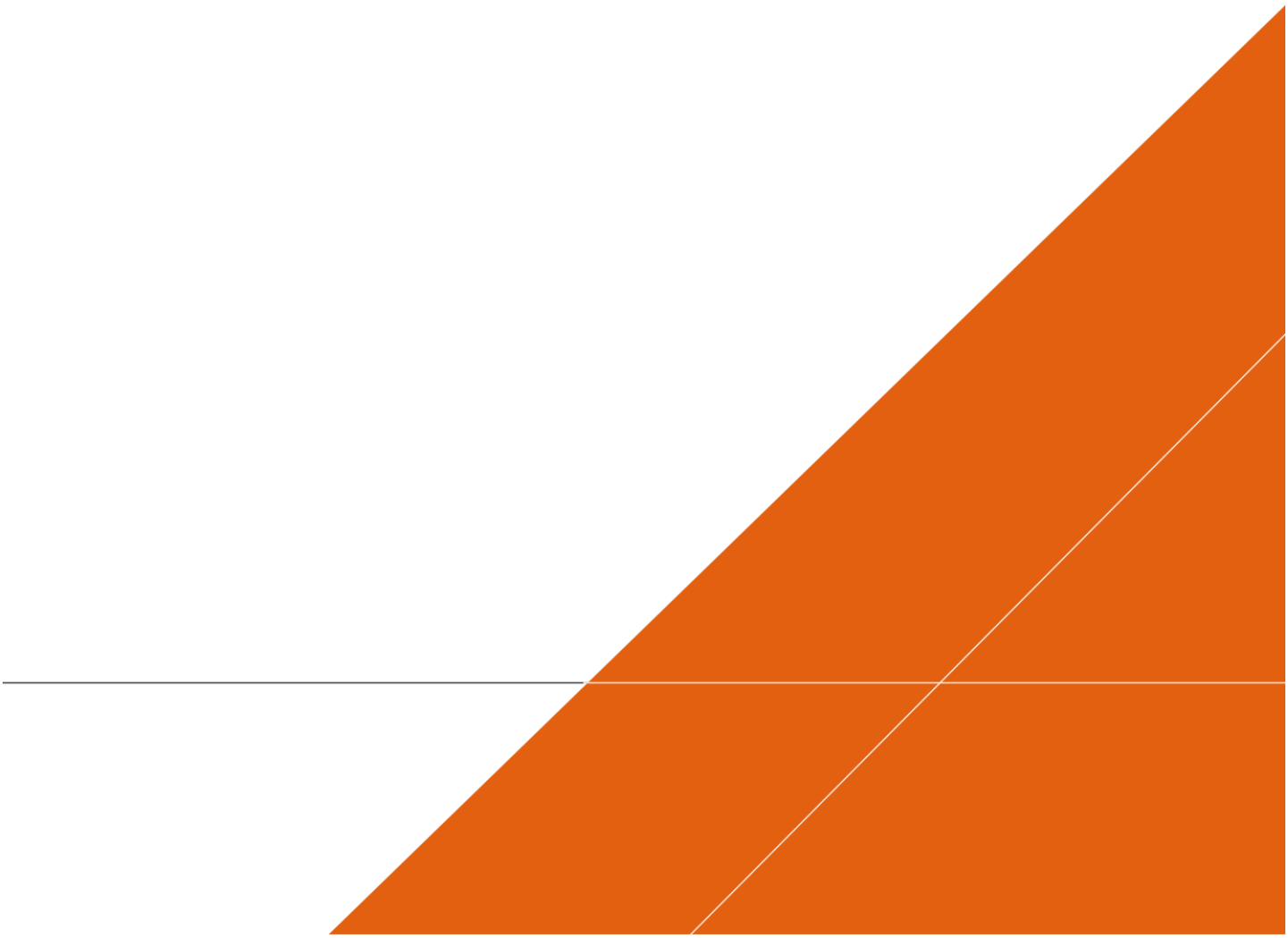
ARCADIS Design & Consultancy for natural and built assets

CHARLIE RATCHFORD DEVELOPMENT

Operational Waste Strategy

JANUARY 2020



VERSION CONTROL

Report Number: 10031842

Version	Date	Author	Changes
1.0	22/01/10	JF	First Draft Submission

ABBREVIATIONS

BREEAM	Building Research Establishment Environmental Assessment Method
BS	British Standard
C&I	Commercial and Industrial
CL:AIRE	Contaminated Land: Applications in Real Environments
CPG	Camden Planning Guidance
Defra	Department for the Environment, Food and Rural Affairs
EA	Environment Agency
EU	European Union
HMSO	Her Majesty's Stationery Office
LBC	London Borough of Camden
L	Litre
LPA	Local Planning Authority
NLWA	North London Waste Authority
NLWP	North London Waste Plan
NPPF	National Planning Policy Framework
ONS	Office of National Statistics
RRC	Reuse and Recycling Centre
SPD	Supplementary Planning Document
WEEE	Waste Electrical and Electronic Equipment
WRAP	Waste and Resources Action Programme

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BREEAM Letter (Dated 03 September 2019)

1 INTRODUCTION

1.1 Background

1.1.1 This waste strategy has been developed by Arcadis Consulting (UK) Limited (herein referred to as 'Arcadis') to form part of the Full Planning Application for the Charlie Ratchford Extra Care Scheme (hereafter referred to as the 'Scheme') at Crogsland Road, in the London Borough of Camden (LBC).

1.1.2 This report provides a high-level overview of the waste management strategy during the operational phase, which has been developed to reflect the Scheme design and the associated quantities of operational waste that are anticipated to be generated.

1.2 The Scheme

1.2.1 Located in an existing site of derelict land on Crogsland Road in Chalk Farm, the project involves the construction of a 6-storey block of 38 Extra Care units, with a ground floor communal area consisting of a lounge, cafeteria, hair dressing salon and associated facilities. The works are part of the Development Agreement to construct new housing on the existing Charlie Ratchford Centre site.

1.2.2 Table 1 below shows the proposed extra care residential unit mix.

Table 1 Proposed breakdown of property types and numbers

Dwelling Type	Unit Numbers
1 Bed	31
2 Bed	7
Total	38

1.2.3 The proposal would re-provide the existing open access Charlie Ratchford Resource Centre and provide a more effective functioning space, where facilities will include a café and restaurant, a south facing communal lounge, multipurpose activity rooms, hairdressers, therapy room, IT suite, meeting rooms, staff room and a courtyard garden for Camden Residents.

1.2.4 The proposal also includes space for communal facilities, exclusively for the use of the extra care residents, a resident's laundry, guest room, assisted bathroom, garden room and roof terrace on the upper level.

1.2.5 Detailed drawings of the proposed plans of the Scheme have been presented in Appendix A.

1.3 Aims and Objectives of Waste Strategy

1.3.1 The Scheme is aiming for Building Research Establishment Environmental Assessment Method (BREEAM) UK New Construction 2014 (Ref. 1) certification of Excellent to ensure best environmental practice is incorporated in the planning, design, construction and operation of the Scheme.

1.3.2 There is one credit available under the operational waste category of BREEAM that can be rewarded for sustainable waste management. This report aims to support the Scheme in obtaining BREEAM credit "Wst 03 Operational Waste", which encourages the diversion of operational waste from landfill through the provision of space and facilities allowing the segregation and storage of recyclable waste.

