



# **Operational Waste Management Strategy**

The Beehive Redevelopment

August 2024

Waterman Infrastructure & Environment Limited

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Client Name: Railway Pension Nominees Limited

Document Reference: WIE17469-100-R-18-4-2-OWMS

Project Number: WIE17469

# Quality Assurance - Approval Status

This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

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Fourth August 2024 Ellie Booth Sarah Owen Sarah Owen Consultant Senior Associate Senior Associate

Comments



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## 1. Introduction

### 1.1 The Brief

Railway Pension Nominees Limited (the Applicant) has appointed Waterman Infrastructure & Environment Limited (Waterman) to prepare an operational waste management strategy (OWMS) report to support an outline planning application for the redevelopment of the Beehive Centre, Coldhams Lane, Cambridge, CB1 3ET. The site is within the administrative boundary of Cambridge City Council (CCC).

# 1.2 The Proposed Development

The scheme proposes redevelopment of the Beehive Centre for the following development:

"the demolition and redevelopment of the Beehive Centre, including in Outline Application form for the demolition and redevelopment for a new local centre (E (a-f), F1(b-f), F2(b,d)), open space and employment (office and laboratory) floorspace (E(g)(i)(ii) to the ground floor and employment floorspace (office and laboratory) (E(g)(i)(ii) to the upper floors; along with supporting infrastructure, including pedestrian and cycle routes, vehicular access, car and cycle parking, servicing areas, landscaping and utilities."

### 1.3 The Site

The site is currently occupied by the Beehive Centre, which is a mid-sized shopping area, including circa 24,000m<sup>2</sup> of retail space.

The development will comprise ten buildings. A site location plan and a ground floor plan showing the arrangement of the proposed buildings is included in Appendix A.

#### 1.3.1 Areas and Uses

Proposed uses and areas are shown in the table below.

Table 1: Areas and uses<sup>1</sup>

Use		Gross internal area (GIA)(m²)		
Offices	Office	36,906		
Laboratorios	Dry laboratory	24,262.50		
Laboratories	Wet laboratory	24,262.50		
Mixed use*	Retail	5,178.00		
Total		90,609.00		

<sup>\*&</sup>quot;mixed use" includes retail, food and beverage, convenience stores and leisure facilities. It is assumed to be majority retail space for the purposes of this report

### 1.4 Report Scope

The purpose of this OWMS is to outline how waste may be stored, managed, and collected when the development is complete. It outlines the types of waste predicted to arise with waste volume estimates for some elements of the scheme. It includes the parameters that will be considered in the detailed design of the development and set out in detailed operational waste management strategies to be prepared to accompany subsequent reserved matters applications.

This document should be read in conjunction with other submission documents, including the Delivery and Servicing Management Plan.

<sup>&</sup>lt;sup>1</sup> Leonard Design Architects (LDA) document titled "Masterplan 16 – Office/Lab/Mixed Use GIA Rev\_01" dated 17 July 2024 sent by email from LDA (Shona Sivamohan) to Waterman (Ellie Booth) on 30 July 2024.



### 1.5 Exclusions and Limitations

This report was undertaken in accordance with a scope of works agreed between Waterman and the Applicant as detailed in Waterman's fee letter (reference WIE17469-100-240306-SO-Fee dated 06 March 2024).

The benefit of this report is made to Railway Pension Nominees Limited.

Waterman has endeavoured to assess all information provided to it during this work but makes no guarantees or warranties as to the accuracy or completeness of this information.

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at the site.



# 2. Policy, Guidance and Standards

The following policy, guidance, and standards were considered in developing this OWMS.

# 2.1 The Building Regulations 2010 Approved Document H<sup>2</sup>

This Approved Document provides practical guidance. It sets out the requirements of Schedule 1 and Regulation 7 of the Building Regulations 2010 (SI 2010/2214) for England and Wales. Requirement H6, "Solid Waste Storage" specifies:

- "(1) Adequate provision shall be made for storage of solid waste.
- (2) Adequate means of access shall be provided:
  - (a) for people in the building to the place of storage
  - (b) from the place of storage to a collection point [...]"

Requirement H6 stipulates waste storage should be designed and sited so as not to be prejudicial to health or local amenity.

# 2.2 British Standard 5906:2005<sup>3</sup>

This British Standard (BS 5906:2005) is a Code of Practice for methods of storage, collection, segregation for recycling and recovery, and on-site treatment of waste. This standard relates to residential and non-residential buildings and healthcare establishments. It is applicable to new buildings, refurbishments and conversions of residential and non-residential buildings, including but not limited to retail and offices. It expands upon the legal requirements set out in The Building Regulations 2010, Approved Document H, requirement H6 as above. BS 5906:2005 advises that:

"Designers should consider:

easy and safe access for waste producers, including older persons or persons with disabilities; easy and safe access for collectors and collection vehicles; location and space (including avoidance of opportunity to cause nuisance or injury); protection against animal scavenging of waste;

aesthetics of the development;

noise (e.g. glass handling);

ease of maintenance, including cleaning;

robust construction;

safety from fire risk and smoke;

lighting;

ventilation;

sound insulation; and

special requirements (e.g. separate storage and collection provisions for healthcare waste and bulky waste)."

The document then goes on to provide specific guidance to enable calculations of storage capacity, issues to consider for different building types or occupiers, and design considerations for waste storage and handling areas. As well as recommending the maximum distances waste collection operatives should have to manoeuvre bins e.g., 10m for four wheeled bins or 15m for two wheeled bins.

<sup>&</sup>lt;sup>2</sup> GOV.UK (2010) *"The Building Regulations 2010, Drainage and Waste Disposal"* H6 Solid Waste Storage, page 53. Available at <a href="https://www.gov.uk/government/publications/drainage-and-waste-disposal-approved-document-h">www.gov.uk/government/publications/drainage-and-waste-disposal-approved-document-h</a> (accessed 10 July 2023).

<sup>&</sup>lt;sup>3</sup> British Standard BS 5906:2005: Waste management in buildings – Code of practice, December 2005 Revision, Committee reference B/508/1.



# 2.3 Building Research Establishment (BRE)

### 2.3.1 BRE's Environmental Assessment Method

The Building Research Establishment's Environmental Assessment Method (BREEAM) process evaluates the procurement, design, construction, and operation of a development against targets that are based on performance benchmarks. It is applicable to non-domestic buildings only.

The Applicant is targeting a BREEAM rating of "Excellent" for the proposed development under the BREEAM New Construction UK 2018 manual<sup>4</sup>. This manual advises on allocating waste storage provision for non-domestic uses. It recommends the following provisions for recyclable wastes as a minimum:

at least 2m<sup>2</sup> per 1,000m<sup>2</sup> of net floor area for buildings < 5,000m<sup>2</sup>.

a minimum of 10m<sup>2</sup> for buildings ≥ 5,000m<sup>2</sup>; and

an additional  $2m^2$  per  $1,000m^2$  of net floor area where catering is provided (with an additional minimum of  $10m^2$  for buildings  $\geq 5,000m^2$ ).

The net floor area should be rounded up to the nearest 1,000m<sup>2</sup>. We recommend a similar allocation is made for residual waste (albeit minus the additional provision required for catering).

# 2.4 Local Authority Planning Policy and Guidance

# 2.4.1 Cambridge Local Plan 2018<sup>5</sup>

The Cambridge local plan sets out how the development needs of Cambridge will be met to 2031. Policy 57 of the Cambridge local plan, "designing new buildings" states that high quality new buildings will be supported where it can be demonstrated that they "successfully integrate functional needs such as refuse and recycling".

### 2.4.2 Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036<sup>6</sup>

The Cambridgeshire and Peterborough Minerals and Waste Local Plan was adopted in July 2021.

Policy 4 of the plan, "Providing for Waste Management", sets out CCC's aim to support the sustainable management of waste, which includes encouraging waste to move as far up the waste hierarchy as possible.

Policy 14 of the plan, "Waste management needs arising from residential and commercial development", states that "Relevant residential and commercial planning applications in Cambridgeshire must be accompanied by a completed Waste Management Guide Toolkit, which forms part of the latest RECAP Waste Management Design Guide Supplementary Planning Document."

# 2.4.3 Greater Cambridge Sustainable Design and Construction Supplementary Planning Document (SPD) 2020<sup>7</sup>

This SPD aligns with the minerals and waste local plan in also emphasizing the requirement for all new development to follow the guidance set out in the RECAP Waste Management Design Guide SPD.

plan#:~:text=The%20Cambridgeshire%20and%20Peterborough%20Minerals%20and%20Waste%20Local,guide%20mineral%20and%20waste%20management%20development%20and%20will%3A (accessed 31 July 2024).

https://www.cambridge.gov.uk/greater-cambridge-sustainable-design-and-construction-spd (accessed 31 July 2024).

<sup>&</sup>lt;sup>4</sup> Technical Manual SD5078: BREEAM UK New Construction 2018 revision 1.2.

<sup>&</sup>lt;sup>5</sup> Cambridge Local Plan 2018, available at https://www.cambridge.gov.uk/local-plan-2018 (accessed 31 July 2024).

<sup>&</sup>lt;sup>6</sup> Cambridgeshire and Peterborough Minerals and Waste Local Plan, adopted July 2021, available at <a href="https://www.cambridgeshire.gov.uk/business/planning-and-development/planning-policy/adopted-minerals-and-development/planning

<sup>&</sup>lt;sup>7</sup> Greater Cambridge Sustainable Design and Construction SPD, adopted January 2020, available at



# 2.4.4 RECAP Waste Management Design Guide SPD8

CCC adopted the RECAP Waste Management Design Guide SPD in 2012.

This SPD sets out practical information on the provision of waste storage, waste collection and recycling in residential and commercial developments. It also includes a Toolkit which developers of such proposals are required to complete and submit as part of their planning application.

