APPENDIX E OPERATIONAL WASTE MANAGEMENT PLAN

ABERFELDY VILLAGE MASTERPLAN

WASTE MANAGEMENT STRATEGY

PROJECT NO. 4060 / 1100 DOC NO. D012

DATE: OCTOBER 2021

VERSION: 0.8

CLIENT: THE ABERFELDY NEW VILLAGE LLP

Velocity Transport Planning Ltd

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VELOCITY Transport Planning

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1 INTRODUCTION

1.1 INTRODUCTION

1.1.1 This Waste Management Strategy (WMS) has been prepared by Velocity Transport Planning and is submitted in support of a hybrid planning application for the Aberfeldy Village Masterplan. The hybrid planning application is made in relation to the north of East India Dock Road (A13), east of the Blackwall Tunnel Northern Approach Road (A12) and to the south west of Abbot Road (the "Site") on behalf of The Aberfeldy New Village LLP' ("The Applicant"). The hybrid planning application is formed of detailed development proposals in respect of Phase A for which no matters are reserved ("Detailed Proposals"), and outline development proposals for the remainder of the Site, with all matters reserved ("Outline Proposals"). The Detailed Proposals and Outline Proposals together are referred to as the "Proposed Development".

1.1.2 The Proposed Development comprises the comprehensive redevelopment of the Site. The Proposed Development will provide new retail and workspace floorspace along with residential dwellings and the pedestrianisation of the A12 Abbott Road vehicular underpass to create a new east to west route. The Development will also provide significant, high quality public realm, including a new Town Square, a new High Street and a public park.

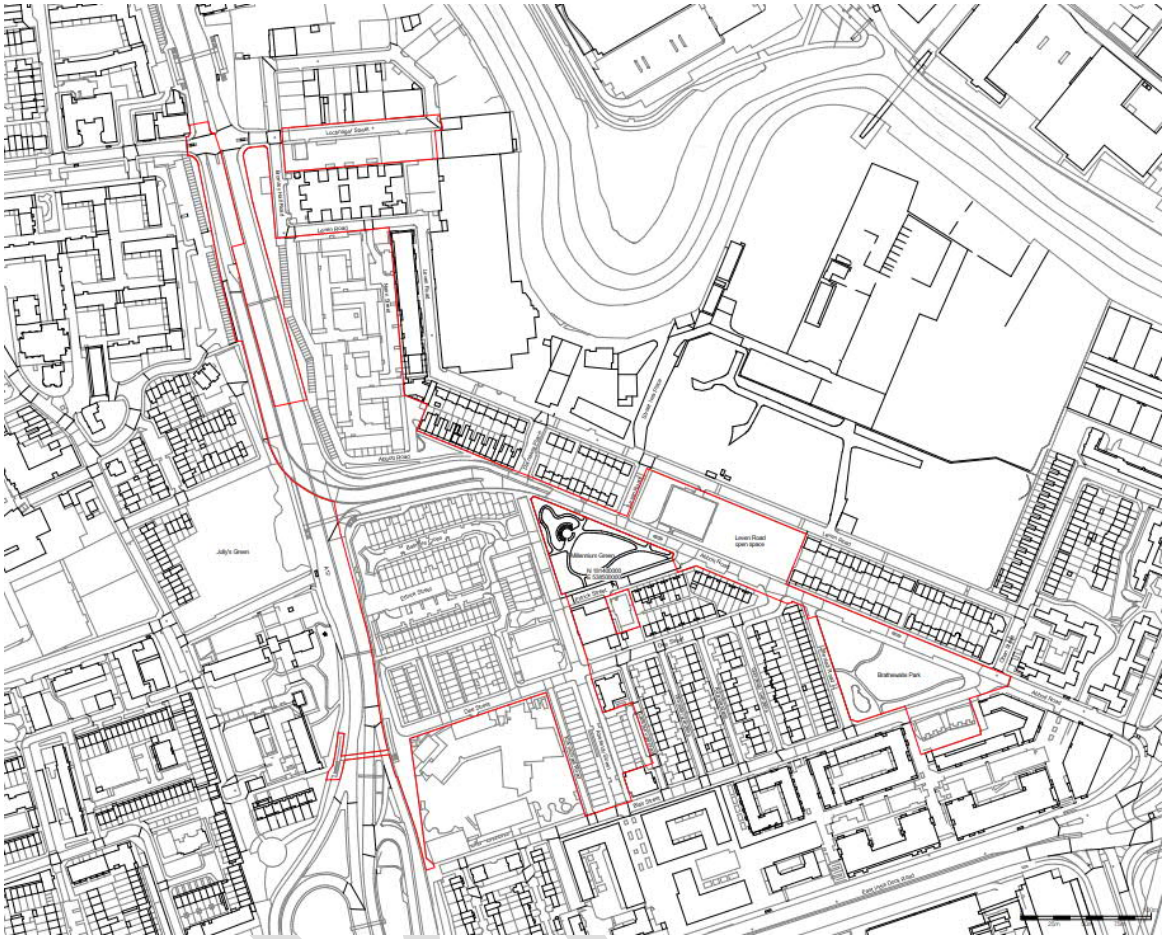
1.1.3 The purpose of the WMS is to consider the potential impacts that may arise from waste generated during the operational phase of the Proposed Development, with the overall aim of developing a strategy for legislative compliance and good practice in the separation, storage and collection of waste arising.

1.2 SITE LOCATION

1.2.1 The Proposed Development is located in Poplar, within the administrative boundary of the London Borough of Tower Hamlets (LBTH).

1.2.2 Figure 1-1 shows the location of the Proposed Development.

Figure 1-1: Site Location



1.3 SITE DESCRIPTION

1.3.1 Land to the north of East India Dock Road (A13), east of the Blackwall Tunnel Northern Approach Road (A12) and to the south west of Abbot Road, 8.14 hectares (approx. 20 acres) in total.

1.4 EXTANT OUTLINE PLANNING PERMISSION

1.4.1 There are three previous phases of development; Outline Permission rf: PA/11/02716/P0 (granted June 2012) has delivered to date:

- Phases 1 and 2 built out, with Phase 3 under construction;
- 901 new homes;
- 29% affordable homes by habitable room or 9.18% affordable homes by habitable room on the uplift;
- New larger Community Centre with improved facilities;
- Larger modern Health Centre;
- New retail floorspace;
- New energy centre;
- New and enhanced high quality open space including play-space and a linear park;

- Heights: 2 to 10 storeys; and
- Parking ratio: 0.2 spaces.

1.5 PROPOSED DEVELOPMENT

1.5.1 The Proposed Development is described as follows:

'Hybrid application seeking detailed planning permission for Phase A and outline planning permission for future phases, comprising:

Outline planning permission (all matters reserved) for the demolition of all existing structures and redevelopment to include a number of buildings (up to 100m AOD) and up to 141,014sqm (GEA) of floorspace comprising the following mix of uses:

- *Residential (Class C3);*
- *Retail, workspace, food and drink uses (Class E);*
- *Car and cycle parking;*
- *Formation of new pedestrian route through the conversion of the existing vehicular underpass;*
- *Landscaping including open spaces and public realm; and*
- *New means of access, associated infrastructure and highways works.*

In Full, for residential (Class C3), retail, food and drink uses and a temporary marketing suite (Class E and Sui Generis), together with access, car and cycle parking, associated landscaping and new public realm, and private open space.'

1.5.2 Figure 1-2 shows the extent of the Outline and Detailed Proposals.

Figure 1-2 Detailed and Outline Proposals

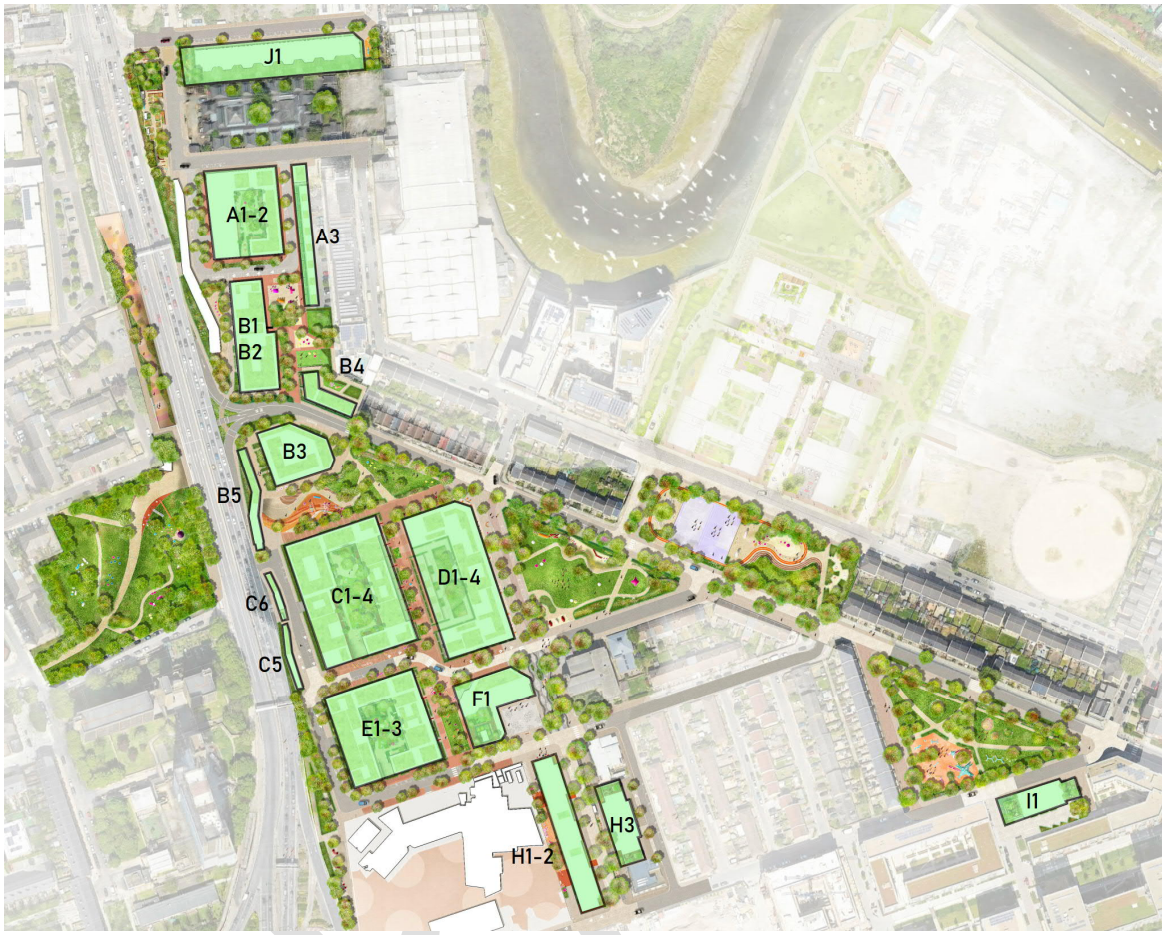
1.5.3 The Proposed Development comprises four phases of development; Table 1-1 summarises these phases.

Table 1-1 Development Phases

Phase	Application	Plot
A	Detailed	F / H / I / J
B	Outline	A1-3 / B1-5
C	Outline	C1-C6 / E1-E3
D	Outline	D1-D4

1.5.4 Figure 1-3 shows the configuration of the Proposed Development.

Figure 1-3 Proposed Development Configuration (Illustrative Masterplan)



1.6 PLANNING APPLICATION STRUCTURE

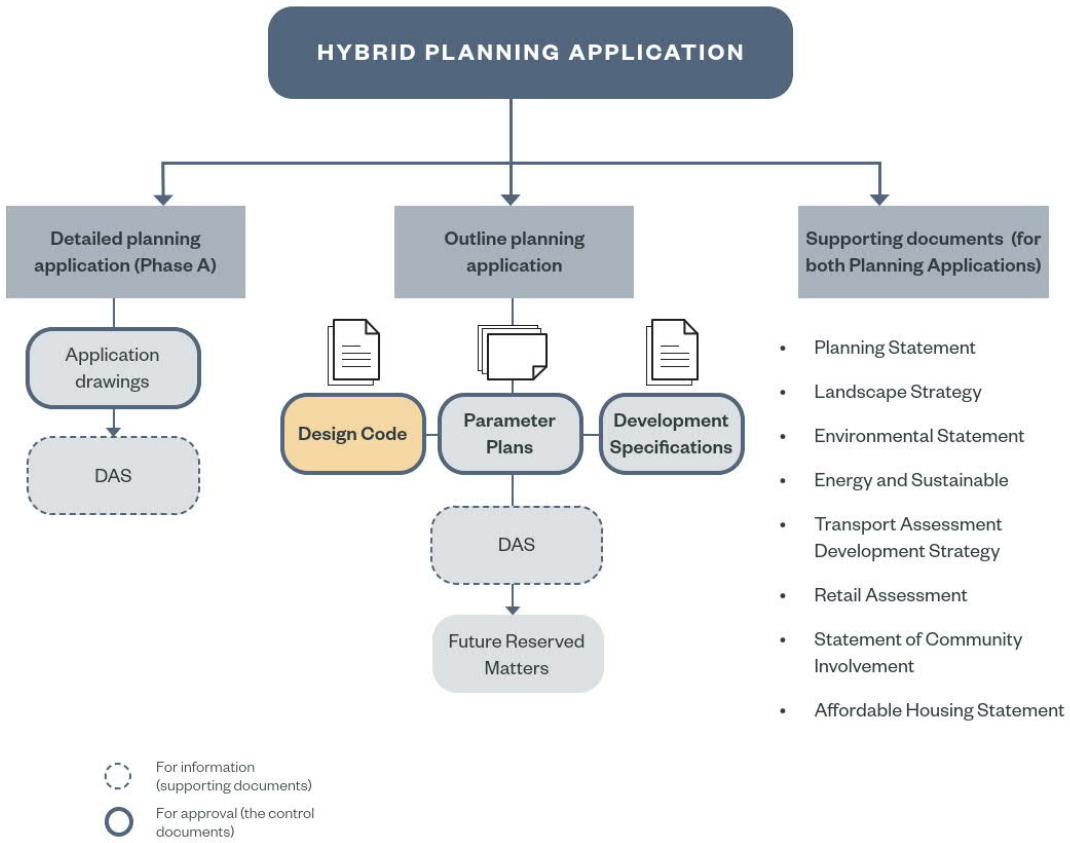
1.6.1 The Hybrid planning application seeks Full Planning Permission for Phase A and Outline Planning Permission, with all matters reserved, for the rest of the site (which includes Phases B, C and D).

