



# North Quay Site Waste Management Plan



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# 1. Introduction

# Background

1.1 This Site Waste Management Plan ("SWMP") has been prepared by Steer on behalf of Canary Wharf (North Quay) Ltd ("the Applicant") in support of the:

*"Application for outline planning permission (all matters reserved) for the redevelopment of the North Quay site for mixed use comprising:* 

- Demolition of existing buildings and structures;
- Erection of buildings and construction of basements;
- The following uses:
  - Business floorspace (B1)
  - Hotel/Serviced Apartments (C1)
  - Residential (C3)
  - Co-Living (C4/Sui Generis)
  - Student Housing (Sui Generis)
  - Retail (A1-A5)
  - Community and Leisure (D1 and D2)
  - Other Sui Generis Uses
- Associated infrastructure, including a new deck over part of the existing dock;
- Creation of streets, open spaces, hard and soft landscaping and public realm;
- Creation of new vehicular accesses and associated works to Aspen Way, Upper Bank Street, Hertsmere Road and underneath Delta Junction;
- Connections to the Aspen Way Footbridge and Crossrail Place (Canary Wharf Crossrail Station);
- Car, motorcycle, bicycle parking spaces, servicing;
- Utilities including energy centres and electricity substation(s); and
- Other minor works incidental to the proposed development."
- 1.2 The full Site address is North Quay, Aspen Way, London, E14. The Site is situated in the London Borough of Tower Hamlets ("LBTH").
- 1.3 The Proposed Development offers an opportunity to make better use of underdeveloped land in an area with excellent public transport accessibility.

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- 1.4 At the time of making the OPA, the Applicant is unable to determine exactly how much of the Proposed Development is likely to come forward in which land use. For this reason, the description of development provides the Applicant with flexibility as to the uses that could be undertaken on the Site.
- 1.5 However, in order to ensure that the level of flexibility is appropriately restricted, the OPA seeks approval for three Control Documents which describe the principal components of the Proposed Development, define the parameters for the Proposed Development (the "Specified Parameters") and control how the Proposed Development will come forward in future. They provide the parameters, design principles and controls that will guide future reserved matters applications ("RMAs"). These Control Documents are (1) the Development Specification; (2) the Parameter Plans; and (3) the Design Guidelines:
  - The Development Specification sets out the type and quantity of development that could be provided across the Site (including setting a maximum floorspace across the Site);
  - The Parameter Plans set the parameters associated with the scale, layout, access and circulation and distribution of uses classes and public space for the Proposed Development. They also establish the Development Zones and Development Plots across the Site; and
  - The Design Guidelines set the design principles and controls for future development.
- 1.6 Together, these documents set out the information required to allow the impacts of the Proposed Development to be identified with sufficient certainty as future RMAs will be required to demonstrate compliance with the Specified Parameters and controls in these Control Documents.
- 1.7 In order to test and validate the OPA, an Indicative Scheme showing the potential location of buildings, uses and open spaces has been produced. This scheme provides a vehicle for examining the possible architectural, environmental, operational and social impacts of the project. It remains schematic but it conforms to the development parameters as defined in the Development Specification, Parameter Plans and Design Guidelines. It has been essential in testing these development parameters. The Indicative Scheme is not a design template or submitted for approval; it represents one possible way the principles as defined in the above listed documents could be interpreted/achieved and developed into a design. The Development Specification, land use floorspace ranges and Indicative Scheme schedule are summarised at Table 1.1 and the Indicative Scheme residential unit mix is provided in Table 1.2. This Indicative Scheme and its Development Plots have been used to generate the images and diagrams for the Design Guidelines. In some instances, these Development Plots are used as reference in the Guidelines to help illustrate the point.
- 1.8 The Indicative Scheme demonstrates one interpretation of the Specified Parameters but is used throughout this SWMP to illustrate the type of mixed-use development that could come forward and the associated waste storage requirements. The Indicative Scheme basement level 2 plans can be found at **Appendix 1**.



1.9 The maximum Site wide total floorspace permitted within the Development Specification is 355,000m<sup>2</sup> (GIA) and the Indicative Scheme floor area totals 354,927m<sup>2</sup> (GIA).