See section 4 and Appendices B and C for the Design Guide Toolkit.

# 2.4.5 Greater Cambridge Shared Waste Service (GCSWS) Guidance for Developers – Waste Storage and Collection<sup>9</sup>

The purpose of this guide is to provide developers with information on "what to consider when planning and designing new developments, and the minimum requirements needed to achieve effective waste storage and collections following completion of sites."

Appendix A of the guidance details bin types and sizes, including 140 litre bins (suggested to be used for commercial food waste) and 1,100 litre bins.

<sup>&</sup>lt;sup>8</sup> RECAP waste management design guide, adopted 22 February 2012, available at <a href="https://www.cambridgeshire.gov.uk/business/planning-and-development/planning-policy/recap-waste-management-design-guide">https://www.cambridgeshire.gov.uk/business/planning-and-development/planning-policy/recap-waste-management-design-guide</a> (accessed 31 July 2024).

<sup>&</sup>lt;sup>9</sup> GCSWS's Guidance for Developers – Waste storage and collection V1.00 – Nov 2021, available at <a href="https://www.cambridge.gov.uk/recycling-and-waste-quide-for-developers">https://www.cambridge.gov.uk/recycling-and-waste-quide-for-developers</a> (accessed 31 July 2024).



# 3. Operational Waste Management Strategy

### 3.1 Overview

The proposed development seeks to provide a new local centre and office and laboratory floorspace. The proposed uses will be arranged across ten buildings.

Table 2: Uses and anticipated waste types

Use	Anticipated waste type
Office / dry laboratory	Food waste (if there are kitchenettes in the offices);
	Mixed dry recyclable (MDR) – e.g. packaging; and
	Residual.
Wet laboratory <sup>10</sup>	Dependent on laboratory tenant(s) – but could include:
	Glass - glassware from labs;
	Hazardous laboratory waste – chemical waste, clinical waste, radioactive waste and so on in both solid and liquid forms;
	MDR - e.g. packaging; and
	Non-hazardous laboratory waste -batteries and toner cartridges.
Mixed use - commercial	Food waste (from F&B uses for example);
	MDR; and
	Residual

There will be bin stores throughout blocks 1 to 10. Block 1 will have an external bin store at ground level. Blocks 2 – 9 will have bin stores at basement level and the location of the bin store for block 10 (multistorey car park with retail and community uses at ground floor) will be either at basement or ground floor level, with location to be confirmed as part of a subsequent reserved matters application. The bin stores will hold for example 1,100 litre bins for intermediate storage of residual and MDR wastes and 240 litre bins for food waste. In the laboratory buildings, there will also be separate laboratory waste stores at basement level housing appropriate containers for laboratory wastes. It is anticipated bulk wastes (residual and MDR) will be transferred to the service yards for bulking up into compactor skips, smaller quantity laboratory wastes may also be transferred there for removal.

The locations of the bin stores are shown on the drawings in Appendix A.

The arrangements of the bin stores will be determined at detailed design stage. As will the detailed facilities management arrangements.

Wastes will be collected by a private contractor(s) at appropriate frequencies.

### 3.2 Waste Strategy

### 3.2.1 Estimated Storage Requirements

#### Laboratories and office space

The precise waste types and quantities to arise from the wet laboratory use is dependent on the tenant's business. It is anticipated that detailed design of the wet laboratory space, including waste storage provisions, will be informed by a specific tenant or type of tenant. Therefore, at this outline planning application stage we have not derived specific waste storage estimates for the wet laboratory waste.

For the purposes of providing estimates of MDR and residual waste from the office / dry laboratory activities we have used the following:

<sup>&</sup>lt;sup>10</sup> UCL webpage titled *"Laboratory Waste"* available at <a href="https://www.ucl.ac.uk/estates/our-services/waste-and-recycling/laboratory-waste">https://www.ucl.ac.uk/estates/our-services/waste-and-recycling/laboratory-waste</a> (accessed 31 July 2024).



The masterplan states that there will be 61,168.50m<sup>2</sup> of office / dry lab use and 24,262.50m<sup>2</sup> of wet lab use;

RECAP waste management design guide waste storage capacity requirement for office use of 2,600 litres per 1,000m<sup>2</sup> GIA, minimum one third for recyclables storage (we have further assumed half the capacity for recyclables storage); and

Weekly requirements for either 1,100 litre wheeled bins or use of compactor skips for residual waste (compaction ratio 1:5) and MDR (compaction ratio 1:2). We anticipate compactor skips will be used.

Table 3: Office/ dry laboratory - waste storage capacity requirements

Weekly waste storage capacity requirements (either bins or compactor skips)					
Units	Area (m²)	No. of 1,100 litre residual waste bins	No. of 1,100 litre MDR waste bins	No. of 10.5 cu.m residual waste compactor skips	No. of 10.5 cu.m MDR compactor skips
office/dry laboratory	61,168.50	73	73	(1.5) rounded to 2	(3.8) rounded to 4

Much of the MDR is likely to be cardboard – a cardboard baler may be a more effective solution for this waste than compaction as part of MDR.

Dependent on the facilities provided for staff, it may be that food waste can be separately collected. It will likely require removal in smaller capacity wheeled bins as it is dense and so heavy, and it does not compact. Source segregation of food waste would reduce residual waste arisings.

#### Mixed-use commercial

Whilst it is noted some floor space may be used for events / community uses for example, for the purposes of providing estimates of MDR and residual waste from the mixed-use elements of the scheme, we have used the following:

A GIA of 5,178m<sup>2</sup> assumed to all be retail use;

RECAP waste management design guide waste storage capacity requirement for retail use of 5,000 litres per 1,000m<sup>2</sup> GIA, minimum one third for recyclables storage (we have further assumed half the capacity for recyclables storage); and

Weekly requirements for either 1,100 litre wheeled bins or use of compactor skips for residual waste (compaction ratio 1:5) and MDR (compaction ratio 1:2). We anticipate compactor skips will be used.

Table 4: Mixed commerical - retail - waste storage capacity requirements

		Weekly waste storage capacity requirements (either bins or compactor skips)			
Units Area (m²)	No. of 1,100 litre residual waste bins	No. of 1,100 litre MDR waste bins	No. of 10.5 cu.m residual waste compactor skips	No. of 10.5 cu.m MDR compactor skips	
Mixed use – retail	5,178	12	12	(0.2) rounded to 1	(0.6) rounded to 1

Much of the MDR is likely to be cardboard – a cardboard baler may be a more effective solution for this waste than compaction as part of MDR.

As food and beverage outlets are included in the mixed-use element of the scheme, food waste will arise.

It will likely require removal in smaller capacity wheeled bins as it is dense and so heavy, and it does not compact.

### 3.2.2 Waste Transfer Within the Development

Bin stores are located at ground level and basement level. For building users / cleaning staff to deposit



wastes in. Facilities management staff will transfer the bulk wastes (residual waste, MDR and food waste) to the service yard using lifts and powered bin tows. Residual waste and MDR will be deposited into compactor skips with the empty bins returned to the waste stores. Food waste will remain in wheeled bins as it cannot be compacted.

Laboratory wastes will be transferred by facilities management staff or laboratory staff using appropriate equipment. Manual handling will be avoided.

#### 3.2.3 Collection

The Delivery and Servicing Plan should be referred to for full details of the proposed refuse collection arrangements and the management of deliveries more generally. In summary, waste collection vehicles will collect residual waste, MDR and food waste from the service yards. Tenants will be required to use the same waste management contractors so that trips are reduced. It is likely the laboratory tenant(s) will appoint specialist waste management contractors to remove the laboratory wastes. These wastes will also be collected from the service yards.

Refuse collection operatives will not be required to move four wheeled containers further than 10m from storage location to refuse collection vehicle, or two wheeled containers further than 15m.

# 3.3 Facilities Management Role

Facilities management staff will move wastes to the service yards for deposit into compactor skips or appropriate storage containers or areas dependent on the waste type. These staff will ensure also storage capacity is accessible at all times. Reception staff will manage the attendance at the site of waste collection vehicles.



# 4. RECAP Design Guide Toolkit

See Appendix B for the RECAP Design Guide Toolkit Design Standard Checklist which has been completed as far as possible at outline planning application stage. The design standards set out are noted and will be taken into account in the detailed design of the Development and the preparation of the operational waste management strategies to be provided as part of each reserved matters application.

See Appendix C for the RECAP Design Guide Toolkit Assessment Sheet A. Sheets B and C are not relevant to the Development. The content of Sheet A is noted, and the information will be provided at reserved matters application stage should CCC require it.



# **APPENDICES**



# A. Plans and Drawings

LDA plan titled "Site Location Plan" with reference "PO-LDA-ZZ-XX-DR-A-08000", revision D1, dated 03 August 2023.

LDA plan titled "Masterplan 16 Ground Floor 030007", dated 01 July 2024.

LDA plan titled "Block 01 - Floor Plans", with reference "PO-LDA-01-ZZ-DR-A-030000", revision P2, dated 05 July 2024.

LDA plan titled "Block 02 - Basement Floor Plan", with reference "PO-LDA-02-B1-DR-A-030000", revision P1, dated 12 July 2024.

LDA plan titled "Block 03 - Basement Floor Plan", with reference "PO- LDA-03-B1-DR-A-030000", revision P2, dated 05 July 2024.

LDA plan titled "Block 04 - Basement Floor Plan", with reference "PO-LDA-04-B1-DR-A-030100", revision P1, dated 05 July 2024.

LDA plan titled "Basement Floor Plan", with reference "PO-LDA-05-B1-DR-A-030000", revision P2, dated 12 July 2024.

