



The former Stag Brewery, Mortlake

Operational Waste Management Plan

On behalf of **Reselton Properties Limited**

Project Ref: 38262 | Rev: G | Date: April 2023

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Contents

1	Introduction.....	1
1.1	Overview.....	1
1.2	Planning History	2
1.3	The Proposed New Scheme	3
1.4	Waste Management Plan Objectives	4
2	Site Context.....	5
2.1	Site Location.....	5
2.2	Development Proposals	5
2.3	Descriptions of Development	6
2.4	Proposed Access and Street Layout.....	7
3	Policy and Legislative Background.....	8
3.1	Overview.....	8
3.2	European and National Policy Guidance	8
3.3	Regional Policy and Guidance	9
3.4	Local Policy and Guidance.....	10
3.5	Summary	11
4	Estimated Waste Arisings	12
4.1	Overview.....	12
4.2	Estimated Waste Volumes Guidance.....	12
4.3	Estimated Waste Volumes	13
5	Waste Separation and Recycling Proposals	17
5.1	Overview.....	17
5.2	Application A – Development Area 1 (Residential Use).....	17
5.3	Application A – Development Area 1 Non-Residential Use	18
5.4	Application A – Development Area 2 (Residential Use).....	18
5.5	Application B – School	19
6	Storage and Servicing Logistics.....	20
6.1	Overview.....	20
6.2	Application A – Development Area 1 (Residential Use).....	20
6.3	Application A – Development Area 1 (Non-Residential Use	22
6.4	Application A – Development Area 2 (Residential Use).....	23
6.5	Application B – School	25
7	Summary	26
7.1	Overview.....	26
7.2	Application A - Development Area 1	26
7.3	Application A – Development Area 2.....	27
7.4	Application B – School	27

Figures

Figure 2-1: Site Location	5
Figure 3-1: The Waste Hierarchy (Defra, 2011)	8
Figure 6-1: Indicative Waste Storage Room on Ground Floor	22

Tables

Table 2-1: Development Quantum	6
Table 2-2: Detailed Application Residential Mix Summary	6
Table 2-3: Outline Application anticipated Residential Mix Summary	7
Table 4-1: Estimated Waste Volumes for Residential Use per Unit Type for Development 1	13
Table 4-2: Estimated Waste Volumes for Residential Use per Block for Development 1	13
Table 4-3: Estimated Waste Volumes for Non- Residential Land Use in Development Area 1	14
Table 4-4: Estimated Waste Volumes for Residential Use per Unit Type for Development 1	15
Table 4-5: Estimated Waste Volumes for Residential Use per Block for Development 2	15
Table 4-6: Estimated Waste Volumes for the School	16
Table 5-1: Recycling Storage Provisions for Residential Units	17
Table 6-1: Est. Container Requirements - Household Waste - Development Area 1	20
Table 6-2: Est. Container Requirements - Household Waste - Development Area 2	23
Table 6-3: Estimated Container Requirements - Application B - School	25

Appendices

Appendix A	Correspondence with LBRuT Waste Team
Appendix B	Servicing Routes & Waste Storage Locations
Appendix C	School Waste Collection

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1 Introduction

1.1 Overview

- 1.1.1 This Operational Waste Management Plan (WMP) has been prepared by Stantec on behalf of Reselton Properties Limited (“the Applicant”) in support of two linked planning applications (“the Applications”) for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake (“the Site”) within the London Borough of Richmond upon Thames (LBRuT).
- 1.1.2 This is a revised version of the WMP, that includes a change in the development land use figures, together with a new strategy for collection of waste. This includes removal of all basement refuse storage areas with all stores now located at Ground Floor level adjacent to each lift core.
- 1.1.3 This WMP has been produced in accordance with the relevant national, regional and local planning policies. This WMP should be read in conjunction with the Transport Assessment (TA) and other supporting documents produced for the planning application.
- 1.1.4 The Site is located in Mortlake and lies between the River Thames and A3003 Lower Richmond Road and Mortlake High Street in the LBRuT. It comprises two distinct parts separated by Ship Lane, a public highway. The eastern section of the Site fronts onto Mortlake High Street and backs onto the River Thames, whilst Lower Richmond Road borders the western section and this part of the site does not have direct access to the River. Williams Lane borders the site to the west, whilst Boat Race House is located to the east of the site.
- 1.1.5 The redevelopment will provide homes (including affordable homes), accommodation for an older population, complementary commercial uses, community facilities, a new secondary school alongside new open and green spaces throughout. Associated highway improvements are also proposed, which include works at Chalkers Corner junction.
- 1.1.6 A summary of the Applications is set out below:

Application A - “Hybrid application to include the demolition of existing buildings to allow for comprehensive phased redevelopment of the site:

Planning permission is sought in detail for works to the east side of Ship Lane which comprise:

- a) Demolition of existing buildings (except the Maltings and the façade of the Bottling Plant and former Hotel), walls, associated structures, site clearance and groundworks
- b) Alterations and extensions to existing buildings and erection of buildings varying in height from 3 to 9 storeys plus a basement of one to two storeys below ground
- c) Residential apartments
- d) Flexible use floorspace for:
 - i. Retail, financial and professional services, café/restaurant and drinking establishment uses
 - ii. Offices
 - iii. Non-residential institutions and community use
 - iv. Boathouse
- e) Hotel/ public house with accommodation
- f) Cinema
- g) Offices
- h) New pedestrian, vehicle and cycle accesses and internal routes, and associated highway works
- i) Provision of on-site cycle, vehicle and servicing parking at surface and basement level
- j) Provision of public open space, amenity and play space and landscaping
- k) Flood defence and towpath works
- l) Installation of plant and energy equipment

Planning permission is also sought in outline with all matters reserved for works to the west of Ship Lane which comprise:

- a) The erection of a single storey basement and buildings varying in height from 3 to 8 storeys
- b) Residential development
- c) Provision of on-site cycle, vehicle and servicing parking
- d) Provision of public open space, amenity and play space and landscaping
- e) New pedestrian, vehicle and cycle accesses and internal routes, and associated highways works”

Application B - “Detailed planning permission for the erection of a three-storey building to provide a new secondary school with sixth form; sports pitch with floodlighting, external MUGA and play space; and associated external works including landscaping, car and cycle parking, new access routes and other associated works”

1.1.7 Together, Applications A and B described above comprise the ‘Proposed Development’.

1.1.8 In addition to this TA, the Planning Application is accompanied by a Framework Delivery & Servicing Plan, Waste Management Plan, Car Park Management Plan and Travel Plans, which should be read in conjunction with this document.

1.2 Planning History

1.2.1 The current applications follow earlier planning applications which were refused by the Greater London Authority and the GLA. The refused applications were for:

Application A – hybrid planning application for comprehensive mixed-use redevelopment of the former Stag Brewery site consisting of:

- Land to the east of Ship Lane applied for in detail (referred to as ‘Development Area 1’ throughout), and
- Land to the west of Ship Lane (excluding the school) applied for in outline (referred to as ‘Development Area 2’ throughout).

Application B – detailed planning application for the school (on land to the west of Ship Lane).

Application C – detailed planning application for highways and landscape works at Chalkers Corner.

1.2.2 The LBRuT (the Council) resolved to grant planning permission for Applications A and B but refuse Application C.

1.2.3 Following the LBRuT’s resolution to approve the Applications A and B, the Mayor called-in the Applications and became the determining authority. The Mayor’s reasons for calling in the Applications were set out in his Stage II letter (dated 4 May 2020) but specifically related to concerns regarding what he considered was a low percentage of affordable housing being proposed for the Site and the need to secure a highways solution for the scheme following the LBRuT’s refusal of Application C.

1.2.4 Working with the Mayor’s team, the Applicant sought to meaningfully respond to the Mayor’s concerns on the Applications. A summary of the revisions to the scheme made and submitted to the GLA in July 2020 is as follows:

- Increase in residential unit provision from up to 813 units to up to 1,250 units
- Increase in affordable housing provision from (up to) 17%, to 30%

- Increase in height for some buildings of up to three storeys
- Change to the layout of Blocks 18 and 19, conversion of Block 20 from a terrace row of housing to two four storey buildings
- Reduction in the size of the western basement, resulting in an overall car parking spaces reduction of 186 spaces and introduction of an additional basement storey under Block 1
- Internal layout changes and removal of the nursing home and assisted living in Development Area 2
- Landscaping amendments, including canopy removal of four trees on the north west corner of the Site, and
- Alternative options to Chalkers Corner, in order to mitigate traffic impacts through works to highway land only and allow the withdrawal of Application C

1.2.5 The application was amended to reflect these changes.

1.2.6 Notwithstanding this, and despite GLA officers recommending approval, the Mayor refused the applications in August 2021.

1.2.7 The Mayor's reasons for refusal in respect of Application A were:

- height, bulk and mass, which would result in an unduly obtrusive and discordant form of development in this 'arcadian' setting which would be harmful to the townscape, character and appearance of the surrounding area
- heritage impact. The proposals, by reason of its height, scale, bulk and massing would result in less than substantial harm to the significance of several listed buildings and conservation areas in the vicinity. The Mayor considered that the less than substantial harm was not clearly and convincingly outweighed by the public benefits, including Affordable Housing, that the proposals would deliver
- neighbouring amenity issues. The proposal, by reason of the excessive bulk, scale and siting of Building 20 and 21 in close proximity to the rear of neighbouring residential properties in Parliament Mews and the rear gardens of properties on Thames Bank, would result in an unacceptable overbearing an unneighbourly impact, including direct overlooking of private amenity spaces. The measures in the Design Code would not sufficiently mitigate these impacts, and
- no section 106 agreement in place

1.2.8 Application B was also refused because it is intrinsically linked with Application A and therefore could not be bought forward in isolation.

1.3 The Proposed New Scheme

1.3.1 This 3rd iteration of the scheme seeks to respond directly to the Mayors reasons for refusal and in doing so address concerns raised by the LBRuT.

1.3.2 The amendments can be summarised as follows:

- A revised energy strategy is proposed in order to address the London Plan (2021) requirements
- Several residential blocks have been reduced in height to respond to the listed buildings along the Thames riverfront and to respect the setting of the Maltings building, identified as a Building of Townscape Merit (BTM) by the LBRuT

- Reconfiguration of layout of Buildings 20 and 21 has been undertaken to provide lower rise buildings to better respond to the listed buildings along the Thames riverfront, and
 - Chalkers Corner light highways mitigation works
- 1.3.3 The school proposals (submitted under 'Application B') are unchanged. The Applicant acknowledges LBRuT's identified need for a secondary school at the Site and the applications continue to support the delivery of a school. It is expected that the principles to be agreed under the draft Community Use Agreement (CUA) will be the same as those associated with the refused school application (LBRuT ref: 18/0548/FUL, GLA ref: GLA/4172a/07).
- 1.3.4 Overall, it is considered that together, the Applications respond successfully to the concerns raised by the GLA which also reflect some of the concerns raised by stakeholders in respect of the previous schemes and during pre-application discussions on the revised Proposed Development. As a result, it is considered that the scheme now represents a balanced development that delivers the principle LBRuT objectives from the Site.

1.4 Waste Management Plan Objectives

- 1.4.1 The objectives of this WMP are to:
- Identify the relevant waste management policy and guidance relevant to the development and its requirements
 - Set the waste management aspirations for the development
 - Identify the waste expected to arise during operation
 - Present how waste will be separated and stored on Site, and
 - Demonstrate how waste will be collected/serviced
- 1.4.2 This WMP discusses operational waste only, whilst matters relating to the management of waste during construction are considered separately.

2 Site Context

2.1 Site Location

- 2.1.1 The former Stag Brewery Site is bounded by Lower Richmond Road to the south, the river Thames and the Thames Bank to the north, Williams Lane to the east and Bulls Alley (off Mortlake High Street) to the west. The Site is bisected by Ship Lane. The Site currently comprises a mixture of large-scale industrial brewing structures, large areas of hardstanding and playing fields.
- 2.1.2 The surrounding area is primarily residential but there are also a wide range of local facilities, including primary and nursery schools, local shops and restaurants and the Barnes Hospital, all within easy walking distance of the Site. Figure 2-1 identifies the Site boundary within Mortlake for the Proposed Development.

Figure 2-1: Site Location



2.2 Development Proposals

- 2.2.1 The Site is the former Stag Brewery, which ceased brewery operations in December 2015. The development proposals have been guided by LBRuT's Planning Brief which was adopted as an SPG in July 2011 as well as the emerging Site Allocation contained within LBRuT's emerging Local Plan (Policy SA 24). The redevelopment will provide homes (including affordable homes), accommodation for an older population, complementary commercial uses, community facilities, a new secondary school alongside new open and green spaces throughout. Associated highway improvements are also proposed, which include works at Chalkers Corner junction.
- 2.2.2 As outlined in Section 1, this WMP supports Applications A (Development Area 1 and 2) and B (School). Table 2-1 provides a summary of the development proposals.

Table 2-1: Development Quantum

Land Use	Development Quantum
Application A (Development Area 1)	
Residential	549 units
Unspecified Flexible Floor Areas inc, Retail/Restaurant/Office/Community/Boathouse	4,784 m ²
Office	4,468 m ²
Hotel	1,765 m ²
Cinema	1,606 m ²
Application A (Development Area 2)	
Residential	519 units
Application B (School Application)	
School	9,319 m ² (1,200 students)

2.3 Descriptions of Development

Application A – Development Area 1

- 2.3.1 The detailed application, which relates to the area to the east of Ship Lane (Development Area 1), would provide 549 residential units as well as the majority of the non-residential uses within the site, including local shops, restaurants and bars, and leisure and community uses. This is in keeping with the Planning Brief and Site Allocation 24 of the Local Plan which seek the creation of a new vibrant centre for Mortlake in this area.
- 2.3.2 Accordingly, the main retail uses will be centred around a new “high street” running parallel to Mortlake High Street through the centre of the Site and the development will also create a more active frontage to the river including new bars and restaurants. The development includes a new cinema and office floor space all of which are located along the Mortlake High Street/Lower Richmond Road frontage. It is also anticipated that this frontage will include a new local convenience store.
- 2.3.3 Table 2-2 provides a breakdown of the residential development within the detailed application which includes blocks 1-12. All residential accommodation in this part of the development will be in the form of apartments.

Table 2-2: Detailed Application Residential Mix Summary

	1 Bed	2 Bed	3 Bed	4 Bed	Total
Total Residential Units	112	290	140	7	549

- 2.3.4 Development Area 1 reflects the need to maintain a degree of flexibility regarding the end use of some of the non-residential space to allow for the land use to take account of market forces. Accordingly, an area amounting to 4,784 m² at ground floor level has been identified for flexible uses for the provision of local retail, restaurants and bars, community floor space, office and other services.

Application A – Development Area 2

- 2.3.5 Planning permission is sought in outline with all matters reserved for works at ‘Development Area 2’ (the west of Ship Lane) which includes blocks 13-22, comprising of:
- *“The erection of a single storey basement and buildings varying in height from 3 to 9 storeys*
 - *Residential development*
 - *Provision of on-site cycle, vehicle and service parking*
 - *Provision of public open space, amenity and play space and landscaping*
 - *New pedestrian, vehicle and cycle accesses and internal routes, and associated highways works”*

Table 2-3: Outline Application anticipated Residential Mix Summary

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Total
Total Residential Units	45	159	178	115	22	519

Application B – School

- 2.3.6 Detailed planning permission is sought in detail for works to the west of Ship Lane, which comprise of:

“the erection of a three-storey building to provide a new secondary school with sixth form; sports pitch with floodlighting, external MUGA and play space; and associated external works including landscaping, car and cycle parking, new access routes and all other associated works”

2.4 Proposed Access and Street Layout

- 2.4.1 To the east of Ship Lane (Application A – Development Area 1), refuse vehicles will be able to enter the site at the south-east corner of the development off Mortlake High Street, and drive along Thames Street to collect all refuse from the east side of the development. All collection points within Development Area 1 will be located within 20 metres from where the rear of the refuse lorry can safely stop, as required by LBRuT. A plan (Drawing Number: 38262/5520/07) showing this is included in Appendix B.
- 2.4.2 For Development Area 2, the exact unit numbers/mix of units/ land uses are applied for in outline and detail will be secured via future reserved matters submissions. Therefore, whilst we can set out a high-level estimate of how these movements will be managed now, the exact detail will need to be secured via Reserved Matters applications. At a high level, it is known, following discussions with LBRuT, that all of the flats in Development Area 2 comprising affordable housing, will have their waste storage areas located on the ground floor in each building. This design decision was raised by LBRuT in case there will not be a FMT present to coordinate the management and movement of household bins from the basement levels to ground floor levels in the affordable housing units.
- 2.4.3 The school (Application B) will have its own separate waste storage unit and will be serviced by a separate refuse truck. A dedicated school loading bay will be provided. Again, servicing trips will be managed in order to avoid school pick up and drop off times. A plan (Drawing Number: 38262/5520/27) showing this is included in Appendix C.
- 2.4.1 The location of bin stores and collection points are shown in plan (Drawing Number: 38262/5520/27) and has been included in Appendix B.