1.6.2 Reserved Matters Applications (RMAs) are required to come forward in compliance with the design principles and guidelines established in the Aberfeldy Village Masterplan Design Code.

1.6.3 Future Reserved Matters submissions may cover multiple plots and public realm areas or single plots.

1.6.4 Figure 1-4 details the structure of the Hybrid Planning Application for the Proposed Development.

Figure 1-4 Hybrid Planning Application Structure



1.6.5 The development of Aberfeldy Village will be regulated by three documents that have been produced as part of the Hybrid Planning Application:

- The Parameter Plans;
- The Development Specification; and
- The Design Code.

1.6.6 The Aberfeldy Village Masterplan Design Code sets out a series of illustrated rules and standards which will guide the future phases of the development of the site.

1.6.7 The Parameter Plans need to be read in conjunction to the Design Code. They outline key parameters for the development, including elements such as plots, scale, open space and land use distribution.

1.6.8 The Development Specifications define and describe the principal components of the development, including minimum and maximum development quantum and uses.

1.7 THE ABERFELDY VILLAGE MASTERPLAN DESIGN CODE

1.7.1 The Design Code (DC) applies to the Outline Proposals and has been closely developed to Phase A, the Detailed Proposals.

1.7.2 The DC sets out the rules and requirements that any future 'reserved matters' applications for the development of any of the parcels defined in the Parameter Plans must follow.

1.7.3 The DC applies to the Outline Proposals and has been closely developed to Phase A, the Detailed Proposals.

1.7.4 The DC has been produced to:

- Ensure high quality design and the development of a sustainable community;
- Define the public realm spaces and hierarchy of the development plots for the buildings in the masterplan;
- Define the character of the physical environment and the requirements on the proposed plots and buildings to support and reflect that character;
- Provide a level of consistency so the site as a whole is developed in a coherent manner in line with the masterplan vision and design principles;
- Ensure accessible and inclusive design for all;
- Communicate masterplan requirements for future reserved matters application(s) for individual development proposals over the life of the development.

1.7.5 The DC document specifies design aspects, aspirations and design principles for the development of the individual plots, open spaces and character areas which form part of the various phases of the masterplan. Each component of the DC must be fully integrated into the masterplan to ensure that there is a cohesive and consistent approach across the site, whilst also creating flexibility and variety in the design, and aiming to create a series of unique but harmonious buildings and spaces.

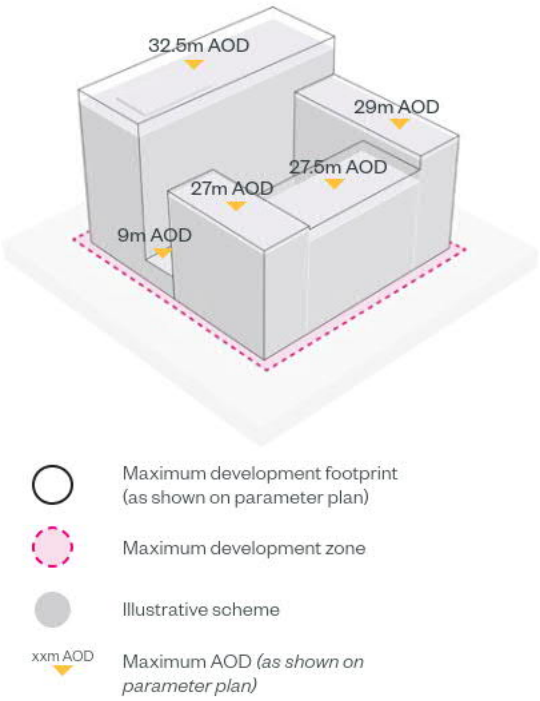
1.8 MAXIMUM PARAMETER AND ILLUSTRATIVE SCHEME

1.8.1 The Outline Proposals have been developed as follows:

- Maximum parameter - includes the maximum development footprint that any Reserved Matters Submission must not exceed;
- Maximum development zone - includes a 2m zone allowing for potential building projections such as balconies;
- Illustrative scheme - represents a scheme which demonstrates a possible proposal of the development within the maximum parameters; and
- The maximum AOD - represents the maximum spot height ("Above Ordnance Datum") that any Reserved Matters Submission must not exceed.

1.8.2 Figure 1-5 shows the relationship between the maximum parameter and illustrative schemes.

Figure 1-5 Relationship between Maximum Parameter and Illustrative Scheme



1.9 DOCUMENT STRUCTURE

1.9.1 This report is set out in the following format:

- Section 2: Waste Legislation, Policy and Guidance – details of the national legislation and local waste policy that have relevance to the Proposed Development.
- Section 3: Principles of Residential Waste Management – outlines the overarching waste management principles, design standards and estimated waste generation for the residential elements of the Proposed Development.
- Section 4: Detailed Proposals: Phase A Residential Waste Management Strategy – provides details of residential waste storage, presentation and collection for Phase A of the Proposed Development once operational.
- Section 5: Outline Proposals: Phases B-D Residential Waste Management Strategy – provides details of residential waste storage, presentation and collection for Phases B-D of the Proposed Development once operational.
- Section 6: Principles of Commercial Waste Management – outlines the overarching waste management principles, design standards and estimated waste generation for the commercial elements of the Proposed Development.
- Section 7: Detailed Proposals: Phases A Commercial Waste Management Strategy – provides details of commercial waste storage, presentation and collection for Phase A of the Proposed Development once operational.

- Section 8: Outline Proposals: Phases B-D Commercial Waste Management Strategy – provides details of commercial waste storage, presentation and collection for Phases B-D of the Proposed Development once operational.
- Section 9: Summary & Conclusions

2 WASTE LEGISLATION, POLICY & GUIDANCE

2.1 INTRODUCTION

2.1.1 The UK is no longer a member of the European Union. EU legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation, under the control of the UK's Parliaments and Assemblies.

2.1.2 This section focuses on the details of the national legislation that are relevant to the Proposed Development, in addition to waste policy and guidance at a local level, reviewed as part of the preparation of this Waste Management Strategy.

2.2 NATIONAL LEGISLATION

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

2.2.2 The Waste (Circular Economy) (Amendment) Regulations (2020) – these regulations came into force on 1 October 2020 and amended a raft of primary and secondary legislation on waste, to introduce a revised legislative framework to support the EU's Circular Economy Package (CEP) identifying steps for the reduction of waste and establishing an ambitious and credible long-term path for waste management and recycling.

2.2.3 Waste Management, The Duty of Care Code of Practice (2018 update) - This code of practices replaces the 1996 Code and is pursuant to Section 34(9) of the Environmental Protection Act 1990. It sets out practical guidance on how to meet waste duty of care requirements and is admissible as evidence in legal proceedings i.e. its rules will be taken into account where relevant in any case based on breach of the duty of care.

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

2.2.5 Environment 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 included within the Environmental Protection Act 1990.

2.3 NATIONAL, LONDON & LOCAL WASTE POLICY

2.3.1 The relevant national, London and local waste policy reviewed during the preparation of this Waste Management Strategy is outlined below and further detail provided in APPENDIX A.

- Department for Levellng Up, Housing and Communities (DLUHC), National Planning Policy Framework (2021);
- DLUHC, National Planning Policy for Waste (2014);

- Department for Environment, Food and Rural Affairs (DEFRA), Our Waste, Our Resources: A Strategy for England (2018);
- HM Government, A Green Future: Our 25 Year Plan to Improve the Environment (2018);
- Greater London Authority (GLA), The London Plan 2021 (March 2021);
- GLA, London Environment Strategy (2018);
- LBTH, Tower Hamlets Local Plan 2031 (2020);
- LBTH, Reuse, Recycling and Waste SPD (July 2021);
- LBTH, Waste Management Strategy 2018-2030 (2018); and
- LBTH, Waste Storage and Collection Systems Supplementary Information (2017).

3 PRINCIPLES OF RESIDENTIAL WASTE MANAGEMENT

3.1 INTRODUCTION

3.1.1 This section outlines the principles for residential waste management within both Outline and Detailed Proposals of the Proposed Development, which will comprise multiple phases of residential plots as part of the regeneration of the estate.

3.1.2 Residential waste will be managed in accordance with LBTH's *'Waste storage and collection systems supplementary information'* and '*Local Plan 2031: Adopted January 2020'* (hereafter collectively referred to as 'the Guidance').

3.2 PRE-APPLICATION

3.2.1 A pre-application meeting was held with representatives from LBTH Highways and Waste on 17th December 2020, during which the principles of waste storage, presentation and collection for the Proposed Development were agreed.

3.2.2 Following the pre-application meeting, overall strategies and principles for the management of waste continued to be refined through correspondence with the LBTH Environmental Services Improvement Team Leader via email.

3.3 CURRENT WASTE MANAGEMENT SERVICES

3.3.1 Table 3-1 summarises the waste services available to residents in LBTH.

Table 3-1 Current Residential Waste Services in LBTH

Service	Details
Residual Waste Collection	Collected fortnightly in black bins
Dry-Mixed Recycling (DMR) Collection	Collected fortnightly in green bins
Food Waste Collection	Collected weekly in green food caddy
Garden Waste Collection	Chargeable service collected fortnightly in brown bins
Textiles / WEEE / Small Batteries	Collected fortnightly in clear plastic bags.
Bulky Waste Collection	Chargeable collection service
Local Recycling Points	A number are located across the borough
Reuse and Recycling Centres	A reuse and recycling centre is available for residents to use at: Tower Hamlets Reuse and Recycling Centre Yabsley Street London E14 9RG

3.4 PRINCIPLES OF DESIGN

3.4.1 This section summarises the design principles applied to the management of residential waste within the Proposed Development.

WASTE STORAGE FACILITIES

3.4.2 Within the Proposed Development, all waste facilities will be designed to British Standard BS5906:2005 *Waste Management in Plots – Code of Practice* standards. In summary, the waste facilities will include the following:

- A suitable water point in close proximity to allow washing down;
- All surfaces will be sealed with a suitable wash proof finish (vinyl, tiles etc.);
- All surfaces will be easy to clean;
- Suitable floor drain; and
- Suitable lighting and ventilation.

WASTE COLLECTION ACCESS

3.4.3 In accordance with the Guidance, within the Proposed Development, the route between any waste storage facilties and the Refuse Collection Vehicle (RCV) will:

- be free from steps or kerbs;
- have a solid foundation;
- have a smooth solid surface; and
- be level and have a gradient of no more than 1:12, with a minimum width of 2 metres.

INTERNAL RESIDENTIAL WASTE STORAGE

3.4.4 Each residential property will be provided with a segregated waste bin, which will be fixed in to an appropriate kitchen unit.

3.4.5 Figure 3-1 shows an example of a commercially available segregated kitchen bin.

Figure 3-1 Example Segregated Kitchen Bin[1]

[1] Example Kitchen Bin https://www.hafele.co.uk/en/product/pull-out-waste-bin-for-hinged-door-cabinets-2x-10-1x-20-litres/0000008e000185f900040023/#SearchParameter=&Category=DMPAqBtGW4gAAAFP5sY4Inbm&checkbox_fs_waste_bin_in

3.4.6 The segregated waste bin shown in Figure 3-1 includes the following bin capacities:

- Residual Waste: 10 litres;
- Recyclables: 20 litres; and
- Food Waste: 10 litres.

3.4.7 The proposed segregated waste bin will be fitted in to a single kitchen unit with a minimum width of 500mm.

3.5 RESIDENTIAL WASTE STORAGE REQUIREMENTS

3.5.1 This section outlines the residential waste storage requirements as per the Guidance.

INDIVIDUAL DWELLINGS

3.5.2 Individual residential dwellings are required to provide storage for bins within the curtilage of the property.

3.5.3 Table 3-2 below details the container requirements for individual dwellings, extracted from the Guidance.

Table 3-2 LBTH Container Requirements - Individual Dwellings

	Waste Stream			
	Residual Waste	DMR	Food Waste	Garden Waste
Container Type	240-Litre Wheeled Bin	240-Litre Wheeled Bin	23-Litre Food Caddy	Garden Waste Sack

COMMUNAL WASTE STORAGE – WASTE METRICS

3.5.4 Estimated volumes of residential waste generated at the Proposed Development for properties with communal waste storage once operational have been quantified using waste generation metrics extracted from the Guidance and agreed with the LBTH Environmental Services Improvement Team Leader.

3.5.5 Table 3-3 below details the residential waste metrics applied to the plots with communal waste storage within the Proposed Development.

Table 3-3 Residential Waste Metrics – Communal Waste Storage

Unit Type	Storage Provision (Litres)		
	Residual Waste	DMR	Food Waste
1-Bed	70	60	12
2-Bed	120	90	
3-Bed	165	120	
4-Bed (+)	215	150	

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4 DETAILED PROPOSAL: PHASE A RESIDENTIAL WASTE STRATEGY

4.1.1 The following section summarises the residential waste strategy for properties within Phase A of the Proposed Development, forming the Detailed Proposals.

4.1.2 Phase A includes both individual dwellings and properties with communal waste storage.

4.1.3 Figure 4-1 shows the locations of Phase A within the Proposed Development.

Figure 4-1 Proposed Development Phase A

4.2 ACCOMMODATION SCHEDULE

4.2.1 Table 4-1 below summarises the accommodation schedule for the Detailed Proposals including whether waste will be stored individually per dwelling, or communally by core.

Table 4-1 Accommodation Schedule – Detailed Proposals

Plot	Storage Type	Number of Residential Units							
		Studio	1-Bed	2-Bed	3-Bed	4-Bed	5-Bed	6-Bed	Total
F1	Communal	6	41	50	5	0	0	0	102
H1	Communal	0	5	12	12	4	0	0	33
H2	Communal	0	5	12	12	4	0	0	33
H3	Communal	6	10	18	4	0	0	0	38
I1	Communal	0	20	32	0	0	0	0	52
J1	Communal	0	0	0	6	0	0	0	6
	Individual	0	0	0	0	9	0	4	13
	Total	12	81	124	39	17	0	4	277

4.3 RESIDENTIAL WASTE STRATEGY – INDIVIDUAL DWELLINGS (PLOT J)

4.3.1 The following section details the principles of residential waste management within Phase A for individual dwellings.