Land Use	Minimum Floorspace (GIA)		Maximum Floorspace (GIA)	Indicative Scheme
A1-A5 Retail	Total	A1 A5	20,000	13,681
D1 Community	10.000	5 000	20,000	-
D2 Leisure	10,000	5,000	20,000	-
B1 Business	150,	000	240,000	174,653
C1 Hotel	-		150,000	44,081
C3 Residential	-		150,000	84,736
C4 Co-Living	-		150,000	-
Sui Generis: Student Housing	-		150,000	-
Sui Generis: Private Members Clubs, Conference Centres, Theatres, Casinos and Launderettes	-		25,000	-
Below Ground				
A1-A5 Retail	-		5,000	-
B1 Business	-		20,000	-
D1 Community	-		5,000	-
D2 Leisure	-		10,000	-
Ancillary floorspace comprising Business, Back of House, Enclosed Plant, Storage, Servicing, Car and Cycle Parking Areas, Energy Centres, Electricity Sub Stations etc.	-		No maximum	Above ground: 9,730 Below ground: 28,047

 Table 1.1: Development Specification and Indicative Scheme Area Schedule

#### Table 1.2: Indicative Residential Unit Mix

Туре	Number of Units
Studio	30
1 bed	159
2 bed	316
3 bed	141
4 bed	56
Total	702

# Site Context

- 1.10 The Site is bounded by Canary Wharf Elizabeth Line (also referred to as Crossrail in other supporting documentation) station to the south, Aspen Way (A1261) to the north, Hertsmere Road to the west and Billingsgate Market to the east. The West India Quay Docklands Light Railway (DLR) station and Delta Junction are located on the western side of the Site and the Site also incorporates parts of North Dock, Upper Bank Street and Aspen Way.
- 1.11 Currently the Site comprises mostly cleared land, being previously used as a construction laydown site for the Canary Wharf Elizabeth Line station. There are some temporary uses

currently on site, including the Tower Hamlets Employment and Training Services, WorkPath and advertising structures.

- 1.12 The Site is well connected to the local and regional road network. The Site is bounded by the A1261 Aspen Way to the north, and Hertsmere Road and Upper Bank Street to the west and east respectively. Existing access to the development is provided from the east via Upper Bank Street.
- 1.13 A Site location plan is shown in **Figure 1.1**.



# Figure 1.1: Site Location Plan

### Site Location

1.14 The Site is bounded by Canary Wharf Crossrail station to the south, Aspen Way (A1261) to the north, Hertsmere Road to the west and Billingsgate Market to the east. The West India Quay Docklands Light Railway ("DLR") station and Delta Junction are located on the western side of the Site and the Site also incorporates parts of North Dock, Upper Bank Street and Aspen Way.

# **Assessment Overview**

- 1.15 This SWMP considers the potential impacts that may arise from waste generated during the operational phase of the Proposed Development, with the overall aim of developing a strategy for legislative compliance and good practice in the separation, storage and collection of waste arisings for all proposed land uses across the Site. The impacts of the construction phase of the Proposed Development and their potential mitigation have been outlined in Chapter 9 of the Transport Assessment and the Environmental Statement.
- 1.16 This SWMP is an interim plan setting the framework for the waste management arrangements and protocols. It is envisaged a detailed SWMP will be secured via an appropriately worded planning condition or s106 obligation and will provide the basis for the appropriate storage and management of waste prior to and following occupation of the Site.
- 1.17 This SWMP assesses the waste arisings, storage and management strategy associated with the Indicative Scheme, however the maximum number of residential units (1,264, 150,000 sqm (GIA)) which could come forward is also considered to provide a robust assessment. This SWMP therefore provides an overestimation of waste which could be generated (as 1,264 residential units, 750 serviced apartments and the office and retail uses detailed above would exceed the 355,000 sqm GIA site-wide floorspace limit), but nonetheless provides a robust assessment and demonstrates the waste storage and management flexibility within the Masterplan. The same approach is not applied to assess the waste arisings associated with a maximum commercial scheme as the Indicative Scheme is considered a reasonable representation of what may come forward and the proposed use of compactors provides the flexibility to accommodate any commercial floor areas which may come forward through the RMAs (i.e. by increasing compactor size or frequency of collection).