3 Policy and Legislative Background

3.1 Overview

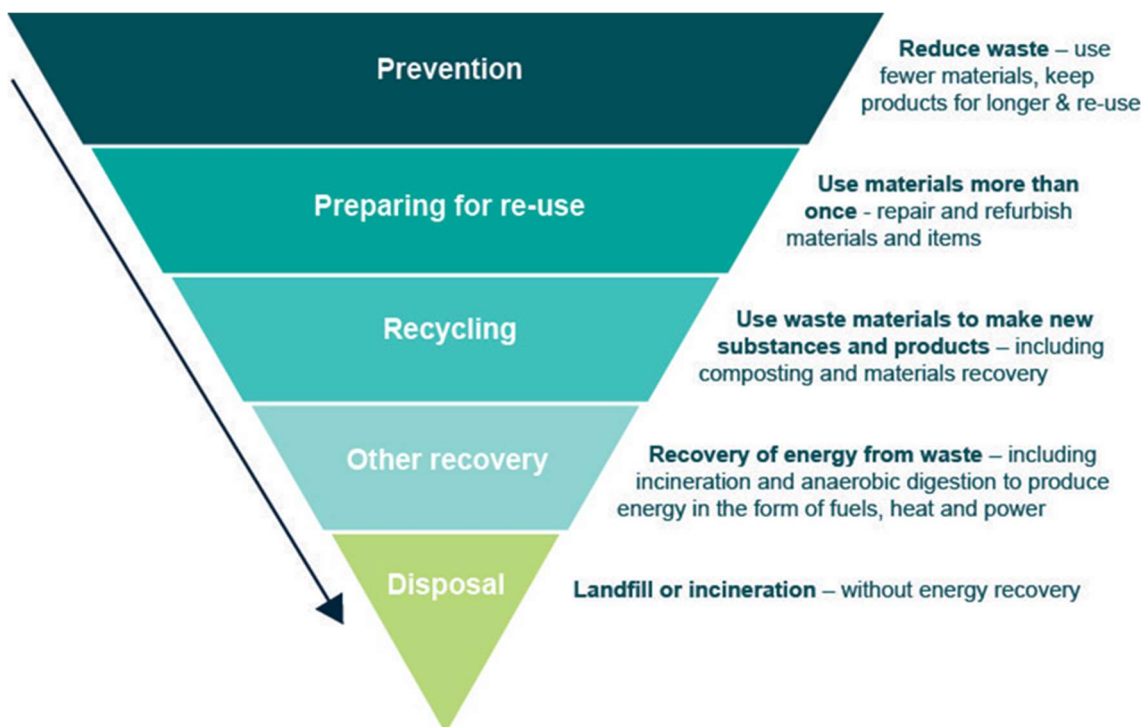
- 3.1.1 This section provides a review of the relevant national, regional and local waste management policies, targets and guidance for the Site to ensure it is appropriately considered within this WMP and going forward. Some of the policies outlined below are development plan policies (with statutory weight), whilst others provide guidance.

3.2 European and National Policy Guidance

The European Revised Waste Framework Directive

- 3.2.1 The European Revised Waste Framework Directive (2008/98/EC) sets the framework for UK Waste Policy. The Waste Hierarchy (Figure 3-1) runs throughout this policy and ranks waste management options according to what is best for the environment.

Figure 3-1: The Waste Hierarchy (Defra, 2011)



The Waste (England and Wales) (Amended) Regulations 2014

- 3.2.2 The Waste (England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amended) Regulations 2014 places a duty on waste producers and all handlers of waste to manage waste in accordance with a hierarchy of options where this achieves the best overall environmental outcome. Therefore, as a producer, the operator/residents of this development must endeavour to reduce, sort and separate waste – for example, by separating the recyclable from the non-recyclable waste - before placing out the residual waste for disposal (or potentially energy recovery).
- 3.2.3 These regulations also aim to improve the quality and quantity of material being collected for recycling. They do this by placing a duty on waste collectors, to enable recyclable material (particularly glass, paper, plastics and metal), to be collected separately, where it is necessary to support the recovery of high-quality recyclables, and where this is technically, environmentally or economically practicable (TEEP). Although this duty is specifically on the collectors of waste,

it is important for any new development to consider the logistical impacts of separating out these materials.

Our Waste, Our Resources: A Strategy for England, December 2018

- 3.2.4 HM Government published 'Our Waste, Our Resources, a Strategy for England' in December 2018, which assists the Government's commitment set out in the 25 Year Environment Plan, to leave the environment in a better condition for the next generation. This Strategy reaffirms the UK's commitment to the waste hierarchy and introduces the circular economy concept in relation to waste. The circular economy model encourages the recycling of resources through recovering and regenerating products and materials to keep resources in use for longer.
- 3.2.5 This Strategy highlights the Government's ambitious plans in relation to food waste. Households produce approximately 7 million tonnes of food waste is produced annually, of which 5 million tonnes is categorised as edible. *'Reducing greenhouse gas emissions from landfill by ensuring that every householder and appropriate businesses have a weekly separate food waste collection'*.

3.3 Regional Policy and Guidance

The London Plan 2021, March 2021

- 3.3.1 Under the legislation of the Greater London Authority (GLA), the Mayor is required to publish a Spatial Development Strategy (SDS), which is known as the London Plan.
- 3.3.2 On 2nd March 2021, the London Plan 2021 was formally published by the Mayor. The London Plan 2021 sets out the overall strategic plan for London, including an integrated economic, environmental, transport and social framework for the development of London, running from 2019 to 2041. With population set to increase by 70,000 per year, demand on new homes along with space for employment will increase. The policies set within the London Plan are to provide an appropriate spatial strategy that plans growth within London in a sustainable way.
- 3.3.3 The relevant policies for this Waste Management Plan are outlined below.
- 3.3.4 Policy D6 "Housing Quality and Standards" sets out a number of standards to be incorporated within the design of the scheme. In terms of waste, the Policy states *"Housing should be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) and food waste as well as residual waste"*.
- 3.3.5 Policy SI 7 "Reducing waste and supporting the circular economy" details the key targets to increase material re-use, recycling and to reduce the amount of waste generated that goes for disposal. The policy requires the Mayor, waste planning authorities and industry to work in collaboration to achieve specific targets, which include to:
- Promote a more circular economy that improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible
 - Encourage waste minimisation and waste prevention through the reuse of materials and using fewer resources in the production and distribution of products
 - Ensure that there is zero biodegradable or recyclable waste to landfill by 2026
 - Meet or exceed the municipal waste recycling target of 65 per cent by 2030
 - 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.

London Environment Strategy, May 2018

- 3.3.6 The London Environment Strategy, adopted in May 2018, has been released with the aim of improving London's environment, specifically including a Chapter on Waste. This Strategy promotes the circular economy model and recognises resource efficiency as the fundamental principle in improving reuse, recycling and disposal rates.
- 3.3.7 Relevant policies and targets and proposals within this Strategy are detailed below.
- 3.3.8 Policy 7.1.1 sets out waste reduction targets for the city as a whole, and work with Londoners, waste authorities, government and other stakeholders to significantly cut waste and boost material reuse. This policy targets the reduction in single use plastic and food waste, through campaigns and funding and target of reducing food waste by 50% per head by 2030.
- 3.3.9 Policy 7.2.1 increases recycling rates to achieve a 65% municipal waste recycling rate by 2030. This will be achieved through:
- A 50% Local Authority Collected Waste recycling target by 2025
 - A 45% household waste recycling rate by 2025
 - A 50% household waste recycling rate by 2030.
- 3.3.10 Policy 7.2.2 aims to increase recycling rates for commercially collected waste and reduce litter and fly tipping. The aim is to achieve a 75% minimum recycling rate of business waste by 2030.

3.4 Local Policy and Guidance

London Borough of Richmond upon Thames Local Plan: Refuse and Recycling Storage Requirements, April 2015

- 3.4.1 The local policy and guidance which relates to waste in the LBRuT area includes policies set jointly by the West London Boroughs within the West London Waste Plan in relation to minerals and waste planning, and planning and development-related policies set by LBRuT. This subsection outlines the relevant policies in relation to the proposed development.

Adopted West London Waste Local Plan

- 3.4.2 The West London Waste Local Plan was adopted in July 2015 by the West London Boroughs, including; Brent, Ealing, Harrow, Hounslow, Hillingdon, Richmond-upon-Thames and Old Oak and Park Royal Development Corporation. The Plan outlines the vision and strategy for managing waste in the West London area until 2031 and refers to the overarching waste targets outlined in the London Plan, as seen above. Therefore, the proposed development will aim to achieve these targets and manage waste in accordance with the Waste Hierarchy.

Adopted Sustainable Construction Checklist Guidance Document

- 3.4.3 The Sustainable Construction Checklist Guidance Document was adopted by LBRuT in January 2016. This document provides a checklist to help inform developers on sustainability issues relevant to their development. In relation to sustainable waste management, the document makes reference to following the Waste Hierarchy and the encouragement of composting food and organic waste facilities on site to help reduce the amount of waste sent to landfill. A Sustainable Construction Checklist has been prepared and submitted alongside these applications (included as an appendix to the Sustainability Statement, prepared by Hoare Lea).

Adopted Refuse and Recycling Storage Requirements

- 3.4.4 The Refuse and Recycling Storage Requirements Supplementary Planning Document (SPD) was adopted by LBRuT in April 2015. The SPD offers guidance for the sustainable management of waste in the Borough to enhance the overall quality of the environment and reduce adverse environmental impacts from the handling, storage, processing, transportation and disposal of

waste. The SPD outlines the following requirements for operational refuse collection and recycling:

- The design of storage facilities should be sufficiently large enough to accommodate different waste containers and allow space for the separation of commercial waste storage and residential waste storage
- Accessible and secure provision for the storage of waste and recycling materials, with consideration of LBRuT's highway guidelines and environmental requirements
- Provision of operational waste and recycling provision must accord with LBRuT's collection services and accessibility guidelines.

3.4.5 Sections 4, 5 and 6 of this WMP expand upon the details provided in this SPD and explain the proposed operational waste plan and set out how adequate, safe and secure provision will be provided going forward.

London Borough of Richmond upon Thames - Adopted Local Plan (2018)

3.4.6 The LBRuT Local Plan Adopted July 2018 has superseded the policies from the Core Strategy (2009) and the Development Management Plan (2011).

3.4.7 **Policy LP 24** determines that waste will be managed in line with the principles of the waste hierarchy; which requires all developments to:

- provide adequate refuse and recycling storage should be provided in line with the guidance set out within the SPD, and
- ensure sensitive integration of all waste management facilities within the overall design of schemes.

3.5 Summary

3.5.1 To summarise, the main operational waste management requirements that apply to the development, include:

- Accordance with the Waste Hierarchy
- To support the increase of recycling and composting of municipal waste by 65% by 2030 and
- To support the delivery of recycling, composting and reuse of C&I waste by 70% by 2020

3.5.2 To note, the local guidance documents have been taken into consideration throughout the development of this WMP.

4 Estimated Waste Arisings

4.1 Overview

4.1.1 The different land uses proposed for this scheme will produce different streams and volumes of waste. As a result, this section outlines the estimated operational waste arising from the development.

4.2 Estimated Waste Volumes Guidance

4.2.1 The waste from the operation of the development has been assessed using national benchmarks and local planning guidance. By quantifying the likely volumes of waste that will be generated in this way, an assessment of expected quantities of waste and appropriate management facilities can be integrated with the objective of reducing waste volumes.

4.2.2 The predicted waste volumes from the proposed residential uses and non-residential uses have been based on the guidance outlined in LBRuT Refuse and Recycling Storage Requirements SPD (April 2015). The guidance sets out the following requirements for storage capacity of refuse in new developments:

- **For houses with individual refuse containers:** storage capacity of 240 litres for refuse per household of three bedrooms or fewer and storage capacity of 360 litres for refuse per household more than three bedrooms
- **For development using communal refuse storage containers:** storage capacity of 70 litres per bedroom, and
- **For offices:** 2.6 cubic metres waste storage should be provided for every 1,000m² gross floor space

4.2.3 LBRuT do not provide any specific guidance on the expected quantities of other non-residential waste. Therefore, guidance figures for the overall volume of waste likely to arise in the cinema, retail units, café/restaurants and community facilities proposed in Application A, are from the British Standards (BS 5906:2005): *Waste Management in Buildings – Code of Practice*. For the school facilities proposed in Application B, waste volumes have been estimated on the base storage capacity requirements of 12.7 litres waste per week per student/pupil, as per the guidance outlined in Wandsworth Council's (2014) *Refuse and Recyclables in Developments SPD*.

4.3 Estimated Waste Volumes

Application A – Development Area 1

4.3.1 This sub-section outlines the estimated waste volumes expected during the operation of Development Area 1.

Residential Use

4.3.2 Based on the standards set out above, Table 4.1 sets out the estimated waste volumes of the residential use per unit type.

Table 4-1: Estimated Waste Volumes for Residential Use per Unit Type for Development 1

Proposed Quantum Mix		Expected Weekly Storage Capacity	Total Expected Waste Volumes (litres per week)
Studio	-	70 litres per bedroom	-
1-bed	112		7,840
2-bed	290		40,600
3-bed	140		29,400
4-bed	7		1,960
TOTAL	549	Total (litre/ per week)	79,800

4.3.3 In addition, the estimated waste volumes for the proposed residential development per building is detailed in Table 4-2.

Table 4-2: Estimated Waste Volumes for Residential Use per Block for Development 1

Building No.	Unit Type					Expected Weekly Storage Capacity	Total Expected Waste Volumes (litres per week)	
	1-bed	2-bed	3-bed	4-bed	Total			
2	22	63	33		118	70 litres per bedroom	17,290	
3	8	27	13		48		7,070	
4		15	5		20		3,150	
6	4	14	6		24		3,500	
7	19	47	21		87		12,320	
8	22	43	33	2	100		15,050	
9		6	3	4	13		2,590	
10	22	17			39		3,920	
11	11	21	19	1	52		7,980	
12	4	37	7		48		6,930	
TOTAL	112	290	140	7	549		Total (litre/ per week)	79,800

4.3.4 It is estimated that the residential component of the development could result in approximately 79,800 litres of household waste per week (previously 80,780 litres). The storage provision for this volume of waste is considered in Section 6.

Non-Residential Use

4.3.5 Table 4-3 sets out the estimated waste volumes of the non-residential use for Development Area 1.

Table 4-3: Estimated Waste Volumes for Non- Residential Land Use in Development Area 1

Assumed Land Use (GIA)		Expected Weekly Storage Capacity	Total Expected Waste Volumes (litres per week)
Office	4,468 m ²	2.6m ³ waste storage for every 1,000m ² gross floor space	11,617
Cinema	1,606 m ²	5 litres waste storage per m ² floor area	8,030
Hotel	1,765 m ² (15 bedrooms)	250 litres waste storage per bedroom	3,750
Flexible Use	4,784 m ²	10 litres waste storage per floor area	47,840
Total (litre/per week)			71,237

4.3.6 It is estimated that the non-residential component of Development Area 1 could result in approximately 71,237 litres of commercial waste per week, based on a conservative estimate, and assuming the flexible use all to be generating at a rate of 10 litres per m² (previously 71,992 litres).

4.3.7 The estimated waste arisings for the non-residential units is only indicative. The actual provision for non-residential waste will be dictated by the incoming tenants/occupiers and their waste contractors.

Application A – Development Area 2

4.3.8 This sub-section outlines the estimated waste volumes expected during the operation of Development Area 2.

Residential Use

4.3.9 Based on the standards set out above, Table 4-4 sets out the estimated waste volumes of the residential use per unit type.

4.3.10 In addition, the estimated waste volumes for the proposed residential development per building is detailed in Table 4-5.

4.3.11 It is estimated that the residential component of Development Area 2 could result in approximately 70,770 litres of residential waste per week (previously 70,330 litres). To note, the mix and total number of residential units used to estimate the waste volumes in this sub-section has not been confirmed. The estimated mix and total number of residential units is comparable to the actual mix for Development Area 1, therefore estimations for the waste arising from the proposed residential units in Development Area 2 will only be feasible once the actual mix of housing is confirmed at Reserved Matters.

Table 4-4: Estimated Waste Volumes for Residential Use per Unit Type for Development 1

	Proposed Quantum Mix		Expected Weekly Storage Capacity	Total Expected Waste Volumes (litres per week)
	Unit Type	Quantity		
Flats	Studio	45	70 litres per bedroom	3,150
	1-bed	159		11,410
	2-bed	177		26,040
	3-bed	103		20,370
	4-bed	12		2,240
Houses	2-bed	1	240 litres per household of three bedrooms or less	240
	3-bed	12		2,880
	4-bed	10	360 litres per household of more than three bedrooms	3,600
Total		519	Total (litre/ per week)	70,770

Table 4-5: Estimated Waste Volumes for Residential Use per Block for Development 2

Building No.	Unit Type						Expected Weekly Storage Capacity	Total Expected Waste Volumes (litres per week)
	Studio	1-bed	2-bed	3-bed	4-bed	Total		
13	3	16	21	2		42	70 litres per bedroom	4,690
14		8	24	2		34		4,340
15		83	27		2	112		10,150
16	20	21	31	1		73		7,420
17	22	23	20	8		73		7,630
18		8	51	60	5	124		21,700
19			3	30	5	38		8,120
20			1	11	4	16	240 litres per household of three bedrooms or less or 360 litres per household of more than three bedrooms	4,320
21				1	6	7		2,400
Total	45	163	186	109	19	519	Total (litre/ per week)	70,770

Application B – School

4.3.12 This sub-section outlines the estimated waste volumes expected during the operation of the school proposed in Application B. Notably this has not changed from the previous submission.

Table 4-6: Estimated Waste Volumes for the School

Assumed Land Use	Expected Weekly Storage Capacity	Total Expected Waste Volumes (litres per week)
1,200 pupils	12.7 litres per week per student/pupil	15,240
Total (litre/per week)		15,240

4.3.13 It is estimated that the school could result in approximately 15,240 litres of waste per week. To note, the estimated waste arisings for the school is indicative only. The actual provision for the school waste will be dictated by the incoming tenants/occupiers and their waste contractors.

5 Waste Separation and Recycling Proposals

5.1 Overview

5.1.1 This section outlines how different streams of waste arising during the operation of the development will be segregated and stored on Site.

5.2 Application A – Development Area 1 (Residential Use)

Materials to be collected

5.2.1 Residential units in Development Area 1 have been designed to incorporate appropriate spaces to enable a large proportion of the waste arising to be separated for recycling and as a result reducing the amount of waste requiring disposal.

5.2.2 In accordance with the requirements set by LBRuT, separate recycling bins and general waste bins will be allocated for:

- General waste
- Mixed paper, card and carton recycling bins
- Mixed container recycling bins for plastic, tins, unbroken glass and aerosols.

5.2.3 Although the provision for communal food waste collection is not a requirement for flats with over 5 units, it is proposed that there will be sufficient internal space for one 23 litre food waste bin in each residential unit in Development Area 1. In addition, 240litre food waste bins will be provided in bin stores for residents to use.