4.3.2 This section of the waste management strategy relates to the individual dwellings within Plot J.

4.3.3 The individual dwellings receiving kerbside collections are shown in Figure 4-2 below.

Figure 4-2 Plot J Individual Dwellings

4.3.4 Each kerbside property will be provided with a dedicated waste storage facility sufficient in size to store the containers summarised in Table 3-2.

4.3.5 The dimensions of the bins are summarised in Table 4-2.

Table 4-2 Container Dimensions

Container	Dimensions (mm)		
	Height	Width	Depth
240-Litre Wheeled Bin	1,085	570	730
23-Litre Food Caddy	430	320	390

4.3.6 The waste storage facility will be within the curtilage of each property and allow the bins to be stored on a solid base which can be accessed via a pathway.

4.3.7 The bins should not be presented for collection on the public footway or highway.

4.3.8 The LBTH collection operatives will collect the bins directly from the boundary of each property and drag them to the adjacent Refuse Collection Vehicle (RCV) on Lochnagar Street.

4.3.9 Once the bins have been emptied, the LBTH collection operatives will return the bins to the collection point.

4.4 RESIDENTIAL WASTE STRATEGY – COMMUNAL WASTE STORAGE (PLOTS F, H, I & J)

4.4.1 The following section details the principles of residential waste management within Phase A for units with communal waste storage.

WASTE GENERATION MODELLING

4.4.2 Applying the waste metrics summarised in Table 3-3 to the accommodation schedule in Table 4-1, Table 4-3 summarises the estimated weekly waste generation for the Detailed Proposals with communal waste storage.

Table 4-3 Estimated Weekly Waste Generation – Communal Waste Storage

Plot	Weekly Waste Generation (Litres)			
	Residual Waste	DMR	Food Waste	Total
F1	10,115	7,920	1,224	19,259
H1	4,630	3,420	396	8,446
H2	4,630	3,420	396	8,446
H3	3,940	3,060	456	7,456
I1	5,240	4,080	624	9,944
J1	990	720	72	1,782
Total	29,545	22,620	3,168	55,333

RESIDENTIAL WASTE STRATEGY - PLOTS F, H & J

4.4.3 Each plot will be provided with a residential waste store at ground floor level. The residential waste stores will accommodate all residual waste, DMR and food waste generated within these plots prior to collection.

4.4.4 Residual waste will be stored in 1,100-litre Eurobins and DMR will be stored in 1,280-litre Eurobins. Food waste will be stored in 240-litre wheeled bins.

4.4.5 Table 4-4 summarises the dimensions of the containers within Plots F, H and J.

Table 4-4 Container Dimensions

Container	Dimensions (mm)		
	Height	Width	Depth
1,100-Litre Eurobin	1,370	1,250	980
1,280-Litre Eurobin	1,470	1,260	985
240-Litre Wheeled Bin	1,085	570	730

4.4.6 Based on the estimated residual waste, DMR and food waste generation in Table 4-3, Table 4-5 details the container requirements for Plots F, H and J once operational.

Table 4-5 Container Requirements - Plots F, H & J

Plot	Number of 1,100-Litre Eurobins Residual Waste	Number of 1,280-Litre Eurobins DMR	Number of 240-Litre Wheeled Bins Food Waste	Total
F1	10	7	6	23
H1	5	3	2	10
H2	5	3	2	10
H3	4	3	2	9
J1	1	1	1	3
	25	17	13	55

4.4.7 Residents will be required to transport their own waste from their property directly to their nearest waste store, using the passenger lifts (where necessary), where they will segregate their waste into appropriately labelled bins.

4.4.8 Figure 4-3 and Figure 4-4 show the locations and configurations of the residential waste stores.

Figure 4-3 Plot F Residential Waste Store

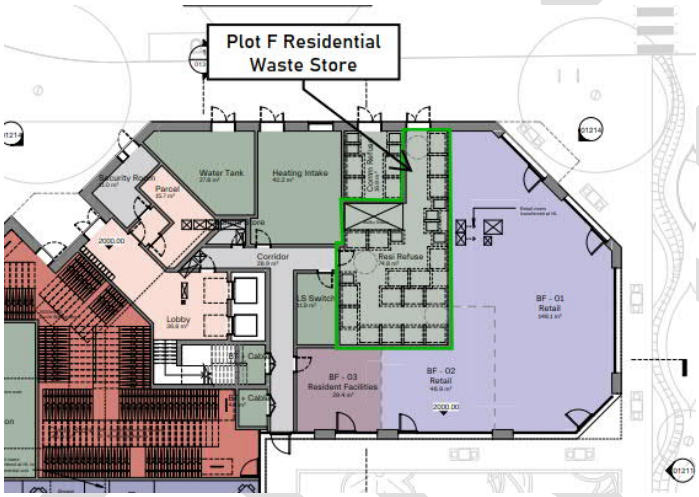


Figure 4-4 Plot H Residential Waste Stores

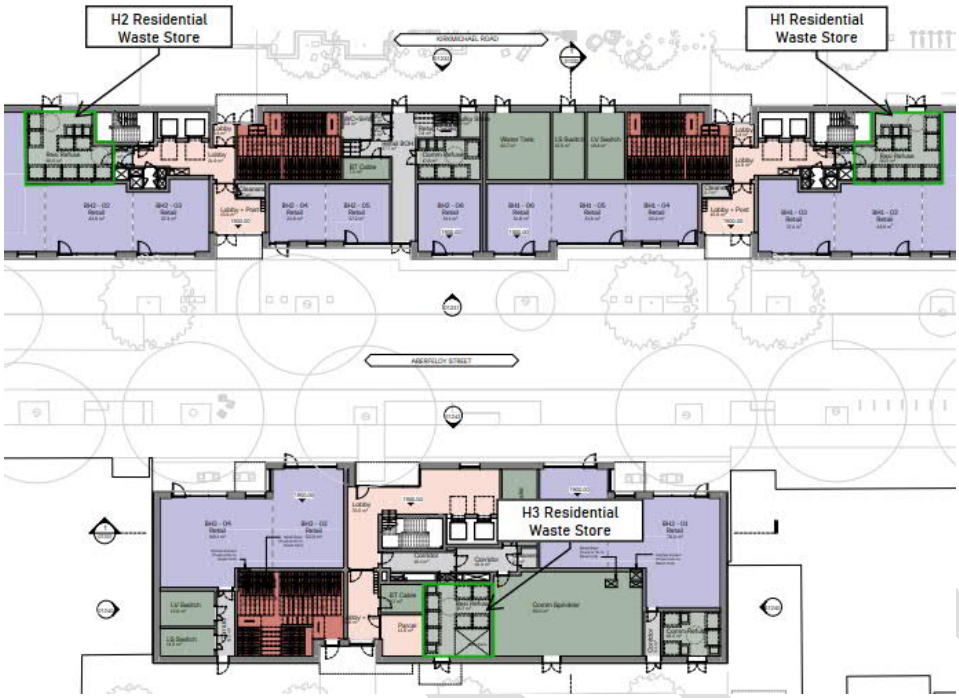
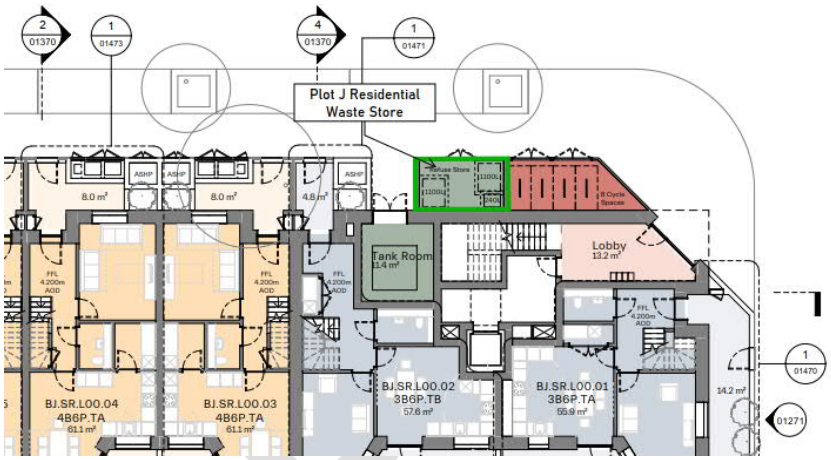


Figure 4-5 Plot J Residential Waste Store



4.4.9 On nominated collection days, the LBTH waste collection operatives will access the bins from the residential waste stores in Plots F1, H3 and J1 directly and wheel them out to the parked RCV. Once the bins have been emptied, the operatives will return them to the waste stores.

4.4.10 The bins within the residential waste stores in Plots H1 and H2 will be presented in the external landscaping within 10m of the RCV, as per the Guidance.

4.4.11 Figure 4-6 and Figure 4-7 indicate the loading positions of the RCV for Plots F and H.

Figure 4-6 RCV Loading Position Plot F

Figure 4-7 RCV Loading Position Plot H

Figure 4-8 RCV Loading Position Plot H

4.4.12 APPENDIX B includes full swept path analysis for the RCV.

RESIDENTIAL WASTE STRATEGY - PLOT I

4.4.13 Plot I is located adjacent to three earlier phases of the Aberfeldy Village development that store residual waste and DMR within Underground Refuse Storage (URS) units.

4.4.14 An example URS unit is shown in Figure 4-9

Figure 4-9 Example URS Unit

4.4.15 Residual waste and DMR will be stored in 5,000-litre URS units within the external landscaping and food waste will be stored in 240-litre wheeled bins within a residential waste store.

4.4.16 Table 4-6 summarises the nominal dimensions of the containers within Plot I. Exact dimensions of the URS units would be confirmed by the contracted supplier prior to installation.

Table 4-6 Container Dimensions

Container	Dimensions (mm)		
	Height	Width	Depth
5,000-Litre URS	1,665	1,665	2,955
240-Litre Wheeled Bin	1,085	570	730

4.4.17 Based on the estimated residual waste, DMR and food waste generation in Table 4-3, Table 4-7 details the container requirements for Plot I once operational.

Table 4-7 Container Requirements – Plot I

Plot	Number of 5,000-Litre URS Units		Number of 240-Litre Wheeled Bins
	Residual Waste	DMR	Food Waste
I1	1	1	3
Total			

4.4.18 It should be noted that there are currently two URS units located at the rear of the block, for the use of all residents within the surrounding earlier phases of the Aberfeldy Village development. The URS units for Plot I are provided in addition to the existing units, to ensure sufficient capacity is available.

4.4.19 Residents will be required to transport their own waste from their property directly to their nearest URS unit, or the residential food waste store using the passenger lifts (where necessary), where they will segregate their waste accordingly.

4.4.20 To prevent mis-use the residential food waste stores and URS units will be secured by fob or coded access.

4.4.21 Figure 4-10 shows the location of the URS units.

Figure 4-10 Plot I URS Units

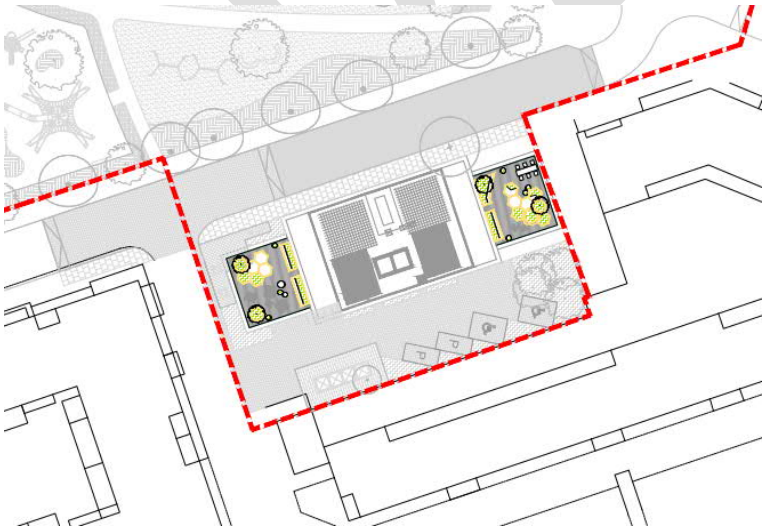
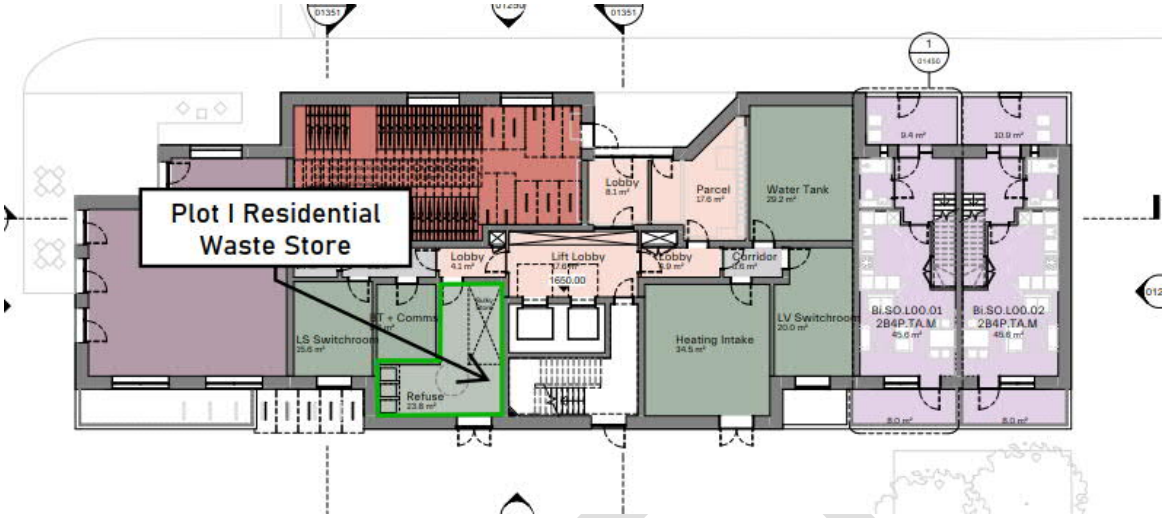


