage area within the commercial tenant's unit. The commercial/retail/nursery tenant's will not be permitted to present their waste for collection outside of their demise.

5.5.2 The locations of the laybys are shown in **Figure 5-2**.

Figure 5-2: Layby Locations

6 SUMMARY AND CONCLUSION

6.1 SUMMARY OF THE STRATEGY

HOUSEHOLD WASTE

6.1.1 Residential units will incorporate sufficient internal waste storage containers to promote the separation of recyclable materials at source and will also be provided with a Store and Sort Sack by LBH.

6.1.2 Container numbers have been quantified using residential waste generation metrics provided by the waste officers at LBH.

6.1.3 For the flat development, five household waste storage areas will be provided at ground floor level, each of which will be located in close proximity to each of the service cores.

6.1.4 For the individual houses, each house will be provided with a dedicated waste storage area in their front garden.

6.1.5 Sufficient space within each of the waste storage areas has been provided to accommodate the required number of residual waste and recyclables waste containers. Additional space will be provided for future changes to the council's waste collections services.

6.1.6 Residents will be responsible for transporting their waste from their apartments or houses to their nominated waste store areas at ground floor level, and for separating their recyclables into the appropriate containers.

6.1.7 The LBH's waste management contractor will collect the bins directly from each of the waste storage areas.

RESIDENTIAL AMENITY SPACE

6.1.8 The proposed private residential amenity space will be for the exclusive use of the residents and therefore it is assumed that it will be classified as mixed municipal waste and that these areas will generate minimal waste levels.

6.1.9 Any waste generated within the residential amenity space will be stored in domestic type bins and will be removed by the on-site FM team during cleaning activities and will be taken directly to the nearest main waste storage area for disposal.

RESIDENTIAL BULKY WASTE

6.1.10 A bulky waste storage area will the provided at ground floor level, and will be managed by the on-site FM team.

6.1.11 On the agreed collection day, LBH's waste management contractor will collect the bulky waste directly from the bulky waste store.

NON-RESIDENTIAL WASTE

6.1.12 Each commercial/retail/nursery tenant will be required to provide as part of their fit-out, waste storage area within their demise which have sufficient capacity to store the waste that they generate.

6.1.13 Each tenant will be required to appoint a suitable commercial waste management contractor.

6.1.14 The appointed commercial waste management contractor will be required to collect the waste directly from the tenant's waste storage area. Tenants will not be permitted to present waste for collection outside of their demise.

6.2 CONCLUSION

6.2.1 This Waste Management Strategy has taken into account the need to lessen the overall impact of waste generation through the recycling of materials from the operational phase of the Proposed Development.

6.2.2 The proposals set out in this Strategy meet the requirements of relevant waste policy and follow applicable guidance.

Appendix A

NATIONAL, LONDON AND LOCAL WASTE POLICY & GUIDANCE

National Waste Policy

National Planning Policy Framework (2012)[3]

The National Planning Policy Framework ('the Framework') sets out the Government's economic, environmental and social planning policies for England and provides a framework within which local people and councils can produce local and neighbourhood plans. Most of the existing Planning Policy Statements (PPSs) have been abolished and replaced by 12 'core' planning principles.

Unfortunately, the Framework does not provide much clarity on planning policy for the development of waste infrastructure and states that:

> *'This Framework does not contain specific waste policies, since national waste planning policy will be published as part of the National Waste Prevention Plan for England. However, local authorities preparing waste plans and taking decisions on waste applications should have regard to policies in this Framework so far as relevant'.*

Further guidance is included in the Waste Management Plan for England (2013) which superseded Waste Strategy for England 2007 for these purposes

National Planning Policy for Waste (2014)[4]

The National Planning Policy for Waste replaces 'Planning Policy Statement 10: Planning for Sustainable Waste Management' (PPS 10) and is to be considered alongside other national planning policy for England - such as in the NPPF and the Waste Management Plan for England. As its primary focus is on planning for waste management facilities, it is not considered relevant to the Proposed Development.

Waste Management Plan for England (2013)[5]

The Waste Management Plan for England, published in December 2013, provides an analysis of the current waste management situation in England and fulfils the mandatory requirements of Article 28 of the revised Waste Framework Directive (WFD). The WFD required that Member States ensure that their competent authorities, in this instance Defra, establish one or more waste management plans covering all of their territory.