Storage Requirements

5.2.4 In accordance with LBRuT's *Refuse and Recycling Storage Requirements SPD (2015)*, the following recycling storage requirements have been considered within this WMP and the design process for the residential units in Development Area 1:

Table 5-1: Recycling Storage Provisions for Residential Units

No. of households served by bin area	Mixed paper, card and carton recycling bins	Mixed container recycling bins	Total recycling bins
Flat of three or more units			
3 – 5	1 x 240L	1 x 240L	2 x 240L
7 – 8	1 x 360L	1 x 360L	2 x 360L
9 – 11	2 x 240L	2 x 240L	4 x 240L
12 – 17	2 x 360L	2 x 360L	4 x 360L
18 – 25	1 x 1,100L	1 x 1,100L	2 x 1,100L
26 – 45	2 x 1,100L	2 x 1,100L	4 x 1,100L
46 – 70	3 x 1,100L	3 x 1,100L	6 x 1,100L

5.2.5 This WMP and the design process for the residential units in Development Area 1 have assumed the provision of 1100 litre Eurobins for the storage of general refuse waste.

- 5.2.6 In addition, 240 litre food waste bins will be provided for every 10 units in each block. This is based on the provision of 23 litres per flat.

5.3 Application A – Development Area 1 Non-Residential Use

Materials to be collected

- 5.3.1 The specifics of materials to be collected from the non-residential units in Development Area 1 will be determined by their individual uses and their appointed waste collection contractors. Sufficient space has been allocated within the individual non-residential units to accommodate the separation and collection of a variety of materials.
- 5.3.2 Non-residential uses in Development Area 1 will aim to provide sufficient storage space to help enable the commercial elements of the development to support the Mayor's target of 70% C&I waste to be recycled.

Storage Requirements

- 5.3.3 The storage requirements for the non-residential uses in Development Area 1 have been based on the guidance outlined in LBRuT's *Refuse and Recycling Storage Requirements SPD (2015)*. Although this SPD only provides specific guidance on the storage requirements for offices, the same principles have been applied to the cinema, retail units, café/ restaurants and community facilities, to ensure that the storage facilities will be sufficiently large enough to accommodate for the expected weekly arisings of waste. This SPD sets out the following requirements:
- 50% of the expected waste capacity of office waste should be retained for the storage of separated waste for recycling.
- 5.3.4 To note, the non-residential storage areas will be clearly separated from the storage area for the residential waste, with separate access to each use.

5.4 Application A – Development Area 2 (Residential Use)

Materials to be collected

- 5.4.1 The residential units in Development Area 2 will be designed to incorporate appropriate spaces to enable a large proportion of the waste arising to be separated for recycling and as a result reducing the amount of waste requiring disposal.
- 5.4.2 In accordance with the guidelines set by LBRuT, separate recycling bins and general waste bins will be allocated for:
- General waste
 - Mixed paper, card and carton recycling bins
 - Mixed container recycling bins for plastic, tins, unbroken glass and aerosols.
- 5.4.3 Furthermore, the proposed townhouses in Development Area 2 will all provide sufficient space for storing recyclable and non-recyclable waste when designing kitchen/utility rooms, including a one 23 litre food waste container, as outlined in LBRuT's *Refuse and Recycling Storage Requirements SPD (2015)*. Space will also be provided so that the container can be presented within the property boundary and be visible from the kerbside on the designated collection day.

Storage Requirements

- 5.4.4 The space allocated for waste stores in the residential units of Development Area 2 will be developed once the project reaches detailed design stage and following further consultation with LBRuT. The storage provisions will align with LBRuT's current collection practices and detailed measures for waste provision.

- 5.4.5 At present, LBRuT offers the following measures for domestic waste storage provisions, applicable to the proposed townhouses in Development Area 2:
- Storage capacity of 360 litres for refuse for a four-bed household
 - Storage capacity for two 55 litre recycling bins
 - Storage capacity for 23 litre food waste container.
- 5.4.6 Communal waste facilities are provided to flats which are designed to meet the different collection and storage challenges. LBRuT currently offers the following communal waste storage requirements, which have been considered in the design process for the flats in Development Area 2:
- Storage capacity of 70 litres for refuse per bedroom
 - Storage capacity for two types of recycling bins to store mixed paper, card and carton and mixed container recycling (see Table 5-1 for specific requirements).

5.5 Application B – School

Materials to be collected

- 5.5.1 The school has been designed to incorporate sufficient space to enable a large proportion of the waste arising to be separated for recycling, and as a result reducing the amount of waste requiring disposal.
- 5.5.2 It is expected that separate recycling bins and general refuse bins will be allocated for:
- General waste bins, including food waste from the canteen
 - Mixed paper, card and carton recycling bins
 - Mixed containers bins for plastic and tins etc
- 5.5.3 However, the specifics of materials to be collected from the school will be determined through discussions with the appointed waste collection contractor. The school will aim to provide sufficient storage space to help enable the commercial elements of the development to support the Mayor's target of 70% C&I waste to be recycled.

Storage Requirements

- 5.5.4 As outlined in the previous sections, LBRuT does not provide any specific guidance on storage requirements for education facilities. To provide preliminary assumptions regarding the storage requirements for the school, this WMP has adopted LBRuT's general waste and recycling provisions for office units to the school to ensure storage facilities will be sufficiently large enough to accommodate the expected weekly arisings of waste (including separate additional storage space provision for recycling). As a result, 50% of the expected waste capacity for the school will be retained for the storage of recyclable waste. This approach has been confirmed through discussions with LBRuT.

6 Storage and Servicing Logistics

6.1 Overview

6.1.1 This section discusses the collection and servicing of the waste arising during the operation of the development. Notably following consultation with Health & Safety Executive (HSE) no refuse storage is now permitted in the basement and will need to be accessed from outside and not the lobby.

6.2 Application A – Development Area 1 (Residential Use)

Waste Container Requirements

6.2.1 Table 6-1 presents the indicative number of bins that would be required for the collection of household waste from the proposed development. These estimations have been based on the assumption of a twice weekly collection which was agreed by LBRuT on 29th November 2017.

Table 6-1: Est. Container Requirements - Household Waste - Development Area 1

Building Number	Capacity Requirement (litres)	Indicative Number of bins for general waste based on collection twice a week	Indicative Number bins for recycling waste based on collection twice a week
2	17,290	8 x 1,100 litre bins	6 x 1,100 litre bins
3	7,070	4 x 1,100 litre bins	3 x 1,100 litre bins
4	3,150	2 x 1,100 litre bins	1 x 1,100 litre bins
6	3,500	2 x 1,100 litre bins	1 x 1,100 litre bins
7	12,320	6 x 1,100 litre bins	5 x 1,100 litre bins
8	15,050	7 x 1,100 litre bins	6 x 1,100 litre bins
9	2,590	2 x 1,100 litre bins	2 x 1,100 litre bins
10	3,920	2 x 1,100 litre bins	2 x 1,100 litre bins
11	7,980	4 x 1,100 litre bins	3 x 1,100 litre bins
12	6,930	4 x 1,100 litre bins	3 x 1,100 litre bins

6.2.2 Following discussions with LBRuT, a suitable space for the storage of bulky waste has been allocated in the Refuse & Recycling Collection Stores to manage the movement of bulky waste. The space will be sufficient enough to store a bulk waste storage container which conforms to British Standard BS EN 840: 1997.

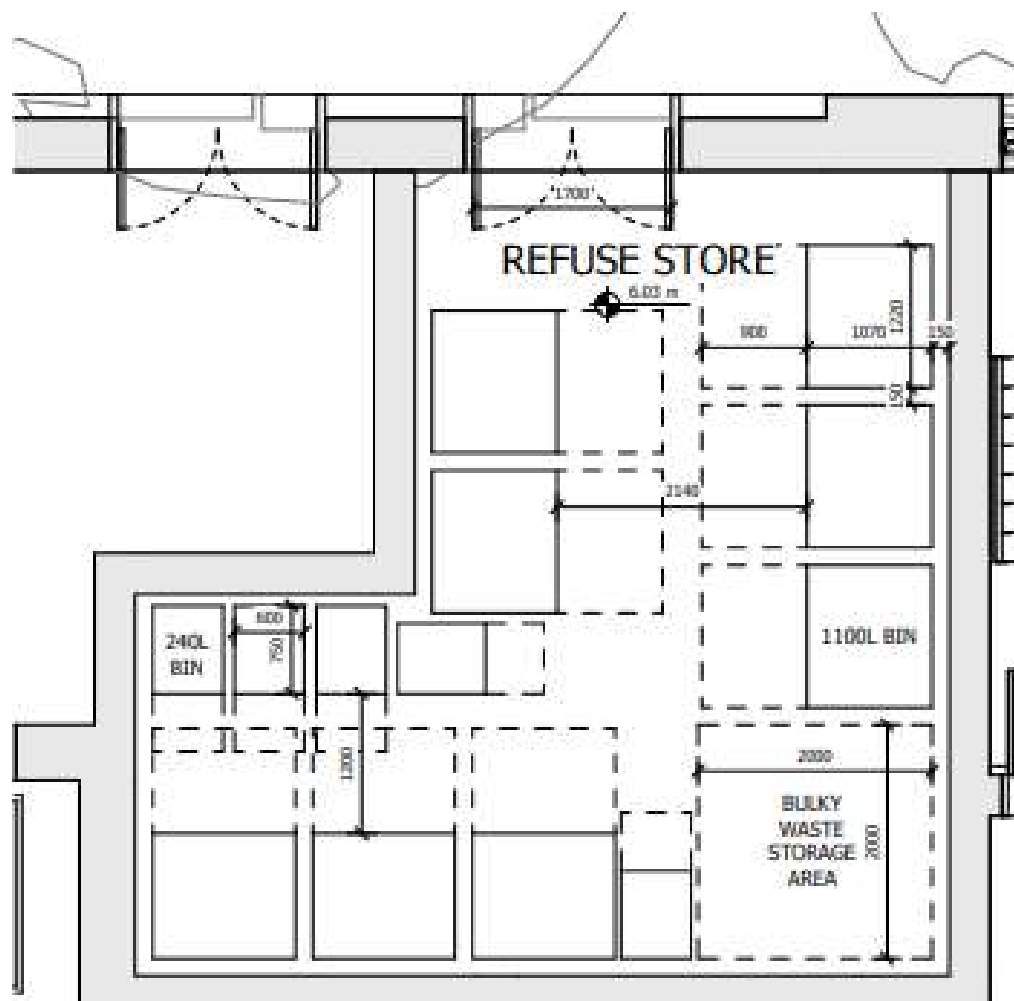
Storage of Waste

- 6.2.3 All residential units will store their refuse and recycling waste on the ground floor of each building. All bin stores will be accessible within 20 metres of where the refuse truck can stop.
- 6.2.4 Each storage area has been designed to incorporate the design requirements as set out in LBRuT's *Refuse and Recycling Storage Requirements SPD (2015)*. These design measures include:
- No waste will be stored on the public highway
 - Household waste and recycling is stored separately from non-residential waste
 - Pairs of recycling bins will be sited together so that residents can easily access both streams of recycling
 - Recycling bins will also be located alongside refuse bins so residents can easily access both bins
 - Clear labels to illustrate where different recyclables and waste materials should be deposited
 - Sufficient clearance to allow full opening of bin lids
 - 2 metres width of access threshold to allow for removal and return of containers whilst servicing
 - 900mm clearance space in front of each waste storage container to allow access to use each.
- 6.2.5 It is proposed that all ground floor bin stores will also include the following features:
- A water supply and a trapper gully to allow for regular cleaning
 - Permanently ventilated
 - Minimum headroom of 2.2 metres
 - Level with the adjacent path or highway.

Servicing

- 6.2.6 Household waste arising from the Development Area 1 will be collected twice a week by LBRuT. This approach was agreed by LBRuT's waste team.
- 6.2.7 The Facilities Management Team and LBRuT waste team will liaise to coordinate the refuse & recycling collection process and agree the collection days / times and process.
- 6.2.8 The location of bin stores at Ground Floor, together with routes for collection are shown in Appendix B.
- 6.2.9 Figure 6.1 shows the typical arrangement of the Ground Floor refuse storage room. Notably for all storage rooms the rooms will not be accessed by residents and only used by the Facilities Management Team to store bins on collection day and can therefore be stored close to each other.

Figure 6-1: Indicative Waste Storage Room on Ground Floor



6.3 Application A – Development Area 1 (Non-Residential Use)

Waste Container Requirements

- 6.3.1 The non-residential waste will be stored in each individual outlet and stored separately from the residential waste stores in Development Area 1. Sufficient space will be provided to store the minimum number of separate containers and to enable the separation of general waste and recyclable waste.
- 6.3.2 The specific size of these areas will be dependent on both the commercial operation itself, and the frequency the operators wish to have their waste and recycling collected. The waste storage space for this waste will be developed following confirmation of the commercial tenants.
- 6.3.3 Furthermore, the frequency of collection will be determined at a later date following discussions with the appointed waste collection contractors.
- 6.3.4 It is expected that the detailed waste arrangements for these units would be secured via planning condition.

Storage of Waste

- 6.3.5 As mentioned above the designated non-residential storage areas in Development Area 1 will be contained within each unit.

- 6.3.6 All material will be contained within the dedicated containers to avoid amenity issues associated with litter and vermin.

Servicing

- 6.3.7 Businesses have a duty of care of ensuring that their waste is collected and disposed of appropriately and an obligation (through the Waste Regulations as amended 2013) to adhere to the principles of the waste hierarchy. The non-residential waste is likely to be collected by private contractors working in the area or through the LBRuT's trade waste and recycling service. Each business will contract a waste collection service that is appropriate to their needs.
- 6.3.8 Refuse and recycling waste will be collected by a dedicated waste contractor(s). Following their appointment, specifics relating to material separation and frequency of collection will be refined and finalised.
- 6.3.9 The collection days /times can be specified with the contractor to make sure they do not conflict with the household waste collection.

6.4 Application A – Development Area 2 (Residential Use)

Waste Container Requirements

- 6.4.1 Table 6.2 presents the indicative number of bins that would be required for the collection of household waste of the residential units within Development Area 2. These estimations have been based on the assumption of two waste collection per week, as discussed with LBRuT.

Table 6-2: Est. Container Requirements - Household Waste - Development Area 2

Building Number	Capacity Requirement (litres)	Indicative Number of bins for general waste based on collection twice a week	Indicative Number bins for recycling based on collection twice a week
13	4,690	2 x 1,100 litre bins	2 x 1,100 litre bins
14	4,340	2 x 1,100 litre bins	2 x 1,100 litre bins
15	10,150	5 x 1,100 litre bins	6 x 1,100 litre bins
16	7,420	3 x 1,100 litre bins	4 x 1,100 litre bins
17	7,630	4 x 1,100 litre bins	4 x 1,100 litre bins
18	21,700	10 x 1,100 litre bins	6 x 1,100 litre bins
19	8,120	4 x 1,100 litre bins	2 x 1,100 litre bins

- 6.4.2 In accordance with LBRuT's collection practices, the storage requirements for the 1 x 2-bed, 12 x 3-bed and 10 x 4-bed townhouses (blocks 20 and 21) are as follows:
- General Refuse Bin (360 litre)
 - Black Box: for plastic bottles, pots, tubs, trays, tins, unbroken glass and aerosols (55 litres)
 - Blue Box: for papers and cardboard (55 litres)
 - Food Waste Container (23 litres)

- 6.4.3 The waste storage space for the proposed residential units in Development Area 2 will be developed once this phase reaches detailed design stage via Reserved Matters submissions and following further consultation with LRRuT.
- 6.4.4 Following discussions with LBRuT, suitable space for the storage of bulky waste will also be incorporated within the detailed design of the flats to alleviate problems created by fly-tipping. It is recommended that space will be sufficient enough to store a bulk waste storage container which conforms to British Standard BS EN 840: 1997, as required by LBRuT.

Storage of Waste

- 6.4.5 The proposed residential units in Development Area 2 will be developed to meet LBRuT's storage requirements and collection arrangement discussed and agreed with LBRuT on 29th November 2017.
- 6.4.6 Following discussions with LBRuT and upgrades to the scheme design, it is proposed that all of the flats in Development Area 2, will have their waste storage areas located on the ground floor in each building.
- 6.4.7 The following bin storage parameters have been considered for the townhouses and will continued to be discussed at detailed design:
- Waste will not be stored on the public highway
 - Household waste and recycling is stored separately from non-residential waste
 - The provision of space for storing recyclable and non-recyclable waste, including food waste, when designing kitchens and utility rooms
 - Space will be provided so that food waste containers can be presented within the property boundary and visible from the kerbside on the designated collection day
- 6.4.8 The following bin storage parameters have been considered for the communal waste stores and will continued to be discussed at detailed design:
- Pairs recycling bins will be sited together so that residents can easily access both streams of recycling
 - Recycling bins will be located alongside refuse bins so residents can easily access both bins
 - Waste will not be stored on the public highway
 - Household waste and recycling is stored separately from non-residential waste
 - Sufficient space will be provided to store the minimum number of separate containers to which to store refuse and recycling and allow access to all containers
 - Clear labels to illustrate where different recyclables and waste materials should be deposited
 - The waste stores will includes a water supply and a trapper gully to allow for regular cleaning, natural ventilation, minimum headroom of 2.2 metres and be level with the adjacent path or highway
 - Sufficient clearance to allow full opening of bin lids
 - 2 metres width of access threshold to allow for removal and return of containers whilst servicing

- 900mm clearance space in front of each waste storage container to allow access to use each

Servicing

- 6.4.9 The storage areas for all residential dwellings in Development Area 2 will be positioned so that the occupiers are not required to carry refuse or recycling more than 30 meters from an external door. Furthermore, at detailed design stage consideration will also be given to access for disabled persons, where applicable.
- 6.4.10 Since this part of the planning application is outline the servicing WMP will be developed at detailed design via Reserved Matters submissions.

6.5 Application B – School

Waste Container Requirements

- 6.5.1 Table 6-3 presents the indicative number of bins that would be required for the collection of school waste from the proposed development.
- 6.5.2 The estimated waste container requirements for the school is indicative only. The actual provision for school waste will be dictated by the incoming tenants/occupiers and their waste contractors.

Table 6-3: Estimated Container Requirements - Application B - School

Use	Capacity Requirement (litres)	Indicative Number of 1100 litre bins for refuse based on weekly collection	Indicative Number of 1100 litre bins for recycling based on weekly collection
School	15,240	8	8

Storage of Waste

- 6.5.3 The storage areas for the school will be locked and only accessible to the school and the Facilities Management Team. Additionally, space will also be provided for food waste.
- 6.5.4 All material will be contained within the dedicated containers to avoid amenity issues associated with litter and vermin.
- 6.5.5 The location of the school waste collection and swept path analysis is included in Appendix C.