1.3.3 The assessment criteria for credit "Wst 03 Operational Waste" states that the Scheme has to:

- *Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space is:*
  - *1.a: Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams*
  - *1.b: Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors*
  - *1.c: Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily or weekly operational activities and occupancy rates.*

- *2 For consistent and large amounts of operational waste generated, provide:*
  - *2.a: Static waste compactors or balers; situated in a service area or dedicated waste management space*
  - *2.b: Vessels for composting suitable organic waste OR adequate spaces for storing segregated food waste and compostable organic material for collection and delivery to an alternative composting facility*
  - *2.c: A water outlet provided adjacent to or within the facility for cleaning and hygiene purposes where organic waste is to be stored or composted on site.*

1.3.4 Additionally for multi-residential buildings with self-contained dwellings or bedsits, proposed developments need to:

- *Provide three internal storage containers for each dwelling or bedsit with:*
  - *4.a: A minimum total capacity of 30 litres*
  - *4.b: No individual container smaller than 7 litres*
  - *4.c: All containers in a dedicated non-obstructive position*
  - *4.d: Storage containers for recycling in addition to non-recyclable waste storage.*
- *5 Provide home composting facilities and a home composting information leaflet within the kitchen area or communal space for each self-contained dwelling or bedsit.*

1.3.5 The North London Boroughs in the North London Waste Authority (NLWA) are committed to achieving the 50% recycling target set out in the Joint Municipal Waste Management Strategy and the London Plan (Ref. 2).

1.3.6 This Operational Waste 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 segregation, storage, collection, treatment and/or disposal of waste arisings.

1.3.7 The aim of the strategy is to select the most appropriate waste collection system for the Scheme which saves space, provides value for money, minimises greenhouse gas emissions and maximises the recycling and recovery of material.

1.3.8 The strategy also outlines the opportunities for implementing waste minimisation measures for the potential impacts of the Scheme in order to ensure that such measures are consistent with national, regional and local waste policies and targets.

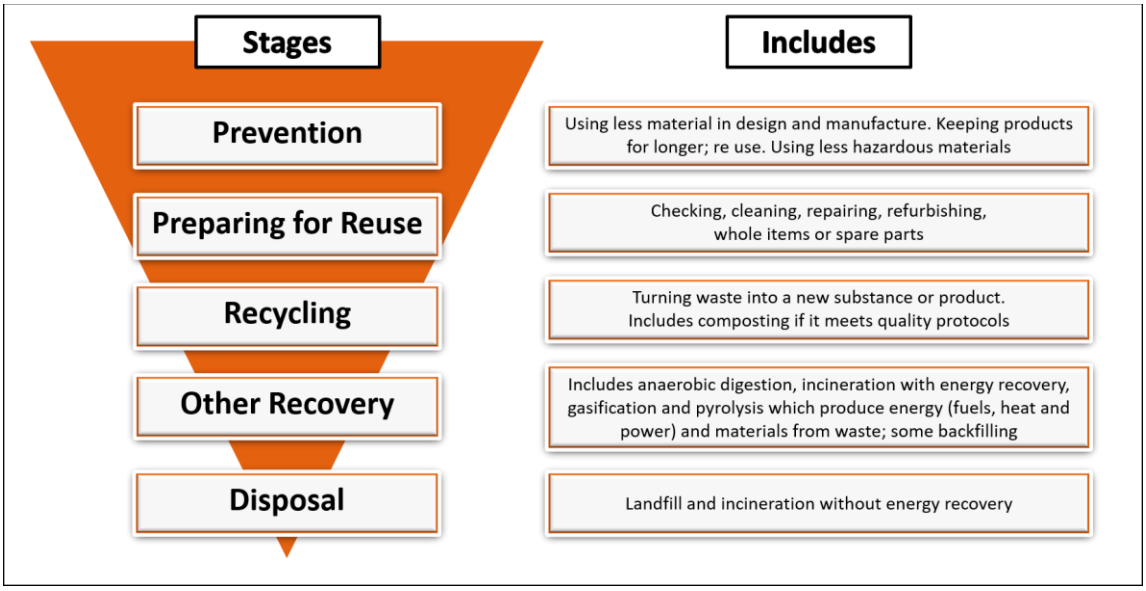
The Impact of Waste

1.3.9 Waste is defined in Article 3 of the European Framework Directive on Waste (2008/98/EC) (Ref. 3) as “any substance or object which the holder discards or intends or is required to discard”, where the term:

- ‘waste holder’ is defined as the waste producer or the natural or legal person who is in possession of the waste; and
- ‘waste producer’ is defined as anyone whose activities produce waste (original waste producer) or anyone who carries out pre-processing, mixing or other operations resulting in a change in the nature or composition of this waste.

1.3.10 Waste can cause harm to the environment through its treatment and final disposal, and therefore, effective waste management should follow the principles of the waste hierarchy shown on Figure 1 below.

Figure 1 Waste Hierarchy



1.3.11 This strategy considers the impact on the environment as a result of the generation of this waste and details measures to mitigate these impacts and implement best practice in the segregation, storage, collection, treatment and/or disposal of waste arisings. This strategy considers waste produced in the operational phase of the Scheme, as the Scheme is predominantly residential (i.e. extra care), most waste generated during operation would be household waste, in addition to quantities of industrial and commercial (C&I) waste from the community day centre.

1.4 Structure of the Waste Strategy

1.4.1 This strategy comprises the following seven chapters:

- Chapter 1: Introduction and background to the Scheme.
- Chapter 2: Regulatory Framework – sets out the international, national and local policies, and guidance that would apply to the Scheme.
- Chapter 3: Methodology – sets out the study area, consultations, sources of information used in the baseline, and the methodologies used in assessing the future waste arisings.
- Chapter 4: Baseline conditions – details the current waste management infrastructure within the study area, the current waste that is produced, and the current waste collection systems in place.
- Chapter 5: Forecasting waste – looks at what waste is likely to be produced by the Scheme during the operation phase.
- Chapter 6: Waste minimisation and management strategy – outlines the proposed strategy to minimise and successfully manage the waste arisings from the Scheme. It provides guidance on issues relating to best practice for the management of waste which would allow the total waste production to be minimised without impacting the cost of the Scheme.
- Chapter 7: Summary and conclusions.

2 Regulatory Framework

2.1 Policies and Legislation

2.1.1 The framework for the assessment is derived from a combination of national, regional and local legislation and policies, and measures of which the key elements are:

- Meet and exceed the Landfill Directive diversion targets for biodegradable municipal waste;
- Increase diversion from landfill of non-municipal waste; and
- Decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use.

2.1.2 Table 2 below provides a brief description of the main European and national legislation and local policies impacting on waste management in the UK (relevant to England).

Table 2 Regulatory Framework

Legislation / Policy	Summary of Requirement
International and national legislation	
EU Landfill Directive (Directive 1999/31/EC on the landfill of waste) (Ref. 4)	Establishes a framework for the management of waste across the European Community. It also defines certain terms, such as 'waste', 'recovery' and 'disposal', to ensure that a uniform approach is taken across the EU.
EU Waste Framework Directive (Directive 2008/98/EC on waste) (Ref. 3)	The Waste Framework Directive contains the definition of waste. This definition is used to establish whether a material is a waste or not. It sets targets for recycling non-hazardous construction and demolition waste (70% by weight by 2020: Article 10). It also introduces the Waste Hierarchy (Figure 1).
The Clean Neighbourhoods and Environment Act 2005 (Ref. 5)	Part 5 of this act relates to the Transport of waste, it is the responsibility of all parties to ensure that all waste is disposed of properly. All employees need to be made aware that if they are tasked with waste disposal this must be carried out in accordance with the law, or they risk being fined.
Environmental Permitting (England & Wales) Regulations 2016 (Ref. 6)	The Environmental Permitting Regulations were created to standardise environmental permitting and compliance in England and Wales to protect human health and the environment.
The Hazardous Waste (England and Wales) Regulations 2005, Statutory Instrument 2005 No. 894 and 2009 amendment SI 507 and 2016 amendment SI 2016 No 336 (Ref. 7)	The Hazardous Waste Regulations 2005 Regulations require that a Hazardous Waste Consignment Note is produced for each consignment of hazardous waste removed from site, (from 1st April 2016 premises no longer need to register as hazardous waste producers).
Waste (England and Wales) Regulations 2011, and 2012 amendment (Ref. 8)	The Waste Regulations transpose the Waste Framework Directive into English law. The Regulations require businesses to confirm that they have applied the waste management hierarchy, introduce a new waste hierarchy permit condition and a two-tier system for waste carrier and broker registration.
Environmental Protection Act 1990 (Ref. 9)	The Act outlines the basic provisions for the management of all waste, which includes details on the definition of waste and outlines the Duty of Care placed on those involved in managing wastes.