# **Report Structure**

- 1.18 This report is split into four sections.
  - Section 1: Introduction
  - Section 2: Waste Legislation, Policy and Local Guidance
  - Section 3: The Storage and Management of Residential Waste
  - Section 4: The Storage and Management of Commercial Waste
  - Section 5: Summary and Conclusions.

# 2. Waste Legislation, Policy and Local Guidance

# Introduction

2.1 This section provides details of legislation as well as strategic national guidance on how to treat waste and the latest local guidance which specifies the planning requirements for waste storage facilities.

# National Legislation

2.2 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 considered 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 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.

# National, London and Local Waste Policy

2.3 The relevant national, London and local waste policies that were reviewed during the preparation of this Site Waste Management Plan are listed below:

# • National Planning Policy Framework (2019)

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.

The Framework does not provide specific guidelines on planning policy for the development of waste infrastructure, but rather acts as a policy guidance umbrella, advising strategic policies to *"set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for: (...)* 

 infrastructure for transport, telecommunications, security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat)".

# National Planning Policy for Waste (2014)

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 National Planning Policy Framework 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

# • Planning Practice Guidance on Waste (2015)

The online Planning Practice Guidance on Waste only covers waste development such as metal recycling sites and energy from waste incineration, so is not relevant to the Proposed Development.

# • Waste Management Plan for England (2013)

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 ("rWFD"). The rWFD required that Member States ensure that their competent authorities, in this instance the Department for Environment, Food & Rural Affairs ("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.



# • BS: 5906:2005 Waste management in buildings – Code of Practice (2005)

BS 5906 is a code of practice for methods of storage, collection, segregation for recycling and recovery, and on-site treatment of waste from residential and non-residential buildings and healthcare establishments. BS 5906 applies to new buildings, refurbishments and conversions of residential and non-residential buildings, including but not limited to retail and offices.

# • The Mayor's Vision for London's Waste (2010)

In 2010, the Mayor unveiled London's first dedicated draft document aimed at tackling the 16 million tonnes of waste from sources such as the commercial & industrial (C&I) sectors.

The strategy, which is non-statutory, particularly focuses on waste reduction and highlights the economic benefits of businesses improving their waste management practices.

When the document was published, London recycled 57% of its waste; the Mayor specified a target of 80% of all London's waste to be recycled or composted by 2031, setting the following recycling targets for London:

- "To recycle or compost 70% of C&I waste by 2020, maintaining this performance to 2031."

# Making Business Sense of Waste: The Mayor's Business Waste Strategy for London (2010)

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 – the Spatial Development Strategy for London Consolidated with Alterations since 2011 (March 2016)

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 self-sufficiency

- 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:
- 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;
- create positive environmental and economic impacts from waste processing, and x work towards zero biodegradable or recyclable waste to landfill by 2031.
- This will be achieved by targeting the following: o minimising waste; o encouraging the reuse of and reduction in the use of materials;



- exceeding recycling/composting levels in commercial and industrial waste of 70% by 2020;
- improving London's net self-sufficiency through reducing the proportion of waste exported from the capital over time, and
- working with neighbouring regional and district authorities to co-ordinate strategic waste management across the greater south-east of England."

# The London Plan: (Intend to Publish Version) The Spatial Development Strategy for London – 2019

The 'Intend to Publish' version of the Draft London Plan is a statutory Spatial Development Strategy which aims to succeed the adopted London Plan.

Policies SI 7 – SI 9 focus on waste and its management. In particular, Policy SI 8 *Waste capacity and net waste self-sufficiency* states that:

*"D Development proposals for materials and waste management sites are encouraged where they:* 

 deliver a range of complementary waste management and secondary material processing facilities on a single site"

# • LBTH Local Plan 2031: Managing growth and sharing the benefits (Adopted January 2020) (Appendix 4: Waste collection standards)

The Local Plan states that "the management of waste is one of the most pressing issues facing Tower Hamlets". The document details the measures that must be incorporated into the design and operation of new developments to help the Borough manage its waste. These are summarised in Policy D.MW3 of Section 3 and are further detailed in Appendix 4: Waste collection standards. The Local Plan provides guidelines on waste storage (including mass waste collection and storage) and collection.