Servicing

- 6.5.6 Refuse and recycling waste will be collected by a dedicated commercial waste contractor(s). Following their appointment, specifics relating to material separation and frequency of collection will be refined and finalised at a later date following discussions with the appointed waste collection contractors.
- 6.5.7 It is proposed that refuse vehicles will be able to utilise the bus parking spaces adjacent to the main entrance outside school opening and closing hours. These spaces are adjacent to external bin store/recycling area as well as entrance doors. This will allow ease of waste disposal.
- 6.5.8 The collection days/times can be specified with the contractor to make sure they do not conflict with the household waste collection and school opening and closing hours.

7 Summary

7.1 Overview

- 7.1.1 This is a revised version of the WMP, that includes a change in the development land use figures, together with a new strategy for collection of waste. This includes removal of all basement refuse storage areas with all stores now located at Ground Floor level adjacent to each lift core. This design change is in relation to comments from HSE regarding removing refuse from the basement and ensuring they are accessed from outside only.
- 7.1.2 Waste generated on Site through the occupation of the proposed development will be managed in an appropriate and sustainable way. It will follow the principles of the Waste Hierarchy 'eliminate, reduce, reuse, recycle' to enable the environmental, social and economic risks from waste to be reduced and national and local policy aspirations to be supported.
- 7.1.3 Both adopted and emerging local guidance documents have been taken into consideration throughout the development of this WMP. The main operational waste management targets that apply to this development, include:
- Accordance with the Waste Hierarchy
 - To increase the recycling and composting of municipal waste by 65% by 2030
 - To increase the recycling, composting and reuse of C&I waste by 70% by 2020.

7.2 Application A - Development Area 1

Residential Use

- 7.2.1 It is estimated that the occupation of the residential use of Development Area 1 would generate approximately of 79,800 litres of waste per week, which has been based upon the guidance outlined in LBRuT's *Refuse and Recycling Storage Requirement (SPD)* for residual waste and recycling capacity for residential waste.
- 7.2.2 The designated refuse areas for household waste have been designed to store the number of separate bins outlined in Table 6-1 and are large enough to all access to all containers for residents and the Facilities Management Team. Furthermore, these designated areas ensure that the residential and non-residential waste from Development Area 1 is stored and collected separately.
- 7.2.3 Residents occupying units in Development Area 1 are required to take their waste and recycling to the Ground Floor Level of their building within the development, where the designated refuse areas for household waste will be located. Each of the storage areas will be locked and only accessible by residents and the Facilities Management Team.
- 7.2.4 Household waste from the Development Area 1 will be collected twice a week by LBRuT. This approach was agreed by LBRuT's Waste Team, on 29th November 2017. The Facilities Management Team and LBRuT waste team will liaise to coordinate the refuse & recycling collection process and agree the collection days / times and process.

Non-Residential Use

- 7.2.5 The estimated waste arising for the non-residential units summarised in this WMP are indicative only. The actual provision for non-residential waste will be dictated by the incoming tenants/occupiers and their waste contractors.
- 7.2.6 To note, the non-residential waste will be stored in each individual outlet and stored separately from the residential waste stores in Development Area 1. The specific size of these areas will be dependent on both the commercial operation itself, and the frequency the operators wish to

have their waste and recycling collected. The waste storage space for this waste will be developed following confirmation of the commercial tenants.

- 7.2.7 Furthermore, the frequency of collection will be determined at a later date following discussions with the appointed waste collection contractors.

7.3 Application A – Development Area 2

Residential Use

- 7.3.1 It is estimated that the occupation of the residential use of Development Area 2 would generate approximately 70,770 litres of waste per week, which has been based upon the guidance outlined in LBRuT's *Refuse and Recycling Storage Requirement* (SPD) for residual waste and recycling capacity for residential waste. To note, this figure is indicative only and will be subject to change once the actual mix of housing is confirmed at Reserved Matters.
- 7.3.2 There will also be space provision for the storage of food waste for the townhouses in this Development Area and an appropriate area for the storage of bulky waste to alleviate problems created by fly-tipping.
- 7.3.3 To note, the proposed residential units in Development Area 2 will continue to be developed to meet LBRuT's storage and collection arrangement.

7.4 Application B – School

- 7.4.1 It is estimated that the operation of the school will generate approximately 15,240 litres of waste per week, based on a pupil intake of 1,200. The estimated waste volumes and container requirements for the school is indicative only. The actual provision for school waste will be dictated by the incoming tenants/occupiers and their waste contractors.
- 7.4.2 Refuse and recycling waste will be collected by a dedicated commercial waste contractor(s). Following their appointment, specifics relating to material separation and frequency of collection will be refined and finalised at a later date following discussions with the appointed waste collection contractors.

Appendix A Correspondence with LBRuT Waste Team

Contents

- Meeting Notes with LBRuT (29.11.17)

NOTES

Subject: Stag Brewery Meeting Notes with LBRuT (29.11.17)

Date: 29th November

Attendees: Natalie Malettras, Richard Mallet, Kathleen Hallquist, Emma-Mai Eshelby, Roland Copley, Rita Csonka and Lucy Thatcher

Waste Collection

- Waste collection is weekly collections in Mortlake
- Waste and recycling will be collected on the same day
- The development is to likely be the first stop on the waste collection route, due to the volume of waste required to be collected from the site.
- Waste contract will be renewed in 1 year

Phase 1 - Detailed Component

- Waste storage facilities for the residential uses are to be located within the underground car park
- An estate management company will be responsible for transferring waste from the underground stores to the surface for collection at specific collection points – this will be a highly managed scheme
- Waste and recycling will be collected on the same day, with two collections per week to be made. The cost will be 50% of the cost of commercial waste collection services, although LBRuT will confirm
- Commercial waste collection will be subject to a separate regime but will be controlled by the management company to ensure that it operates efficiently and that collections are timed to avoid peak traffic hours

Phase 2 – Outline Component

- This will less likely to be managed by Facilities Management
- It is recommended that waste storage facilities for residential uses are to be located within ground floor stores. No residential waste will be stored within the underground car parks
- Waste will be collected weekly

Care Home and Health Care Facilities

- Care home and health care units will be collected as commercial waste. Collection will be agreed at a later date
- Estimated storage facilities for assisted living units will be based on LBRuT's waste storage capacity for residential units
- Clinical waste needs to be considered for all units. Storage and collection of clinical waste will be considered at detailed design

Food Waste

- Currently, there is no requirement for food waste collection for flats in Mortlake. Only townhouses in Phase 2 have a requirement for storage of food waste – this will be incorporated into design codes

NOTES

- Recommended that there is sufficient storage within Phase 1 and 2 for the storage of food waste to accommodate this, if this becomes a requirement when the scheme is within operation

Bulky Waste

- There is no specific requirement for the storage of bulky waste
- LBRuT recommend that there is a holding area for bulky waste within one of the ground floor waste stores in Phase 2 of the development
- LBRuT offers chargeable collection of bulky goods

Appendix B Servicing Routes & Waste Storage Locations

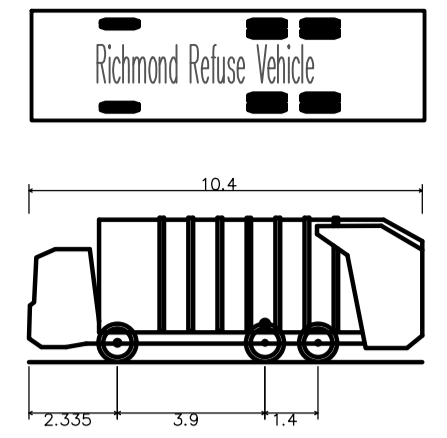
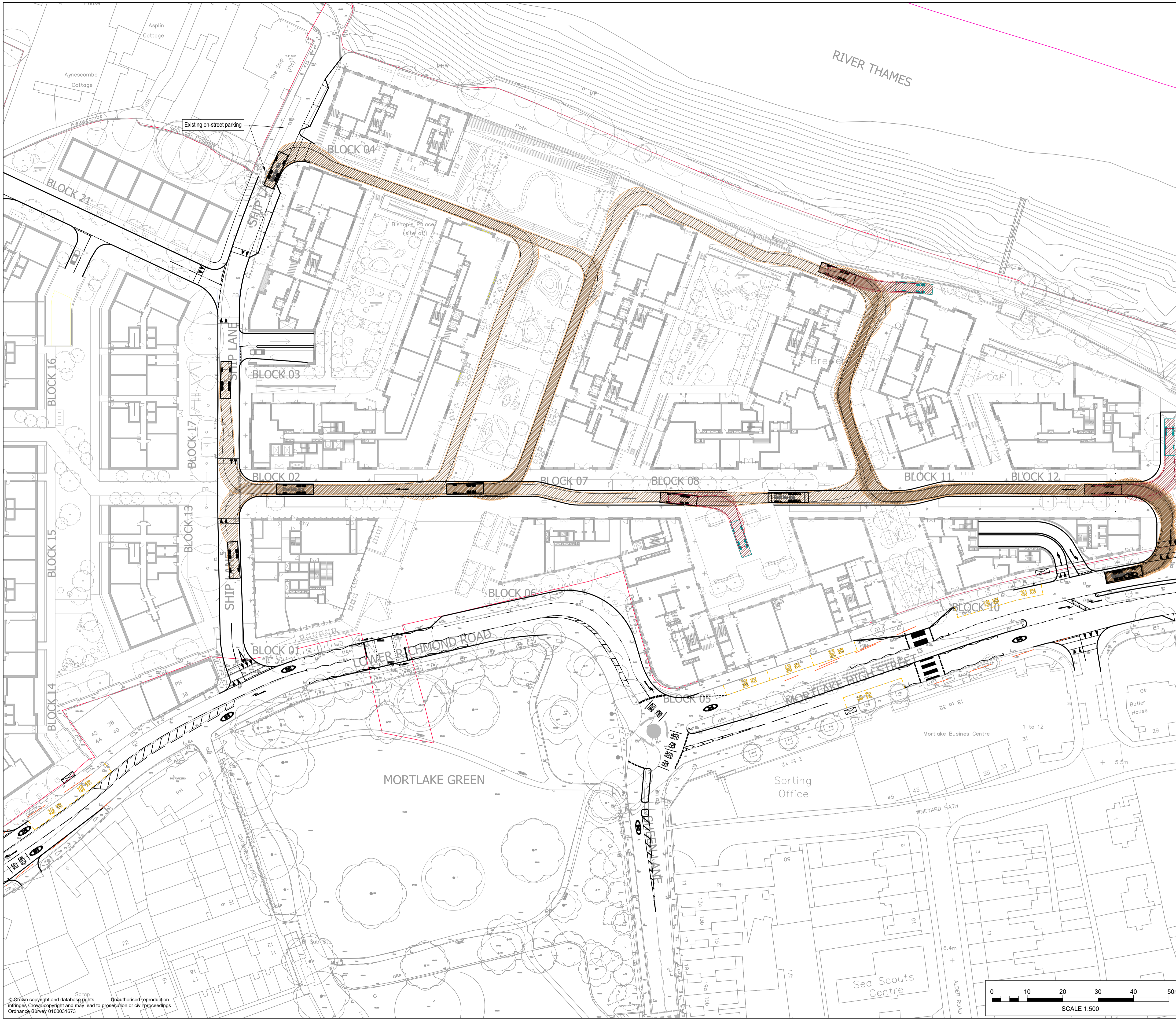
Contents

Stantec Drawings – Refuse vehicle routes

- Drawing Number: 38262/5520/07B
- Drawing Number: 38262/5520/20C

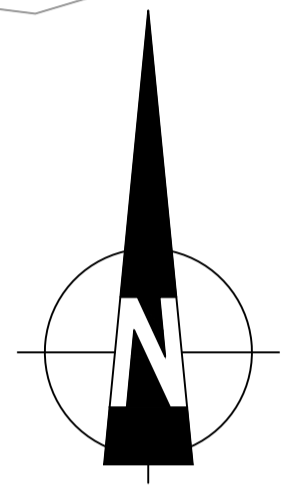
Squires & Partners Drawings – Ground floor level refuse store plans

- 18125_C645_B02_P_00_009 - BUILDING 02
- 18125_C645_B03_P_00_004_E – BUILDING 03
- 18125_C645_B04_P_00_002_E - BUILDING 04
- 18125_C645_B06_P_00_002_E – BUILDING 06
- 18125_C645_B07_P_00_005 - BUILDING 07
- 18125_C645_B08_P_00_005_E - BUILDING 08
- 18125_C645_B09_P_00_002_E - BUILDING 09
- 18125_C645_B10_P_00_003_E - BUILDING 10
- 18125_C645_B11_P_00_004 - BUILDING 11
- 18125_C645_B12_P_00_004_E - BUILDING 12



Richmond Refuse Vehicle	10.400m
Overall Length	2.900m
Overall Width	3.814m
Overall Body Height	0.366m
Min Body Ground Clearance	2.450m
Track Width	4.00s
Lock to lock time	9.350m
Kerb to Kerb Turning Radius	

NOTE:
 VEHICLE HEIGHT = 3.814m
 BALCONY HEIGHT = 3.850m
 BALCONY CLEARANCE = 36mm



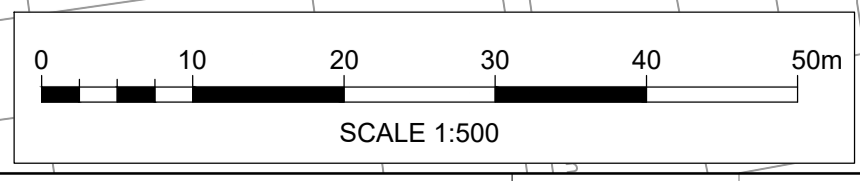
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A	Masterplan updated	04.03.22	REM	PW	PW
Mark	Revision	Date	Drawn	Chkd	Appd

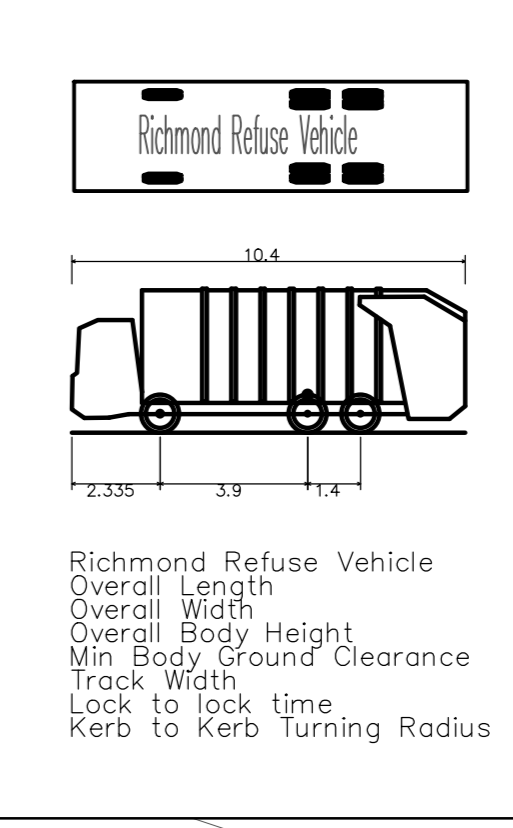
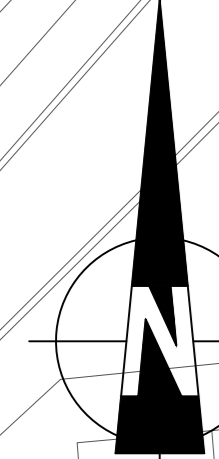
SCALING NOTE: Do not scale this drawing - any errors or omissions shall be reported to Stantec without delay.
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Drawing Issue Status
FOR INFORMATION

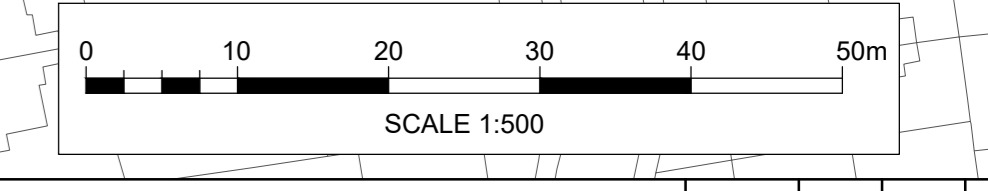
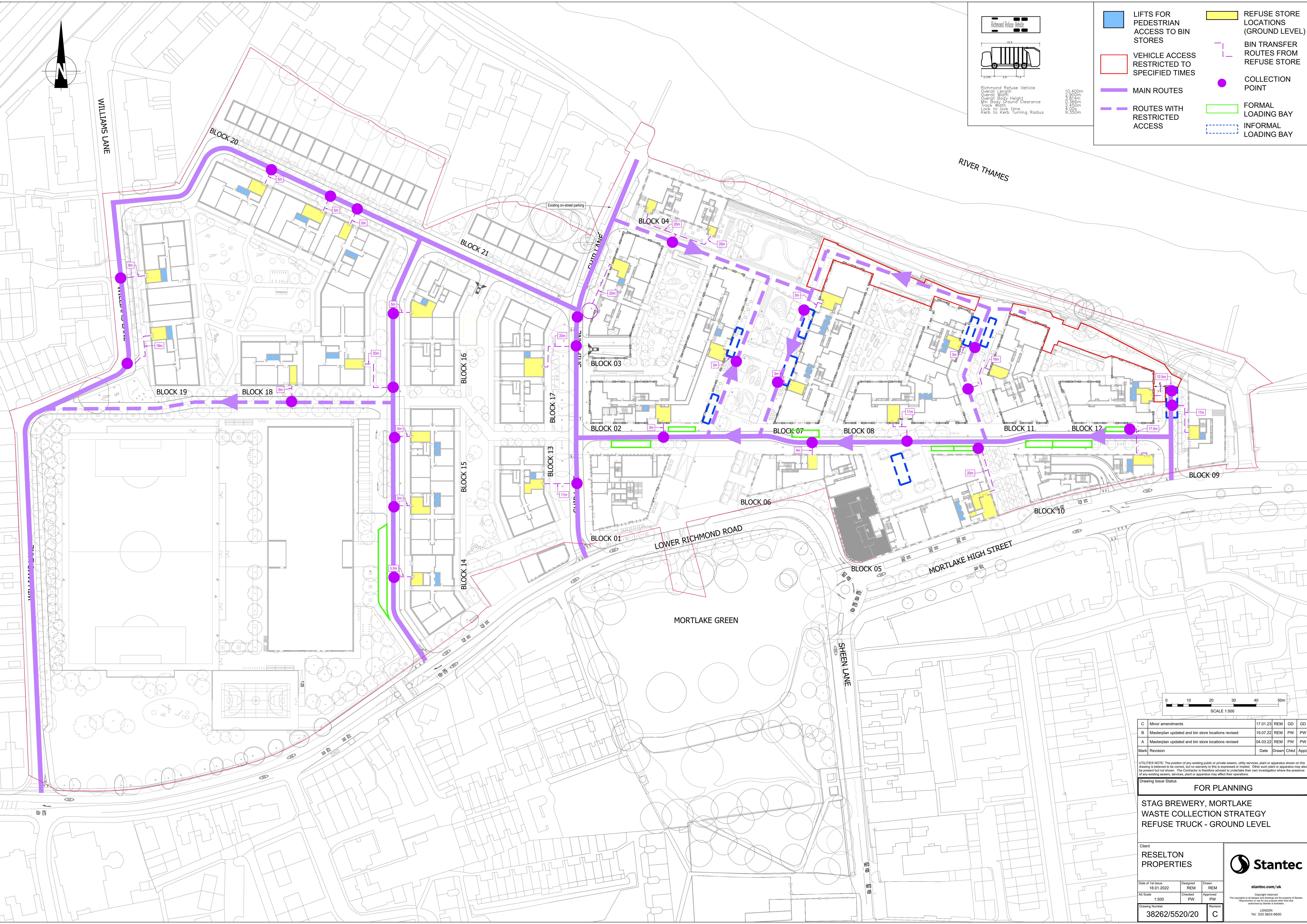
**STAG BREWERY, MORTLAKE
 DELIVERY & SERVICING STRATEGY - PHASE 1
 VEHICLE SWEEP PATH ANALYSIS FOR A
 LBRuT REFUSE TRUCK**