Legislation / Policy	Summary of Requirement
National policies	
Waste Management Plan for England 2013 (Ref. 10)	The Waste Management Plan for England 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. 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.
Our waste, our resources: a strategy for England 2018 (Ref. 11)	This document sets out the UK Government's strategy on how it will preserve the stock of material resources by minimising waste, promoting resource efficiency and moving towards a circular economy, minimise the damage caused to our natural environment by reducing and managing waste safely and carefully, and deal with waste crime. It combines actions to be taken with firm commitments for the coming years and gives a clear longer-term policy direction in line with the UK Government's 25 Year Environment Plan.
National Planning Policy Framework (NPPF), Department for Communities and Local Government, 2019 (Ref. 12)	The NPPF sets out the Government's planning policies for England and how these should be applied and should be read in conjunction with the Government's planning policy for waste. The 12 core principles provide policies and guidance for a variety of areas and advocates that planning policies and decisions should apply a presumption in favour of sustainable development.
National Planning Policy for Waste, October 2014 (Ref. 13)	The National Planning Policy for waste sets out the Government's ambition to work towards a more sustainable and efficient approach to resource use and management. It sets out detailed waste planning policies to be used by local planning authorities for use in identifying the need for waste management facilities, identifying suitable sites and areas, and determining planning applications.
Local policies	
Camden Local Plan 2017 (Ref. 14)	The Camden Local Plan sets out the Council's planning policies and replaces the Core Strategy and Development Policies planning documents (adopted in 2010). Policy CC5 Waste sets out the council's aim to reduce the amount of waste produced in the Borough and increase recycling and the reuse of materials to meet the London Plan targets of 50% of local authority collected waste to be recycled or composted by 2020, and the aspiration to achieve 60% by 2031 and make sure that developments include facilities for the storage and collection of waste and recycling.
Camden Planning Guidance (CPG) - Design - section 8 (Ref. 15)	The CPG was prepared by the Council to support the policies in the Camden Local Plan 2017 and forms a Supplementary Planning Document. Section 8 details the requirements for the storage of waste and recycling, developers should ensure that all waste systems and storage areas in new developments or refurbished developments are: • designed to provide adequate space for the temporary storage of all types of waste, including internal storage areas with sufficient space for the separation of temporary storage of all recycling, food waste and residual waste; • sensitively designed and located in relation to the local environment especially in conservation areas and listed buildings; • safely located and accessible for all users, including waste contractors, and designed to minimise nuisance to occupiers and neighbours and their amenity; • sufficiently flexible to accommodate future increases in recycling targets;

Legislation / Policy	Summary of Requirement
	• designed to include where appropriate, innovative waste management solutions that increase efficiency and help meet and exceed recycling and other waste reduction targets.
North London Waste Plan (NLWP) (Proposed submission) (Ref. 2)	A joint waste plan is being prepared with the six other North London Boroughs (Barnet, Enfield, Hackney, Haringey, Islington and Waltham Forest), a proposed submission draft has been published. However full adoption of the plan is not expected until June 2020. The North London Boroughs and the NLWA are committed to achieving the 50% recycling target set out in the Joint Municipal Waste Management Strategy and the London Plan. The Plan sets out a range of policies help deliver the NLWP's aim and objectives, Spatial Framework and the Strategy Policy for North London's Waste.
Guidance	
The Definition of Waste: Development Industry Code of Practice, CL:AIRE, 2011 (Ref. 16)	This Code of Practice provides best practice for the development industry to use when assessing if materials are classified as waste, or not, and determining when treated waste can cease to be waste for a particular use.

2.2 LBC Technical Waste Planning Guidance

2.2.1 The Scheme lies within the LBC, which provides advice on the design and provision of waste storage and arrangements for residential and commercial units as a separate supporting document for planning guidance CPG1 DESIGN Storage and Collection of Recycling and Waste. (Ref. 17). The document sets out how the Scheme should ensure that:

- adequate space is designed for the containment, storage and transfer of all wastes e.g. recyclables, food waste, general waste and bulky waste;
- allows for reasonable changes to collection services and transfer of activities in the future;
- safe storage locations and systems for waste transfer – are accessible for all users, collectors and minimise nuisance to occupiers and neighbours and their amenity space, e.g. noise, obstruction, odours, pests, etc.;
- access for all waste transfer activities is well designed;
- waste containers should have designated indoor or external storage areas;
- facilities sensitively designed/located, especially in conservation areas/or listed buildings; and
- plans are documented within a waste strategy and design and access statement to meet planning waste conditions for approval.

2.2.2 The document also provides guidance on the type of service and container or sack sizes that Camden-Veolia are able to offer, and footprint required, from which the spatial requirement can be calculated.

2.2.3 It sets out a requirement for developments to make provision for waste storage, collection and recycling in accordance with the content of the Technical Waste Planning Guidance Supplementary Planning Document. Descriptions of how the Scheme meets these requirements and the provisions for waste storage, collection and recycling are set out in Section 6 of this Report, Waste Minimisation and Management Strategy.

3 Methodology

3.1 Introduction

3.1.1 The development of this strategy has been based on the following:

- A Desktop study and review to collate background information relating to waste generation, collection, treatment, and disposal options;
- Review of LBC waste management requirements and identification of any forthcoming policy reviews and changes;
- A review of publicly available planning information and guidance;
- Information exchanged between the client, the principal contractors, the design team and BREEAM Assessor; and
- Identification of opportunities for waste minimisation, recycling, and reuse during the operational phase.

3.2 Study Area

3.2.1 The study area comprises the boundary of the Scheme, and the LBC area for the collection of household waste (as collecting authority), and NLWA for disposal of household waste (as disposal authority). Operational waste refers to household waste arisings (such as residual waste as well as food and green waste arisings) and C&I waste arising. The assessment investigates the existing waste management system in LBC, the quantities of waste and recyclables collected, and the performance in terms of the proportion recycled or composted in NLWA.

3.2.2 The study area also comprises any waste facilities that would receive household and C&I waste arising from the operational phases of the Scheme. Whilst the study area does not include the operation of these facilities, it is necessary to ensure that the facilities have the capacity and capability to support the Scheme to deliver on its waste objectives and targets.

3.3 Methodology

Establishing Baseline Conditions

3.3.1 Baseline conditions have been established through desk-top research, including the interrogation of key data bases such as:

- DEFRA WasteDataFlow (Ref. 18).
- UK Government statistics on waste including:
  - ENV18 Local authority collected waste: annual results tables (Ref. 19)
  - ENV23 - UK statistics on waste (Ref. 20)
  - UK government statistics on waste and recycling statistics (Ref. 21)

Forecasting Waste Arisings

3.3.2 Forecasted waste arisings have been established through desktop research and builds on the analysis of baseline conditions including the interrogation of WasteDataFlow (Ref. 18).

3.4 Waste Minimisation and Management Strategy

3.4.1 The waste minimisation and management strategy has been based on a variety of factors including taking into account of design guidance of LBC for the storage and removal of waste and to support the Scheme in obtaining a BREEAM New Construction 2014 rating of excellent.