LDA plan titled "Block 06 - Basement Floor Plan", with reference "PO-LDA-06-B1-DR-A-030000", revision P1, dated 05 July 2024.

LDA plan titled "Block 07 - Basement Plan", with reference "PO-LDA-07-B1-DR-A-030100", revision P1, dated 05 July 2024.

LDA plan titled "Block 08 - Basement Plan", with reference "PO-LDA-08-B1-DR-A-030100", revision P1, dated 05 July 2024.

LDA plan titled "Block 09 - Basement Floor Plan", with reference "PO-LDA-09-B1-DR-A-030100", revision P1, dated 05 July 2024.

Waterman plan titled "Service and Delivery Vehicles Swept Path Analysis 12.3m Refuse Collection Vehicle", with reference "WIE-SA-05-0006", revision A04, dated 02 August 2024.

Rev. Date The Beehive Redevelopment Drawing Title Drawn by LK Boundaries Application Boundary
Other land owned by the Applicant

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Orientation

D1 05.07.24 Resubmission Design Freeze LK HN P1 03.08.23 Planning Issue LK HN Revision By Checked

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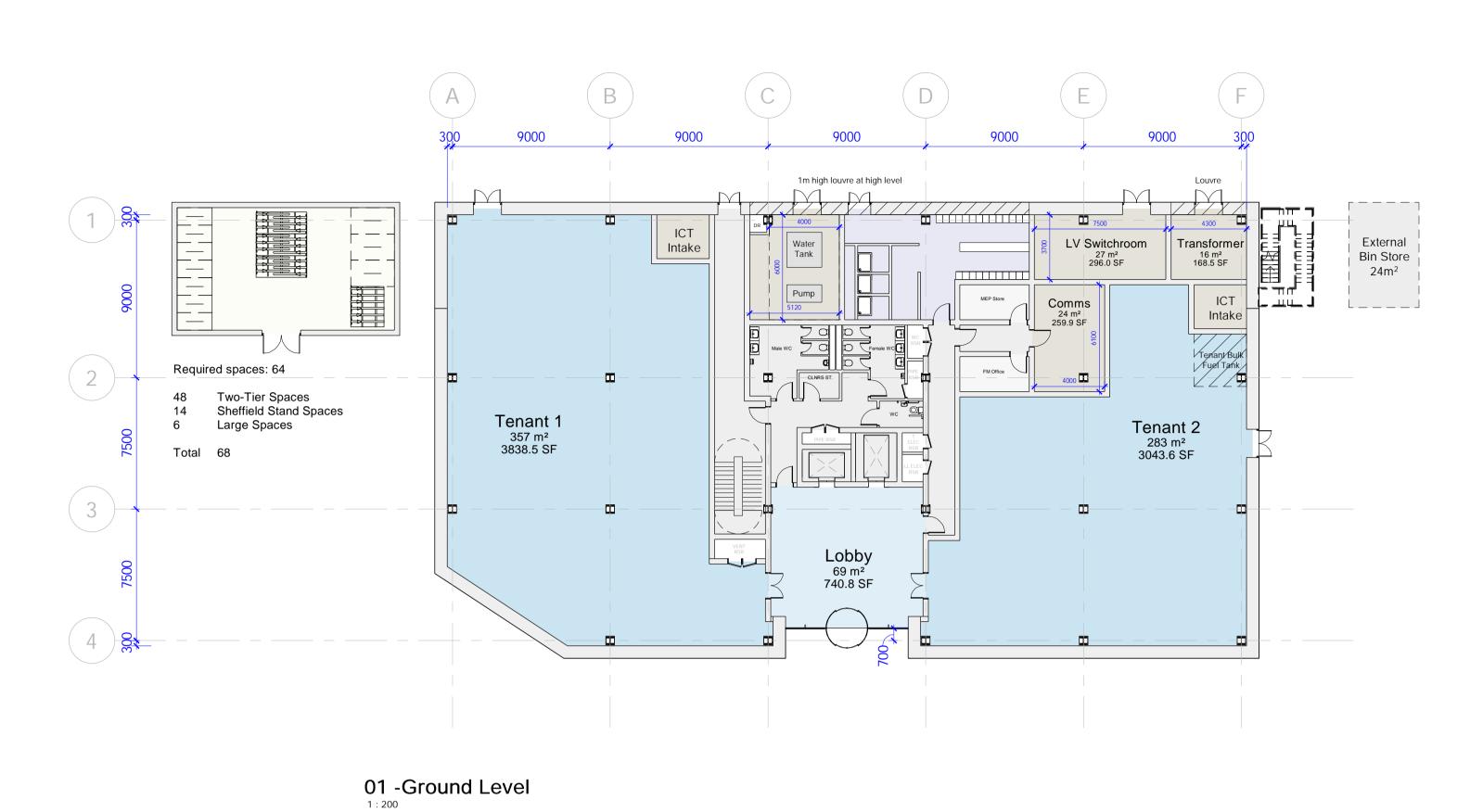
Site Location Plan

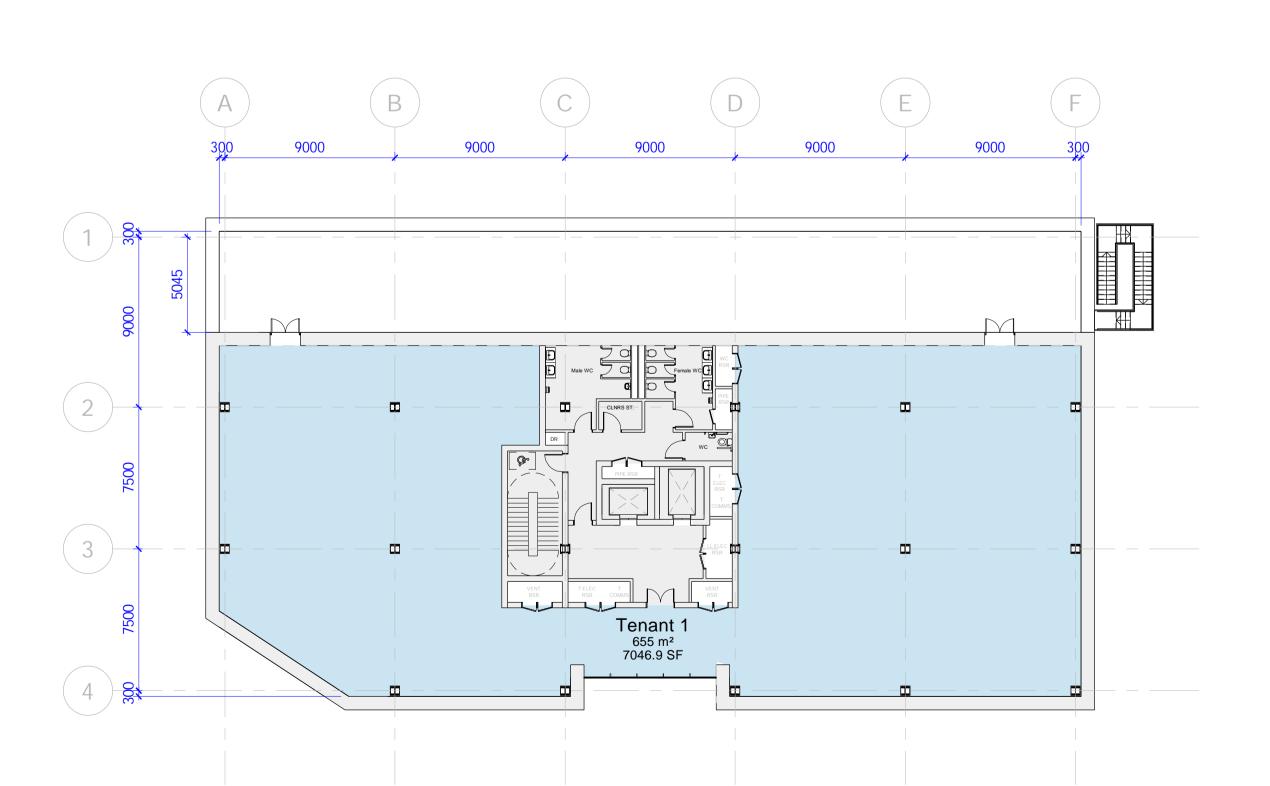
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Purpose of Issue PLANNING ISSUE Project Status