# 3. The Storage and Management of Residential Waste

# Introduction

- 3.1 This Site Waste Management Plan is intended to demonstrate that suitable arrangements are proposed to store and manage the waste and recycling generate by all land uses across the Site. This section covers the residential element of the scheme. Note that the Indicative Scheme includes a total of 702 residential units, but in order to demonstrate that the waste storage proposals are fit for purpose this chapter assesses the 'maximum residential' scheme, whereby 3 buildings (Development Plots NQ.A1/A2, NQ.A4 and NQ.D4) come forward for residential development. In this scenario, a total of 1,264 total residential units would be provided across the Site.
- 3.2 One key factor for residential waste is that it will be collected by LBTH waste operatives. The Applicant is therefore committed to a collaborative approach and will undertake extensive engagement with LBTH in forming the detailed SWMP which will support the subsequent RMAs. Waste management best practice changes frequently and there are often opportunities to improve efficiencies.

# Waste Storage Volumes

3.3 The waste storage proposed have been designed to meet the latest LBTH standards as published in Appendix 4 'Waste collection standards' of the recently adopted Local Plan (2020). The waste capacities for each residential unit type as set out by LBTH are shown in the **Table 3.1**.

Number of	Suggested Capacity per week (Litres)				
Bedrooms	Refuse	Dry Recyclables	Organic (without garden waste)		
1	70	60	23		
2	120	90	23		
3	165	120	23		
4	215	150	23		

Table 3.1	: LBTH	Waste	Capacity	Guidelines

3.4 The calculations in this section cover the proposed maximum residential mix within the parameters of Development Specification. In this scheme the total number of units provided are as shown in **Table 3.2**.

# Table 3.2: Residential Unit Mix – Max Residential Scheme

Unit Type	Number provided
Studio	240
1 Bedroom	563
2 Bedroom	332
3 Bedroom	106
4 Bedroom	23
Total	1,264

3.5 Based on this unit mix the total volume of waste and recycling to be stored on the Site would be as shown in **Table 3.3**.

#### Table 3.3: Residential Waste Generation – Weekly in Litres

Plat	Minimum	n Capacity per wee	ek (litres)	Total
FIOL	Refuse	Dry Recycling	Compostable	TOtal
Total	118,485	94,230	29,072	241,787

# Waste Storage Proposals

- 3.6 The method of storage for waste will be confirmed as RMAs come forward, however the general principles for waste management are devised in accordance with the following key waste storage guidance detailed in the Local Plan:
  - "... sufficient accessible space to separate and store dry recyclables, organics and residual waste... both within individual units and for the building as a whole"
  - "... incorporate high quality waste collection systems ... compatible with our waste collections methods outlined ..."
  - "Use larger containers ... more waste collected in a single round"
  - "systems could include compactors, underground storage containers, vacuum systems and automated waste collection systems."
  - "Discuss options with our team that manages waste collection... a collaborative approach"
- 3.7 To comply with these key principles, it is proposed that the majority of waste will be stored in portable skip compactors similar to the one shown in **Figure 3.1**.

### Figure 3.1: Portable Skip Compactor Example



- 3.8 These skip compactors will be stored within the loading bay in the basement of the scheme where direct vehicle access is provided. This will be made available to LBTH waste collection vehicles as defined by the waste collection schedule to be agreed prior to occupation.
- 3.9 **Table 3.4** summarises the waste storage requirements if 10.7m<sup>3</sup> portable skip compactors are used to store general waste and dry mixed recyclables. Note that general waste is assumed to compact to a ratio of 3:1 whereas recyclable waste is only compacted a ratio of 2:1 as this needs to be separated at the Materials Recovery Facility (MRF).