4 Baseline Conditions

4.1 Municipal Household Waste

Current Waste and Recycling Collection Systems

4.1.1 The Application Site is currently undeveloped and therefore is not currently generating any operational waste. Development of the Application Site for residential use would create a source of municipal household waste which would need to be collected by LBC (as the collection authority) and disposed of by NLWA (as the disposal authority).

4.1.2 The council of LBC recognises that Camden cannot adequately deal with its waste in isolation (Ref. 14). Therefore, it is a member of the North London Waste Authority, which is responsible for the disposal of waste collected in the Boroughs of Barnet, Camden, Enfield, Haringey, Hackney, Islington and Waltham Forest and is working in partnership with these authorities in order to prepare a joint NLWP.

4.1.3 LBC offers 2 household services:

- Kerbside- which is generally for low-rise properties on a street collection schedule
- Communal - for larger builds and generally high-rise properties i.e. on housing complexes, flatted properties.

4.1.4 Kerbside general waste collections are weekly, and the mixed recycling and food waste is weekly. Communal bin serviced dwellings are collected either fortnightly or weekly. Waste collection arrangements in LBC are as shown in Table 3.

Table 3 Waste Collection Arrangements in LBC

Waste Stream	Waste Type	Collection arrangements
Mixed Recycling	Glass bottles and jars, tins, cans, aerosols, foil, paper, cardboard, all plastic bottles (including lids), food and drinks cartons (e.g. Tetrapaks), plastic containers and food trays.	Weekly
General Waste	General household non-recyclable and non-compostable material, such as: Clingfilm, cellophane, sanitary products, dog poo and cat litter, crisp packets, polystyrene, nappies, broken glass	Kerbside: Weekly Communal: Weekly / Fortnightly
Food Waste	Fruit and vegetable peelings, tea bags and coffee grounds, stale bread and pastries, meat and fish bones (raw and cooked), dairy products, eggs and eggshells, plate scrapings and leftovers	Weekly
Garden Waste	Grass cuttings, weeds, dead flowers, garden prunings, leaves and bark	Chargeable collection service available from the LBC waste contractor, Veolia.
Bulky item / Household furniture	Beds or mattresses, sofas, fridges or freezers etc	Chargeable collection service available from the LBC waste contractor, Veolia. Free to drop off at Regis Road Reuse and Recycling Centre (RRC) by the resident.
WEEE	All large and bulky WEEE items, e.g. white goods, sewing machine, a large vacuum cleaner and exhaust ventilation equipment etc.	Free collection service by service delivery partner, Clearabee (in partnership with European Recycling Platform).

Waste Stream	Waste Type	Collection arrangements
Clinical Waste	Surgical dressings or swabs, syringes, needles or other sharp instruments, drugs or other pharmaceutical products, and items used to dispose of bodily secretions or excretions.	Free collection service for qualifying residents. By arrangement only with Environmental Services

4.1.5 Waste and Resources Action Programme (WRAP) guidance defines 'bring' recycling sites as: areas in car parks and on streets, at which local authorities or third parties, provide containers ("banks") for the public to deposit recyclable materials (Ref. 22). A number of 'bring sites' are operated by the LBC or its contractors, in addition to this, LBC operates one RRC. It is located on Regis Road in Kentish Town, which can be used free of charge by householders wishing to deliver their waste or recycling directly.

Current Waste Collected

4.1.6 WasteDataFlow (Ref. 18) is the web-based system for municipal waste data reporting by UK local authorities to Government. This system provides accurate data about waste processed by LBC, a review of the data available shows that the last available dataset for a full calendar year was 2018 – therefore data from 2016, 2017 and 2018 have been presented. The data submitted indicates that prior to April 2017, collection of garden and food waste were mixed and subsequently split into two categories.

4.1.7 A breakdown of the types of waste collected is shown in Table 4 below during 2016, 2017 and 2018. From this data the average household waste generation has also been calculated.

Table 4 Breakdown of waste and recycling collected from LBC households during 2016 - 2018

Material	2016	2017	2018
Co-mingled materials	11,064.57	11,474.73	11,331.43
Furniture	1.46	14.02	34.22
Green garden waste only	413.37	1,130.25	1,333.05
Mixed garden and food waste	3,372.86	714.66	0.00
Waste food only	0.00	1,906.27	2,482.49
Waste Electrical and Electronic Equipment (WEEE) - Small Domestic App	0.00	2.18	17.90
Total recycling collected (tonnes)	**14,852.26**	**15,242.11**	**15,199.09**
Residual waste collected (tonnes)	52,932.58	42,151.80	35,358.72
Total household waste (tonnes)	**67,784.84**	**57,393.91**	**50,557.81**
Total number of households	114,942.00	114,942.00	114,947.00
Average waste arising per household (tonnes)	**0.59**	**0.50**	**0.44**
Total average recycling in LBC (%)	**21.91**	**26.56**	**30.06**

4.1.8 There has been a steady increase in recycling rate in LBC from 2016 to 2017 to 2018. Increased awareness regarding waste among the general public is thought to have led to this increase in waste recycling.

4.1.9 From Table 4 above, it can be seen that LBC achieved a recycling rate of 30.06% in 2018. This performance is compared against regional and national performance in Table 5 below. From this it is clear that LBC recycling rates are below both the London and England average based on waste statistics released by DEFRA (Ref. 19).

Table 5 Recycling rate of LBC, London and England

Recycling Rate	2016	2017	2018
LBC (%)	21.91	26.56	30.06
London (%)	33.00	33.10	33.40
England (%)	43.70	43.20	43.50

4.1.10 LBC has one waste management facility safeguarded under Local Plan Policy CC5 – Waste, the Regis Road waste site. Regis Road is a civic amenity site, recycling and reuse centre accepting both household waste and recyclable materials. According to the latest Annual Monitoring Report (Ref. 24), no new waste management facilities were permitted or constructed in LBC in 2017/18.

4.1.11 At this RRC, between April 2015 – March 2016, this site achieved a recycling rate of 74%.

4.1.12 In addition to standard resident disposal services, the RRC (Ref. 25) offers several reuse schemes:

- Furniture:

  Furniture provided at this RRC goes to the Second Time Around reuse shop, located within another RRC within the NLWA partnership (the Kings Road Reuse and Recycling Centre, Waltham Forest), where they are inspected and safety checked. Items in the shop are priced affordably offering residents the opportunity to get an item they need or want for a fraction of the cost they would do if purchased new.
- Bicycle

  A bicycle reuse scheme in conjunction with 'Recycle your Cycle'. Recycle your Cycle work with the UK prison service to provide training in the refurbishment of bicycles. Bicycles are then sold on through charity shops across the country (and also in the Reuse Shop Second Time Around).
- Paint

  good quality re-usable paints can be donated here by residents and can be collected for free by community groups, charities, sports clubs and individuals from the site during opening hours.

4.1.13 The RRC operated by the LBC reports tonnage of material collected to WasteDataFlow. Table 6 below shows the quantities of waste deposited and breakdown of composition by materials as reported to WasteDataFlow.