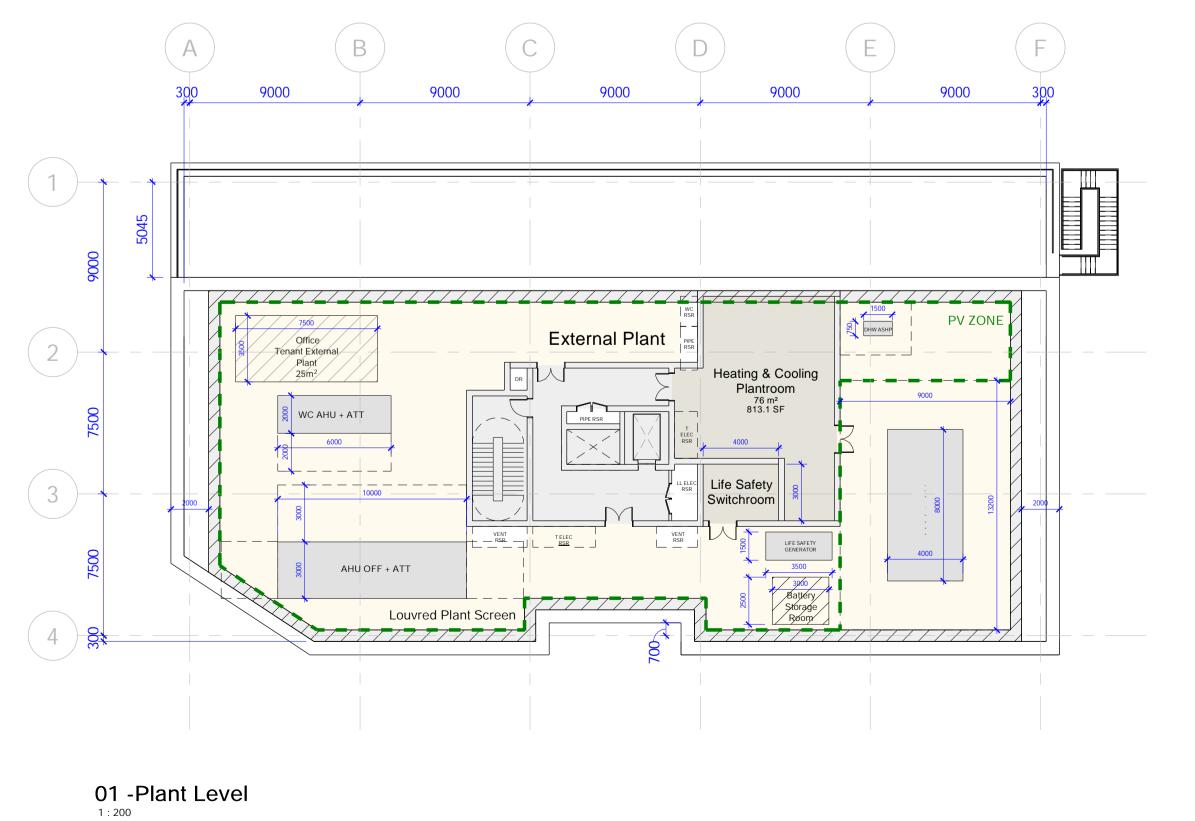
PLANNING







01 -Level 1



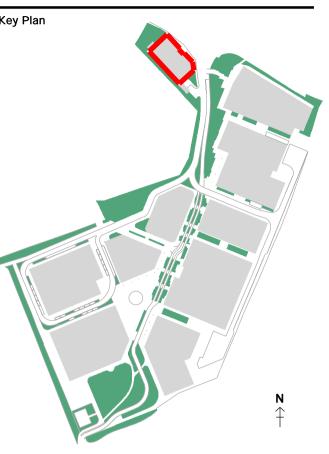
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Orientation

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- Fire strategy to be reviewed and coordinated at the next stage.
- Vertical transport provision to be reviewed and coordinated at the next stage.
- Structural columns around riser openings to be coordinated at the next stage.
- Cycle parking ratios and any over-provision to be reviewed at the next stage.

P2 05/07/24 Design Freeze HM SS P1 20/05/24 For coordination HM SS P0 29/04/24 Initial issue for coordination HM LK By Checked

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Project 1004 Project Otter

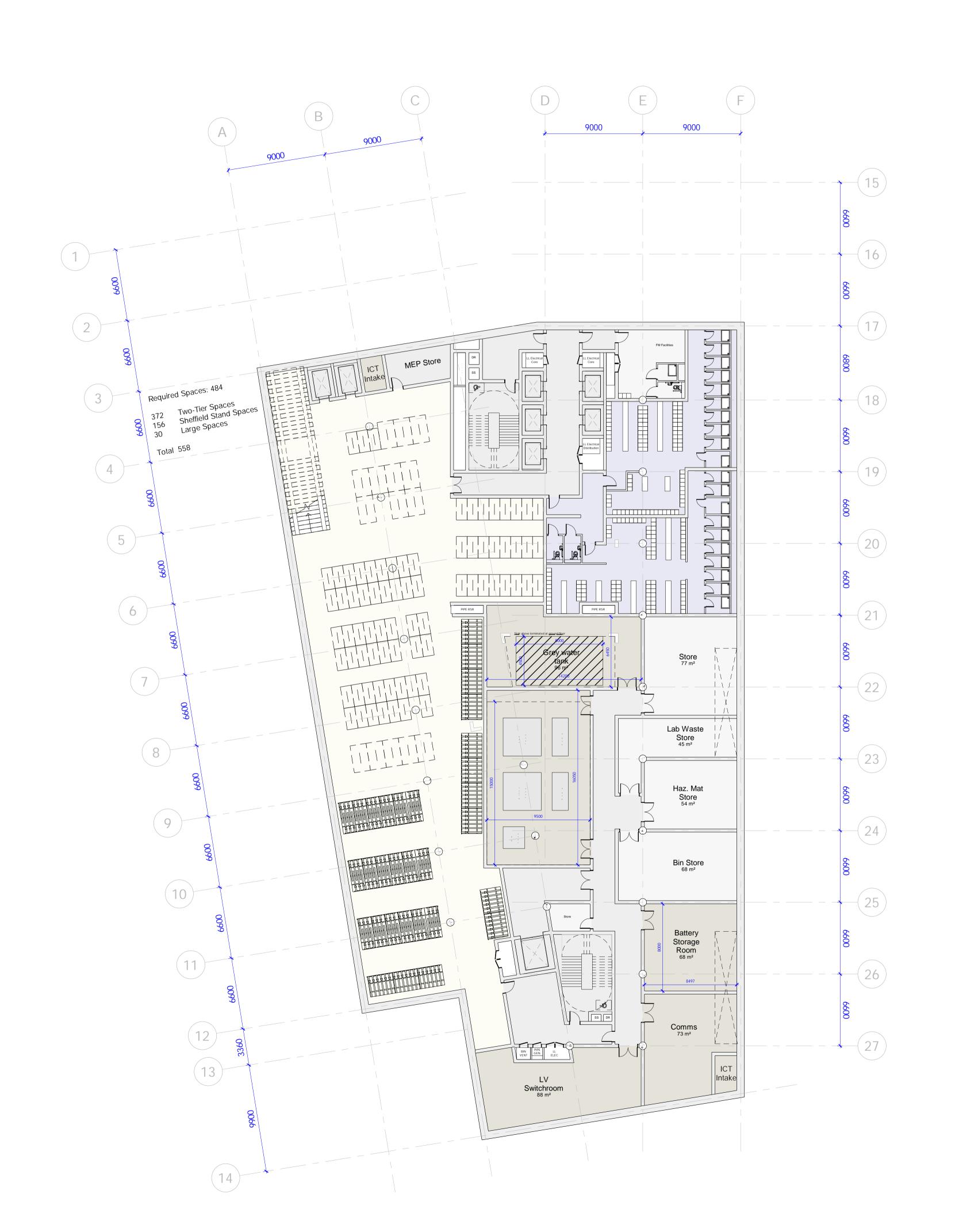
**Drawing Title** 

Block 01 -Floor Plans

Project Number Suitability 1004 Drawn by Checked by AM Scale @A1 26/04/23 1:200 File Identifier Revision PO -LDA -01 -ZZ -DR -A -030000

Purpose of Issue DESIGN FREEZE

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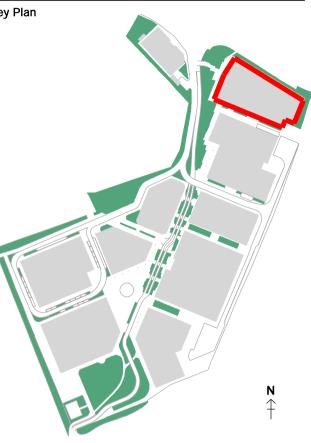


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- coordinated at the next stage.

  Structural columns around riser openings to be coordinated at the next stage.
- Coordination of basement vent risers and basement
- extents to be reviewed at the next stage.

  Cycle parking ratios and any over-provision to be reviewed at the next stage.

P1 12/07/24 Design Freeze SS LK P0 25/06/24 Initial issue for coordination MA SS By Checked

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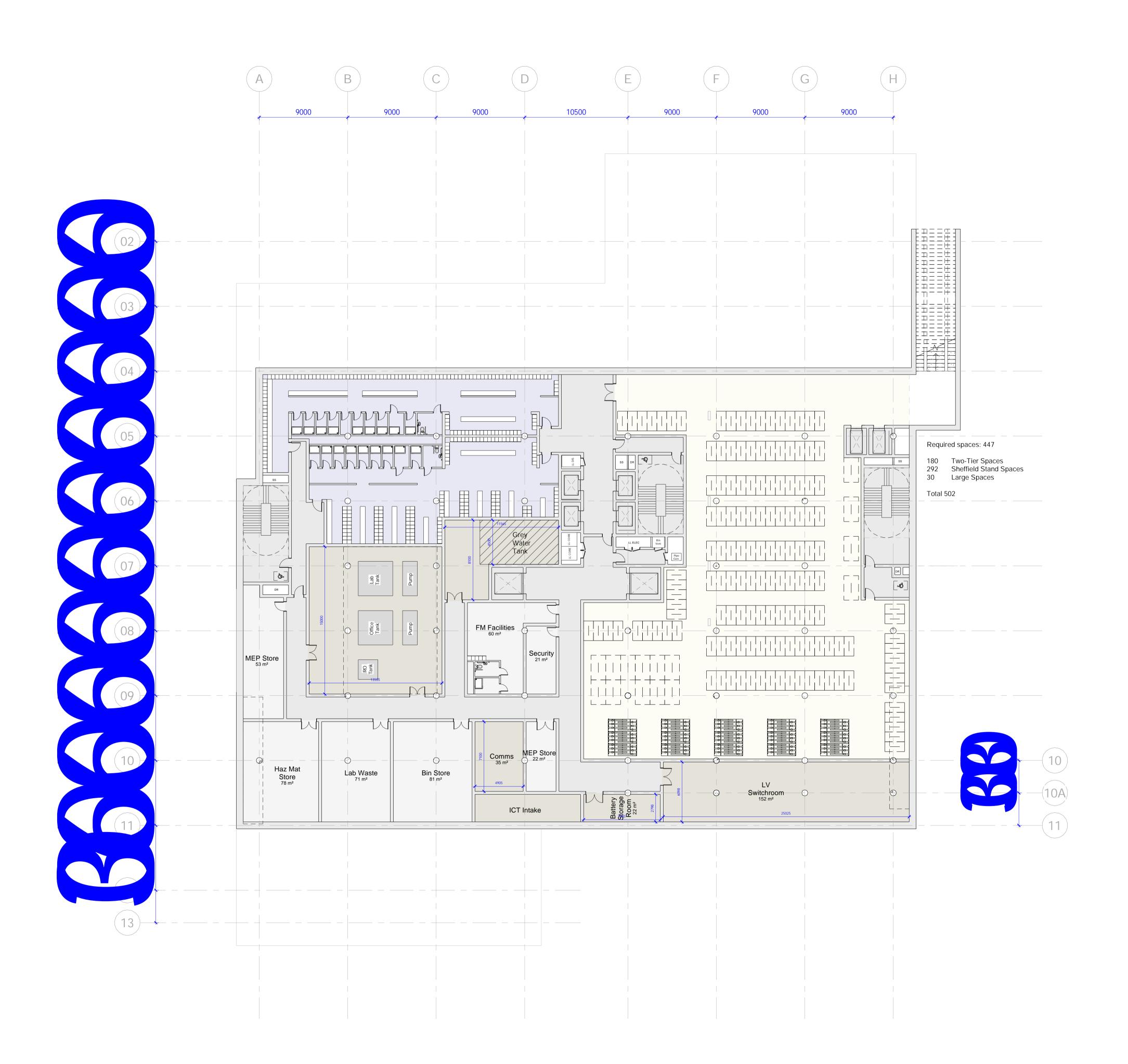
1004 Project Otter