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Date of 1st Issue 18.01.2022	Designed REM	Drawn REM	
A1 Scale 1:500	Checked PW	Approved PW	
Drawing Number 38262/5520/07	Revision B		





- LIFTS FOR PEDESTRIAN ACCESS TO BIN STORES
- VEHICLE ACCESS RESTRICTED TO SPECIFIED TIMES
- MAIN ROUTES
- - - ROUTES WITH RESTRICTED ACCESS
- REFUSE STORE LOCATIONS (GROUND LEVEL)
- - - BIN TRANSFER ROUTES FROM REFUSE STORE
- COLLECTION POINT
- FORMAL LOADING BAY
- INFORMAL LOADING BAY



C	Minor amendments	17.01.23	REM	GD	GD
B	Masterplan updated and bin store locations revised	19.07.22	REM	PW	PW
A	Masterplan updated and bin store locations revised	04.03.22	REM	PW	PW
Mark	Revision	Date	Drawn	Chkd	Appd

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Drawing Issue Status **FOR PLANNING**

**STAG BREWERY, MORTLAKE
WASTE COLLECTION STRATEGY
REFUSE TRUCK - GROUND LEVEL**

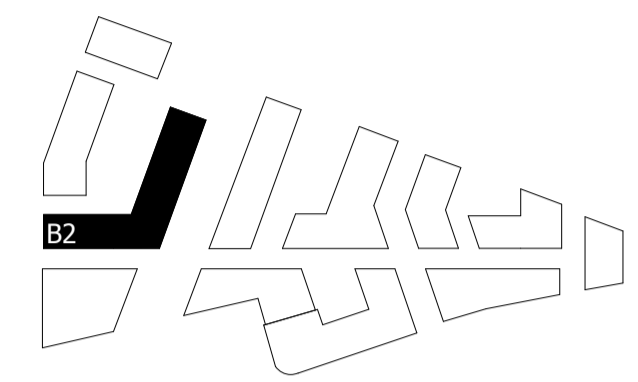
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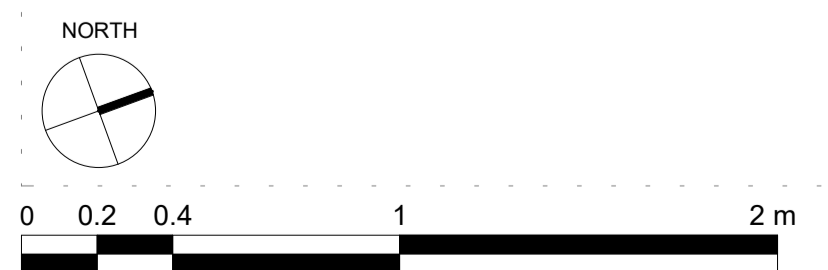
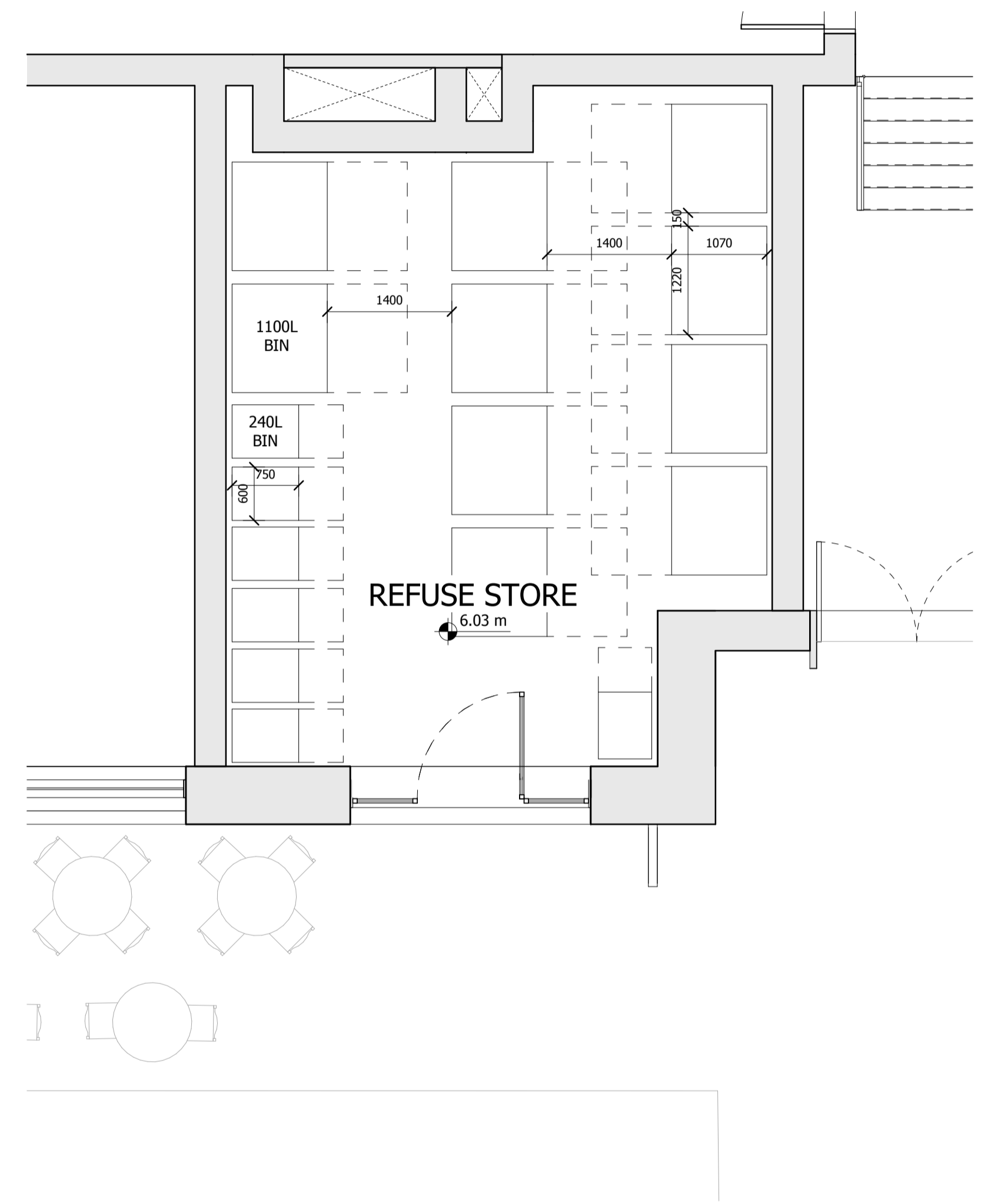
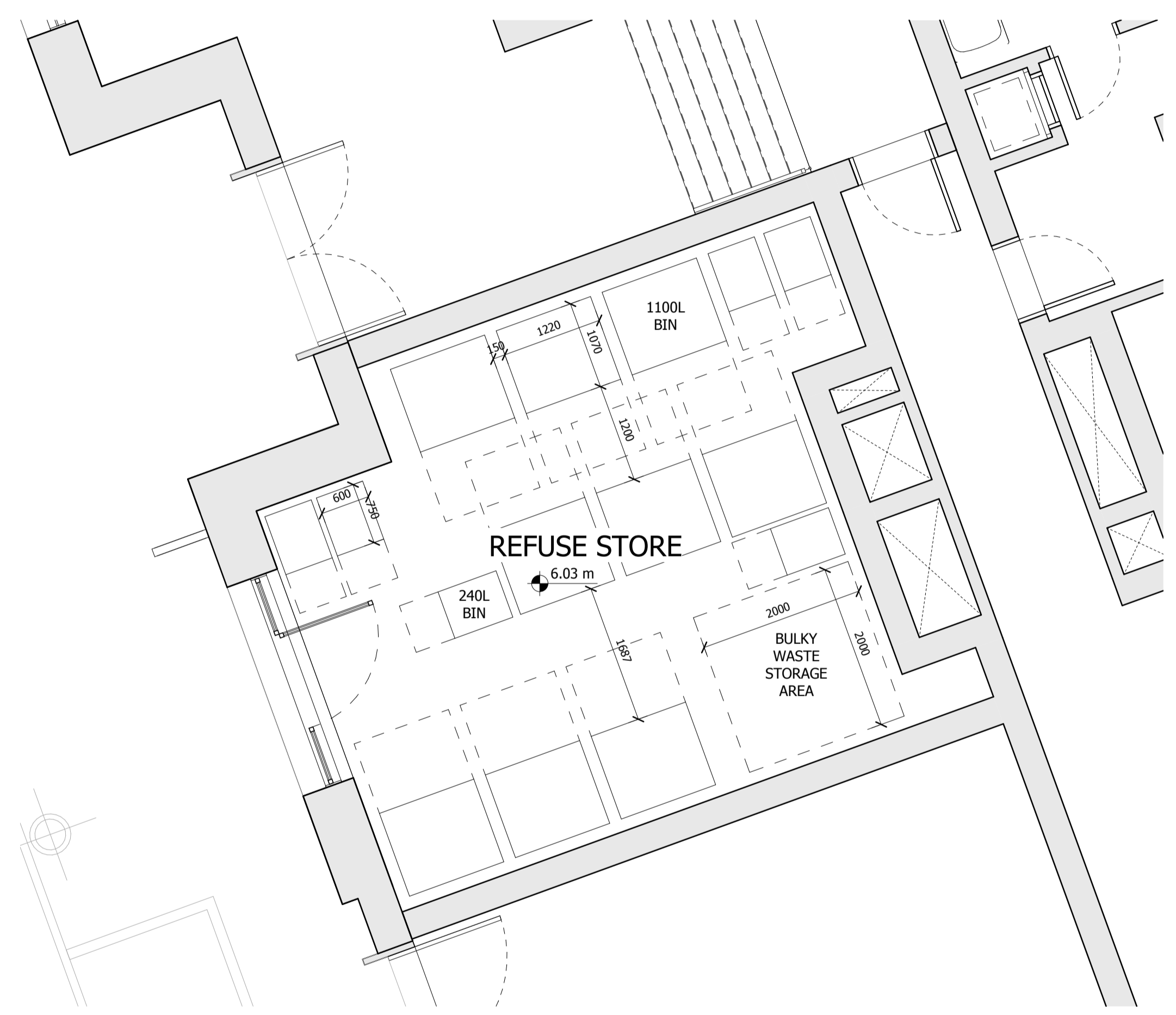
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18.01.2022	REM	REM
AD Scale	Checked	Approved
1:500	PW	PW
Drawing Number	Revision	
38262/5520/20	C	

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NOTES:-
 Building 02 refuse stores contain 19 1100L Eurobins, 13 240L food waste bins and a bulky waste storage area



Revision description	Date	Check	Rev
LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	-

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 Richmond

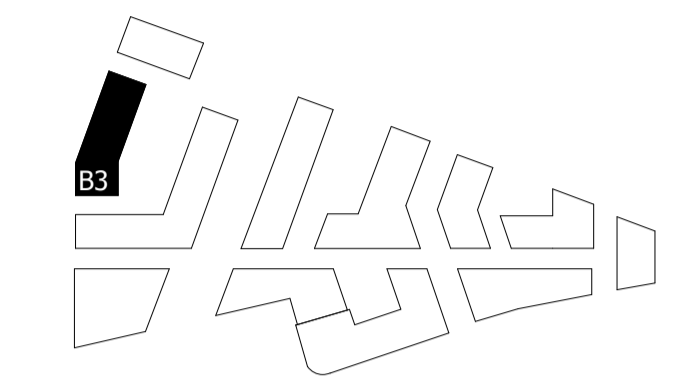
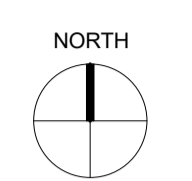
Drawing
BUILDING 02 - GROUND FLOOR
LEVEL REFUSE STORE PLANS

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Job Number	Drawing number	Revision
18125	C645_B02_P_00_009	-

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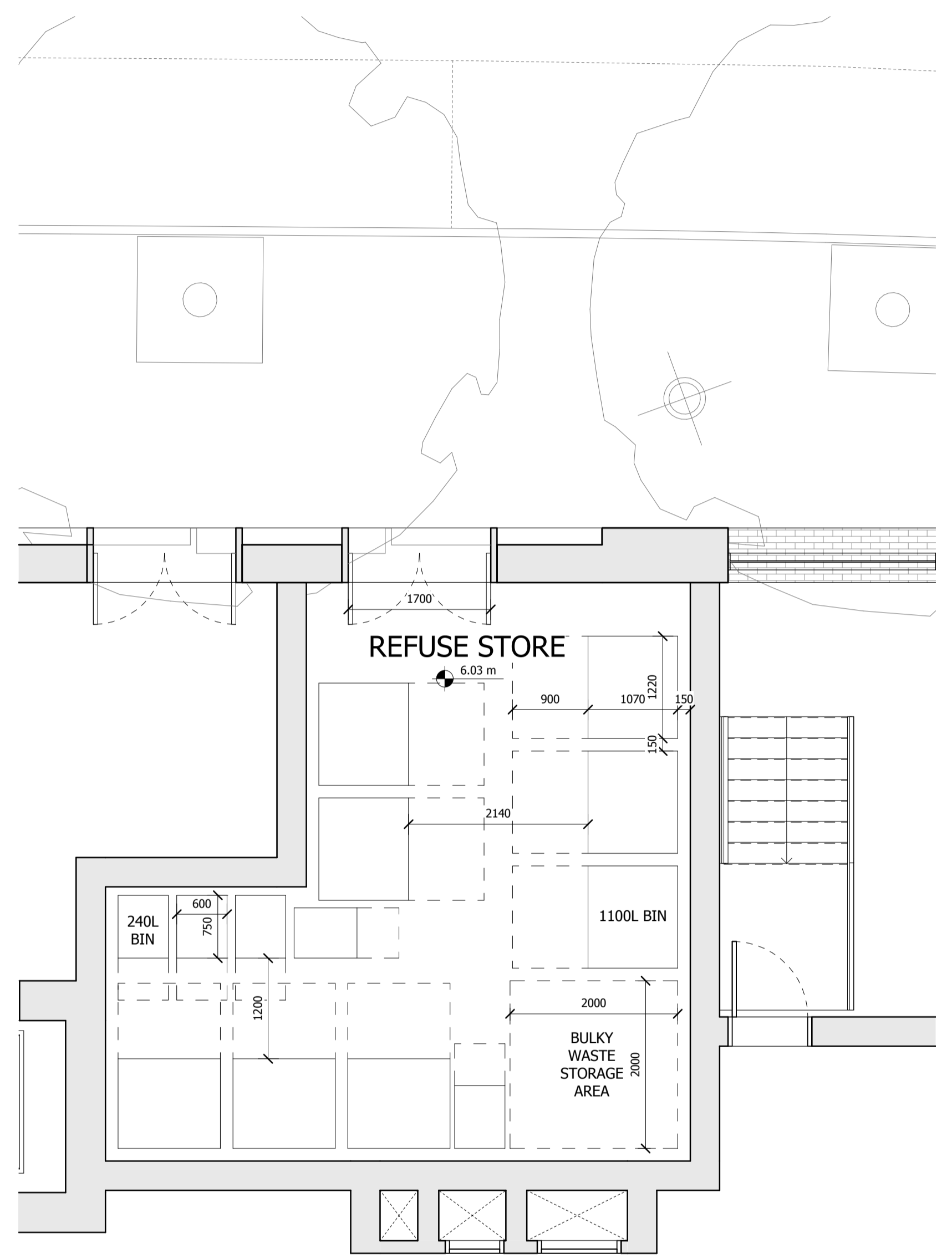
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NOTE:

Building 3 refuse store contains 8 1100 Eurobins, 5 240L waste bins and a bulky waste store



LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	04/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

Revision description	Date	Check	Rev
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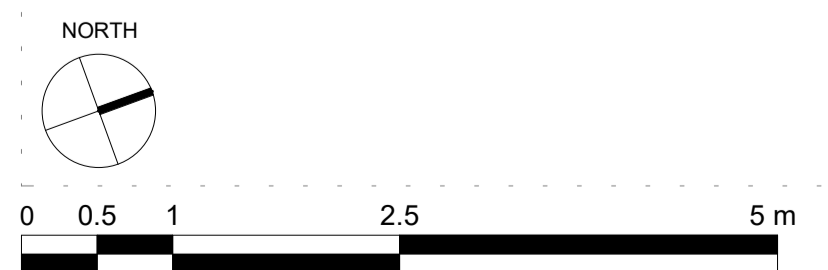
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Drawing
BUILDING 03 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