The Plan does not introduce new policies or change the landscape of how waste is managed in England. Its core aim is to bring current waste management policies under the umbrella of one national plan. It supersedes the previous waste management plan, the Waste Strategy for England 2007.

The mandatory requirements of Article 28 of the revised WFD specify that waste management plans must contain the following information:

---

[3] Department for Communities and Local Government (DCLG) (2012) *National Planning Policy Framework* http://www.communities.gov.uk/documents/planningandbuilding/pdf/2115939.pdf

[4] DCLG (2014) *National Planning Policy for Waste* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf

[5] Department for Environment, Food and Rural Affairs (DEFRA) (2013) *Waste Management Plan for England* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265810/pb14100-waste-management-plan-20131213.pdf

- *'An analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of the revised WFD.*

- *The type, quantity and source of waste generated within the territory, the waste likely to be shipped from or to the national territory, and an evaluation of the development of waste streams in the future;*

- *Existing waste collection schemes and major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste or waste streams addressed by specific Community legislation;*

- *An assessment of the need for new collection schemes, the closure of existing waste installations, additional waste installation infrastructure in accordance with Article 16 (on the proximity principle), and, if necessary, the investments related thereto;*

- *Sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations, if necessary; and*

- *General waste management policies, including planned waste management technologies and methods, or policies for waste posing specific management problems.*

In addition, Schedule 1 to the Waste (England and Wales) Regulations 2011 sets out other obligations for the Plan which have been transposed from the revised WFD. These other obligations include:

- *In pursuance of the objectives and measures in Directive 94/62/EC (on packaging and packaging waste), a chapter on the management of packaging and packaging waste, including measures taken pursuant to Articles 4 and 5 of that Directive.*

- *Measures to promote high quality recycling including the setting up of separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors.*

- *As appropriate, measures to encourage the separate collection of bio-waste with a view to the composting and digestion of bio-waste.*

- *As appropriate, measures to be taken to promote the reuse of products and preparing for reuse activities, in particular -*

    (a) measures to encourage the establishment and support of reuse and repair networks;

    (b) the use of economic instruments;

    (c) the use of procurement criteria; and

    (d) the setting of quantitative objectives.

- *Measures to be taken to ensure that by 2020*

    (a) at least 50% by weight of waste from households is prepared for reuse or recycled.

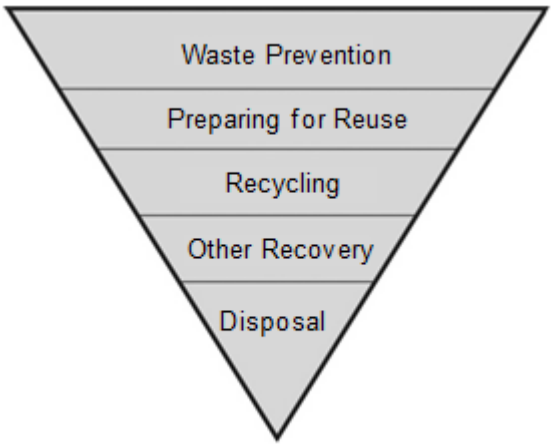
    (b) at least 70% by weight of construction and demolition waste7 is subjected to material recovery.'

Waste Hierarchy

The Waste Hierarchy requires avoidance of waste in the first instance followed by reducing the volume that requires disposal after it has been generated.

It gives an order of preference for waste management options to minimise the volume for disposal, as shown in **Figure A1.1**.

Figure A1.1: The Waste Hierarchy



Source: Waste Framework Directive

The main principles of the Waste Hierarchy are:

- Waste should be prevented or reduced at source as far as possible;
- Where waste cannot be prevented, waste materials or products should be reused directly or refurbished and then reused;
- Waste materials should be recycled or reprocessed into a form that allows them to be reclaimed as a secondary raw material;
- Where useful secondary materials cannot be reclaimed, the energy content of the waste should be recovered and used as a substitute for non-renewable energy resources; and
- Only if waste cannot be prevented, reclaimed or recovered, should it be disposed of into the environment and this should only be undertaken in a controlled manner.

The Waste Hierarchy has been implemented *in England and Wales by the Waste (England and Wales) Regulations 2011*. These regulations require that an establishment or undertaking that imports, produces, collects, transports, recovers or disposes of waste must take reasonable steps to apply the Waste Hierarchy when waste is transferred or disposed of.