Figure 4-11 Plot I Residential Food Waste Store



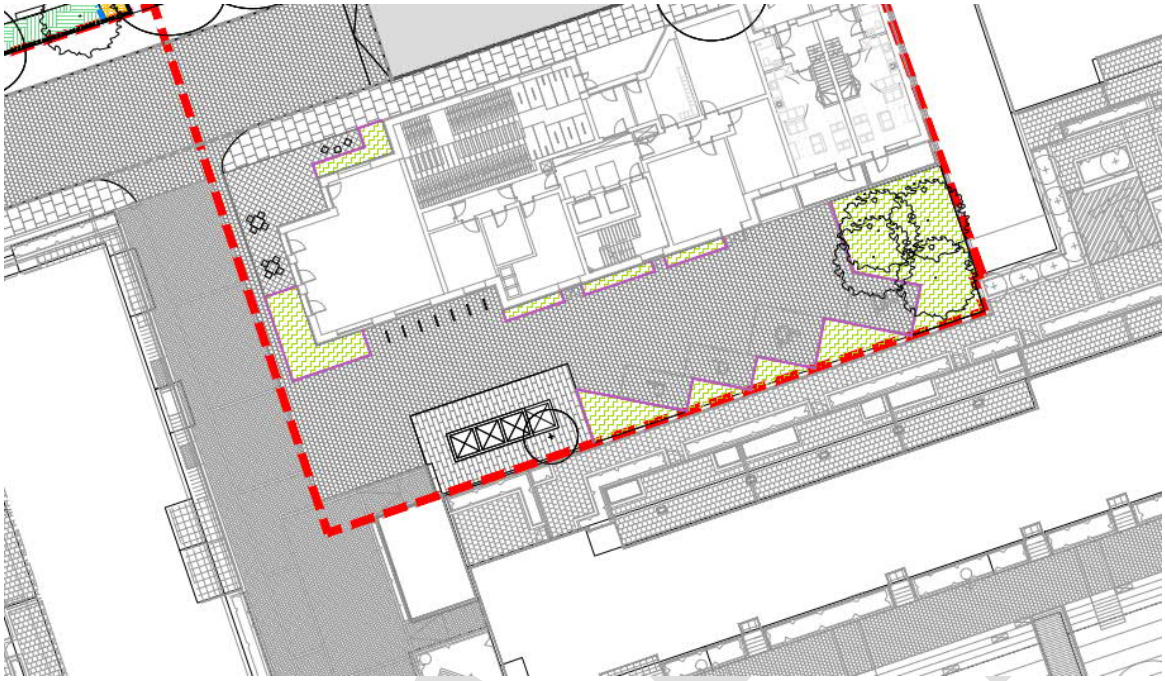
4.4.22 On nominated collection days the LBTH URS collection vehicle will continue to access the URS units at the rear of Plot I to collect the residual waste and DMR.

4.4.23 For residential food waste collections, the LBTH waste collection operatives will access the bins from the residential food waste store directly and wheel them out to the parked RCV. Once the bins have been emptied, the operatives will return them to the waste store.

4.4.24 Figure 4-12 and Figure 4-13 indicate the loading positions for residential waste collections from Plot I.

Figure 4-12 RCV Loading Position - URS Units

Figure 4-13 RCV Loading Position - Food Waste Collection



4.4.25 APPENDIX B includes full swept path analysis for the RCV.

4.5 BULKY WASTE STORAGE (PLOTS F, H & I)

4.5.1 As per the Guidance, residents will be provided with access to a bulky waste storage area for large redundant items such as furniture or appliances.

4.5.2 Bulky waste items will be stored within dedicated caged areas within the residential waste stores. Residents in Plots H1 and H2 will be provided access to the bulky waste storage area in Plot H3.

4.5.3 If not located in reasonable proximity to the bulky waste storage area, the on-site FM team will assist residents to transfer their items.

4.5.4 The locations of the bulky waste storage areas shown in Figure 4-14, Figure 4-15 and Figure 4-16.

Figure 4-14 Plot F Bulky Waste Storage

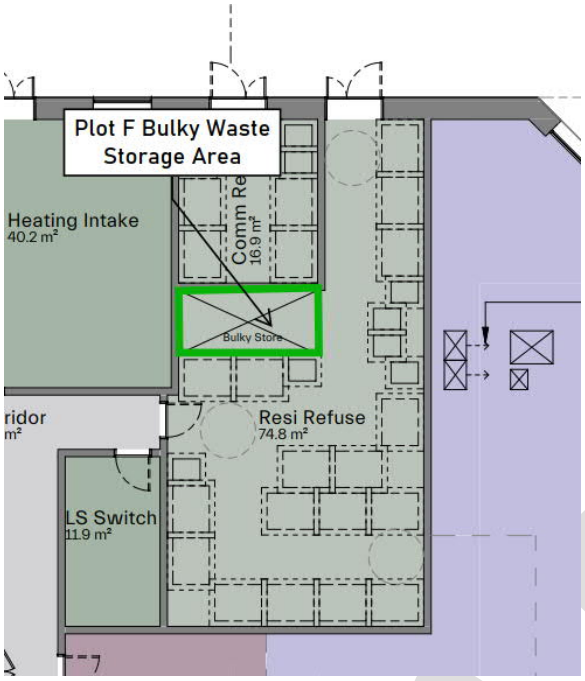


Figure 4-15 Plot H Bulky Waste Storage

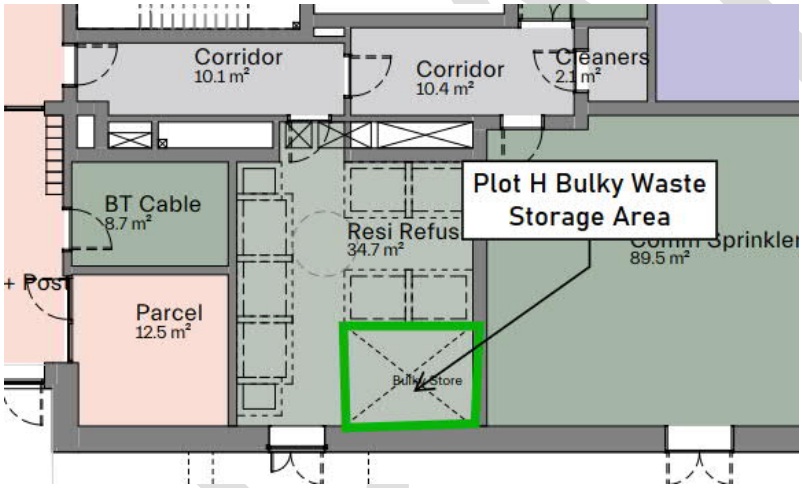
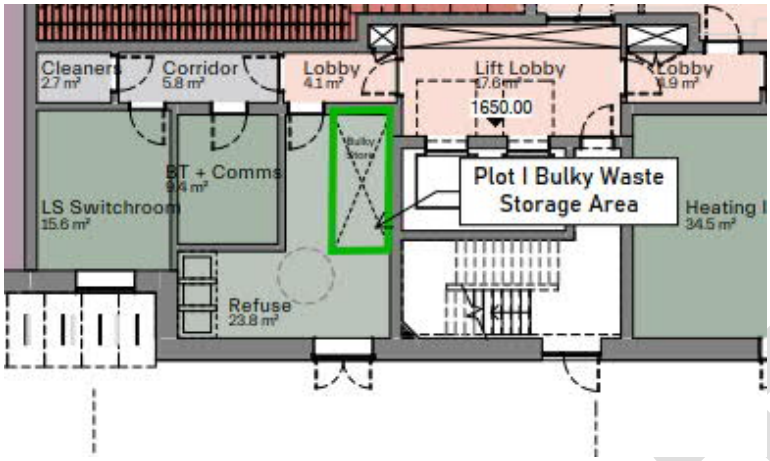


Figure 4-16 Plot I Bulky Waste Storage



4.5.5 The on-site FM team will be responsible for managing the storage of bulky waste at the Proposed Development.

4.5.6 Residents will contact LBTH to pay for collection of their bulky items and provide evidence to the on-site FM team, who will provide access to the bulky waste storage area.

4.5.7 On the nominated day, the LBTH collection crew will attend the bulky waste storage area and collect the presented items.

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5 OUTLINE PROPOSAL: PHASES B-D RESIDENTIAL WASTE STRATEGY

5.1 INTRODUCTION

5.1.1 The following section summarises the residential waste strategy for properties within Phases B, C and D of the Proposed Development, forming the Outline Proposals.

5.1.2 Waste management facilities within the Outline Proposals have been designed to align with the maximum parameter scheme, to confirm functionality from a technical perspective.

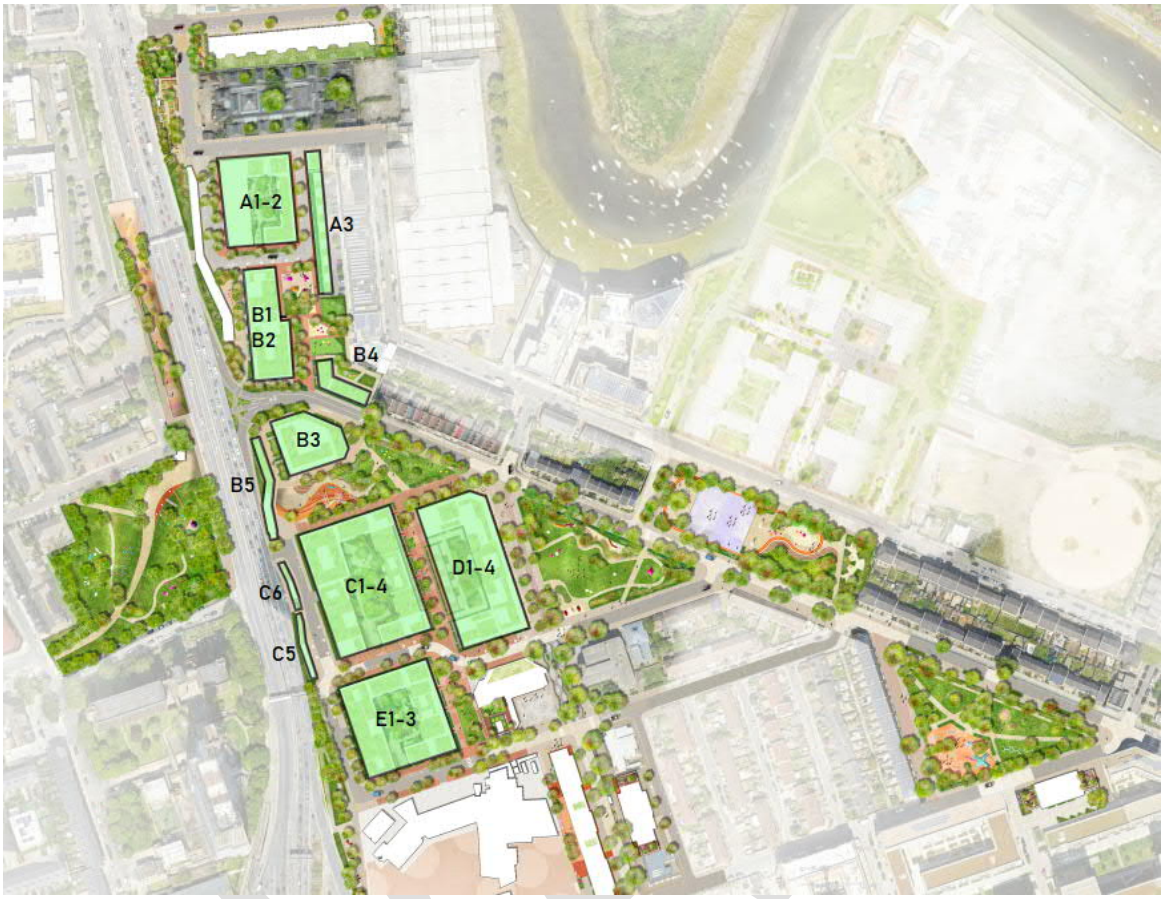
5.1.3 The Outline Proposals respond to the DC referenced in Section 1.7, confirming the maximum parameter scheme adheres to all applicable technical and legislative requirements relating to waste management.

5.1.4 Within this section, the illustrative scheme has been used to demonstrate acceptability of the Outline Proposals and this will be clearly indicated.

5.1.5 Phases B-D will include both individual dwellings and properties with differing communal waste storage arrangements.

5.1.6 Figure 5-1 shows the configuration of Phases B-D of the Proposed Development.

Figure 5-1 Proposed Development Phases B-D (Illustrative Scheme)



5.2 ACCOMMODATION SCHEDULE

5.2.1 Table 5-1 below summarises the maximum parameter scheme accommodation schedule for the Outline Proposals, including whether waste will be stored individually per dwelling, or communally by core.

Table 5-1 Accommodation Schedule – Outline Proposals (Maximum Parameter Scheme)

Plot	Storage Type	Number of Residential Units							
		Studio	1-Bed	2-Bed	3-Bed	4-Bed	5-Bed	6-Bed	Total
A1	Communal	0	31	22	33	0	0	0	86
A2	Communal	0	15	9	18	2	0	0	44
A3	Individual	0	0	0	10	0	0	0	10
B1	Communal	0	25	18	0	0	0	0	43
B2	Communal	0	108	75	0	0	0	0	183
B3	Communal	0	26	156	0	0	0	0	182
B4	Individual	0	0	0	8	0	0	0	8
C1	Communal	9	106	69	0	0	0	0	184
C2	Communal	0	41	21	6	0	0	0	68
C3	Communal	0	17	19	9	1	0	0	46
C4	Communal	33	22	44	0	0	0	0	99
D1	Communal	13	20	38	1	0	0	0	72
D2	Communal	0	28	28	4	0	0	0	60
D3	Communal	21	22	26	1	1	0	1	72
D4	Communal	0	0	0	4	0	0	0	4
E1	Communal	26	43	38	0	0	0	0	107
E2	Communal	0	15	15	10	3	0	0	43
E3	Communal	0	12	8	15	5	0	0	40
	Total	102	531	586	119	12	0	1	1,351

5.3 RESIDENTIAL WASTE STRATEGY – INDIVIDUAL DWELLINGS (PLOTS A3 & B4)

5.3.1 This section of the waste management strategy relates to the individual dwellings within Plots A3 & B4.

5.3.2 The individual dwellings receiving kerbside collections are shown in Figure 5-2 below.

Figure 5-2 Plots A3 and B4 Individual Dwellings (Illustrative Scheme)

5.3.3 Each kerbside property will be provided with a dedicated waste storage facility sufficient in size to store the containers summarised in Table 3-2.