# Drawing Title

Block 02 -Basement Floor Plan

Project Number 1004 Suitability Drawn by Checked by MA Scale @A1 1:200 24/06/24 File Identifier Revision PO -LDA -02 -B1 -DR -A -030000

Purpose of Issue COORDINATION Project Status

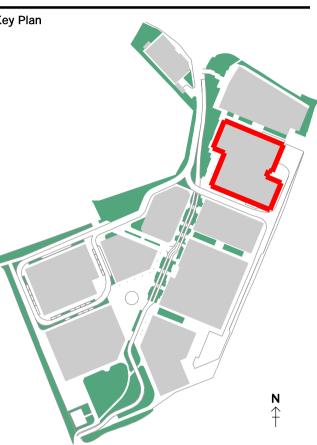


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Orientation





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- reviewed at the next stage.

HM SS SS LK P2 05/07/24 Design Freeze P1 21/05/24 For coordination P0 29/04/24 Inital issue for coordination SS LK By Checked

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Project

1004 Project Otter

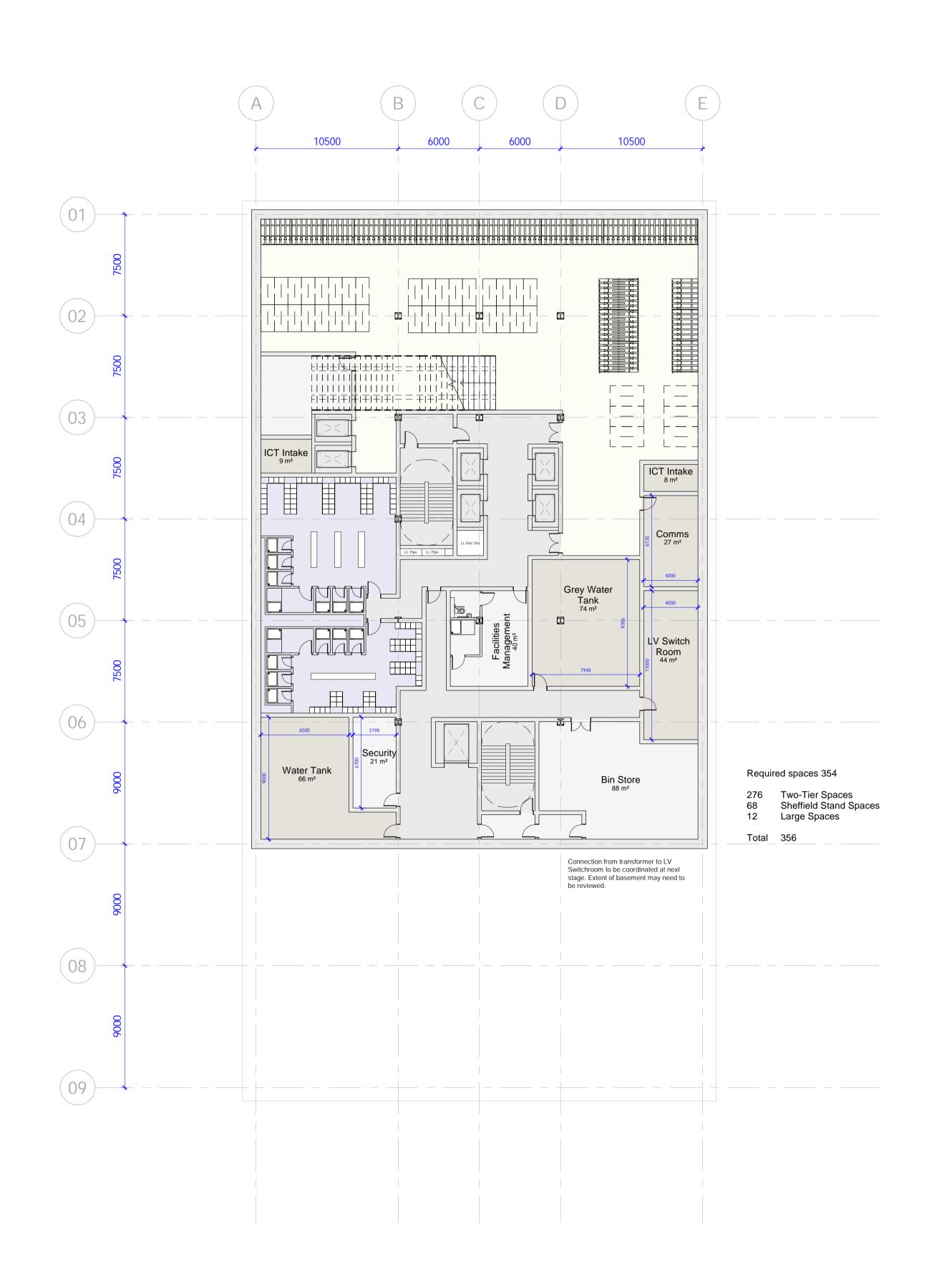
# **Drawing Title**

Block 03 - Basement Floor Plan

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Project Number 1004	<b>Suitabili</b> i S
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Scale @A1 1:200	<b>Dat</b> 29/04/2
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Purpose of Issue
DESIGN FREEZE



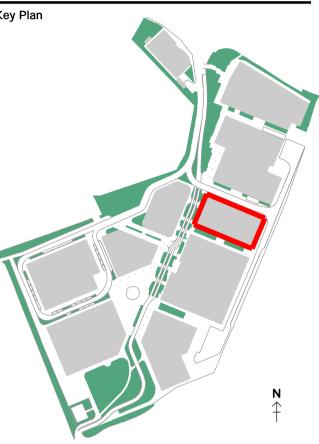
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DO NOT SCALE

Orientation



Key Plan



- Fire strategy to be reviewed and coordinated at
- the next stage.

  Vertical transport provision to be reviewed and coordinated at the next stage.

  Structural columns around riser openings to be coordinated at the next stage.
- Cycle parking ratios and any over-provision to be reviewed at the next stage.

P1 05/07/24 Design Freeze P0 14/06/24 For coordination & amended HM SS sheet naming By Checked

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Client



Project

1004 Project Otter

# **Drawing Title**

Block 04 - Basement Floor Plan

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Purpose of Issue
COORDINATION
Project Status

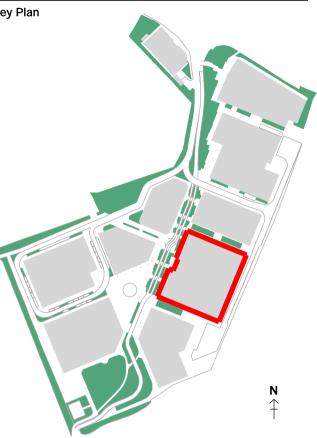
9000 Required spaces: 839 Two-Tier SpacesSheffield Stand Spaces 74 Large Spaces Total 840 **∂** ss Greywater Tank 47 m<sup>2</sup> 502.7 SF Security 58 m<sup>2</sup> 622.6 SF (07)ICT Intake Haz Mat Store
50 m²
541.9 SF Bin Store 193 m<sup>2</sup> 2081.3 SF Storage 64 m<sup>2</sup> 687.1 SF Lab Waste
50 m<sup>2</sup>
541.9 SF LV Switchroom
119 m²
1276.1 SF ICT Intake

Dimensions to be verified on site.
Use figured dimensions only. Do not work from reduced scale drawings.
Please refer to scale and sheet size as indicated.