Waste Policy & Guidance for London

London's Wasted Resources – The Mayor's Municipal Waste Management Strategy (2011)[6]

The Municipal Waste Management Strategy is part of a series of strategies that together set out actions and policies to make London the best big city in the world, by improving the quality of life of Londoners and making the city more sustainable.

By reducing the amount of waste produced and reusing waste that cannot be prevented presents the greatest economic and environmental benefits for London. It is not feasible to continue managing waste by investing in expensive waste collection and treatment infrastructure without implementing an active strategy of reduction and reuse. The Mayor therefore sets out in the Municipal Waste Management Strategy what actions London's households and businesses can take to reduce waste and also calls on the government and industry to play a role.

Making Business Sense of Waste: The Mayor's Business Waste Strategy for London (2011)[7]

Making Business Sense of Waste is the first Mayoral strategy for London's business waste. It sets out initiatives to help all kinds of London's businesses, from shops, restaurants, office buildings, manufacturers to construction companies to save money and reduce harm to the environment through better waste management.

The London Plan: Spatial Development Strategy for London Consolidated with Alterations since 2011 (2016)[8]

The London Plan is the *'strategic plan setting out an integrated social, economic and environmental framework for the future development of London'.*

The strategy includes the following waste management policy that has influenced the development of more specific business waste guidance:

> *Policy 5.16 Waste net self-sufficiency*
>
> A. *The Mayor will work with London boroughs and waste authorities, the London Waste and Recycling Board (LWaRB), the Environment Agency, the private sector, voluntary and community sector groups, and neighbouring regions and authorities to:*
>
> a. *manage as much of London's waste within London as practicable, working towards managing the equivalent of 100% of London's waste within London by 2031;*
>
> b. *create positive environmental and economic impacts from waste processing, and*
>
> c. *work towards zero biodegradable or recyclable waste to landfill by 2031.*
>
> B. *This will be achieved by:*

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6 Greater London Authority (GLA) (2011) London's Wasted Resources – The Mayor's Municipal Waste Management Strategy https://www.london.gov.uk/sites/default/files/municipal_waste_final.pdf

7 GLA (2011) *Making Business Sense of Waste: The Mayor's Business Waste Strategy for London* http://www.london.gov.uk/publication/londons-wasted-resource-mayors-municipal-waste-management-strategy

8 *GLA (2016) The London Plan The Spatial Development Strategy for London Consolidated with Alterations Since 2011* https://www.london.gov.uk/sites/default/files/the_london_plan_malp_final_for_web_0606_0.pdf

a. *minimising waste;*

b. *encouraging the reuse of and reduction in the use of materials;*

c. *exceeding recycling/composting levels in local authority collection waste (LACW) of 45 per cent by 2015, 50 per cent by 2020 and aspiring to achieve 6o per cent by 2013;*

d. *exceeding recycling/composting levels in commercial and industrial waste of 70% by 2020;*

e. *exceeding recycling and reuse levels in construction, excavation and demolition (CE&D) waste of 95 per cent by 2020;*

f. *improving London's net self-sufficiency through reducing the proportion of waste exported from the capital over time, and*

g. *working with neighbouring regional and district authorities to co-ordinate strategic waste management across the greater south-east of England.'*

Draft New London Plan (2017)[9]

This Plan will be the third London Plan, the previous ones being the 2004 Plan produced by former Major of London Ken Livingstone and the 2011 Plan produced by former Major of London Boris Johnson. All of the other iterations of the London Plan from 2004-2016 have been alterations. Once adopted, this Plan will replace all previous versions.

The following extracts are of relevance to the Proposed Development:

'*Policy D4: Housing quality and standards*

…G. dwellings should be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) and food.

Policy S18 Reducing waste and supporting the circular economy

A. *Waste reduction, increases in material re-use and recycling, and reductions in waste going for disposal will be achieved by:*
    1) *Promoting a more circular economy that improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible*
    2) *Encouraging waste minisation and waste avoidance through the reuse of materials and using fewer resources in the production and distribution of products*
    3) *Ensuring that there is zero biodegradable or recyclable waste to landfill by 2026*
    4) *Meeting or exceeding the recycling targets for each of the following waste streams and generating low-carbon energy in London from suitable remaining waste:*
        a)Municipal waste – 65% by 2030
        b)Construction, demolition and excavation waste- 95% by 2020
    5) *Designing development with adequate and easily accessible storage space that supports the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.*
B. *Referable application should promote circular economy outcomes and aim to be net zero-waste. A Circular Economy Statement should be submitted, to demonstrate:*