Table 6 Tonnes of material collected at the RRC

Materials (tonnes)	2016	2017	2018
Batteries	6.21	2.97	2.79
Composite	0.63	0.62	1.39
Furniture	8.60	9.72	16.12
Glass	0.00	0.85	0.13
Metal	239.62	212.15	200.62
Oil	2.50	3.00	3.39
Organic	438.92	648.04	696.61

Materials (tonnes)	2016	2017	2018
Other Materials	0.30	0.00	0.00
Paint	2.22	0.14	0.78
Paper and Card	287.33	277.51	275.42
Plasterboard	126.65	105.44	107.13
Plastic	27.92	35.72	4.45
Rubble	1,007.96	816.46	725.37
Textiles	74.08	77.53	71.74
Tyres	0.00	0.27	0.16
WEEE	421.00	368.88	346.39
Wood	1,087.62	915.16	979.46
Total	3,731.56	3,474.46	3,431.95

4.1.14 Similar, bring sites located within LBC boundaries reports tonnage of material collected to WasteDataFlow. Table 7 below shows the quantities of waste deposited and breakdown of composition by materials as reported to WasteDataFlow. The tonnage reported shows a sudden decrease of WEEE deposited at bring sites, this could be explained by the collection of WEEE items by the LBC, as shown in Table 7 which shows a corresponding increase in WEEE materials collected.

Table 7 Tonnes of material collected at bring sites operated by LA or its contractors

Materials (tonnes)	2016	2017	2018
Co-mingled	3,496.90	3,397.92	1,524.05
Textiles	34.25	22.66	587.56
WEEE	77.72	38.27	0.00
Total	3,608.87	3,458.85	2,111.61

4.1.15 A data study prepared by the NLWA as evidence for the Draft NLWP (Ref.23) forecasts local authority collected waste arisings up to 2031, as presented in Table 8 below.

Table 8 Forecast Arisings of Household waste

Year	Tonnes
2021	84,000
2026	85,000
2031	86,000

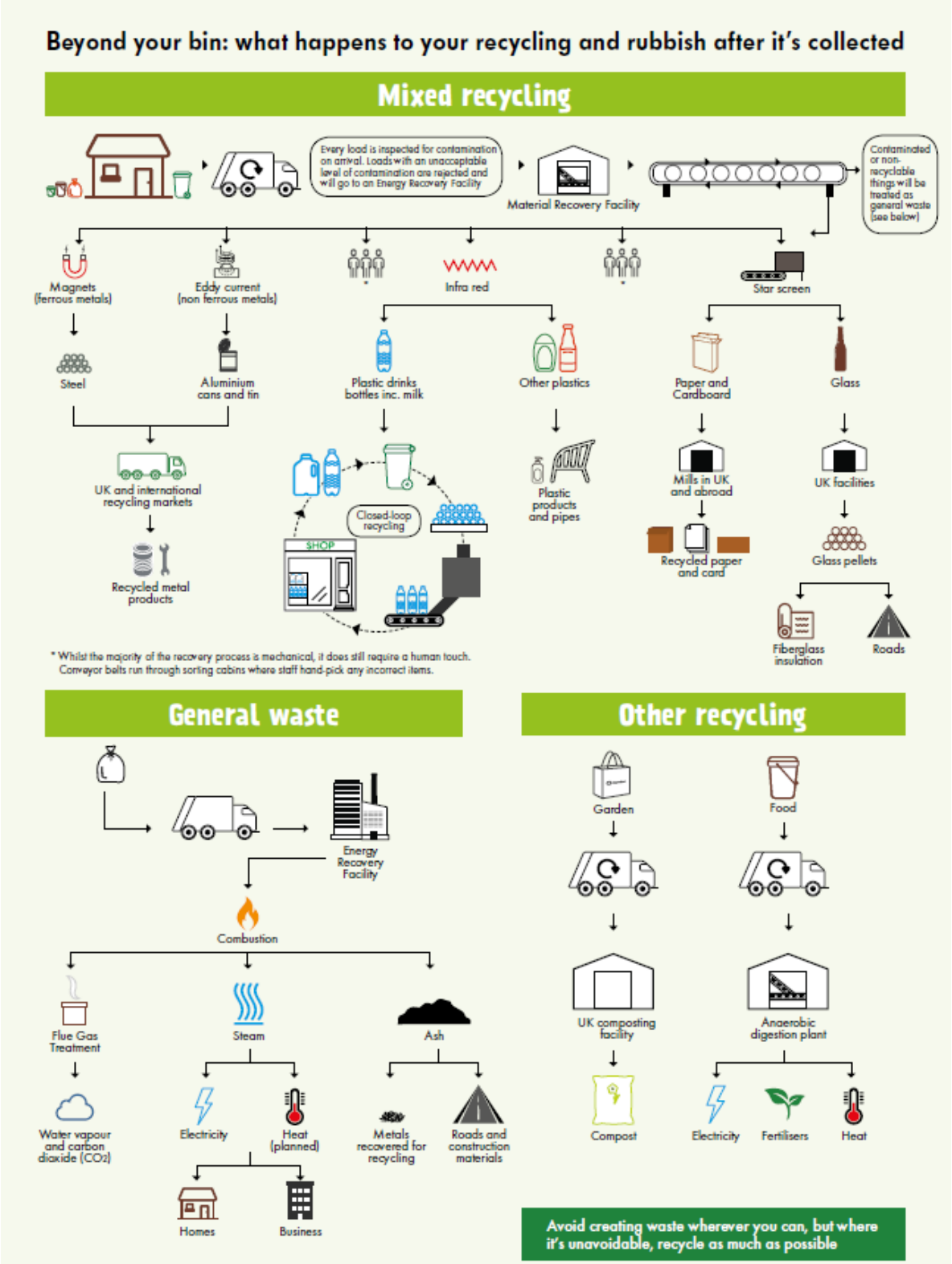
4.1.16 LBC deploys various ways of dealing with the collected recyclables, for example:

- Recycling is sorted and then used to make new products;

- Food and garden waste are sent to special processing plants and transformed into low carbon electricity or turned into compost.

4.1.17 Figure 2 below shows the destination of all waste materials handled by LBC.

Figure 2 Destination of material collected by LBC



Commercial and Industrial Waste

4.1.18 LBC does not provide a free C&I collection service, however Pay-as-you-go or contract services are available from a variety of suppliers including LBC's waste contractor, Veolia, who can arrange tailored rubbish and recycling contracts to meet business needs.

4.1.19 Services could include:

- up to 3 scheduled collections each day
- a range of different services and containers
- an environmentally friendly service

4.1.20 Within ENV-18, Local Authority Collected Waste Statistics (Ref. 19), LBC has declared collected non-household waste, which includes those C&I businesses which contract this service. The quantities of C&I waste produced within the LBC and those for Eastern England, and England have been summarised in Table 9 below.

Table 9 Non-household waste collected in 2018/2019

Area	Total non-household waste collected (tonnes)	Non-household - waste sent for recycling / composting / reuse (tonnes)	Percentage recycling rates (%)
LBC	45,200	5610	12
NLWA	143,580	23,026	16
London	638,000	104,000	16
England	2,422,000	919,000	38

4.1.21 This shows that, for non-household waste, the LBC non-household percentage recycling rate is lower than NLWA, the London and the national recycling rate.

4.1.22 The latest LBC Waste Data Study (Ref. 23), based on the London Plan, forecasts C&I waste arisings up to 2031, as presented in Table 10 below. The forecast is expecting the amount of waste to remain approximately level.

Table 10 Forecast Arisings of C&I waste

Year	Tonnes
2021	276,000
2026	276,000
2031	276,000

5 Forecasting Waste

5.1 Household Waste

5.1.1 The residential component of the Scheme would comprise of 38 self-contained residential units, likely volumes of household waste arising from the Scheme have been estimated to inform available options for recycling, reuse, treatment or disposal. The likely waste streams produced by the Scheme has been summarised below in Table 11.