5.3.4 The dimensions of the bins are summarised in Figure 4-13.

Table 5-2 Container Dimensions

Container	Dimensions (mm)		
	Height	Width	Depth
240-Litre Wheeled Bin	1,085	570	730
23-Litre Food Caddy	430	320	390

5.3.5 The waste storage facility will be within the curtilage of each property and allow the bins to be stored on a solid base which can be accessed via a pathway.

5.3.6 The bins should not be presented for collection on the public footway or highway.

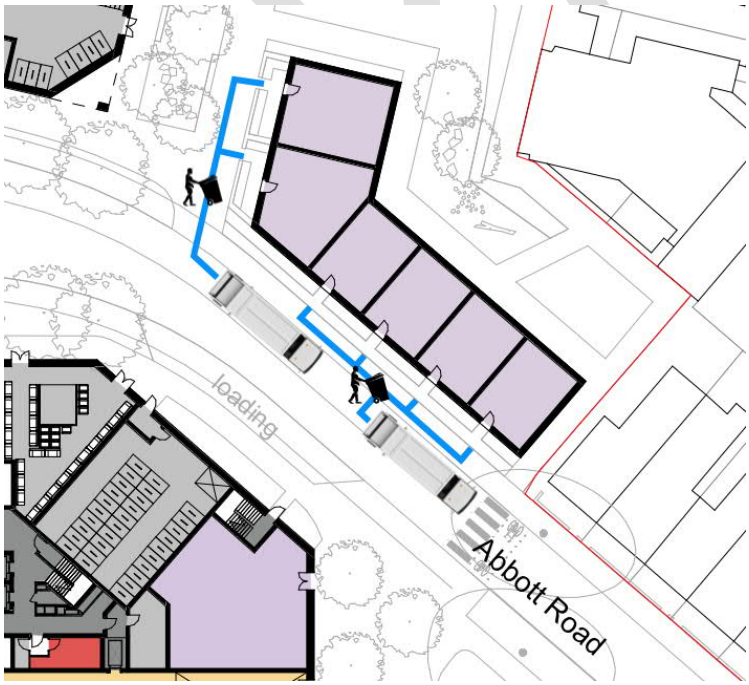
5.3.7 The LBTH collection operatives will collect the bins directly from the boundary of each property and drag them to the adjacent RCV.

5.3.8 It was agreed with the LBTH Environmental Services Improvement Team Leader that each residential unit in Plot B4 would receive a direct collection from the property boundary. For any residential units in Plot A3 that exceed the bin drag distance stated in the Guidance, it was agreed that on collection days residents would present these bins within the external landscaping (off-highway) within 10m of the RCV loading position.

5.3.9 The indicative loading positions of the RCV are shown in Figure 5-3 and Figure 5-4 below.

Figure 5-3 RCV Loading Position Plot A3 on Nairn Street (Illustrative Scheme)

Figure 5-4 RCV Loading Position Plot B4 on Abbott Road (Illustrative Scheme)



5.3.10 APPENDIX B includes full swept path analysis for the RCV.

5.3.11 Once the bins have been emptied, the LBTH collection operatives will return the bins to their respective collection points.

5.4 RESIDENTIAL WASTE STRATEGY – COMMUNAL WASTE STORAGE (PLOTS A, B, C, D & E)

5.4.1 This section of the waste management strategy relates to the Plots A1, A2, B1, B2, B3, C1, C2, C3, C4, D1, D2, D3, D4, E1, E2 and E3.

WASTE GENERATION MODELLING

5.4.2 Applying the waste metrics summarised in Table 3-3 to the accommodation schedule in Table 5-1, Table 5-3 summarises the estimated weekly waste generation for the plots within the Outline Proposals with communal waste storage.

Table 5-3 Estimated Weekly Waste Generation – Communal Waste Storage (Maximum Parameter Scheme)

Plot	Weekly Waste Generation (Litres)			
	Residual Waste	DMR	Food Waste	Total
A1	10,255	7,800	1,032	19,087
A2	5,530	4,170	528	10,228
B1	3,910	3,120	516	7,546
B2	16,560	13,230	2,196	31,986
B3	20,540	15,600	2,184	38,324
C1	16,330	13,110	2,208	31,648
C2	6,380	5,070	816	12,266
C3	5,170	3,960	552	9,682
C4	9,130	7,260	1,188	17,578
D1	7,035	5,520	864	13,419
D2	5,980	4,680	720	11,380
D3	6,725	5,340	864	12,929
D4	660	480	48	1,188
E1	9,390	7,560	1,284	18,234
E2	5,145	3,900	516	9,561
E3	5,350	3,990	480	9,820
Total	134,090	104,790	15,996	254,876

RESIDENT ACCESS FACILITIES

RESIDENTIAL WASTE STORES

5.4.3 Each building will be provided with a residential waste store at ground floor level in close proximity to the lift and stair core.

5.4.4 Residual waste and DMR will be stored in 660-litre Eurobins, food waste will be stored in 240-litre wheeled bins.

5.4.5 Residents will be required to transport their own waste from their property directly to their nearest waste store, using the passenger lifts (where necessary), where they will segregate their waste into appropriately labelled bins.

5.4.6 The locations of the residential waste stores are shown in Figure 5-5 and Figure 5-6 below.

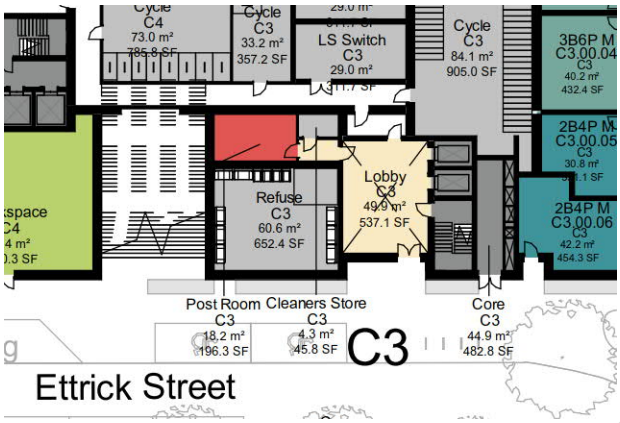
Figure 5-5 Residential Waste Stores - Plot A1, A2, B1 & B2 (Illustrative Scheme)

Figure 5-6 Residential Waste Stores - Plots B3, C1-C4, D1-D4 & E1-E3 (Illustrative Scheme)

5.4.7 The on-site Facilities Management (FM) team will be responsible for overseeing the residential waste stores to ensure residents have access to empty containers for each waste stream at all times.

5.4.8 An example residential waste store configuration is shown in Figure 5-7 below.

Figure 5-7 Example Residential Waste Store (Illustrative Scheme)



RESIDENTIAL UNITS FRONTING ON TO CULLODEN GREEN

5.4.9 Some of the units in Plots C3, D4 and E3 that are fronted by Culloden Green are beyond what would be considered a 'reasonable distance' from the nearest residential waste store. These units are indicated in Figure 5-8 below.

Figure 5-8 Culloden Green Residential Units (Illustrative Scheme)

5.4.10 Residents from these units will be provided access to the residential waste stores to both the north and south of their units, to use as they exit the Proposed Development in either direction.

5.4.11 Additionally, these residents will have the option for the storage of segregated waste within the defensible space at the front of their unit (in suitable containers) to deposit their residual waste, DMR and food waste. On an agreed schedule, the on-site FM team would remove the bagged waste and consolidate it in the nearest residential waste store, for collection by LBTH.

RESIDUAL WASTE AND DMR STORAGE

5.4.12 Residual waste and DMR will be stored in the residential waste stores in 660-litre Eurobins. These bins will not be collected by LBTH.

5.4.13 Residual waste and DMR will be consolidated and stored within the podium plots in 10.7m^3 portable waste compactors at ground floor level.

5.4.14 The on-site FM team will transfer the 660-litre Eurobins from the residential waste stores to the centralised compactor storage as necessary, and empty them in to the compactors using a bin lift.

5.4.15 An example portable waste compactor with bin lift is shown in Figure 5-9 below.

Figure 5-9 Example 10.7m^3 Portable Waste Compactor[2]

5.4.16 The dimensions of the example portable waste compactor are summarised in Table 5-4

Table 5-4 Portable Compactor Dimensions

Container	Dimensions (mm)		
	Height	Width	Depth
PDE PD729 10.7m^3 Skip-Loaded Portable Compactor	2,910	1,890	4,425

5.4.17 As agreed with the LBTH Environmental Services Improvement Team Leader, residual waste and DMR will be compacted at ratios of 3:1 and 2:1 respectively.

5.4.18 Based on the estimated weekly waste generation in Table 5-3, Table 5-5 details the volume of compacted waste.

[2] PDE PD729 https://pde.uk.com/our-products/pd729-waste-compactor-bin-hoist/

Table 5-5 Compacted Waste Generation (Maximum Parameter Scheme)

Plot	Weekly Waste Generation (Litres)	
	Residual Waste Compacted (3:1)	DMR Compacted (2:1)
A1	3,418	3,900
A2	1,843	2,085
B1	1,303	1,560
B2	5,520	6,615
B3	6,847	7,800
C1	5,443	6,555
C2	2,127	2,535
C3	1,723	1,980
C4	3,043	3,630
D1	2,345	2,760
D2	1,993	2,340
D3	2,242	2,670
D4	220	240
E1	3,130	3,780
E2	1,715	1,950
E3	1,783	1,995
Total	44,697	52,395

5.4.19 Storage of residual waste and DMR will be consolidated between podium plots. Table 5-6 summarises the consolidated provision of portable waste compactors for the Proposed Development once fully occupied.

5.4.20 To ensure a robust waste management strategy is maintained throughout the design stages, it has been assumed that each of the portable waste compactors do not fill beyond 80% total capacity.

Table 5-6 Portable Compactor Provision (Maximum Parameter Scheme)

Plot	Location	Volume of Waste (Litres)		Number of 10.7m³ Portable Waste Compactors	
		Residual Waste	DMR	Residual Waste	DMR
A1	Plot A	12,085	14,160	2	2
A2					
B1					
B2					
B3	Plot C	19,183	22,500	3	3
C1					
C2					
C3					
C4					
D1	Plot E	13,428	15,735	2	2
D2					
D3					
D4					
E1					
E2					
E3					
	Total	44,697	52,395	8	8

5.4.21 It should be noted that due to the construction phasing of the Proposed Development, Plot A has space to accommodate one additional portable waste compactor for waste generated by Plots B3, should it be required.

5.4.22 As bins within the residential waste stores become full, the on-site FM team will be responsible for emptying the bins in to the portable waste compactors, returning them once complete.

5.4.23 Where these routes remain off the public highway, the on-site FM team will be provided with an electric tow-tug to transfer bins between plots. An example electric tow-tug is shown below in Figure 5-10 below.

Figure 5-10 Example Electric Tow-Tug

5.4.24 Where necessary to transfer bins using public highway, it is anticipated that a road legal vehicle and trailer will be used. An example vehicle and trailer are shown in Figure 5-11 and Figure 5-12 below.

Figure 5-11 Example Electric Tow Vehicle

5.4.25

Figure 5-12 Example Bin Trailer

RESIDUAL WASTE AND DMR COLLECTION

5.4.26 LBTH will collect the residual waste and DMR portable waste compactors on a weekly basis using a skip collection vehicle; the dimensions of the collection vehicle were provided by the LBTH Environmental Services Improvement Team Leader during pre-app discussions.

5.4.27 The LBTH skip vehicle will enter each podium block via the access gates to collect the compactors.

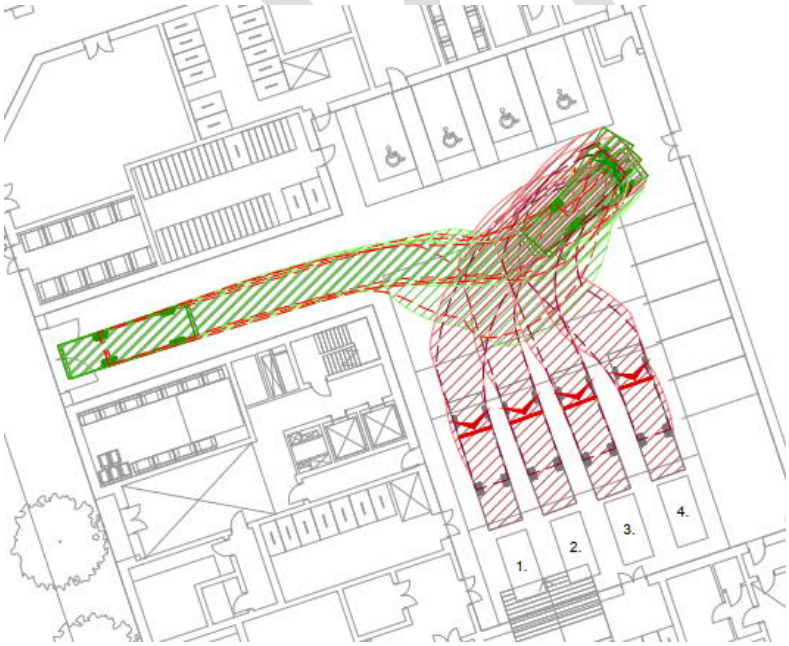
5.4.28 The access gates will be secured by concierge, Automatic Number Plate Recognition (ANPR), code, or access fob provided to LBTH.

5.4.29 As per the Guidance, the skip collection vehicle will be able to enter and exit the podium plots in a forward gear. Extracts from the full swept path analysis provided in APPENDIX B are shown in Figure 5-13, Figure 5-14 and Figure 5-15 below.