[9] Draft New London Plan https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/draft-new-london-plan/

1) *How all material arising from demolition and remediation works will be re-used and/or recycled*
2) *How the proposal's design and construction will enable building materials, components and products to be disassembled and re-used at the end of their useful life*
3) *Oppurtunities for managing as much waste as possible on site*
4) *Adequate and easily accessible storage space to support recycling and re-use*
5) *How much waste the proposal is expected to generate, and how and where the waste will be handled.*

Policy S18 Waste capacity and net waste self-sufficiency

C. *The following are particularly encouraged- development proposals which:*
   1) *Deliver a range of complementary waste manegment and secondary processing facilities on a single site*
   2) *Support prolonged product life and production of secondary materiels including repair, refurbishment and remanufacture*
   3) *Contribution towards renewable energy generation, especially renewable gas technologies from organic/ biomass waste*
   4) *Provided heat and power and/or combined cooling heat and power*
   5) *Contain proposals to effectively deal with CD&E waste on site and minimise export to landfill'*

Local Waste Policy

LBH, Local Plan (2015-2030)[10]

The Local Plan will set out the council's spatial vision for the development of the borough over the next 15 years, highlighting the key areas for regeneration and investment. It will include policies to guide development in the borough, and be used in the consideration of future planning applications. LBH has prepared the Local Plan Proposed Submission document drawing on the feedback received during previous consultations and the Local Plan's evidence base.

Policies within the Local Plan related to waste management at the Proposed Development are as follows:

Policy SC6- Managing Building Conversions and Sub-division of the Existing Housing.

We will expect development proposal to
j) Be of a high quality design and include provision for the storage of waste and recycling

Policy SC10- Housing in Multiple Occupation, Hostels and Bed and Breakfast Accommodation

We will expect development proposal to

f) Include suitable facilities for the storage and collection of waste and recycling in a manner that complies with waste authority guidelines and will not have a serious impact on the character and appearance of the local area

Policy CC2- Urban Design and Architecture

[10] LBH Local Plan (2015-2030)
http://www.hounslow.gov.uk/index/environment_and_planning/planning/planningpolicy/local_plan.htm

We will expect development proposal to

u) Make well-designed provision for bicycles, and acceptable storage of refuse materials for recycling and composting and for convenient access for its deposit and collection in consultation with the council's waste services. Enclosures should be robust, well ventilated and attractively integrated with the building and screened for privacy.

Policy EQ7- Sustainable Waste Management

Our Approach

We will work with the West London Waste Authority boroughs to meet our waste apportionment, whilst promoting the prevention, re-use, re-cycling and recovery of waste, consistent with the waste hierarchy.

We will achieve this by:

a) Working with the West London Waste Authority boroughs to manage the borough's London Plan waste appointment as set out in the West London Waste Plan.
b) Promoting improvements to wastewater infrastructure, including Mogden Sewage Treatment Works; and
c) Providing in-principle support for proposals for new sewage and wastewater infrastructure, including the Thames Tideway Sewer Tunnels

We will expect development proposals to:

d) Incorporate suitable management arrangements for waste management, including the location, size and design of waste and recycling facilities and transport access.

LBH, Guidance for Planning Applications: Recycling and Non-Recycling Provision for New Developments within the London Borough of Hounslow for Residential and Commercial Sites Supplementary Guidance Document (2012)[11]

This document aims to inform developers and architects of Waste and Recycling Service requirements in the London Borough of Hounslow.

The following extracts are considered to be of relevance to waste management at the Proposed Development:

Recycling

Estate Frame:

[11] LBH (2012) *Guidance for Planning Applications: Recycling and Non-Recycling Provision for New Developments within the London Borough of Hounslow for Residential and Commercial Sites Supplementary Guidance Document* http://www.hounslow.gov.uk/recycling__refuse_guide_for_new_developments_12-13_v2.pdf

An estate frame is used for 30-50 properties. A set of 5 x 240/360 litre bins locked down in a steel frame with paving slabs at the base to secure it in place.

Refuse

The number of 1100 litre bins is calculated using the following formula.