Table 11 Likely waste produced by the Scheme

Waste stream	Constituents	Recyclable, reusable, recoverable or non-recyclable
Mixed Recycling	Glass bottles and jars, tins, cans, aerosols, foil, paper, cardboard, all plastic bottles (including lids), food and drinks cartons (e.g. Tetrapaks), plastic containers and food trays.	Recyclable
Food Waste	Fruit and vegetable peelings, tea bags and coffee grounds, stale bread and pastries, meat and fish bones (raw and cooked), dairy products, eggs and eggshells, plate scrapings and leftovers	Recyclable
Garden Waste	Grass cuttings, weeds, dead flowers, garden prunings, leaves and bark	Recyclable
Bulky item / Household furniture	Beds or mattresses, sofas, fridges or freezers etc	Recyclable or reusable
WEEE	All large and bulky WEEE items, e.g. white goods, sewing machine, a large vacuum cleaner	Recyclable or reusable
General Waste	Any of the above that has not been separated for recycling: nonrecyclable food packaging, plastic film, disposable nappies	Recoverable (energy from waste) or nonrecyclable

5.1.2 Prior to occupation, only an estimated quantity of waste can be provided. As the average household waste arising of LBC is currently 0.51 tonnes per annum and based on a total of up to 38 homes, it is estimated that approximately 20 tonnes of household waste would be generated per annum during operation of the Scheme. This figure represents the total household operations and does not take into account any proposed recycling or composting. As most of the proposed units are smaller than the average household size in LBC, this calculation represents a worst-case scenario for the Scheme.

5.1.3 If the current recycling rate for LBC is applied to this figure (30.06% 2018), then 14 tonnes per annum of residual waste and 6 tonnes per annum of recycled waste is projected to be produced. Current waste production levels and subsequent residual waste levels are used to present a worst-case scenario of no improvement in both waste production, minimisation and recycling.

5.1.4 There are a variety of factors effecting the quantities of household waste produced by the Scheme, such as on-going promotion of waste minimisation and recycling and consumer habits that would all have an impact on this estimate of waste arising from the Scheme.

Commercial and Industrial Waste

5.1.5 The community facility element of the Scheme would provide services to the residents that inhabit the building as well as other LBC residents aged 60+. Activities of this resource centre will be similar to the existing Charlie Ratchford Resource Centre, which might include but not limited to daily freshly cooked breakfast and lunch, pottery, crafts, music and movement, computers and tablets access, gym, memory group, quizzes & games, massage, boccia, chair-based exercise groups, stay steady exercise by referral, poetry appreciation, reading group, women groups, stroke groups, topical debate group, hairdresser, cookery, pottery, Age UK advice and information sessions, and Action on Hearing sessions.

5.1.6 The Scheme would generate a small amount of C&I waste resulting from these activities, however at this stage, no details regarding the service providers for the resource centre on the ground floor are available. This provides a variety of unknown factors that may impact the quantities of C&I waste produced, therefore likely volumes of C&I waste have not been calculated.

6 Waste Minimisation and Management Strategy

6.1.1 The Scheme would be serviced by the recycling and waste collection system provided by LBC which utilises existing waste infrastructure. The current system comprises a weekly / fortnightly collection for co-mingled recyclables, mixed food and garden waste, and residual waste. A wheeled bin delivery strategy would be implemented, pre-ordering the necessary number of wheeled bins with LBC. It would be the responsibility of the contractor to agree with LBC as to the specific number and frequency of wheeled bin deliveries.

Targets

6.1.2 The NLWA have produced a Waste Plan (Ref. 2) in conjunction with the London Plan and have set more ambitious targets of

- Zero biodegradable or recyclable waste to landfill by 2026;
- Municipal waste recycling and energy from waste – 65 per cent by 2030; and
- Designing developments 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.

6.1.3 In the short term, LBC has set its own target to recycle at least 40% of household waste by 2020 and as the existing recycling rate is currently above 30% (Q1 2019). The household recycling rate could be higher as, according to LBC design guidance, it has been estimated that around 85% of the contents of an average waste bag is recyclable (Ref. 17).

Adoption of Best Practice

6.1.4 Recycling rates for high density developments, tend to be lower than for other types of residential developments. To overcome these challenges and to ensure that current and future waste targets can be met, in addition to the provision of required internal storage containers, the following will be provided:

- Home composting facilities and a home composting leaflet to be created and provided within the kitchen area or communal place and for each self-contained dwelling;
- A leaflet or poster stating the schedule for the waste collection;
- As built drawing showing the bin locations on site; and
- Clear labelling and a colour code in the dedicated waste management area to aid in the correct use of the bins for the residents.

6.1.5 LBC recognise that food accounts for 28% of the rubbish people in the area throw away. Their website actively encourages residents to reduce their food waste by:

- Freezing any usable food;
- Check and set the temperature of the refrigerator to the correct temperatures;
- Reduce the purchase of food to only what is planned and needed; and
- Reusing leftover food (including advice on where to find recipes).

6.2 Storage of Waste

Internal Storage Waste

6.2.1 LBC's Environment Service prepared Camden Planning Guidance (CPG) (Ref. 15) on Design to support the policies in the Camden Local Plan 2017 and forms a Supplementary Planning Document (SPD) which is an additional "material consideration" in planning decisions. The CPG covers a range of topics (such as housing, sustainability, amenity and planning obligations), including storage and collection of recycling and waste, alongside a supporting Technical Guidance on Recycling and Waste which provides further advisory guidance.

6.2.2 These guidance states the requirement for developments to make provision for waste storage, collection and recycling should be met.

6.2.3 In each internal self-contained unit, fitted kitchen units should incorporate segregated recycling and refuse bins. They should feature:

- two compartments for mixed recycling and general waste of equal volume, each of which must be at least 60L
- at least 7L for food waste
- a total minimum capacity of 127L

6.2.4 LBC's residential service offers each household unit per week:

- 120 Litre (L) of bin, box or sack volume for general waste or 'refuse'
- 140L for mixed dry recycling
- 23L of food waste

6.2.5 This equates to approximately 11 containers of various size at the communal collection point for the Scheme, as presented in Table 12.

Table 12 Waste Storage Space Requirements for the scheme per week

Waste Stream	Per Unit (L)	Scheme Total (L)	Bin Type	External Dimensions (H x W x D)	Bin Size (L)	Bin Size (Tonnes)	Number of bins required
General Waste	120	4,560	Refuse	1430x1265x985 (mm)	1280	0.12	4
Mixed Recycling	140	5,320	Recycling	1370x1275x980 (mm)	1100	0.14	5
Food Waste	23	874	Food bin	1290X1155X720 (mm)	500	0.023	2
Total	283	10,754					11

6.2.6 It has been forecast that the Scheme would produce up to 20 tonnes of household waste per annum during operation of the Scheme. Given the anticipated recycling rates; of the 20 tonnes of waste produced then 6 tonnes is projected to be recycled with 14 tonnes being residual waste. This equates to a total of 0.37 tonnes total waste produced, of which 0.11 tonnes is recyclable waste and 0.26 tonnes is residual waste. Based on this assessment compared with the residential service LBC offers, the current collection system offered by LBC is adequate for the Scheme.

6.2.7 Based on the Technical Waste Guidance for developers, key aspects of design and location of waste storage areas are as follows in Table 13.