Figure 5-13 Plot A Compactor Collection (Illustrative Scheme)

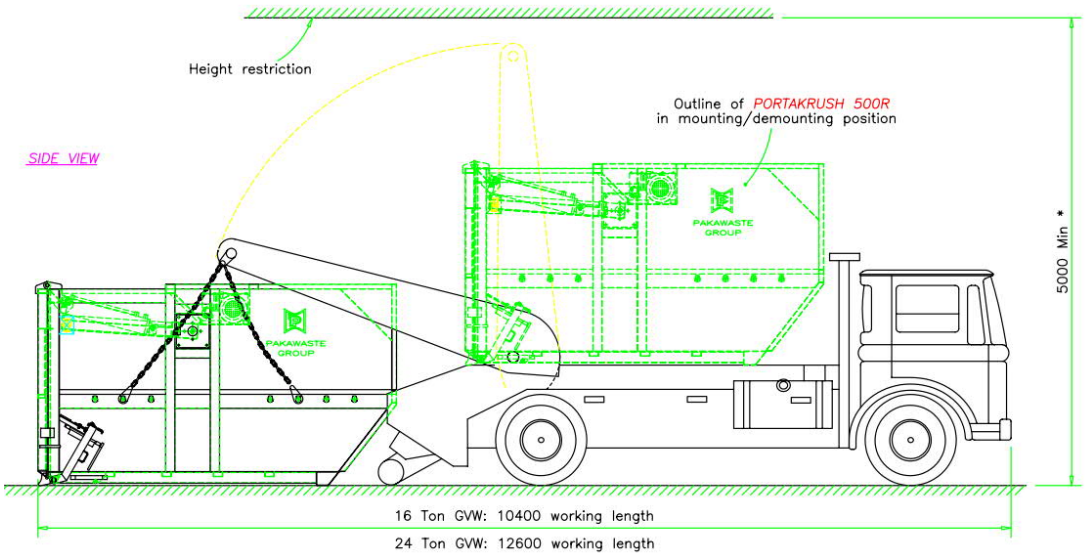
Figure 5-14 Plot C Compactor Collection (Illustrative Scheme)

Figure 5-15 Plot E Compactor Collection (Illustrative Scheme)



5.4.30 The LBTH skip collection vehicles will reverse up to each compactor to load them; dimensions for loading have been designed to allow for five metres height clearance as per the extract in Figure 5-16 below.

Figure 5-16 Portable Compactor Loading Dimensions



5.4.31 Once loaded, the LBTH skip vehicle will transfer the portable waste compactor to the nominated point of disposal for emptying, returning the unit once complete.

FOOD WASTE STORAGE AND COLLECTION

5.4.32 Food waste will be stored in 240-litre wheeled bins within the residential waste stores.

5.4.33 Based on the estimated food waste generation in Table 5-3, Table 5-7 details the food waste storage requirements once operational, as per the Guidance.

Table 5-7 Food Waste Storage Provision (Maximum Parameter Scheme)

Plot	Number of 240-Litre Food Waste Bins
A1	5
A2	3
B1	3
B2	10
B3	10
C1	10
C2	4
C3	3
C4	5
D1	4
D2	3
D3	4
D4	1
E1	6
E2	3
E3	2
Total	76

5.4.34 The residential waste stores are the location that all food waste bins will be stored prior to collection.

5.4.35 Where accessible within 10m of the RCV, food waste bins will be collected directly from the residential waste stores.

5.4.36 Not all of the residential waste stores are accessible for direct collection by LBTH; prior to collection, the on-site FM team will transfer the food waste bins to a position off-highway within 10m of the RCV. As agreed with the LBTH Environmental Services Improvement Team Leader (and where possible) the food waste bins will be presented within the bulky waste storage areas in the residential waste stores receiving direct collections.

5.4.37 Table 5-8 summarises the collection locations for the food waste bins, including indicative presentation points for the residential waste stores not receiving direct collections. Sufficient space has been provided for the presentation of food waste bins across the stores receiving direct collections.

Table 5-8 Food Waste Bin Indicative Collection Locations (Illustrative Scheme)

Plot	Collection Location
A1	Direct collection
A2	Direct collection
B1	Public realm adjacent to Enterprise Yard / Nairn Street
B2	
B3	Direct collection
C1	C3 Residential Waste Store
C2	C3 Residential Waste Store
C3	Direct collection
C4	C3 Residential Waste Store
D1	D3 Residential Waste Store
D2	Direct collection
D3	Direct collection
D4	D3 Residential Waste Store
E1	Direct collection
E2	Direct collection
E3	Direct collection

5.4.38 On nominated collection days, the LBTH waste collection operatives will access the bins from the residential waste stores or collections points and wheel them out to the parked RCV. Once the bins have been emptied, the operatives will return them to the respective collection points.

5.5 BULKY WASTE STORAGE (PHASES B-D)

5.5.1 As per the Guidance, residents will be provided with access to a bulky waste storage area for large redundant items such as furniture or appliances

5.5.2 Bulky waste items will be stored within dedicated caged areas within the residential waste stores.

5.5.3 The on-site FM team will be responsible for managing the storage of bulky waste at the Proposed Development.

5.5.4 Residents will contact LBTH to pay for collection of their bulky items and provide evidence to the on-site FM team, who will provide access to the bulky waste storage area.

5.5.5 On the nominated day, the LBTH collection crew will attend the bulky waste storage areas and collect the presented items.

6 PRINCIPLES OF COMMERCIAL WASTE MANAGEMENT

6.1 INTRODUCTION

6.1.1 This section outlines the principles for commercial waste management within both outline and detailed elements of the Proposed Development, which will comprise multiple phases of development, with a number of commercial areas distributed throughout.

6.1.2 Commercial waste will be managed in accordance with the Guidance and British Standard BS5906:2005 *Waste Management in Plots – Code of Practice*.

6.2 PRINCIPLES OF DESIGN

WASTE STORAGE FACILITIES

6.2.1 Within the Proposed Development, all commercial waste facilities will be designed to BS5906:2005 standards. In summary, the waste facilities will include the following:

- A suitable water point in close proximity to allow washing down;
- All surfaces will be sealed with a suitable wash proof finish (vinyl, tiles etc.);
- All surfaces will be easy to clean;
- Suitable floor drain; and
- Suitable lighting and ventilation.

WASTE COLLECTION ACCESS

6.2.2 Within the Proposed Development, the route between any waste storage facilties and the RCV will:

- be free from steps or kerbs;
- have a solid foundation;
- have a smooth solid surface; and
- be level and have a gradient of no more than 1:12, with a minimum width of 2 metres.

7 DETAILED APPLICATION : PHASE A COMMERCIAL WASTE MANAGEMENT

7.1.1 The following section summarises the commercial waste strategy for properties within Phase A of the Proposed Development, forming the detailed part of the planning application.

7.1.2 Phase A includes commercial areas in Plots F and H.

7.1.3 The commercial area schedule for Phase A is summarised in Table 7-1 below.

Table 7-1 Commercial Area Schedule

Plot	Use Class	GIA (m^2)
F1	Class E	512
H1		267
H2		332
H3		379
	Total	1,490

7.2 WASTE GENERATION MODELLING

7.2.1 LBTH does not provide metrics for commercial waste generation. Waste generation metrics for the proposed commercial space has been sourced from British Standard BS5906:2005 *Waste Management in Plots – Code of Practice*.

7.2.2 Table 7-2 summarises the commercial waste generation metrics for the Proposed Development.

Table 7-2 Commercial Waste Generation Metrics

Description	Weekly Waste Metric	Waste Composition	Assumptions
Restaurant	Volume per number of covers [75 litres] x number of covers	• 35% Residual Waste • 45% DMR • 20% Food Waste	One cover per $3m^2$
Retail	Volume per m^2 of sales area [10 litres] x floor area	• 35% Residual Waste • 55% DMR • 10% Food Waste	-

7.2.3 To account for the flexible use class of the proposed commercial areas, for the purpose of estimating waste generation, it is assumed 75% of the total commercial area is restaurant and the remaining 25% retail.

7.2.4 Applying the waste metrics detailed in Table 7-2 to the commercial areas detailed Table 7-1, Table 7-3 summarises the estimated weekly commercial waste arisings for Proposed Development.

Table 7-3 Commercial Waste Generation Phase A

Plot	Weekly Waste Generation (Litres)			
	Residual Waste	DMR	Food Waste	Total
F1	3,808	5,024	2,048	10,880
H1 / H2	4,455	5,878	2,396	12,729
H3	2,819	3,719	1,516	8,054
Total	11,082	14,621	5,960	31,663

7.2.5 Using the commercial waste generation in Table 7-3, Table 7-4 summarises the commercial waste storage provision and assumed collection frequency. To account for unexpected operational issues, contingency waste storage capacity has been provided.

Table 7-4 Commercial Waste Storage Provision Phase A

Plot	Storage Provision (No. of Days)	Assumed Collections per Week	Number of 1,100-Litre Eurobins		Number of 240-Litre Wheeled Bins	Total
			Residual Waste	DMR	Food Waste	
F1	3	3	2	2	4	8
H1 / H2	2	7	2	2	3	7
H3	3	3	2	2	3	7
		Total	6	6	10	22

7.3 PROPOSED WASTE MANAGEMENT STRATEGY

7.3.1 The proposed strategy to manage commercial waste has been devised to provide a high-quality service to commercial tenants whilst also being compliant with the Guidance.

WASTE STORAGE

7.3.2 Commercial tenants will provide temporary internal waste storage within their commercial area that allows for the segregation of waste at source.

7.3.3 The commercial tenants in each building will be provided with access to shared commercial waste stores at ground level. The commercial waste stores are the locations that all commercial residual waste, DMR and food waste generated within the Proposed Development will be stored prior to collection.

7.3.4 As necessary, the commercial tenants will transfer the segregated waste from their temporary internal waste storage to the nearest commercial waste store.

7.3.5 The locations and configurations of the commercial waste store are shown in Figure 7-1, Figure 7-2 and Figure 7-3 below.

Figure 7-1 Plot F Commercial Waste Store

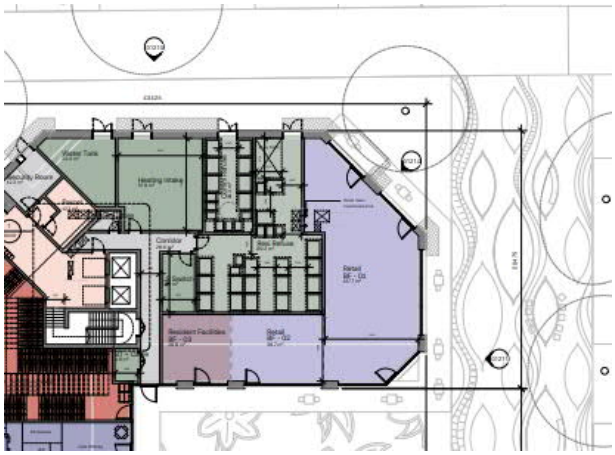


Figure 7-2 Plot H1 & H2 Commercial Waste Stores

Figure 7-3 Plot H3 Commercial Waste Store

7.3.6 The commercial waste stores will be sufficiently sized to accommodate the number and types of bins detailed in Table 7-4.

7.3.7 Residents will not be permitted access to the commercial waste stores.

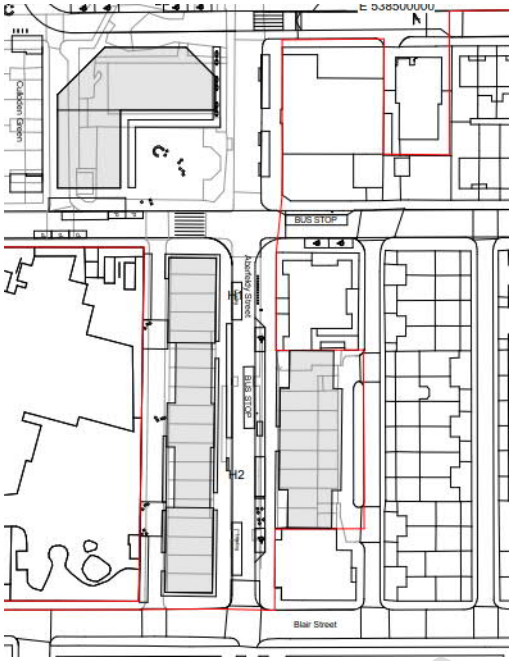
COMMERCIAL WASTE COLLECTION

7.3.8 A commercial waste contractor will be appointed to service the Proposed Development once operational.

7.3.9 The commercial waste contractor will collect the bins directly from each of the commercial waste stores on an agreed schedule.

7.3.10 The anticipated loading positions for the commercial waste stores are shown in Figure 7-4 below.

Figure 7-4 RCV Loading Commercial Waste Stores



7.3.11 Once the bins have been emptied, the collection operatives will return the bins to the commercial waste store.

8 OUTLINE APPLICATION : PHASES B-D COMMERCIAL WASTE MANAGEMENT

8.1.1 The following section summarises the commercial waste strategy for Phases B, C and D of the Proposed Development, forming the Outline Proposals.

8.1.2 Waste management facilities within the Outline Proposals have been designed to align with the maximum parameter scheme, to confirm functionality from a technical perspective.

8.1.3 The Outline Proposals respond to the DC referenced in Section 1.7, confirming the maximum parameter scheme adheres to all applicable technical and legislative requirements relating to waste management.

8.1.4 Within this section, the illustrative scheme has been used to demonstrate acceptability of the Outline Proposals and this will be clearly indicated.

8.1.5 The commercial area schedule for the outline application is summarised in Table 8-1 below.

Table 8-1 Commercial Area Schedule (Maximum Parameter Scheme)

Plot	GIA (m^2)			
	Estate Management	Retail	Workspace	Total
A1	0	0	206	206
B1	0	0	96	96
B2	0	0	42	42
B3	1,377	367	0	1,744
B5	0	0	512	512
C1	0	0	406	406
C4	0	0	453	453
C5	0	0	232	232
C6	0	0	121	121
D1	0	454	0	454
D3	0	350	0	350
E1	0	0	636	636
Total	1,377	1,171	2,704	5,252

8.2 WASTE GENERATION MODELLING

8.2.1 LBTH does not provide metrics for commercial waste generation. Waste generation metrics for the proposed commercial space has been sourced from British Standard BS5906:2005 *Waste Management in Plots – Code of Practice*.

8.2.2 Table 8-2 summarises the commercial waste generation metrics for the Proposed Development.

Table 8-2 Commercial Waste Generation Metrics

Use	Metric	Weekly Waste Metric	Waste Composition	Assumptions
Retail	Restaurant	Volume per number of covers [75 litres] x number of covers	• 35% Residual Waste • 45% DMR • 20% Food Waste	One cover per 3m²
Workspace	Office	Volume per number of employees [50 litres] x number of employees	• 35% Residual Waste • 55% DMR • 10% Food Waste	One employee per 8m²
Estate Management				

8.2.3 For the purposes of estimating waste generation, the restaurant metric has been applied to all retail areas. As the most onerous metric for waste generation, this ensures a robust waste management strategy is maintained throughout each design stage.