Total number of bedrooms ÷15 = Total number of 1100 litre bins for the development

Example: 30 bedrooms ÷ 15 = 2 x 1100 litre bins required

Requirements for the positioning of facilities for flat developments

Location

Facilities must be readily accessible by both residents and the collection crews with adequate space, ventilation (if internal) and lighting.

Facilities should be designed so that bins can be pulled easily and safely to the vehicle for collection, including dropped kerbs where required. This should avoid slopes and narrow access.

There is a 10 metre maximum pull distance for bins, from the bin store to the vehicle collection point. The ground surface must be smooth, with a minimum width of 1.9 metres.

The locked bin store door should use a code or Fire Brigade Key.

Clear signage must be provided to make it easy for residents to differentiate which bins are for recycling. This combats misuse of the recycling bins which cannot be tolerated.

A separate area for bulky waste (i.e. fridges, mattresses) is recommended so that bulky waste does not block the bins. Bulky waste should be disposed using the chargeable council bulky waste services, or a private contractor.

A bin store must be large enough for the bins to sit next to each other, not ***behind*** *each other. Residents will not take responsibility for rotating bins.*

The height of the bin store must be sufficient for the residual waste bin lids to be opened.

If bins are to be placed outside, these should be against a solid wall with direct access onto a footpath. The estate frame system can be placed onto grass, gravel or soil, however, a solid footing is preferred. However, 1100 litre bins must be placed on solid ground.

Obscuring bin stores for aesthetic reasons is ideal. Signage should allow residents to identify with bin store is for their flats and locate the bin store if it is obscured from view.

Close proximity to living quarters need to be avoided, as well as, placing facilities beneath any area that could either act as a means of entry, cause a noise nuisance or be a potential fire hazard, i.e., placing a site against a garden fence or beneath the eaves of a low house or low tree. Similarly facilities should not be placed so far from the point of entry that residents choose to place their waste in a more convenient location.

Bin stores should be kept away from car parking spaces. Full bins are heavy and can be unwieldy; pulling them between two parked cars is to be avoided.

Residual waste and recycling should be placed together for ease of use by residents. The full range of recycling must be available in each bin store.

Where co-location is not possible, the recycling facilities should be placed close to the logical direction that residents would take to exit the development. Recycling should be more convenient than disposing of residual waste.

Appendix B

WASTE GUIDANCE PROVIDED BY YASSIN HUSSEIN

From: Yassin Hussein [mailto:Yassin.Hussein@hounslow.gov.uk]
Sent: 30 June 2017 11:23
To: Berney, Michael
Cc: Pezhman Goudarzi
Subject: RE: Bin requirements for new development

Dear Michael,

Thank you for your email. I would like to point out that in the second half of 2017, recycling will be stored as plastic and cans/tins together, paper and cardboard together and mixed glass as separate bin. Please also note that there is room for discussion with developers, all flats above 50 bedrooms if there are problems with storage space/other issues. My advice below is based on the number of bedrooms you provided in your email.

Block E:
Total of 103 bedrooms
7 x 1100L refuse bulk bins
4 x 1100L recycling bin for cardboard/paper
4 x 1100L recycling bin for plastic and cans
2 x 1100L recycling bin for glass (green lid)

Block F (Core 1):
Total of 150 bedrooms
10 x 1100L refuse bulk bins
6 x 1100L recycling bin for cardboard/paper
6 x 1100L recycling bin for plastic and cans
3 x 1100L recycling bin for glass

Block F (Core 2):
Total of 171 bedrooms
11 x 1100L refuse bulk bins
6 x 1100L recycling bin for cardboard/paper
6 x 1100L recycling bin for plastic and cans
3 x 1100L recycling bin for glass

Block G :
Total of 138 bedrooms
9 x 1100L refuse bulk bins
5 x 1100L recycling bin for cardboard/paper
5 x 1100L recycling bin for plastic and cans
3 x 1100L recycling bin for glass

Block H:
Total of 152 bedrooms
10 x 1100L refuse bulk bins
6 x 1100L recycling bin for cardboard/paper
6 x 1100L recycling bin for plastic and cans
3 x 1100L recycling bin for glass

Please leave enough extra storage space for future recycling upgrades, such as food recycling bins. Please do contact me if you have questions about the information above.

Regards,

Yassin Hussein
Contract Monitoring Field Officer – (Brentford, Isleworth, Osterley)
Red Zone, Civic Centre

RED*e*
London Borough of Hounslow
www.hounslow.gov.uk

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