Table 13 Design and location of waste storage areas

Category	Guidance
Location	• Buildings must have off-street collection areas at ground level. • Bins must be secured or not accessible to the public footway because of the risk of fire, theft and hazard for pedestrians. • Bin storage area doors must not open over the public footway or road. • Measures should be taken to ensure that the visual impact of waste storage is minimised. Particular considerations should be given for listed buildings and buildings in a conservation area.
Convenience	• Residents and staff should not have to carry waste more than 30 metres from their front door. • Occupants, collection crews, concierge or caretakers should not: – carry waste sacks more than 15 metres – transfer wheeled bins more than 10 metres – manually navigate flights, steps, steep slopes or marked changes in level – be required to cross a road or cycle pathway during any waste transfer activity.
Screening or covering	• External communal storage areas should be secure, i.e. caged or screened with suitable rain cover. • Internal built storage areas should conform to British Standard BS5906-2005 – Waste management in buildings. • Bin housings and foot locking ground structures can be installed around bins to support secure communal points for better waste presentation and provide communications holds for sticker labels or other information.
Signage	• Storage areas should be suitably lit and should be clearly designated by a suitable door or wall sign and, where appropriate, with floor markings.
Accessibility	• Storage must be designed to be fully accessible and comply with the Equality Act 2010. Developers should consult BS 8300:2009 The design of buildings and their approaches to meet the full range of needs of all people. • Storage areas must be large enough to allow gangway access to all containers without needing to rearrange other bins within the space.
Access Paths	• For BS EN840 Eurobins or similar sized wheeled bins, the path between the storage area and vehicle access area should: – be free of steps or kerbs (a dropped kerb may be required) – have a solid foundation – be rendered with a smooth continuous finish (i.e. no cobbled surfaces) – be flat, or slope down from the housing or chamber with a maximum gradient of 1:20 – have a minimum width of 2 metres.
Materials and finishing	• The floor and walls of bin stores must be constructed and finished in materials that are impervious and easy to clean. • Where appropriate, a trapped gully and water supply should be provided to make cleaning easier. • Bin store doors should have retainers to allow Eurobins or similar wheeled bins to pass easily through without damaging the doors.

Category	Guidance
Safety and anti-social behaviour	• Poor location and poor design can lead to communal refuse/recycling storage areas attracting anti-social behaviour or being perceived as unsafe. • Careful consideration should therefore be given to layout, land use, parking, landscaping, streetscape, boundary treatments, CCTV, lighting, enforcement and public activity.
Locks	• Waste storage areas should be accessible from the street via keypad / digital lock, electronic fobs or 'FB (Fire Brigade)' standard keys. • Property managers should be advised that access provided will be shared with Council collection crews. • Internal unlocking mechanisms should be installed in all bin stores and chambers where doors self-lock. • Wheel foot locks and lid locking should be in place on all bins.
Fire safety	• Fire safety guidance states that all wheeled bins should be 6 metres or further from a building, unless the bins are in a purpose-built brick bin store which has a roof and fire doors. See BS 9999:2008 Code of practice for fire safety in the design, management and use of buildings. • Caged or screened bins should be locked if in a public accessed area and have a lid and wheel locking mechanism. • Municipal waste is highly combustible, all designed building materials must be fire retardant. • Consideration should be taken to align with the fire strategy and fire plans and take consideration for emergency access and egress routes. • Household storage containers, boxes and sacks should not be left in atriums, gangways, shared communal areas or balconies.
Ventilation and Lighting	• Internal bin stores must have lighting and have good ventilation to minimise odours. • Emergency lighting systems should be installed in bin rooms and enclosed chambers.

BREEAM

6.2.8 The owner of the Scheme has committed to the requirements of BREEAM Credit Wst 03, as outlined in section 1.3, which the designs complies with and a written copy of this commitment has been provided as Appendix B.

Collection of Household Waste

6.2.9 For larger developments such as this Scheme (generally with multiple flats and blocks, or for space restricted residences - i.e. homes such as flats above shops), a review of the service collection arrangement is carried out to determine whether weekly general waste collections will be provided by shared bin on street presentation or by storage room with an internal or external roadside collection transfer arrangement.

6.2.10 For bulky waste, it has been assumed that the centre would make arrangements with LBC for collection and temporarily store the waste in an agreed location at ground level.

6.2.11 In regard to vehicle access, as detailed in LBC's advisory guidance, developers must ensure that adequate vehicle access for the safe collection of communal and commercial waste is provided. This includes the adequate design of water drainage systems, lighting, parking allocation and management, vehicular access and egress, pedestrian and cyclist activity, and tree and leaf-fall management.

6.2.12 Access roads, manhole covers, and gratings must be constructed to withstand a gross vehicle weight of 26 tonnes and axle loading of 11.5 tonnes. However, road access may need to be improved if systems for alternative waste transfer are adopted or an alternative service provider is required to access to collect the wastes.

6.2.13 Access should generally be level from the bin store to the agreed point of vehicle collection transfer. For communal waste there should be dropped kerb installed if there is a change in level or raised kerb on the public highways.

6.2.14 Where the tipping of bins occurs within the building's curtilage, consideration must be given to the lift height and tree cover, overhead structures or cables. A level hardstanding area or tipping bay should be clearly marked out at floor level where multiple bins are presented.

6.2.15 Bins should not be required to be moved further than 10 metres from the presentation point to the vehicle access and there should not be any steps or a steep gradient slope.

6.2.16 Due consideration must be given to the provision of limiting vehicle reversing activity and designing in-turning areas for collection vehicles within the development.

6.2.17 Allowances of a least one metre either side should be included when considering the width of access roads and gateways. Additional allowances will be needed if vehicles are required to approach from an angle.

Collection of C&I Waste

6.2.18 At this stage, no details regarding the service providers for the resource centre on the ground floor is available. However at build out, allowances must be made according to the technical guidance as issue by LBC.

6.2.19 Developers must ensure that appropriate internal or external waste storage facilities are provided for commercial units within the building's curtilage. It is not permissible for waste to either be stored on the public highways either overnight or on a regular basis without suitable permissions, suitable space for containment and a built storage building, chamber or cupboard.

6.2.20 Commercial units should generally have their own independent waste and recycling store, and this must be separate from any residential bin stores. Where the same service collection provider collects it may be possible to apply for a permit or waste exemption for shared bin storage for certain types of waste produced, i.e. mixed recycling or general waste.

6.2.21 Prior to occupation, occupiers of commercial premises must make an arrangement with either the Council or an Environment Agency-approved waste carrier for the collection of all wastes produced from the premises. Waste collection frequency would be dependent upon the volume of waste generated, the storage method and the schedule of the appointed waste contractor.

7 Summary and Conclusions

7.1.1 The Scheme is expected to provide 38 self-contained units and space for a community centre similar to the existing Charlie Ratchford Centre. Likely volumes of arising for the residential units from the Scheme have been estimated to identify available options for recycling, reuse, treatment or disposal, as well as examining the storage requirements for the Scheme.

7.1.2 Based on recent WasteDataFlow returns from LBC, it has been forecast that the Scheme would produce up to 20 tonnes of household waste per annum during operation of the Scheme. Given the anticipated recycling rates; of the 20 tonnes of waste produced then 6 tonnes is projected to be recycled with 14 tonnes being residual waste. This equates to a total of 0.37 tonnes total waste produced, of which 0.11 tonnes is recyclable waste and 0.26 tonnes is residual waste. Based on this assessment compared with the residential service LBC offers, the current collection system offered by LBC is adequate for the Scheme.

7.1.3 The Scheme will be assessed according to criteria set out in Wst03: Operational Waste in BREEAM New Construction 2014. The Scheme has committed to the requirements of this credit, which is to:

- Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space must be:
  - 1.a: Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams
  - 1.b: Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors
  - 1.c: Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily or weekly operational activities and occupancy rates.
- Provide three internal storage containers for each dwelling or bedsit with:
  - 4.a: A minimum total capacity of 30 litres
  - 4.b: No individual container smaller than 7 litres
  - 4.c: All containers in a dedicated non-obstructive position
  - 4.d: Storage containers for recycling in addition to non-recyclable waste storage.
- Provide home composting facilities and a home composting information leaflet within the kitchen area or communal space for each self-contained dwelling or bedsit.
- A schedule for the waste collection
- As built drawings showing the bin placements on site

7.1.4 The Scheme has a dedicated waste management area of 41.7m2 on the ground floor of the building which exceeds the minimum requirement of at least 16 m^2. The scheme has committed to clear labelling and a colour code of the waste receptacles to aid in the correct use of the bins for the residents.