8.2.4 Applying the waste metrics detailed in Table 8-2 to the commercial areas detailed Table 8-1, Table 8-3 summarises the estimated weekly commercial waste arisings for Proposed Development.

Table 8-3 Estimated Commercial Waste Generation (Maximum Parameter Scheme)

Plot	Weekly Waste Generation (Litres)			
	Residual Waste	DMR	Food Waste	Total
A1	1,288	451	708	129
B1	600	210	330	60
B2	263	92	144	26
B3	9,175	3,211	4,129	1,835
B5	3,200	1,120	1,760	320
C1	2,538	888	1,396	254
C4	2,831	991	1,557	283
C5	1,450	508	798	145
C6	756	265	416	76
D1	11,350	3,973	5,108	2,270
D3	8,750	3,063	3,938	1,750
E1	3,975	1,391	2,186	398
Total	46,175	16,161	22,469	7,545

8.3 PROPOSED WASTE MANAGEMENT STRATEGY

8.3.1 The proposed strategy to manage commercial waste has been devised to provide a high-quality service to commercial tenants whilst also being compliant with the Guidance.

8.3.2 Commercial tenants will provide temporary internal waste storage within their commercial area that allows for the segregation of waste at source.

8.3.3 The commercial tenants in each building will be provided with access to shared commercial waste stores at ground level. The commercial waste stores are the locations that all commercial residual waste, DMR and food waste generated within the Proposed Development will be stored prior to collection.

8.3.4 As necessary, the commercial tenants will transfer the segregated waste from their temporary internal waste storage to the nearest commercial waste store.

8.3.5 The locations of the commercial waste store are shown in Figure 8-1 and Figure 8-2 below.

Figure 8-1 Commercial Waste Stores (Illustrative Scheme)

Figure 8-2 Commercial Waste Stores (Illustrative Scheme)

8.3.6 At this stage it is not possible to determine the precise waste storage requirements of the eventual tenants due to the range of potential commercial uses.

8.3.7 Using the estimated weekly waste generation in Table 8-3, Table 8-4 summarises the commercial waste storage requirements based on different collection frequencies.

Table 8-4 Commercial Waste Storage (Maximum Paramater Scheme)

Plot	Weekly Collection			3-Collections Per Week			Daily Collections		
	No. of 1,100-Litre Eurobins		No. of 240-Litre Bins	No. of 1,100-Litre Eurobins		No. of 240-Litre Bins	No. of 1,100-Litre Eurobins		No. of 240-Litre Bins
	Residual Waste	DMR	Food Waste	Residual Waste	DMR	Food Waste	Residual Waste	DMR	Food Waste
A1	1	1	1	1	1	1	1	1	1
B1	1	1	1	1	1	1	1	1	1
B2	1	1	1	1	1	1	1	1	1
B3	3	4	8	2	2	4	1	2	3
B5	2	2	2	1	1	1	1	1	1
C1	1	2	2	1	1	1	1	1	1
C4	1	2	2	1	1	1	1	1	1
C5	1	1	1	1	1	1	1	1	1
C6	1	1	1	1	1	1	1	1	1
D1	4	5	10	2	2	5	2	2	3
D3	3	4	8	2	2	4	1	2	3
E1	2	2	2	1	1	1	1	1	1

8.3.8 As a minimum, the commercial waste stores will be sized to accommodate a minimum of two days' waste storage.

8.4 COMMERCIAL WASTE COLLECTION

8.4.1 A commercial waste contractor will be appointed to service the Proposed Development once operational.

8.4.2 The commercial waste contractor will collect the bins directly from each of the commercial waste stores on an agreed schedule.

9 SUMMARY & CONCLUSIONS

9.1 SUMMARY

9.1.1 The Hybrid planning application seeks Full Planning Permission for Phase A and Outline Planning Permission, with all matters reserved, for the rest of the site (which includes Phases B, C and D).

9.1.2 Reserved Matters Applications (RMAs) are required to come forward in compliance with the design principles and guidelines established in the Aberfeldy Village Masterplan Design Code.

9.1.3 Waste management facilities within the Outline Proposals have been designed to align with the maximum parameter scheme, to confirm functionality from a technical perspective.

9.1.4 The Outline Proposals respond to the DC referenced in Section 1.7, confirming the maximum parameter scheme adheres to all applicable technical and legislative requirements relating to waste management.

RESIDENTIAL WASTE

9.1.5 Residential waste will be managed in accordance with the Guidance and waste facilities designed to BS5906:2005 standards.

9.1.6 Estimated volumes of residential waste generated at the Proposed Development once operational have been quantified using waste generation metrics extracted from the Guidance and agreed with the LBTH Environmental Services Improvement Team Leader.

9.1.7 Each residential property will be provided with a segregated waste bin, which will be fixed in to an appropriate kitchen unit.

PHASE A INDIVIDUAL DWELLINGS

9.1.8 Residents in Plot J will be provided with a dedicated area within the curtilage of their property for the storage of bins as per the Guidance.

9.1.9 On collection days, LBTH will collect these bins directly from the property boundaries.

PHASE A COMMUNAL WASTE STORAGE (PLOTS F, H & J)

9.1.10 Residents in Plots F,H and J will be provided with a residential waste store at ground floor level. The residential waste stores will accommodate all residual waste, DMR and food waste generated within these plots prior to collection.

9.1.11 Residual waste will be stored in 1,100-litre Eurobins and DMR will be stored in 1,280-litre Eurobins, with food waste stored in 240-litre wheeled bins.

9.1.12 Residents will be required to transport their own waste from their property directly to their nearest waste store, using the passenger lifts (where necessary), where they will segregate their waste into appropriately labelled bins.

9.1.13 On nominated collection days, the LBTH waste collection operatives will access the bins from the residential waste stores in Plots F1, H3 and J1 directly and wheel them out to the parked RCV.

9.1.14 Once the bins have been emptied, the operatives will return them to the waste stores.

9.1.15 The bins within the residential waste stores in Plots H1 and H2 will be presented in the external landscaping within 10m of the RCV, as per the Guidance.

PHASE A COMMUNAL WASTE STORAGE (PLOT I)

9.1.16 Residual waste and DMR will be stored in 5,000-litre URS units within the external landscaping and food waste will be stored in 240-litre wheeled bins within a residential waste store.

9.1.17 Residents will be required to transport their own waste from their property directly to their nearest URS unit, or the residential food waste store using the passenger lifts (where necessary), where they will segregate their waste accordingly.

9.1.18 To prevent mis-use the residential food waste stores and URS units will be secured by fob or coded access.

9.1.19 On nominated collection days the LBTH URS collection vehicle will continue to access the URS units at the rear of Plot I to collect the residual waste and DMR.

9.1.20 For residential food waste collections, the LBTH waste collection operatives will access the bins from the residential food waste store directly and wheel them out to the parked RCV. Once the bins have been emptied, the operatives will return them to the waste store.

PHASES B-D INDIVIDUAL DWELLINGS (PLOTS A3 & B4)

9.1.21 Residents in Plots A3 and B4 will be provided with a dedicated area within the curtilage of their property for the storage of bins.

9.1.22 On collection days, LBTH will collect these bins directly from the property boundaries. Residents in units that exceed 10m distance from the RCV will be expected to present their bins within 10m of the RCV access for collection and return them once emptied.

PHASE B-D COMMUNAL WASTE STORAGE

9.1.23 Each plot will be provided with a residential waste store at ground floor level in close proximity to the lift and stair core.

9.1.24 Residual waste and DMR will be stored in 660-litre Eurobins, food waste will be stored in 240-litre wheeled bins.

9.1.25 Residents will be required to transport their own waste from their property directly to their nearest waste store, using the passenger lifts (where necessary), where they will segregate their waste into appropriately labelled bins.

9.1.26 Some residents in Plots C3, D4 and E3 residents will have the option for the storage of segregated waste within the defensible space at the front of their unit (in suitable containers) to deposit their residual waste, DMR and food waste in to the containers. On an agreed schedule, the on-site FM team would remove the bagged waste and transfer it to the nearest residential waste store for collection by LBTH.

9.1.27 The on-site FM team will be responsible for overseeing the residential waste stores to ensure residents have access to empty containers for each waste stream at all times.

RESIDUAL WASTE AND DMR

9.1.28 Residual waste and DMR will be consolidated within the podium plots in 10.7m^3 portable waste compactors.

9.1.29 The on-site FM team will transfer the 660-litre Eurobins from the residential waste stores to the centralised compactor storage as necessary, and empty them in to the compactors using a bin lift.

9.1.30 Residual waste and DMR will be compacted at ratios of 3:1 and 2:1 respectively.

9.1.31 As bins within the residential waste stores become full, the on-site FM team will be responsible for emptying the bins in to the portable waste compactors, returning them once complete.

9.1.32 Where these routes remain off the public highway, the on-site FM team will be provided with an electric tow-tug to transfer bins between plots.

9.1.33 Where necessary to transfer bins using public highway, it is anticipated that a road legal vehicle and trailer will be used.

9.1.34 LBTH will collect the residual waste and DMR portable waste compactors on a weekly basis using a skip collection vehicle.

9.1.35 The LBTH skip vehicle will enter each podium block via the access gates to collect the compactors.

9.1.36 The LBTH skip collection vehicles will reverse up to each compactor to load them; dimensions for loading have been designed to allow for five metres height clearance.

9.1.37 Once loaded, the LBTH skip vehicle will transfer the portable waste compactor to the nominated point of disposal for emptying, returning the unit once complete.

FOOD WASTE

9.1.38 Food waste will be stored in 240-litre wheeled bins within the residential waste stores.

9.1.39 The residential waste stores are the location that all food waste bins will be stored prior to collection.

9.1.40 Where accessible within 10m of the RCV, food waste bins will be collected directly from the residential waste stores.

9.1.41 Where not within 10m of the RCV, the on-site FM team will transfer the food waste bins from the residential waste stores to a position off-highway within 10m of the RCV. Where possible, the food waste bins will be presented within the bulky waste storage areas in the residential waste stores receiving direct collections

9.1.42 On nominated collection days, the LBTH waste collection operatives will access the bins from the residential waste stores or collections points and wheel them out to the parked RCV.

9.1.43 Once the bins have been emptied, the operatives will return them to the respective collection points.

BULKY WASTE

9.1.44 Residents will be provided with access to a bulky waste storage area for large redundant items such as furniture or appliances

9.1.45 Bulky waste items will be stored within dedicated caged areas within the residential waste stores.

9.1.46 The on-site FM team will be responsible for managing the storage of bulky waste at the Proposed Development.

9.1.47 Residents will contact LBTH to pay for collection of their bulky items and provide evidence to the on-site FM team, who will provide access to the bulky waste storage area.

9.1.48 On the nominated day, the LBTH collection crew will attend the bulky waste storage area and collect the presented items.

COMMERCIAL WASTE

9.1.49 Commercial waste will be managed in accordance with the Guidance and British Standard BS5906:2005.

PHASE A

9.1.50 Waste generation metrics for the proposed commercial space has been sourced from British Standard BS5906:2005.

9.1.51 To account for the flexible use class of the proposed commercial areas, for the purpose of estimating waste generation, it is assumed 75% of the total commercial area is restaurant and the remaining 25% retail.

9.1.52 Commercial tenants will provide temporary internal waste storage within their commercial area that allows for the segregation of waste at source.

9.1.53 The commercial tenants in each building will be provided with access to shared commercial waste stores at ground level.

9.1.54 As necessary, the commercial tenants will transfer the segregated waste from their temporary internal waste storage to the nearest commercial waste store.

9.1.55 A commercial waste contractor will be appointed to service the Proposed Development once operational.

9.1.56 The commercial waste contractor will collect the bins directly from each of the commercial waste stores on an agreed schedule.

PHASES B-D

9.1.57 Waste generation metrics for the proposed commercial space has been sourced from British Standard BS5906:2005.

9.1.58 Commercial tenants will provide temporary internal waste storage within their commercial area that allows for the segregation of waste at source.

9.1.59 The commercial tenants in each building will be provided with access to shared commercial waste stores at ground level.

9.1.60 As necessary, the commercial tenants will transfer the segregated waste from their temporary internal waste storage to the nearest commercial waste store.

9.1.61 As a minimum, the commercial waste stores will be sized to accommodate a minimum of two days' waste storage.

9.1.62 A commercial waste contractor will be appointed to service the Proposed Development once operational.

9.1.63 The commercial waste contractor will collect the bins directly from each of the commercial waste stores on an agreed schedule.

9.2 CONCLUSION

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

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

APPENDIX A

NATIONAL, LONDON AND LOCAL WASTE POLICY & GUIDANCE

VELOCITY
Transport Planning

NATIONAL WASTE POLICY

DLUHC, NATIONAL PLANNING POLICY FRAMEWORK (2021)

The revised National Planning Policy Framework was updated on 20 July 2021 and sets out the government's planning policies for England and how these are expected to be applied. It does not include anything of relevance to waste management that would be applicable to the Proposed Development.

DLUHC, 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 NPPF and the Waste Management Plan for England. As the primary focus is on planning for waste management facilities, it is not considered relevant to the Proposed Development.

DEFRA, OUR WASTE, OUR RESOURCES: A STRATEGY FOR ENGLAND (2018)

The strategy sets out how England will preserve the stock of material resources by minimising waste, promoting resource efficiency and moving towards a circular economy. At the same time, the country will minimise the damage caused to the natural environment by reducing and managing waste safely and carefully, and by tackling waste crime.

It combines actions the country will take now, with firm commitments for the coming years and gives a clear longer-term policy direction in line with the 25 Year Environment Plan. This is the blueprint for eliminating avoidable plastic waste over the lifetime of the 25 Year Plan, doubling resource productivity, and eliminating avoidable waste of all kinds by 2050.

HM GOVERNMENT, A GREEN FUTURE: OUR 25 YEAR PLAN TO IMPROVE THE ENVIRONMENT (2018)

The 25 Year Environment Plan sets out government action to help the natural world regain and retain good health. Its aim is to deliver cleaner air and water in cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first.

With regard to waste management, the plan details aims which include:

- Zero avoidable plastic waste by 2042;
- Reduce food waste; and
- Improving the management of residual waste.