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# Orientation





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- coordinated at the next stage.
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P2 12/07/24 Design Freeze P1 03/07/24 For Coordination P0 28/05/24 Initial issue for coordination Rev. Date Revision

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Project

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RIDGELIFT

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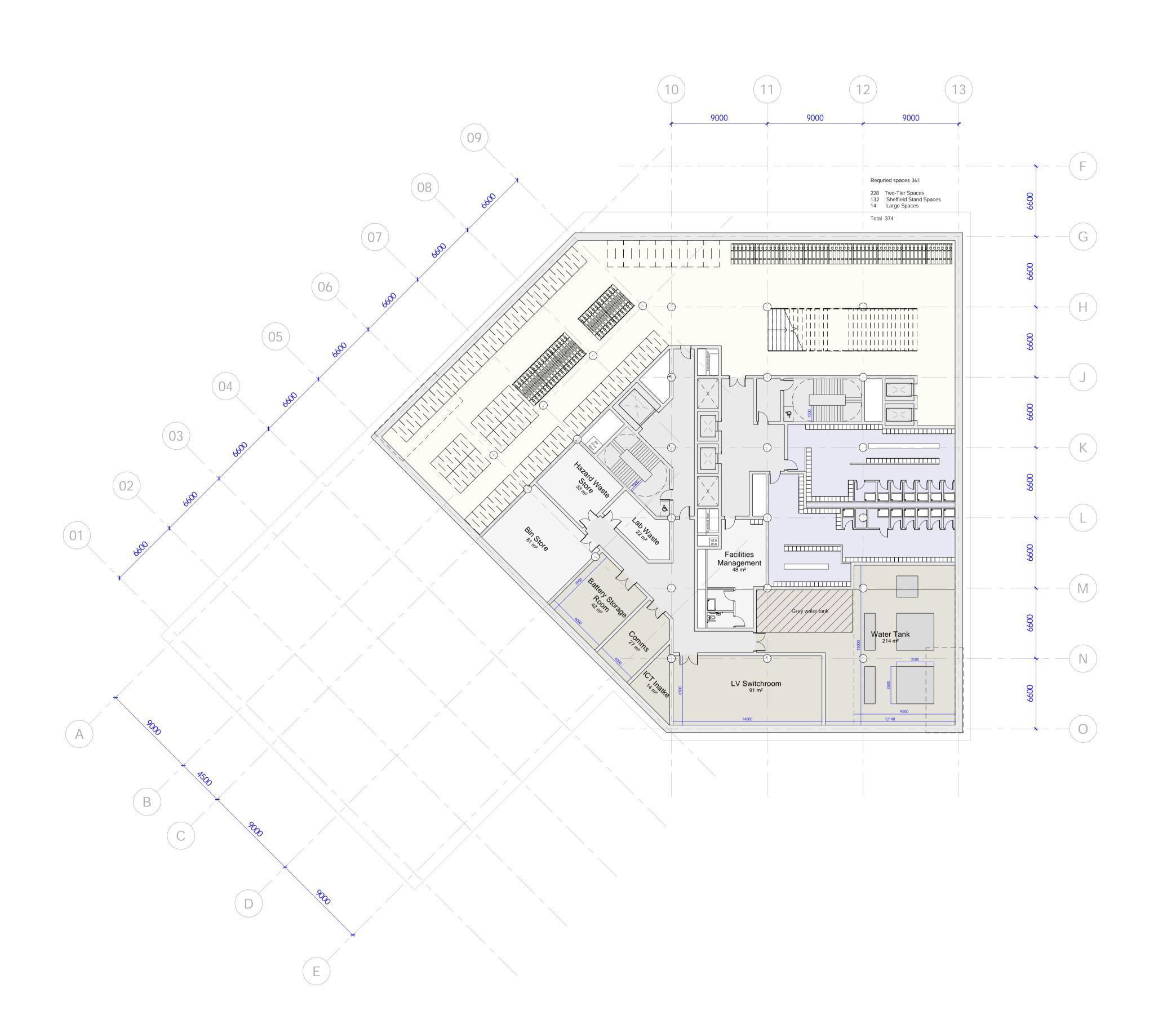
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1004 Project Otter

# **Drawing Title** Basement Floor Plan

Project Number Suitability 1004 Drawn by Checked by НМ Scale @A1 22/05/24 1:200 File Identifier Revision PO -LDA -05 -B1 -DR -A -030000

Purpose of Issue COORDINATION Project Status



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# DO NOT SCALE

Orientation



Key Plan



- Fire strategy to be reviewed and coordinated at the next stage.
- Vertical transport provision to be reviewed and coordinated at the next stage.

  Structural columns around riser openings to be coordinated at the next stage.
- Coordination of basement vent risers and basement
- extents to be reviewed at the next stage.

  Cycle parking ratios and any over-provision to be reviewed at the next stage.

P1 05/07/24 Design Freeze P0 14/06/24 Initial issue for coordination SS LK SS LK By Checked

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Project

1004 Project Otter

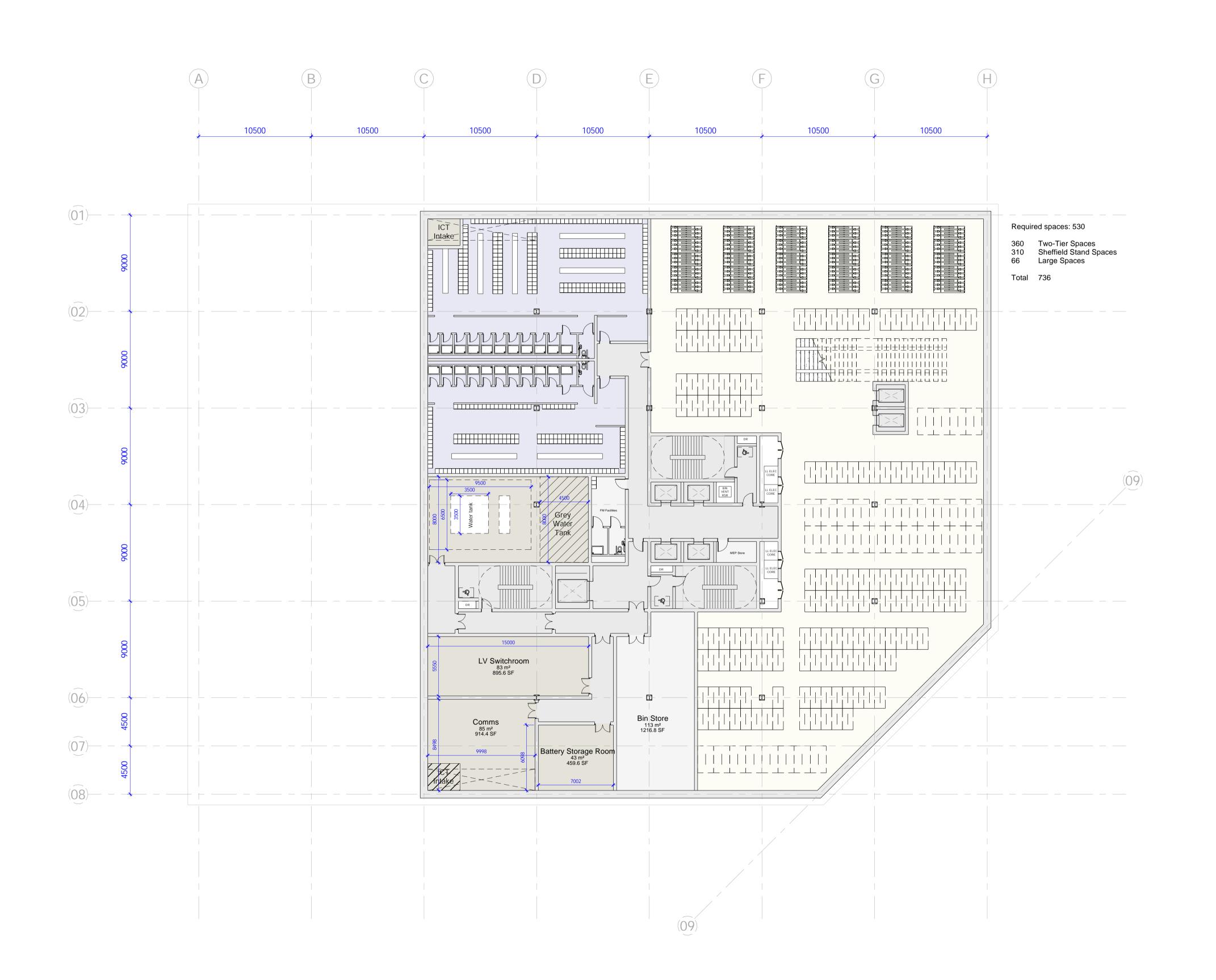
# Drawing Title

# Block 06 - Basement Floor Plan

Project Number	Suitability
1004	S1
Drawn by HM	Checked by
Scale @A1 1:200	<b>Date</b> 28/05/24
File Identifier	Revision
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Purpose of Issue
COORDINATION
Project Status



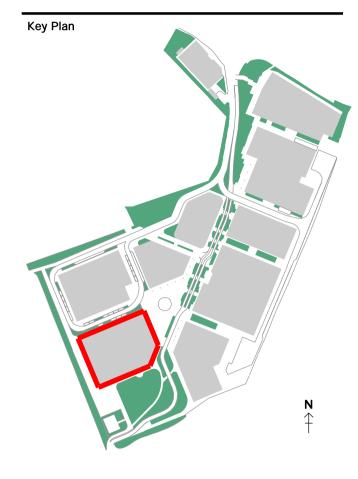


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# DO NOT SCALE

Orientation





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- Structural columns around riser openings to be coordinated at the next stage.
- Coordination of basement vent risers and basement
- extents to be reviewed at the next stage.
  Cycle parking ratios and any over-provision to be
- reviewed at the next stage.