Waste type	Volume generated (m³)	Storage method	Volume (m³)	Compaction level	# of units
Residual	118.5	Compactor	10.70	3	4
Mixed Recyclable	94.2	Compactor	10.70	2	5
Organic	29.1	Wheeled Bin	0.24	1	121

#### Table 3.4: Waste Storage requirements – 10.7m³ compactors

- 3.10 Table 3.4 suggests that 9 compactors (10.7m<sup>3</sup>) would be required for the maximum residential (1,264 unit) scheme. The proposed layout of compactors at basement level 2 of the Indicative Scheme are shown in the drawing at Appendix 1.
- 3.11 Organic waste will be stored in wheeled bins (240L). The waste will be collected by standard recycling vehicles which undertake a collection round for organic waste bins only.
- 3.12 The swept path analysis of skip lorries and refuse collection vehicles at basement level 2 of the Indicative Scheme are shown in the drawing at **Appendix 2**.
- 3.13 In order to minimise the number of waste collection visits to the Site undertaken by LBTH waste collection team, a larger compactor may be an option that is considered going forward. The larger size of compactor is the 27m<sup>3</sup> version which is a "Rolonof" version, so named as it is "rolled" on

and off the collection vehicle. If this compactor size can be used, the following waste storage would be required if for the Maximum Residential Scheme.

Waste type	Volume generated (m³)	Storage method	Volume (m³)	Compaction level	# of units
Residual	118.5	Compactor	27.00	3	2
Mixed Recyclable	94.2	Compactor	27.00	2	2
Organic	29.1	Wheeled Bin	0.24	1	121

Table 3.5: Waste Storage requirements – 27m<sup>3</sup> compactors

- 3.14 Table 3.5 suggests that 4 compactors (27m<sup>3</sup>) would be required for the maximum residential (1,264 unit) scheme. The proposed layout of compactors at basement level 2 of the Indicative Scheme are shown in the drawing at Appendix 1.
- 3.15 The Applicant will continue to liaise with LBTH waste collection department in progressing the RMAs to ensure that the most appropriate storage and collection methods are set out within the detailed SWMP, to be secured by condition as part of the OPA.

# Individual Resident's Site Waste Management Plans

- 3.16 The proposed SWMPs for the individual buildings will be determined within future RMAs however the general principles established within the OPA are set out below.
- 3.17 To comply with LBTH requirements, each residential property would be provided with a compliant segregated waste bin. **Figure 3.2** shows an example of a segregated waste bin that complies with LBTH requirements.



#### Figure 3.2: Proposed style of segregated waste bin

- 3.18 The segregated waste bin shown includes the following bin sizes:
  - Dry Mixed Recycling: 30 litres; and
  - Residual Waste: 19 litres.



- 3.19 The residential units would be designed so that the proposed segregated waste bin would fit within a single kitchen unit, minimum width 500mm.
- 3.20 In addition, on commencement of the food waste collection service, LBTH would provide a suitable kitchen caddy and bio-bags to each residential unit for the collection of organic waste. The kitchen caddy would be placed in a suitable position in the kitchen by residents. Residents are then likely to transfer organic waste to bin storage areas within each residential building and into 240L wheeled bins for collection.
- 3.21 The exact means by which all waste is transferred to the main store will be determined for each building within the RMAs to follow. Residents will be given access to a waste disposal location / system which will ensure that they do not have to transport waste more than 30m in order to deposit waste (horizontal distance) in line with "BS5906 Waste management in buildings Code of practice".
- 3.22 The waste deposit location may be via direct access to a bin store, via access to a "holding area" where a smaller volume of containers are provided to store waste temporarily, or the building may include refuse chutes which would be provided with access points on all occupied floors.
- 3.23 Note that in all cases there will be the provision to deposit waste in the three proposed waste streams separately. If refuse chutes are used then waste segregation would occur using a "triseparator" device fitted at the base of each refuse chutes which can segregated waste and recycling as it is deposited into the chute. An example tri-separator system is illustrated in Figure 3.3.





# **Residential Bulky Waste**

3.24 As details of the basement are only provided in outline for the Indicative Scheme, no specific bulky waste store has been identified. However, there would be sufficient space within the basement and a bulky waste store will be provided and detailed in the RMAs which come forward. It will be sized appropriately for the likely demand for bulky waste storage and will be available for all residents who need to dispose of large items such as sofas, large kitchen appliances etc. An on-site Facilities Management (FM) team will be available to proactively manage the bulky waste storage area which will be located adjacent to the service yard. Residents would be required to pay the appropriate fee to LBTH and show evidence to the FM team prior to depositing their bulky waste. The FM team would assist the residents to move their bulky waste from their apartments to the bulky waste storage area if necessary.