WASTE HIERARCHY

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

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

Figure A1.1: The Waste Hierarchy

The main principles of the Waste Hierarchy are:

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

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

LONDON WASTE POLICY & GUIDANCE

GLA, THE LONDON PLAN 2021 (MARCH 2021)

The London Plan is the overall strategic plan for London, it sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.

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

> *'Policy D3 Optimising site capacity through the design-led approach*
> *3.1B.18 Shared and easily accessible storage space supporting separate collection of dry recyclables, food waste and other waste should be considered in the early design stages to help improve recycling rates, reduce smell, odour and vehicle movements, and improve street scene and community safety.'*
> *'Policy SI7 Reducing waste and supporting the circular economy*
> *Resource conservation, waste reduction, increases in material re-use and recycling, and reduction in waste going for disposal will be achieved by the Mayor, waste planning authorities and industry working in collaboration to:*
> *5) design developments with adequate, flexible and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.'*

GLA, LONDON ENVIRONMENT STRATEGY (2018)

The Mayor, with the new London Environment Strategy, aims to make London a zero-waste city. By 2026, no biodegradable or recyclable waste will be sent to landfill and by 2030, 65% of London's municipal waste will be recycled.

With regards to waste management within the Proposed Development, the following extracts are of relevance:

> *'To help them achieve the recycling targets, waste authorities should deliver the following minimum level of service for household recycling:*
>
> - *all properties with kerbside recycling collections to receive a separate weekly food waste collection*
> - *all properties to receive a collection of, at a minimum, the six main dry recycling materials, i.e. glass, cans, paper, card, plastic bottles and mixed rigid plastics (tubs, pots and trays)*
>
> *Proposal 7.2.1.c The Mayor will support efforts to increase recycling rates in flats.*
> *The Mayor will encourage Resource London to provide more support and funding to those waste authorities that are working towards achieving higher recycling performance in flats. Through LWARB, the Mayor will seek additional funding to tackle recycling performance in flats. The London Plan requires that all new developments referred to the Mayor include adequate recycling storage for at least the six main dry recyclable materials and food.*

Waste authorities, through the planning application process, should apply the waste management planning advice for flats, including the domestic rented sector, developed by LWARB in partnership with the London Environment Directors Network (LEDNET).'

LOCAL WASTE POLICY & GUIDANCE

LBTH LOCAL PLAN 2031 (2020)

The Local Plan also sets out policies about infrastructure provision, employment opportunities and protection of the environment, including air quality. Along with the policies, developments will be required to fit within the ambitions of the Local Plan. The following extract is of relevance to the Proposed Development:

'Policy D.MW3
Waste collection facilities in new development
1) *All new development must include sufficient accessible space to separate and store dry recyclables, organics and residual waste for collection, both within individual units and for the building as a whole.*
2) New major residential developments must incorporate high quality on-site waste collection systems that do not include traditional methods of storage and collection and are compatible with our waste collection methods outlined in Appendix 4. In instances where this is not practicable, supporting evidence must be submitted with the application to demonstrate this.'

LBTH WASTE MANAGEMENT STRATEGY 2018-2030 (2018)

The LBTH waste management strategy presents the ideas about how to improve services and respond to the challenges associated with population growth and management of waste It sets out six priorities to guide the way LBTH develop and improve over the 12 year period the strat

LBTH REUSE, RECYCLING AND WASTE SPD (JULY 2021)

The Reuse, Recycle and Waste SPD he SPD sets out information for developers on how waste management should be addressed in proposals for new residential (including mixed use) development.

LBTH WASTE STORAGE AND COLLECTION SYSTEMS SUPPLEMENTARY INFORMATION (2017)

This evidence based document supports the policy approach and provides background and reasoned justification for requiring mass waste collection systems for residential developments within LBTH..

APPENDIX B

SWEPT PATH ANALYSIS

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APPENDIX C

ANNOTATED PLANS

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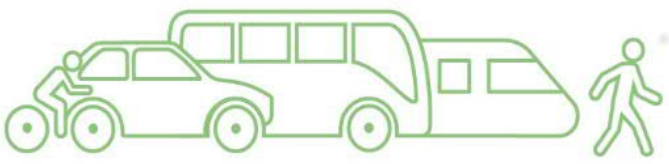
Transport Planning



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APPENDIX F CIRCULAR ECONOMY WORKSHOP MINUTES

Aberfeldy Village – Circular Economy and Whole Life Carbon Workshop Meeting Minutes

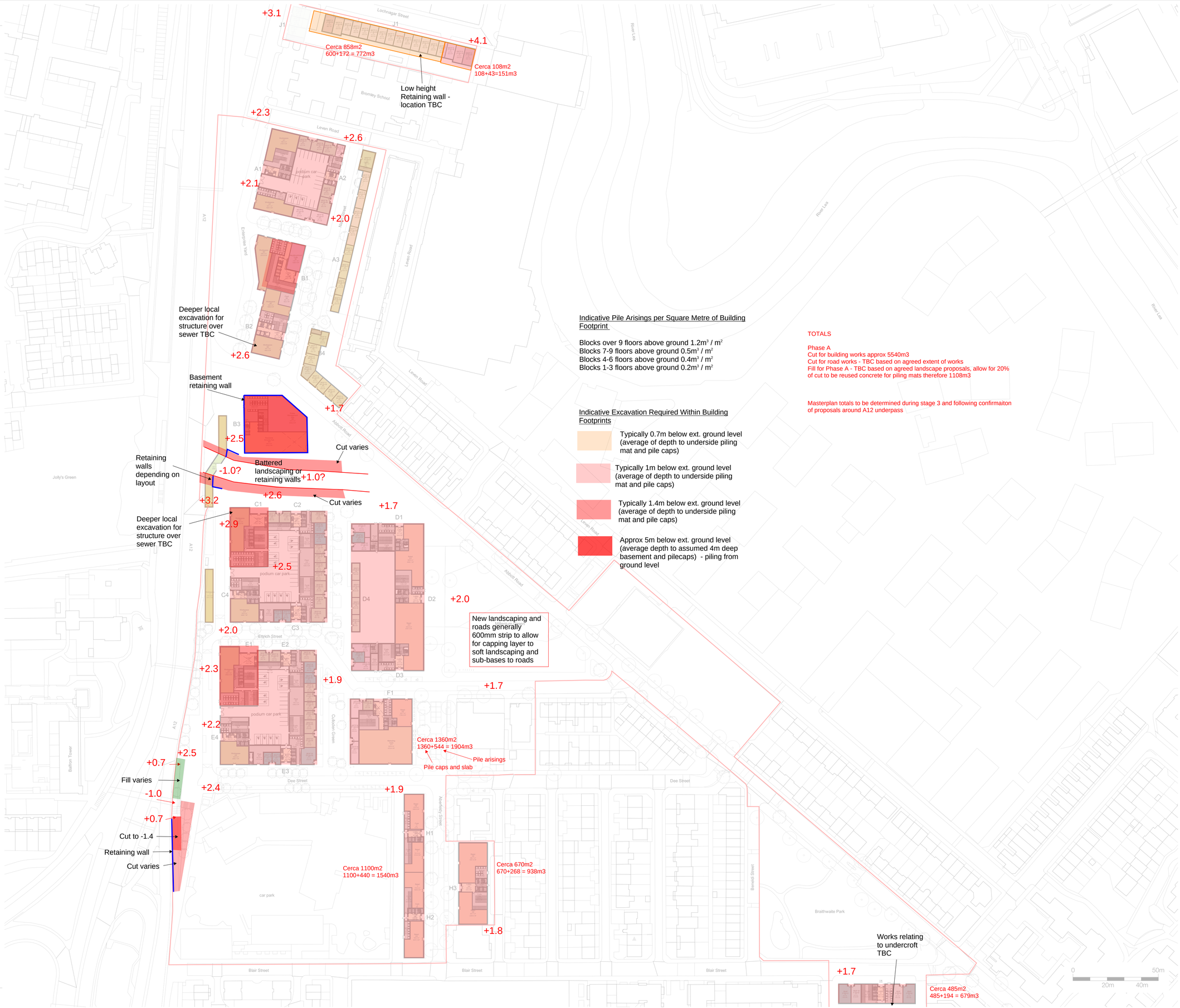
Attending	Attendee	Representing
	Andrea Carvajal	Greengage Environmental (GG)
	Ajjay Dhesi	Greengage Environmental (GG)
	Liz Grove	Greengage Environmental (GG)
	Gurpreet Bhuie	Meinhardt (Mt)
	Vincent Allot	Meinhardt (Mt)
	Andrew Harland	LDA-design (LDA)
	Liam Ashton	Levitt Bernstein (LB)
	Jonathan Marfleet	Morris and Company (M&C)
	Peter Hambling	Velocity Transport Planning (VT)
Venue	**Microsoft Teams Meeting**	
Date	**24th August 2021**	
Circulation	**Those within the meeting**	
Subject	**Circular Economy/ Whole Life Carbon Workshop**	

Item	Owner Action
This workshop was organised with the aim to discuss circular economy initiatives included into the design. The GLA Circular Economy categories were used to structure the discussion. Below are the main points summarised.	
A1 Minimising the quantities of materials used The form factor will impact the area of façade within the houses, the architect has completed the GG Circular Economy questionnaire which details this and will be circulated following this meeting. The design of the buildings contain a high amount of repetition and efficiency, through stacking of the floor designs and removing the need for transfer slabs The design of the buildings allow for off site manufacturing of elements such as bathroom pods, this will be explored in more detail as the design progresses. Brick slip cladding could be used for balconies as opposed to whole bricks to reduce material usage.	Note
A2 Minimising the quantities of other resources used (energy, water, land)	

For energy, the development is aiming for a 60% improvement over part C for the residential elements and 50% below for the non-residential properties as per the GLA guidance. This will explored further as the design develops.	Note
A3 Specifying and sourcing materials responsibly and sustainably There are aspirations to source materials locally where possible. Lime mortar could be used for the brickwork to facilitate easier deconstruction at the end of life stage.	Note
B1 Designing for longevity, adaptability or flexibility and reusability or recoverability These aspects have been accounted with the following: • The services are easy to access within a dedicated room, where pipework is also simple and accessible. • Roof access will be possible in future to allow maintenance to take place within the plant room on the roof. Risers are accessible at all levels for replacement of pipework and electricals without difficulty. • No internal partitions will be load bearing, therefore can be removed and adapted as per the future needs without the need for major works. • There is opportunity for systems which lend themselves to reuse such as reusable CLT or timber stud panels.	Note
B2 Design out construction, demolition, excavation and municipal waste arising Methods covered previously such as off site manufacturing aid in reducing construction waste	Note
C1 Managing demolition waste There has been no pre-demolition audit at this stage, though this will be carried out at the beginning of Stage 3. Concrete on site will likely be able to be crushed and reused as sub base or the piling. GG points out the GLA requirement for 95% demolition waste to be diverted from landfill. These will be considered by the design moving forward. GG notes there is a requirement within the statement to provide detail on existing materials (before demolition) on site and the end destination after demolition occurs.	Note Note
C2 Managing excavation waste	

GG highlight GLA's requirement for 95% uncontaminated excavation waste to be diverted from landfill. VA may be able to provide excavation waste volumes, PH has also allowed for a volume within the costings which will be circulated. Excavation of material will be minimalised where possible	Note
C3 Managing construction waste GG points out the GLA requirement of 95% construction waste to be diverted from landfill, through reusing, recycling or backfilling. Waste generation target is based on BREEAM targets: ≤7.5m3 (≤6.5 tonnes) per 100 sqm of non-hazardous construction waste generated, which will be required of the contractor once they are appointed.	Note
C4 Managing operational waste GG points out the GLA requirement of 65% operational waste reduction by 2030. There will be a segregated waste store for the commercial space, where 65% of waste will be recycled. The destination of waste is to be confirmed.	Note
Whole Life carbon Water and energy figures are to be circulated by MT Options for the use of GGBS within concrete mixtures are suitable for the development as well as precast concrete elements such as the plinth. Stonecycling bricks were being considered, however due to the large increase in price compared to normal bricks they are unlikely to be used.	Note

APPENDIX G CUT & FILL DIAGRAM



Indicative Pile Arisings per Square Metre of Building Footprint

Blocks over 9 floors above ground 1.2m³ / m²
Blocks 7-9 floors above ground 0.5m³ / m²
Blocks 4-6 floors above ground 0.4m³ / m²
Blocks 1-3 floors above ground 0.2m³ / m²

Indicative Excavation Required Within Building Footprints

Typically 0.7m below ext. ground level (average of depth to underside piling mat and pile caps)

Typically 1m below ext. ground level (average of depth to underside piling mat and pile caps)

Typically 1.4m below ext. ground level (average of depth to underside piling mat and pile caps)

Approx 5m below ext. ground level (average depth to assumed 4m deep basement and pilecaps) - piling from ground level

TOTALS

Phase A
Cut for building works approx 5540m3
Cut for road works - TBC based on agreed extent of works
Fill for Phase A - TBC based on agreed landscape proposals, allow for 20% of cut to be reused concrete for piling mats therefore 1108m3

Masterplan totals to be determined during stage 3 and following confirmaiton of proposals around A12 underpass

Notes

1. Do not scale this drawing.
2. All dimensions must be checked on site and any discrepancies verified with the architect.
3. Unless shown otherwise, all dimensions are to structural surfaces.
4. Drawing to be read with all other issued information. Any discrepancies to be brought to the attention of the architect.
5. This drawing is the copyright of Levitt Bernstein and may not be copied, altered or reproduced in any form, or passed to a third party without license or written consent.

This is not a construction drawing, it is unsuitable for the purpose of construction and must on no account be used as such.

Accommodation Key

1B2P	4B6P M	Lobby
1B2P W	4B7P H	Marketing Suite
2B3P W	4B7P M	Neighbourhood Cafe
2B4P	5B7P H	Plant
2B4P M	6B8P H	Refuse
3B5P H	Core	Residents Amenity Hub
3B5P M	Cycle	Retail
3B6P H	Estate Management Hub	Workspace

FOR INFORMATION

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PROJECT
Aberfeldy Village Masterplan
Phases 4-6

CLIENT
Ecoworld

TITLE
SITE LEVELS CUT AND FILL PRINCIPLES

DISCIPLINE	DATE	SCALE @ A3
STRUCTURAL	13/09/23	NTS

DRAWN	DESIGNED	CHECKED	APPROVED
VA	VA	TFP	

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