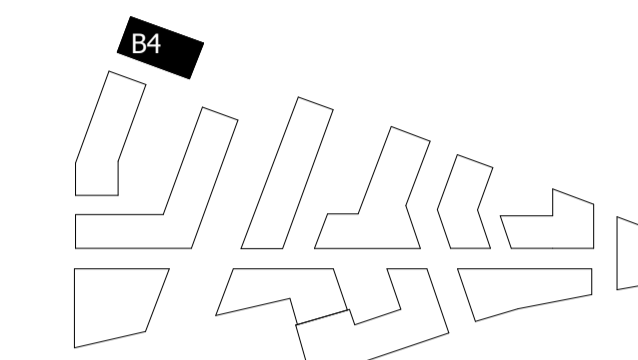
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Job Number	Drawing number	Revision
18125	C645_B03_P_00_004	E



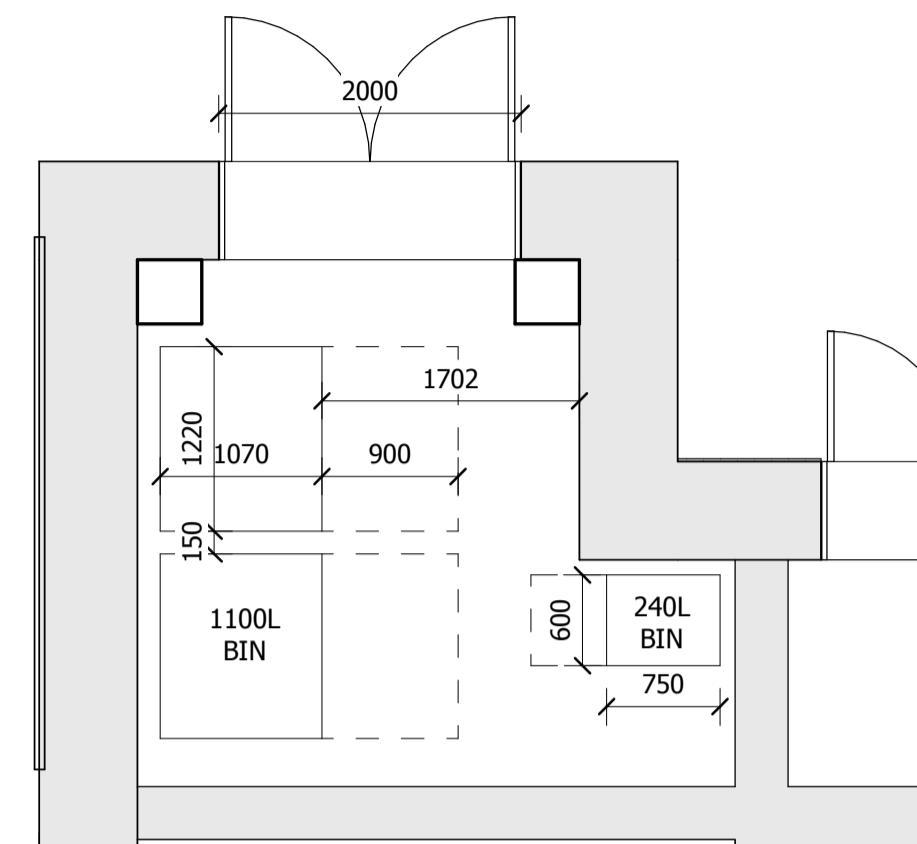
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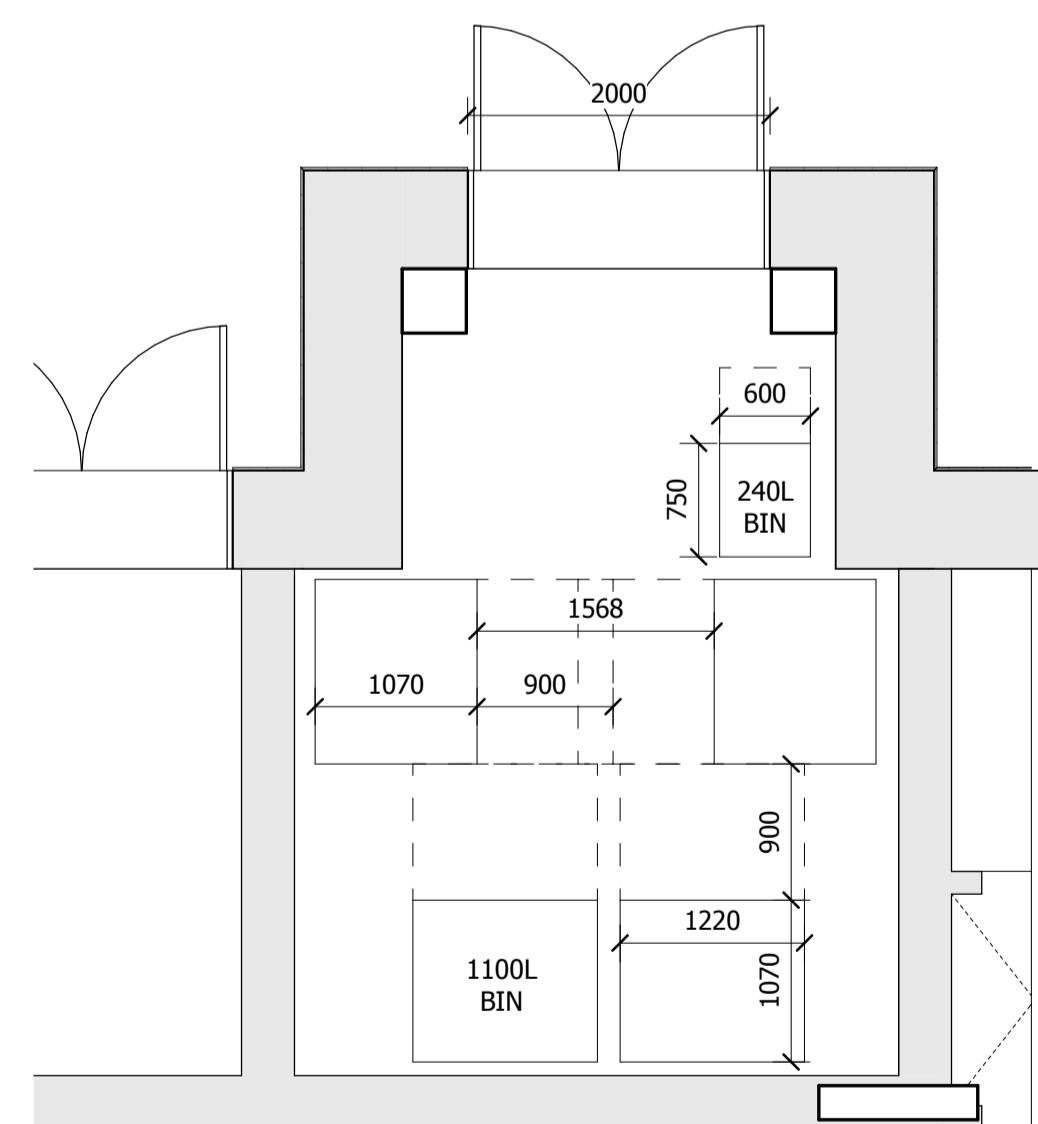
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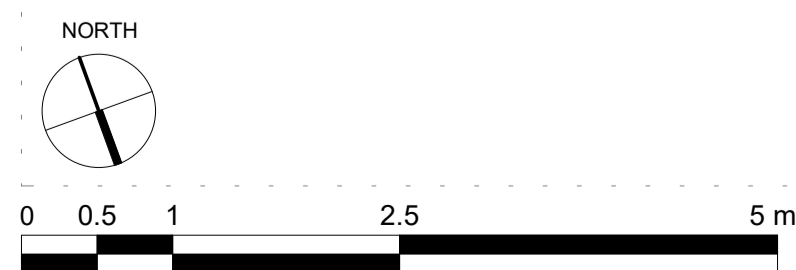
NOTES:-
Building 04 refuse stores contain 6 1100L Eurobins and 2 240L food waste bins



1 BLOCK 04 - REFUSE STORE 1
1 : 50



2 BLOCK 04 - REFUSE STORE 2
1 : 50



LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	04/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

Revision description	Date	Check	Rev
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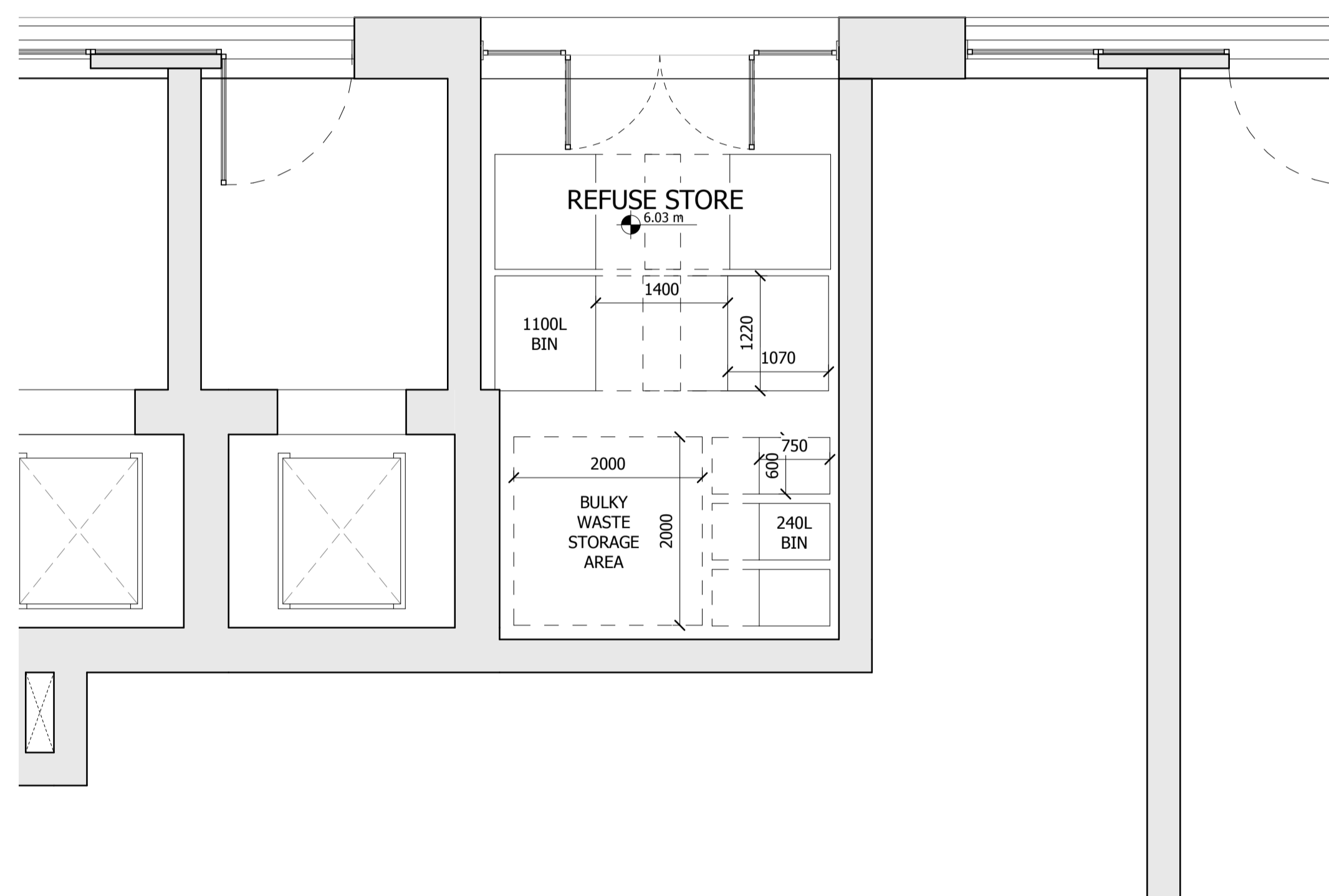
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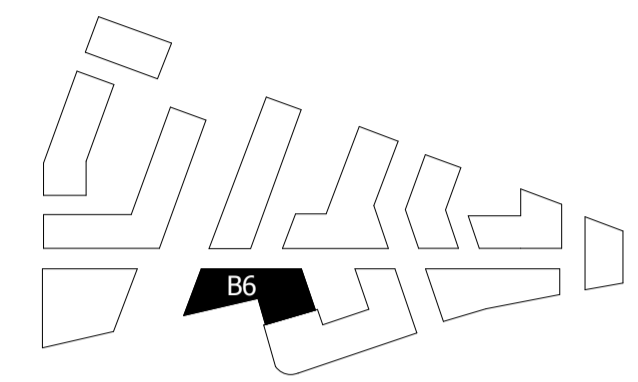
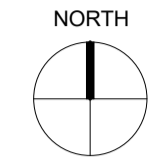
Project
Stag Brewery
Richmond

Drawing
BUILDING 04 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

Drawn	Date	Scale
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Job Number	Drawing number	Revision
18125	C645_B04_P_00_002	E



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NOTES:
Building 06 refuse store contains 4 1100L Eurobins, 3 240L food waste bins and a bulky waste storage area

LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	04/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

Revision description	Date	Check	Rev
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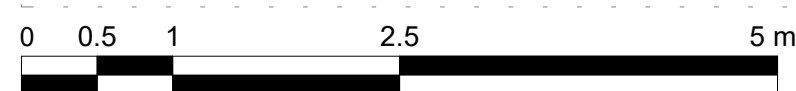
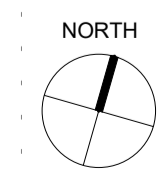
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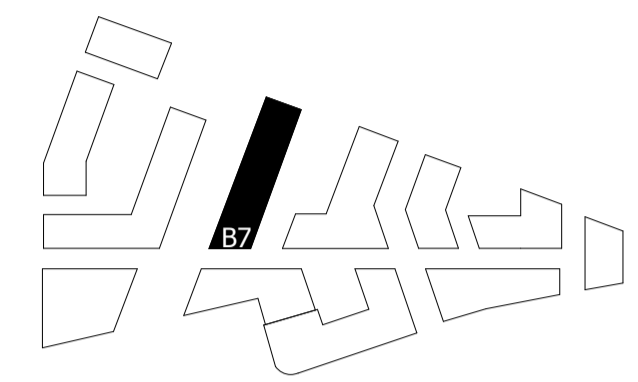
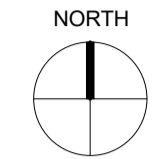
Project
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Richmond