# 4. The Storage and Management of Commercial Waste

# Introduction

- 4.1 This SWMP is intended to demonstrate that suitable arrangements are proposed to store and manage the waste and recycling generated by all land uses across the Site. This section assesses the commercial element of the Indicative Scheme as per the below schedule.
  - 44,081 sqm GIA serviced apartments (750 units)
  - 174,653 sqm GIA office space
  - 13,681 sqm GIA retail space (note that the retail is assumed to be 30% A1 and 70% A3 for the purposes of this assessment)
- 4.2 As set out in the assessment overview in Chapter 1, the total Site wide floor area assessed within this Site Waste Management Plan exceeds that set out in the Development Specification as a maximum residential scenario is assessed in Chapter 3. The use of compactors to store commercial waste will also provide the flexibility to accommodate the waste arisings with any commercial floor areas which may come forward through the RMAs (i.e. by increasing the compactor size or frequency of collection). This is considered to provide a robust assessment and demonstrate the waste storage and management flexibility within the Masterplan.
- 4.3 It has previously been established with LBTH for the Wood Wharf development that the volume of waste generated by a serviced apartment is likely to be similar to that generated by a one bedroom flat and therefore the LBTH one bedroom flat standard has been used to establish the weekly waste volume generated. The waste volumes for other land uses are based on the parameters in **Table 4.1** which come from "BS5906 Waste management in buildings Code of Practice".

# Table 4.1: Commercial Waste Standards

Use	Equation for Weekly Waste Generation
Offices	50L per employee (assumed occupation
Offices	density 1 person per 10m <sup>2</sup> NIA)
Retail	3,000L per 1,000 sqm (NIA)
Serviced Apartment	70L Refuse 60L recycling 23L compostable

4.4 This generates the total weekly waste volume as shown in **Table 4.2**.

Table 4.2:	Commercial	Waste	Generation -	Weekly in Litres

B1 Office (L)	A1 Retail (L)	A3 Retail (L)	Serviced Apartments (L)	Total (L)
880,030	12,313	28,730	114,750	1,035,823

4.5 To minimise the size of waste stores it is proposed that a daily collection will be undertaken for all commercial waste streams. When a daily collection strategy is proposed there will be a requirement to provide for two days of waste storage capacity for all waste streams to account for the occasional missed collection for example on Bank Holidays. The frequency of collection will be set out in the detailed SWMP to be secured by a planning condition. The two-day waste storage volume is shown in **Table 4.3**. Note that it is assumed that 70% of all waste will be recycled.

Land Use	Total Waste volume (m³)	General Waste (m³)	Recyclable Waste (m³)
A1 Retail	3.5	1.0	2.5
A3 Retail	8.2	2.5	5.7
Serviced Apartments	32.8	9.8	23.0
B1 Office	251.4	75.4	176.0
Total	296	89	207

4.6 The recyclable waste will be split further into different recyclable waste streams dependent on the land use. An estimate breakdown by waste stream is shown in **Table 4.4**.

	A1 Retail	A3 Retail	B1 Office	Serviced Apartments	
Total Waste	2.5	0.7	251 4	22.0	
Volume (m <sup>3</sup> )	5.5	0.2	201.4	52.0	
Residual	1.05	2.46	75.43	14.75	
Organic	0.21	0.98	17.60	4.92	
Glass	0.28	0.65	5.03	0.00	
Recyclable	1.27	3.13	123.20	13.11	
Card	0.70	0.98	30.17	0.00	

### Table 4.4: Waste stream break down by land use.

4.7 It is proposed that general waste and recyclables are stored in 10.7m<sup>3</sup> portable skip compactors. Further processing of cardboard and glass are also proposed to minimise storage and collection requirements. The proposed storage method for each waste stream is shown in **Table 4.5**.