P1 05/07/24 Design Freeze HM SS P0 14/06/24 For coordination & amended sheet renaming By Checked

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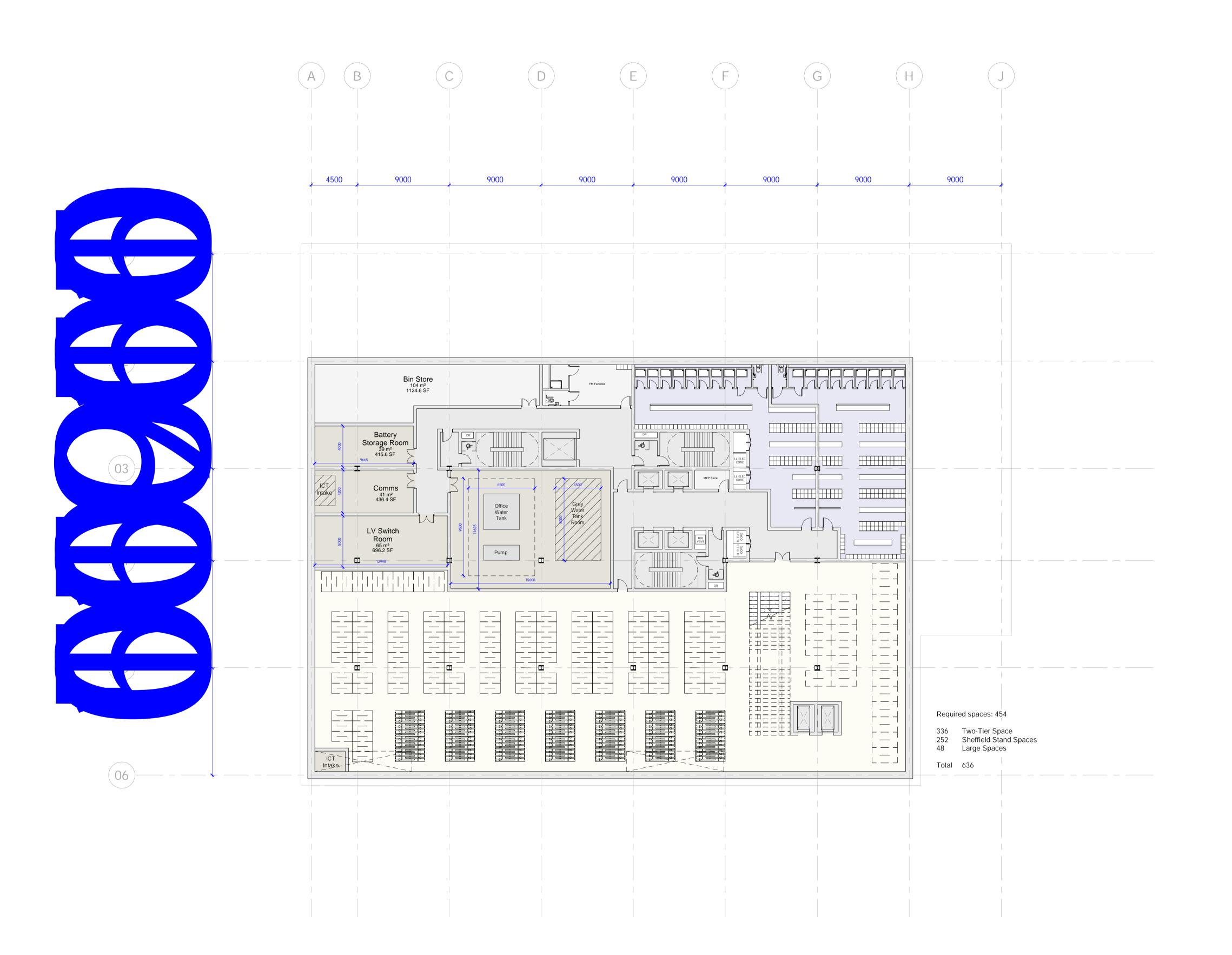
1004 Project Otter

# **Drawing Title**

Block 07 - Basement Plan

**Project Number** Suitability 1004 Drawn by Checked by НМ Scale @A1 1:200 03/06/24 File Identifier Revision PO - LDA - 07 - B1 - DR - A - 030100

Purpose of Issue
DESIGN FREEZE
Project Status

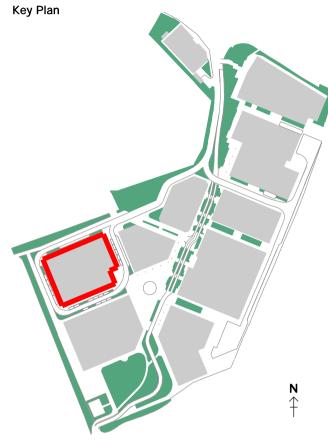


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DO NOT SCALE

Orientation





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- Structural columns around riser openings to be coordinated at the next stage.
- Coordination of basement vent risers and basement
- extents to be reviewed at the next stage.
- Cycle parking ratios and any over-provision to be reviewed at the next stage.

P1 05/07/24 Design Freeze HM SS P0 14/06/24 For coordination & amended HM SS sheet naming By Checked

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Project

1004 Project Otter

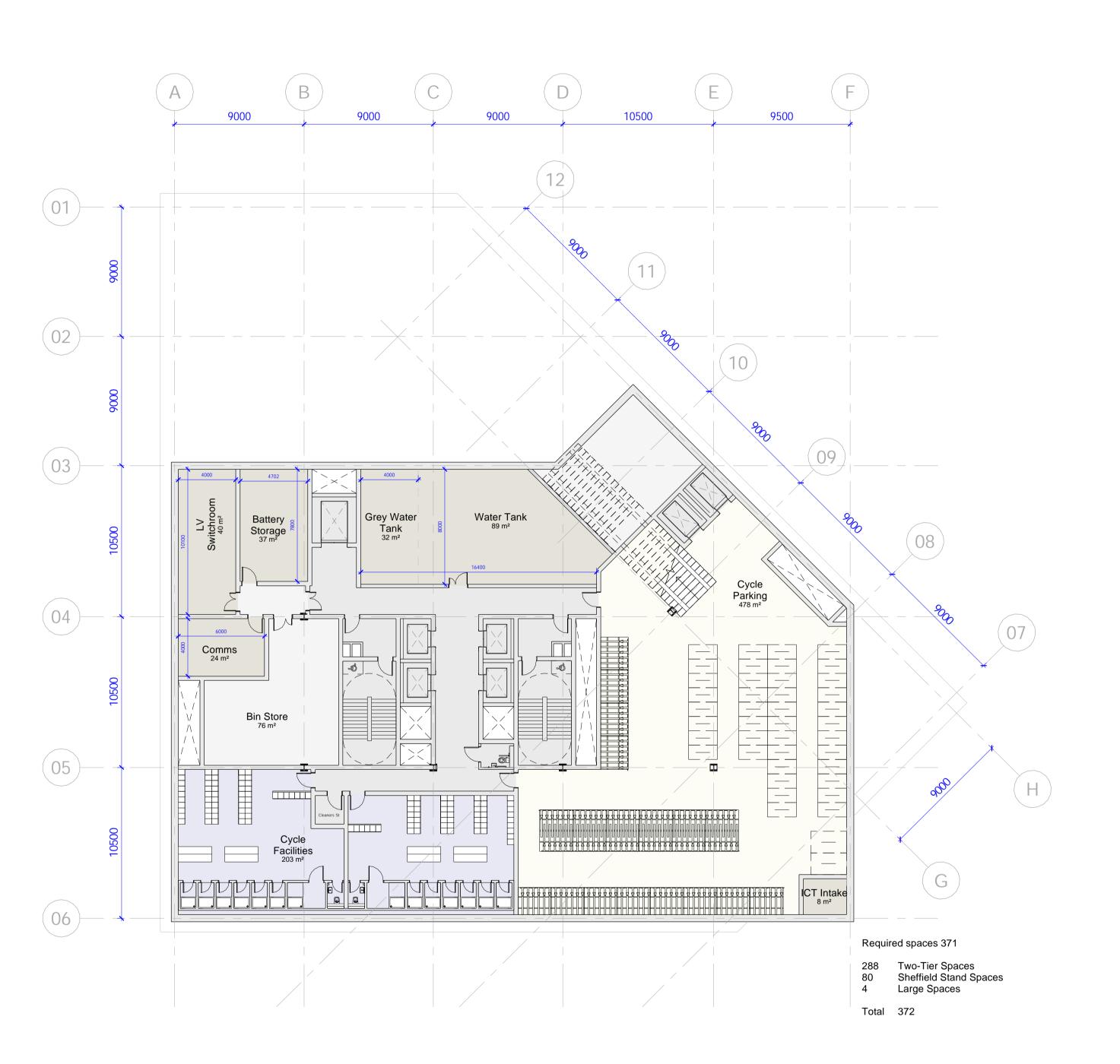
# **Drawing Title**

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Block 08 - Basement Plan

**Project Number** Suitability 1004 Checked by Drawn by НМ Scale @A1 1:200 23/04/24 File Identifier Revision PO - LDA - 08 - B1 - DR - A - 030100

Purpose of Issue
DESIGN FREEZE



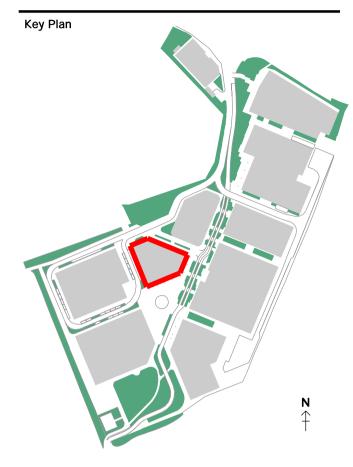
09 - Basement Floor Plan

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# DO NOT SCALE

Orientation





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  Structural columns around riser openings to be coordinated at the next stage.
- Coordination of basement vent risers and basement
- extents to be reviewed at the next stage.

  Cycle parking ratios and any over-provision to be reviewed at the next stage.