Drawing
BUILDING 06 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

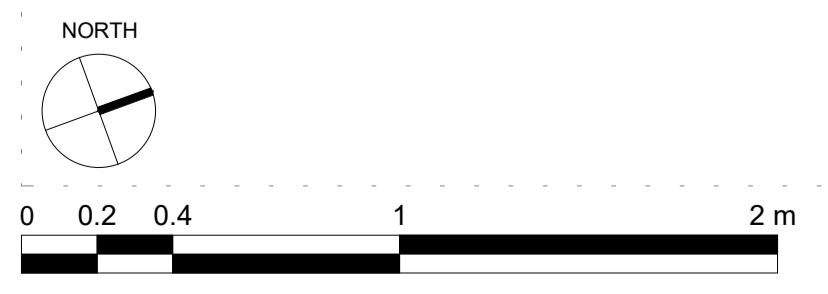
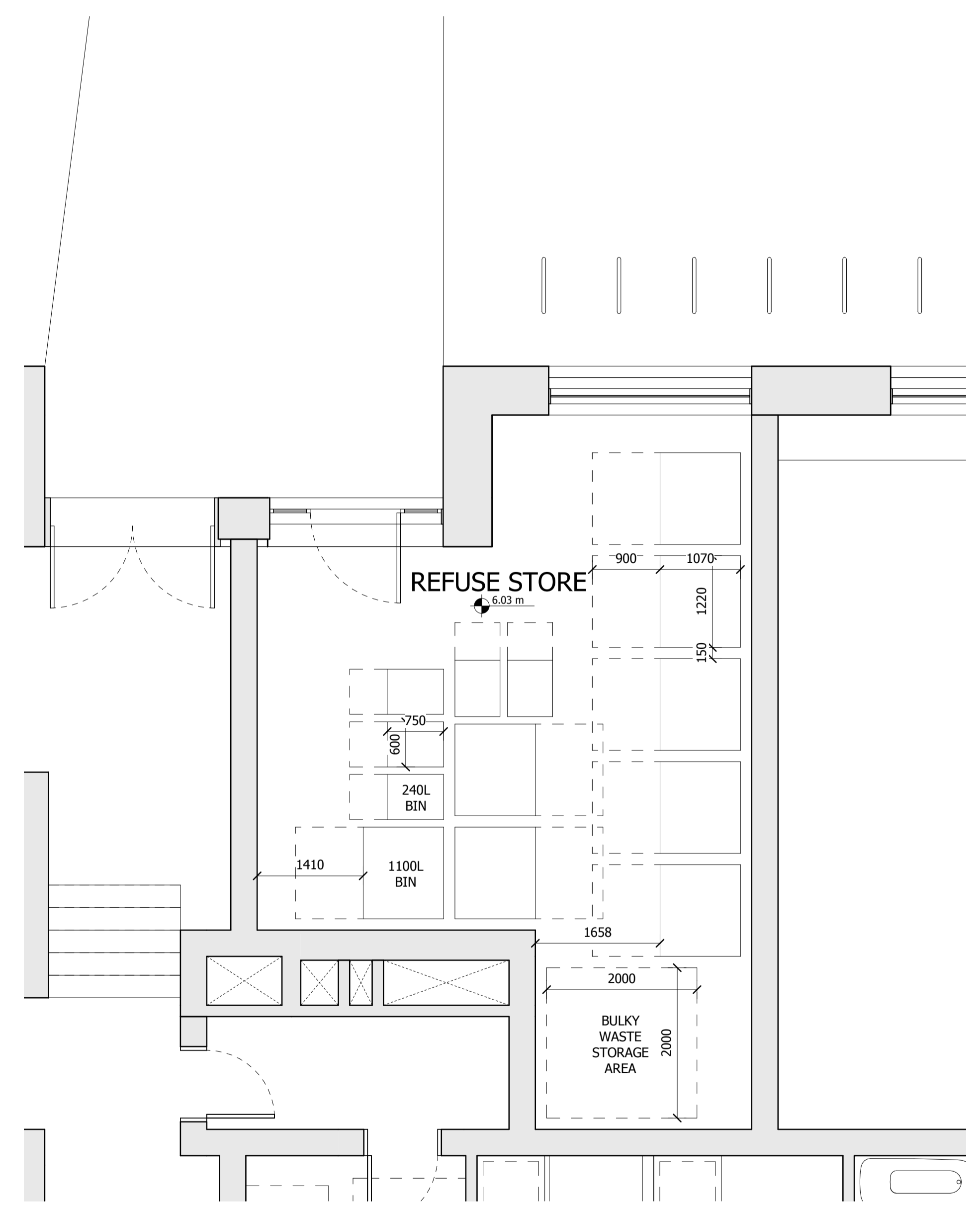
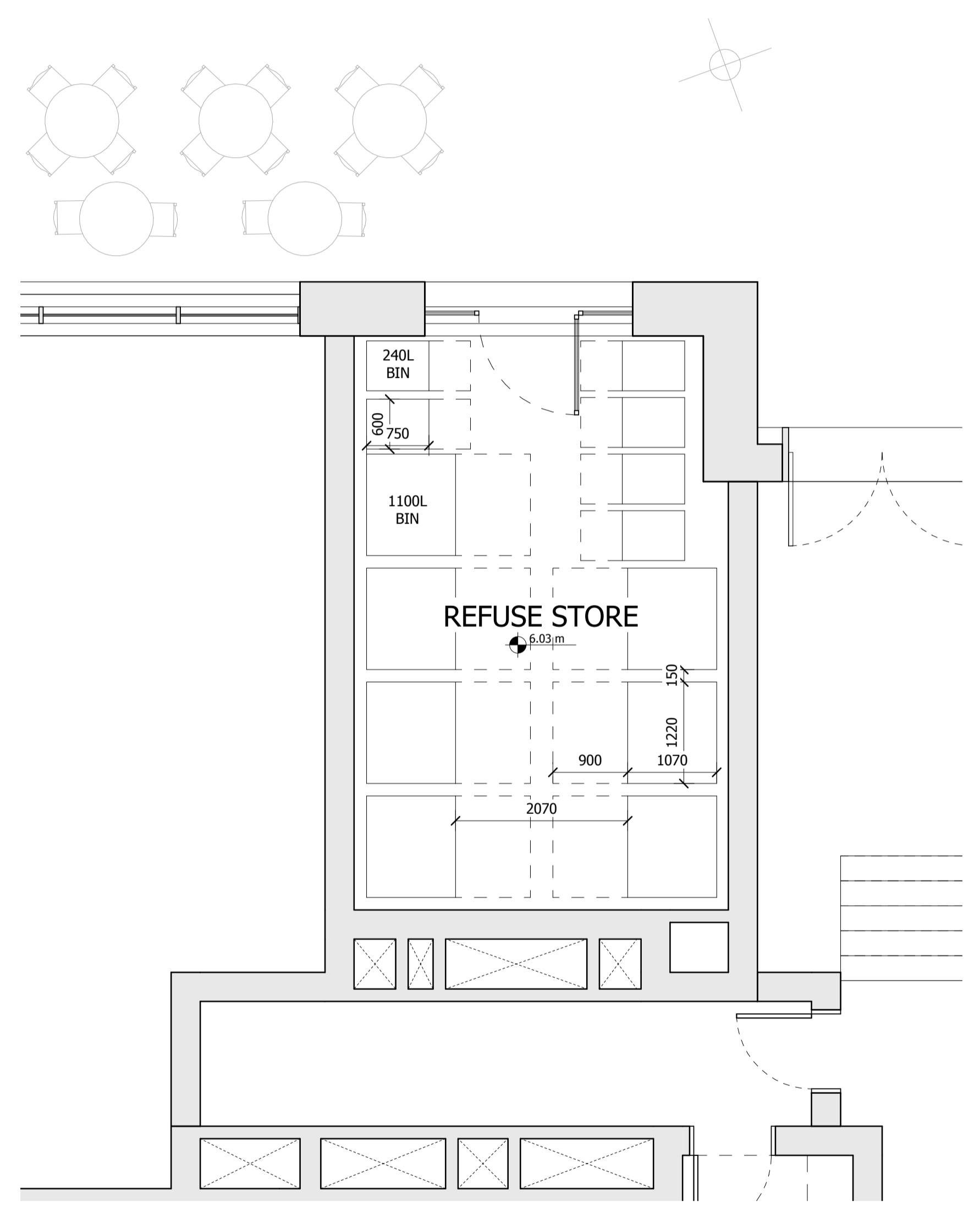
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NOTES:-
 Building 07 refuse stores contain 15 1100L Eurobins 11 240L food waste bins and a bulky waste storage area



Revision description	Date	Check	Rev
LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	-

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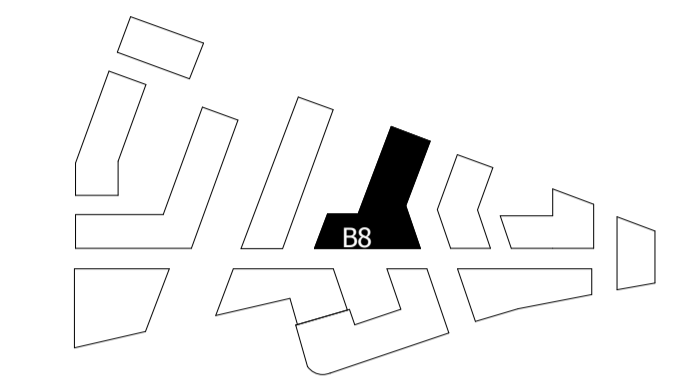
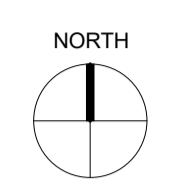
Drawing
BUILDING 07 - GROUND FLOOR
LEVEL REFUSE STORE PLANS

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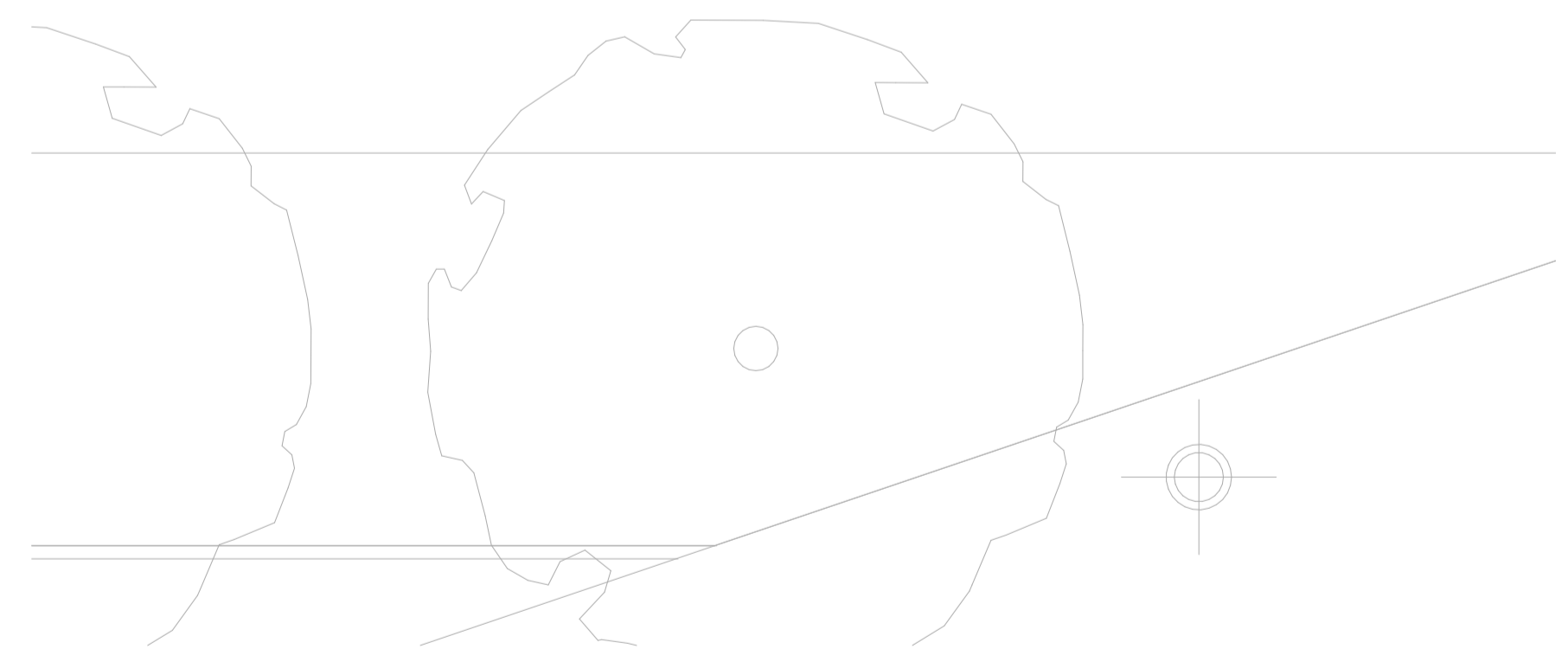
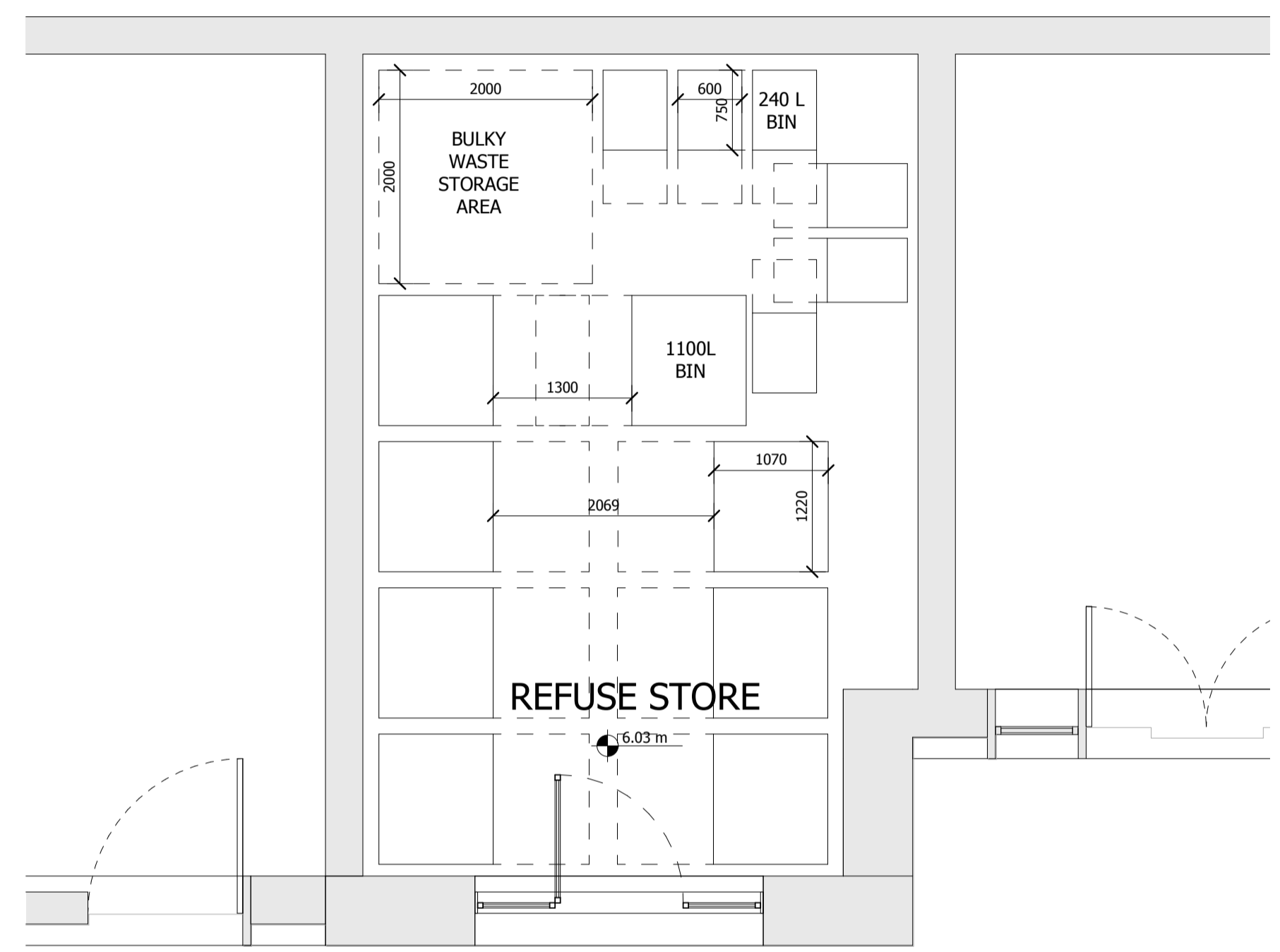
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NOTE:-
Building 08 refuse stores contain 14 1100L Eurobins, 10 240L food waste bins and a bulky waste storage area



LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	04/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

Revision description	Date	Check	Rev

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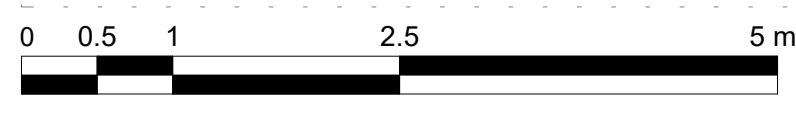
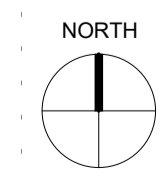
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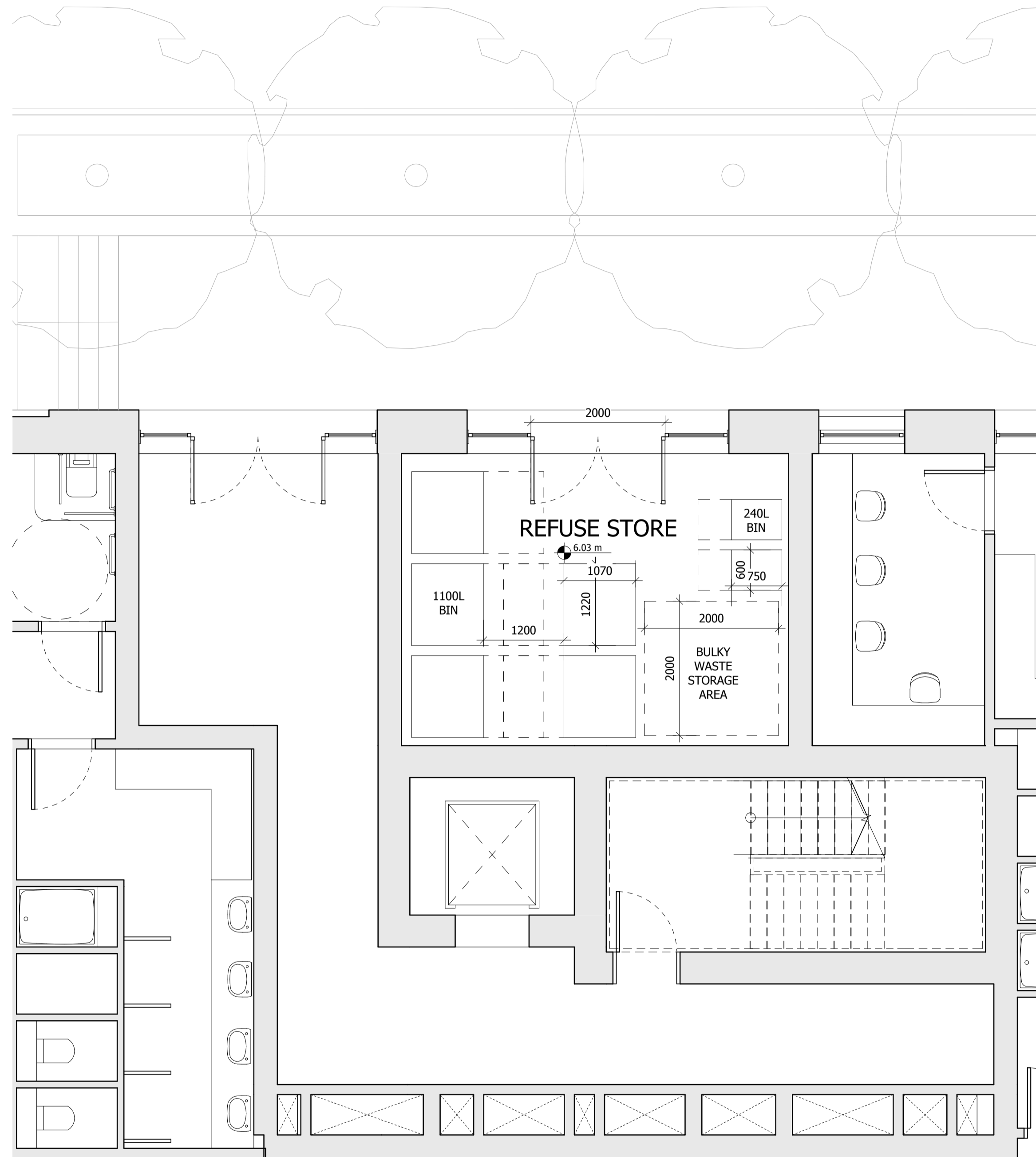
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BUILDING 08 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