	•	2			
Waste type	Volume generated (m³)	Storage method	Volume (m³)	Compaction level	# of units
Residual	93.7	Compactor	10.70	3	3
Recyclable	140.7	Compactor	10.70	3	5
Organic	23.7	Wheeled bin	0.36	1	66
Glass	6.0	Wheeled bin	0.24	5	5
		Cardboard		_	_

bale

0.66

#### Table 4.5: Waste storage method by waste stream

31.9

Card

9

6

- 4.8 It is therefore proposed that the waste equipment listed below would be required to manage and store all of the commercial waste generated by the Indicative Scheme.
  - 3 x 10,700L Compactor for Residual Waste
  - 5 x 10,700L Compactor for Recyclable Waste
  - 66 x 360L Wheeled bin for Organic Waste
  - 5 x 240L Wheeled bin for Glass Waste
  - 9 x 660L Cardboard bale
  - 1 x Glass crusher / compactor
  - 1 x Cardboard baler
  - 5 x Waste oil drum
- 4.9 As shown above, 8 compactors (10.7m<sup>3</sup>) would be required in the basement for the commercial elements of the Indicative Scheme. The proposed layout of compactors at basement level 2 of the Indicative Scheme are shown in the drawing at **Appendix 1**.
- 4.10 Combined, the maximum residential and Indicative Scheme commercial floor areas assessed would require 17 compactors (10.7m<sup>3</sup>) to accommodate the overestimated Site waste arisings. 16 compactors are shown within the Indicative Scheme at basement level 2. On the basis that the above analysis overestimates the quantum of storage required (based on the maximum number of residential units but does not make any corresponding allowances for reduced commercial floor areas) and that larger 27m<sup>3</sup> compactors could be used to further reduce compactor requirements (or increase the capacity of storage required for a maximum commercial scheme), the space for 16 compactors as shown within the Indicative Scheme is considered to provide sufficient capacity to accommodate the waste arising for any scheme which may come forward through the RMAs to follow.
- 4.11 Specific areas for wheeled containers and other waste equipment are not detailed within the Indicative Scheme, however the waste management strategy will be discussed with LBTH in progressing the RMAs and fully set out in the detailed SWMP to be secured by condition. This will include space for equipment such as cardboard balers and glass crushers, examples of which are shown in **Figure 4.1**.

# Figure 4.1: Cardboard Baler and Glass Crusher examples



# Proposed Waste Management Strategy – Public Realm

- 4.12 Bins for visitors to the Site to deposit their waste and recycling will be provided through the public realm. It is proposed that these waste containers for various waste recycling and general waste streams be provided in order to promote waste reduction and maximise recycling opportunities.
- 4.13 The waste would be regularly removed from the bins in the public realm by the on-site FM team as part of their ongoing daily cleaning activities and would be transported to the main waste storage area in the basement for collection.

# 5. Summary and Conclusions

- 5.1 The waste storage and management proposals detailed within the document have been established to take account of Local, Regional and National Planning Policy and in reference to Best Practice Guidance.
- 5.2 This document has outlined how the Proposed Development responds to and satisfies the most recent guidance contained within Appendix 4: Waste collection standards of the LBTH Local Plan 2031in terms of waste collection and sufficient waste storage capacity and location, which will be provided internally within the units, across the public realm and collected centrally.
- 5.3 The waste storage and management proposals have been shown to meet the waste requirements of the Indicative Scheme. An overestimation of the waste requirements has also been provided which considers the maximum number of residential units but does not make any corresponding allowances for reduced commercial floor areas. This SWMP has therefore robustly demonstrated that there is capacity and flexibility within the Masterplan to accommodate any scheme which comes forward in the RMAs.
- 5.4 A detailed SWMP will be secured by condition and detail the waste storage, management and collection strategies to support the scheme which comes forward. The Applicant will also develop details of the waste strategy for each Development Plot in collaboration with LBTH waste officers and provide details to support the RMAs which come forward. As outlined in the preceding chapters, each RMA will include details on:
  - Waste collection schedule
  - Waste storage and collection methods
  - Waste storage capacity
- 5.5 This will ensure that the waste management arrangements are able to react to future changes in policy, and any changes in best practice regarding opportunities to recycle and any potential to establish a circular economy for waste management.

# Appendix 1 - Indicative Scheme Basement Level 2 Compactor Layout



CAD REFERENCE: \\sdgworld.net\Data\London\Projects\229\0\25\10\CAD\Drawings\Figures\Servicing and Waste (Basement Level 02) - B2-SER

# Appendix 2 - Swept Path Analysis for Skip Lorries and Refuse Collection Vehicles