P1 05/07/24 Design Freeze P0 26/06/24 For coordination & sheet MA SS JL SS By Checked

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Project

1004 Project Otter

# Drawing Title

Block 09 - Basement Floor Plan

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COORDINATION
Project Status



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# B. RECAP Waste Management Design Guide Toolkit – Design Standards Checklist<sup>11</sup>

	Step1		Step 2
Key consideration	Aware of Standard Minimum Expectations?	Does this apply to you? Yes or no, please state why	Submit proposals to Planning Authority (Provide Plan/document Reference)
Residential - Internal Storage requirement Refer to Part 4.4 of the Design Guide.	35-40 litres for single dwellings and multi- occupancy developments (low-rise and high rise) permitting segregation of waste as appropriate. Typical container specifications are detailed at Appendix A.	No – no residential use proposed	
Residential - External storage requirement  Refer to part 4.7 of the Design Guide.	Single dwelling - Space for containers allowing a maximum of 775 litres of capacity must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions towards may also be required.	No – no residential use proposed	
	Low-rise with communal gardens - Space for containers allowing between 320 litres to a maximum of 720 litres of capacity per unit (depending upon the number of rooms - see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.		
	Low-rise without communal gardens - Space for containers allowing between 240 litres to a maximum of 640 litres of capacity per unit (depending upon the number of rooms - see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.		
	High rise - Space for containers allowing between 240 litres to a maximum 640 litres of capacity per unit (depending upon the number of rooms - see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.		
Commercial – storage requirements Refer to part 4.15 of	Offices - 2600 litres per 1000m gross floor area. Typical container specifications detailed at Appendix A.	Yes	Operational Waste Management Strategy, Waterman August 2024
the Design Guide.			August 2024

<sup>&</sup>lt;sup>11</sup> RECAP Waste Management Design Guide Toolkit, available from <a href="https://www.cambridgeshire.gov.uk/business/planning-and-development/planning-policy/recap-waste-management-design-guide">https://www.cambridgeshire.gov.uk/business/planning-and-development/planning-policy/recap-waste-management-design-guide</a> (accessed 31 July 2024).



Design Standards Ch			
	Typical container specifications detailed at Appendix A.		Management Strategy, Waterman August 2024
	Restaurants/Fast food outlets - 1500 litres per 20 dining spaces. Typical container specifications detailed at Appendix A.	No – mixed use commercial proposed and treated as "retail" for the purposes of this outline planning application.	
	Hotels - 1500 litres per 20 dining spaces. Typical container specifications detailed at Appendix A.	No hotel proposed	
Waste storage Point - Single Houses Refer to Part 5.6 of the Design Guide.	<ul> <li>Waste should not have to be moved more than 30m to storage area;</li> <li>Storage location should not be more than 25m distance from the collection point;</li> <li>Collection crews should not have to</li> </ul>	No – no houses proposed	
	<ul> <li>Collection crews should not have to carry individual waste containers or move 2-wheeled containers more than 25m;</li> <li>Passage of a 2 wheeled container from store to collection point should avoid steps, but where not possible should avoid transfer over more than 3 steps;</li> <li>Gradients over which containers must traverse must not exceed 1:12;</li> <li>Not have to be moved through a building to the</li> </ul>		
Waste storage Point - Flats and Apartments	Waste should not have to be moved more than 30m (excluding vertical	Yes (service yards proposed)	Operational Waste Management
and Commercial Developments  Refer to Part 5.9 of the	<ul> <li>distance) to storage area;</li> <li>Storage location should not be more than 10m distance from the collection point;</li> </ul>	p p	Strategy, Waterman August 2024
Design Guide.	<ul> <li>Passage of waste containers from store to collection point should avoid steps, but where not possible should avoid transfer over more than 3 steps.</li> <li>Gradients over which containers must</li> </ul>		
	traverse should not exceed 1:12.		
Waste Storage Infrastructure	Where infrastructure is installed for the communal storage of waste a SIMPLE assessment of the location and the proposed	Outline planning application. These factors are noted	
Refer to Part 6 of the Design Guide	infrastructure must be made against the key factors specified in the accompanying Assessment Criteria. The size of any storage area should be capable of accommodating the required number of waste receptacles (and their associated dimensions) or provide adequate capacity.	and will be considered in the detailed design and at reserved matters application(s) stage	
	General design features for above-ground storage compounds:  • Sufficient clearance provided to allow		



#### **Design Standards Checklist**

- 150mm clear space between and around containers;
- Minimum working headroom of at least 2m (where compound is covered); and
- Layout such that any one receptacle can be serviced without having to move any other receptacle.
- Sufficient clearance provided to allow full opening of container lid;
- 150mm clear space between and around containers;
- Minimum working headroom of at least 2m (where compound is covered); and
- Layout such that any one receptacle can be serviced without having to move any other receptacle.

Specific design requirements are detailed at Appendix D and should be referred to.

Underground storage systems require:

- Area(s) of ground free from services;
   and
- Sufficient clear space above and around to allow emptying of containers.

An indicative generic specification of an underground Bring Site facility is attached at Appendix G.

Highways

Refer to Part 7.3 of the Design Guide.

Where development proposals will seek to utilise a standard service as provided by the Waste Collection Authority, highways should:

- Have a minimum width of 5m;
- Permit collection vehicles to continue mainly in a forward direction;
- Not require vehicles to reverse more than 12m;
- Be constructed in accordance with relevant guidance; and
- Allow at least 4m vertical clearance. In addition, a minimum of 3.5m width and 4m in length should be allowed where the emptying of containers takes place. Sufficient overhead clearance should also be provided to allow for operation.

No - private waste management contractors will be used (fully commercial development, no residential use)

Household Recycling Centre requirement

Where appropriate, developers will be expected to:

Refer to Part 8.7 of the Design Guide

 Provide finance for upgrading existing Household Recycling Centres; or

 Provide finance for new Household Recycling Centres; and/or provide land for strategically located Household Recycling Centres. Section 106 Agreements or other suitable legal agreements, will be used to secure contributions/land and ensure that adequate provision is made. No – no residential development proposed



#### **Design Standards Checklist**

In Peterborough, contributions to related offsite infrastructure for development will be consistent with the Planning Obligations Implementation Scheme.

Bring Site Requirement To ensure provision of 1 additional Bring Site for every 800 dwellings, developers will be required to:

No - no residential development proposed

Refer to Part 9.5 of the • Design Guide

- Provide finance and/or provision of additional Bring Sites;
- Provide finance for upgrading existing facilities.

Residential developers will be minimally required to provide temporary on-site facilities by occupation of the 50th residential property.

Both temporary and permanent Bring Site facilities should be located at least 20m distance from the nearest property, accessible by service vehicles and located so as to avoid damage to overhead services during servicing. Section 106 Agreements or other suitable legal

agreements, will be used to secure contributions and ensure that adequate provision is made. A SIMPLE assessment of the location and proposed infrastructure must be made against the key factors as specified in the accompanying Assessment Criteria.

In Peterborough, contributions related to offsite provision for development will be consistent with the Planning Obligations Implementation Scheme.

Alternative Waste

Refer to Part 1.17 of the Design Guide

infrastructure.

A DETAILED assessment of the scheme must Management Schemes be made against the key factors as specified in the accompanying Assessment Criteria. A developer will be required to fund such schemes beyond the amount the Local Authority would otherwise pay for standard service and pay for and provide non-standard

No - no residential development proposed



# C. RECAP Waste Management Design Guide Toolkit – Assessment Criteria $^{12}$

Sheet A: Assessment Criteria for Waste Storage Compounds		
Assessment Factor	Information Required - Simple Assessment	Submit Assessment to Planning Authority (Provide Document Reference)
Quality Place Making	Design should also be assessed for consistency with the wider development framework and the promotion of quality place making.	
Proposals for On-site Treatment	On-site treatment (e.g. bailing, compaction or other treatment that may be utilised in an On-site alternative scheme) may be beneficial on larger sites. In such cases, a clear illustration must be provided of (where appropriate):	
	Sustainability of treatment methods;	
	Waste volume reduction;	
	Beneficial use of waste (recovery of value, energy, etc); and	
	Implications for Waste Collection Authority and Waste Disposal Authority.	
Accessibility	Depending upon the waste infrastructure employed, it must be demonstrated that:	
	<ul> <li>The location chosen offers convenience and efficiency for all users;</li> </ul>	
	<ul> <li>An assessment of potential user conflict has been made with appropriate solutions provided; and</li> </ul>	
	Marking and signage is adequate for function.	
Health and Safety	All proposals must be accompanied by a health and safety risk assessment and account must be made of (where appropriate):	
	• Lighting;	
	Steps and gradients;	
	Marking and signage;	
	User conflicts;	
	<ul> <li>Risks from equipment/technology utilised; and</li> </ul>	
	Training requirements (operators);	
Security	It must be clearly demonstrated that proposals:	
	Will not jeopardise the security of the wider area; and	
	<ul> <li>Infrastructure will, as appropriate, feature security measures that permit efficient</li> </ul>	
	user operation but are robust enough to deter vandalism, arson and other forms of misuse.	
	Notes on waste compound security are presented at Appendix E.	
Protection of	Assessment must be made of the impact proposals may have in terms of:	
the	Nuisance and amenity (including visual impact);	
	Pollution threat to environmental media (i.e. air, land and water).	
	<ul> <li>Damage and disturbance to nationally and internationally protected sites and wider biodiversity; and</li> </ul>	
	<ul> <li>Damage and disturbance to nationally protected sites/features of historic and archaeological interest.</li> </ul>	
	Suitable mitigation measures must be outlined.	
Maintenance	Where maintenance responsibility lies with the developer they must:	
	Submit proposed maintenance schedules (routine and non-routine);	
	Submit proposals for maintaining records of works undertaken; and	
	Submit details of third party contractors to be employed.	

<sup>12 (</sup>see footnote 10)



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