7.1.5 A wheeled bin delivery strategy would be implemented, pre-ordering the necessary number of wheeled bins with LBC. It would be the responsibility of the developers to agree with LBC as to the specific number and frequency of wheeled bin deliveries.

7.1.6 With each self-contained unit requiring a total minimum capacity of 127L per week, assuming a weekly collection strategy is agreed, this equates to approximately 11 containers of various size storage requirement at the communal collection point for the Scheme. The space requirement for the scheme would be as followed:

- 4 General Waste Units of 1280L;
- 5 Recyclables Units of 1100L; and
- 2 Food Waste Units of 500L.

7.1.7 Based on the Technical Waste Guidance for developers, key aspects of the design and location of waste storage areas (with further details presented in full in section 6) are as follows:

- Buildings must have off-street collection areas at ground level.
- Residents and staff should not have to carry waste more than 30 metres from their front door.

- Occupants, collection crews, concierge or caretakers should not:
  - carry waste sacks more than 15 metres
  - transfer wheeled bins more than 10 metres
  - manually navigate flights, steps, steep slopes or marked changes in level
  - be required to cross a road or cycle pathway during any waste transfer activity.
- Internal built storage areas should conform to British Standard BS5906-2005 – Waste management in buildings and designed to be fully accessible and comply with the Equality Act 2010. Developers should consult BS 8300:2009 The design of buildings and their approaches to meet the full range of needs of all people.
- For BS EN840 Eurobins or similar sized wheeled bins, the path between the storage area and vehicle access area should:
  - be free of steps or kerbs (a dropped kerb may be required);
  - have a solid foundation;
  - be rendered with a smooth continuous finish (i.e. no cobbled surfaces);
  - be flat, or slope down from the housing or chamber with a maximum gradient of 1:20; and
  - have a minimum width of 2 metres.

7.1.8 Due to there being no details regarding the service providers for the resource centre on the ground floor being available, operational waste from this element had not been forecasted. Although it is estimated to generate a small amount of C&I waste only.

7.1.9 Current waste production levels and subsequent residual waste levels have been used to present a worst-case scenario of no improvement in both waste production minimisation and recycling.

8 References

Reference	Title
Ref. 1	BREEAM (2014) UK New Construction 2014 Technical Standard, available at: https://www.breeam.com/NC2014/
Ref. 2	NLWP (2019) North London Waste Plan (Proposed submission), available at: https://www.nlwp.net/download/north-london-waste-plan-proposed-submission-plan-january-2019/?wpdmdl=1349&refresh=5e21c097ebae11579270295
Ref. 3	The European Parliament and the Council of the European Union (2008) Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0098.
Ref. 4	The European Parliament and the Council of the European Union (1999). Directive 1999/31/EC on the landfill of waste, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1562839527688&uri=CELEX:31999L0031
Ref. 5	HMSO, 2005, The Clean Neighbourhoods and Environment Act 2005, available at: www.legislation.gov.uk/ukpga/2005/16/introduction
Ref. 6	HMSO, The Environmental Permitting (England and Wales) Regulations 2016 available at: http://www.legislation.gov.uk/uksi/2016/1154/pdfs/uksi_20161154_en.pdf
Ref. 7	HMSO, Hazardous Waste (England and Wales) Regulations 2005 (as amended) available at: http://www.legislation.gov.uk/uksi/2005/894/pdfs/uksi_20050894_en.pdf
Ref. 8	HMSO, Waste (England and Wales) Regulations 2011 (as amended) available at: http://www.legislation.gov.uk/uksi/2011/988/pdfs/uksi_20110988_en.pdf
Ref. 9	HMSO, Environmental Protection Act 1990 (as amended) available at: https://www.legislation.gov.uk/ukpga/1990/43/pdfs/ukpga_19900043_en.pdf
Ref. 10	HMSO 2013, Department for Environment, Food & Rural Affairs (DEFRA) (2013). Waste Management Plan for England, available at: www.gov.uk/government/publications/waste-management-plan-for-england
Ref. 11	HMSO 2018, Our waste, our resources: a strategy for England, December 2018, available at: https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england
Ref. 12	Ministry of Housing, Communities and Local Government, 2019, National Planning Policy Framework, February 2019, available at: www.gov.uk/government/publications/national-planning-policy-framework--2
Ref. 13	HMSO, 2014, National Planning Policy for Waste available at: www.gov.uk/government/publications/national-planning-policy-for-waste
Ref. 14	LBC (2017) Camden Local Plan, available at:

Reference	Title
	https://www.camden.gov.uk/documents/20142/4820180/Local+Plan.pdf/ce6e992a-91f9-3a60-720c-70290fab78a6
Ref. 15	LBC (2017) Camden Planning Guidance, available at: https://www.camden.gov.uk/documents/20142/35992328/Design+CPG.pdf/23a7edd5-04a5-8f36-e7df-780343529f73
Ref. 16	CL:AIRE, 2011, The Definition of Waste: Development Industry Code of Practice (CoP), Contaminated Land: Applications in Real Environments (CL:AIRE), 2011, available at: http://adeptus.co.uk/definition-waste-development-industry-code-practice-version-2-released/
Ref. 17	LBC (2017) Waste storage and arrangements for residential and commercial units, available at: https://www.camden.gov.uk/documents/20142/0/ES+Technical+Waste+Planning+Guidance+2018final+-+FV+%5BPDF%5D.pdf/4f682792-29fa-89ca-00b1-f2a7fb5a6dc1
Ref. 18	Department for Environment, Food and Rural Affairs (2019) WasteDataFlow available at: www.wastedataflow.org/
Ref. 19	HMSO (2019) ENV-18, available at www.gov.uk/government/statistical-data-sets/env18-local-authority-collected-waste-annual-results-tables
Ref. 20	HMSO (2019) ENV-23, available at www.gov.uk/government/statistical-data-sets/env23-uk-waste-data-and-management
Ref. 21	HMSO (2019) UK statistics on waste, available at www.gov.uk/government/statistics/uk-waste-data; and on recycling, available at: www.gov.uk/government/collections/waste-and-recycling-statistics
Ref. 22	WRAP (2013) Bring Site Recycling Guide, available at: www.wrap.org.uk/sites/files/wrap/Bring%20Site%20Draft%20Report%20v5%20JB%20amends_0.pdf
Ref. 23	NLWA (2018) Data Study Pt1, available at: https://www.nlwp.net/download/data-study-part-1-january-2019/?wpdmdl=1295&refresh=5e218f307589a1579257648
Ref. 24	LBC (2018) Authority Monitoring Report 2017/18, available at: https://www.camden.gov.uk/documents/20142/3912524/Camden+Authority+Monitoring+Report+2017-18+FINAL.pdf/c6633293-6501-3f4e-0a1a-e44761608890
Ref. 25	NLWA (2019) Camden – Regis Road Website, available at: http://wiseuptowaste.org.uk/recycle/reuse-and-recycling-centres/camden-regis-road/

APPENDIX A

Proposed Site Plans for Construction

Drawing numbers:

AA4796C-3001 – Proposed Site Plan

AA4796C-4001 – Ground Floor Plan

AA4796C-4002 – First Floor Plan

AA4796C-4003 – Second Floor Plan

AA4796C-4004 – Third Floor Plan

AA4796C-4005 – Fourth Floor Plan

AA4796C-4006 – Fifth Floor Plan

AA4796C-4007 – Roof Plan

APPENDIX B

BREEAM Letter (Dated 03 September 2019)

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