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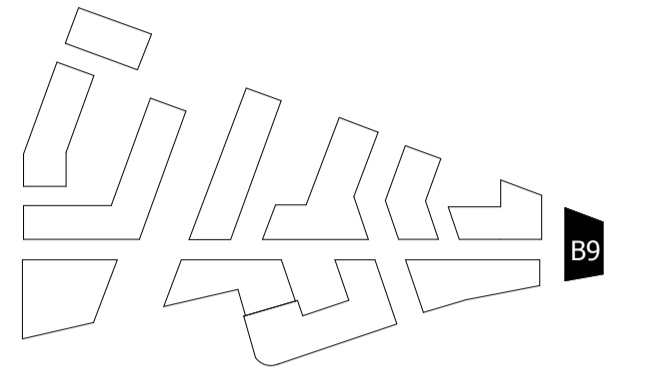




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NOTES:

Building 09 refuse store contains 5 1100L Eurobins, 2 240L food waste bins and a bulky waste storage area

LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	04/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

Revision description	Date	Check	Rev
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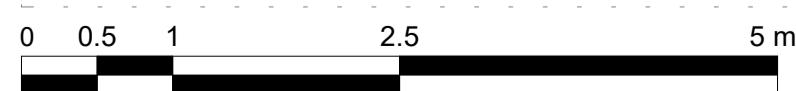
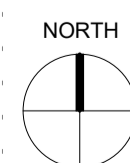
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Drawing
BUILDING 09 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

Drawn	Date	Scale
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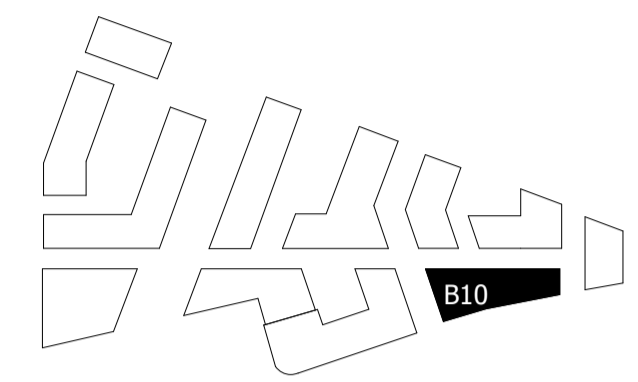
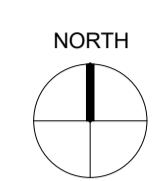
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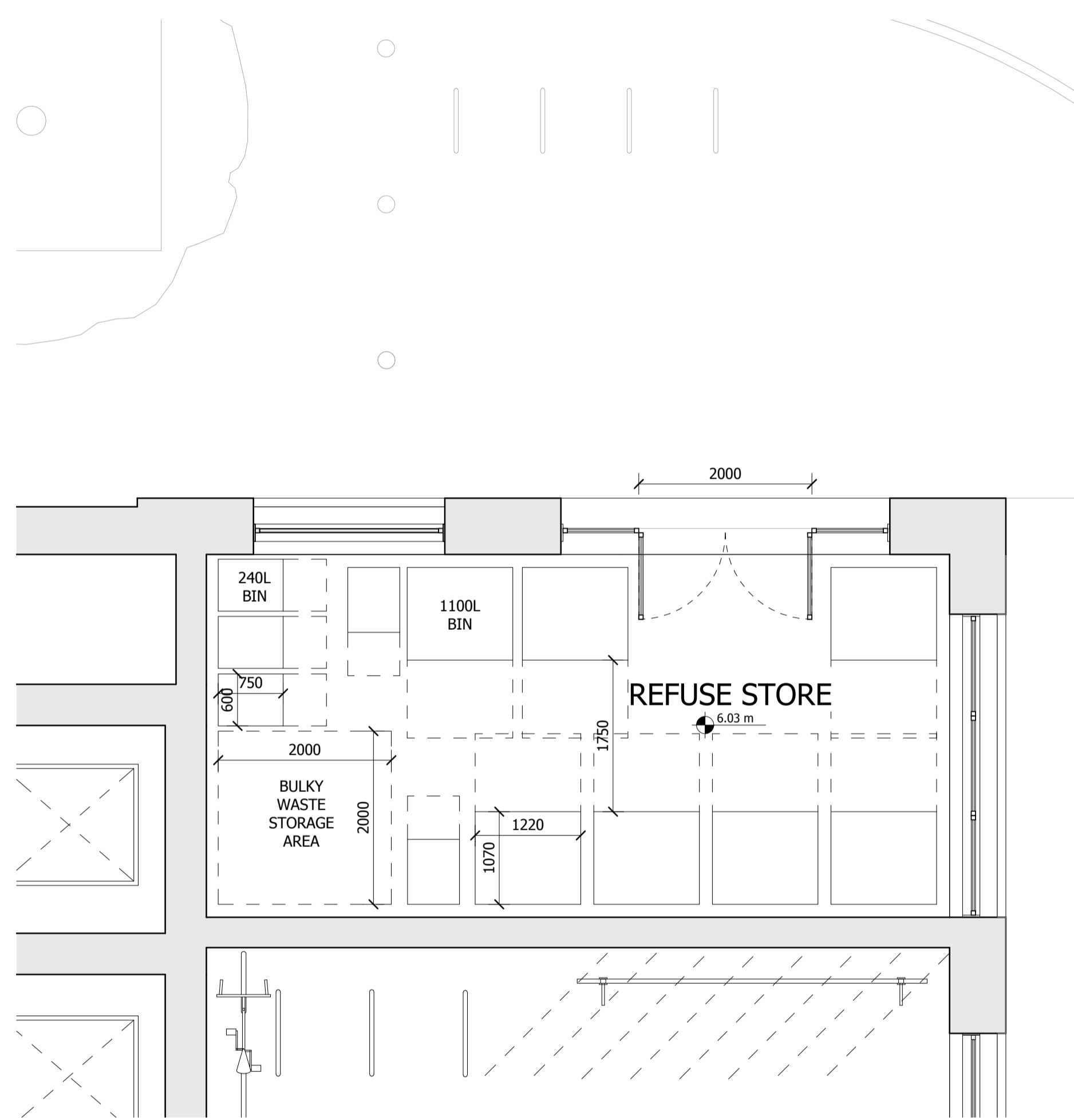
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NOTES:

Building 10 refuse store contains 7 1100 L Eurobins, 5 240L food waste bins and a bulky waste storage area



LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	25/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

Revision description	Date	Check	Rev
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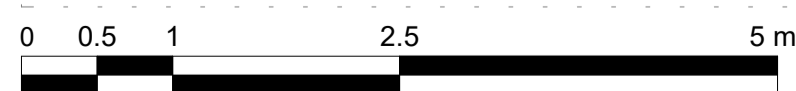
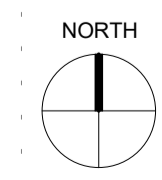
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248 Ferndale Road London SW9 8FR
T: 020 7278 5555 F: 020 7239 0495

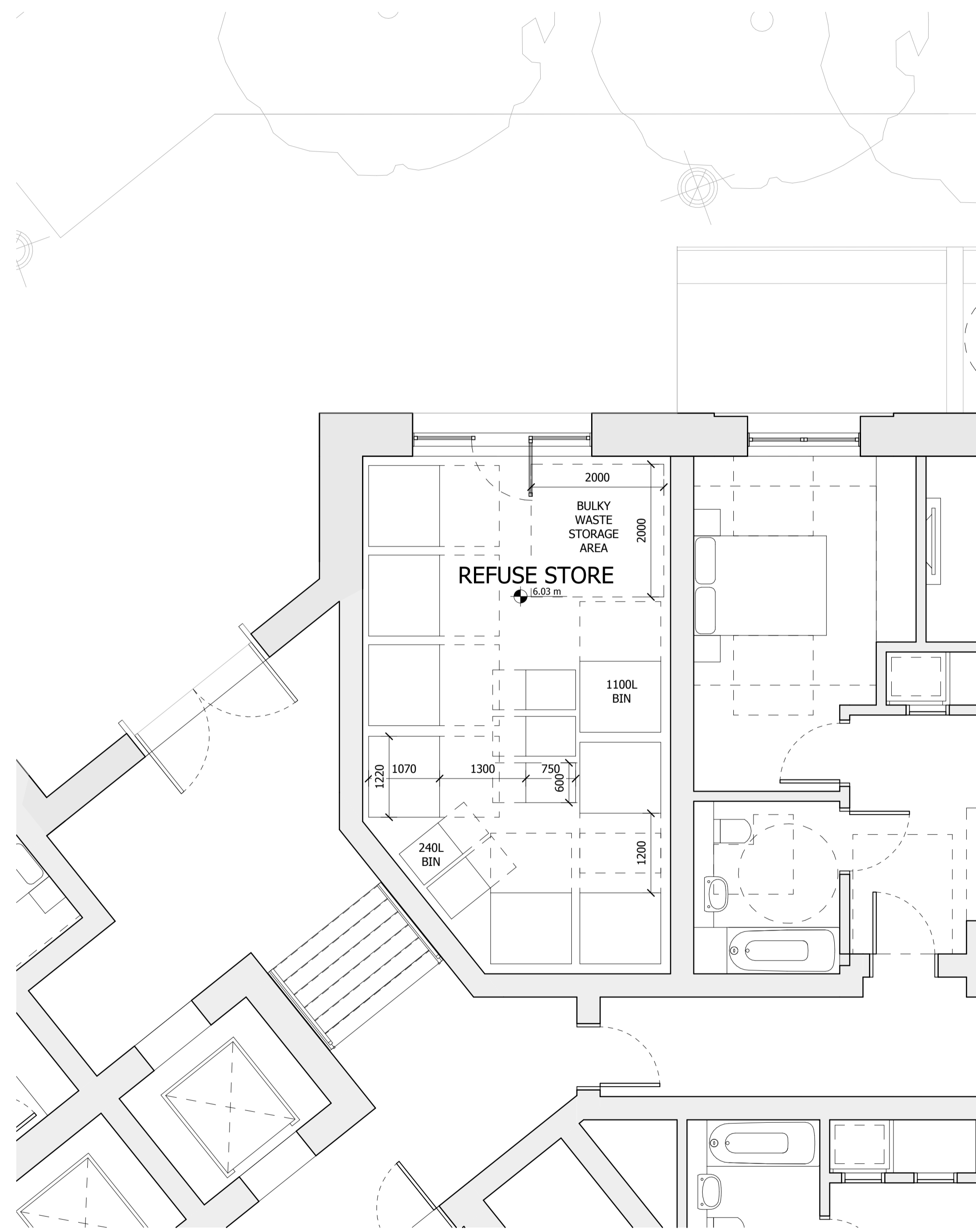
info@squireandpartners.com
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Project
Stag Brewery
Richmond

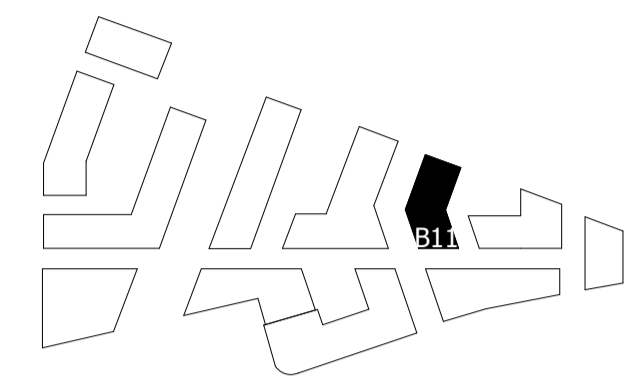
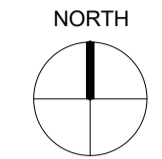
Drawing
BUILDING 10 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

Drawn	Date	Scale
KHO	16/01/18	1:50 @ A1 1:100 @ A3
Job Number	Drawing number	Revision
18125	C645_B10_P_00_003	E





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NOTES:-
 Building 11 refuse store contains 8 1100 L Eurobins, 5 240L food waste bins and a bulky waste storage area

Revision description	Date	Check	Rev
LBURT 2 APPLICATION AMENDMENTS	21/07/22	BJ	-

SQUIRE & PARTNERS

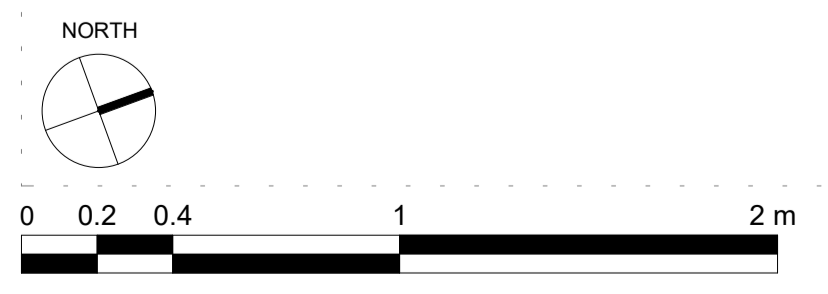
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 Richmond

Drawing
BUILDING 11 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

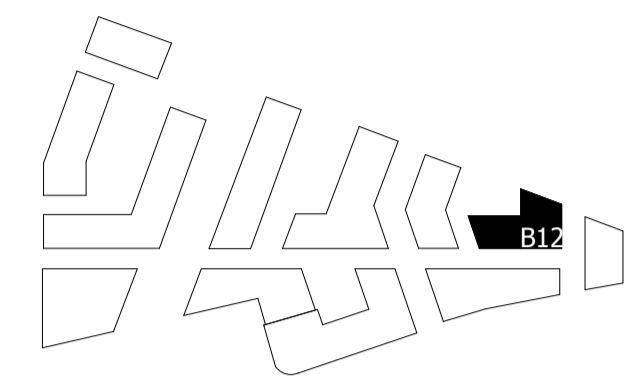
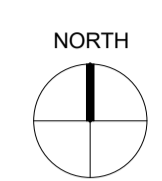
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Job Number	Drawing number	Revision
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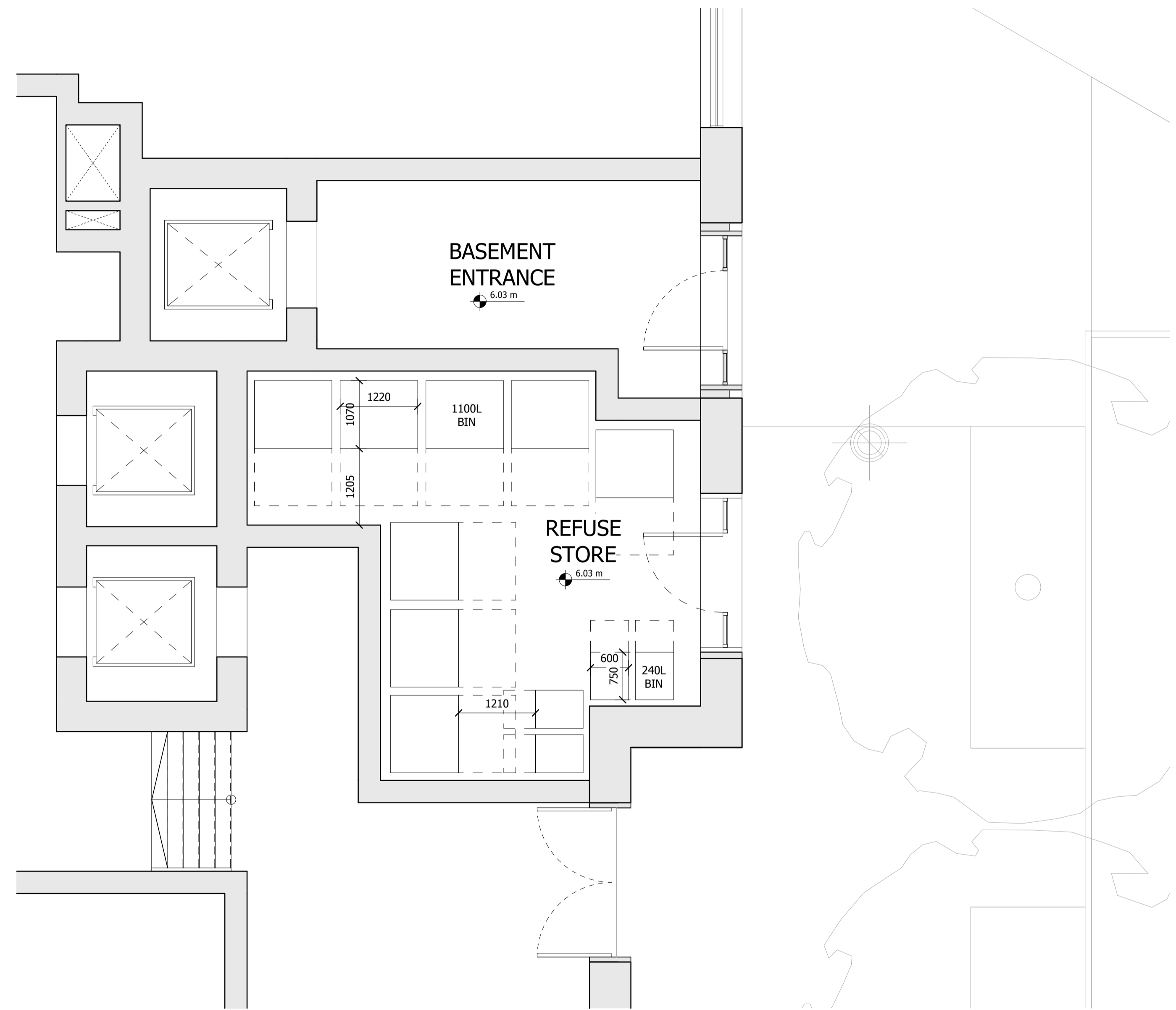
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NOTES:

Building 12 refuse store contains 8 1100 L Eurobins and 4 240L food waste bins



LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	04/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	03/09/19	KH	-

Revision description	Date	Check	Rev
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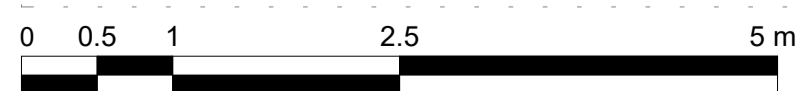
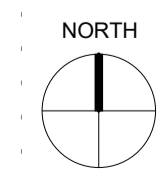
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Project
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Richmond

Drawing
BUILDING 12 - GROUND FLOOR
LEVEL REFUSE STORE PLAN

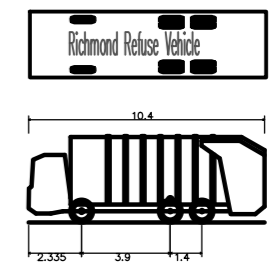
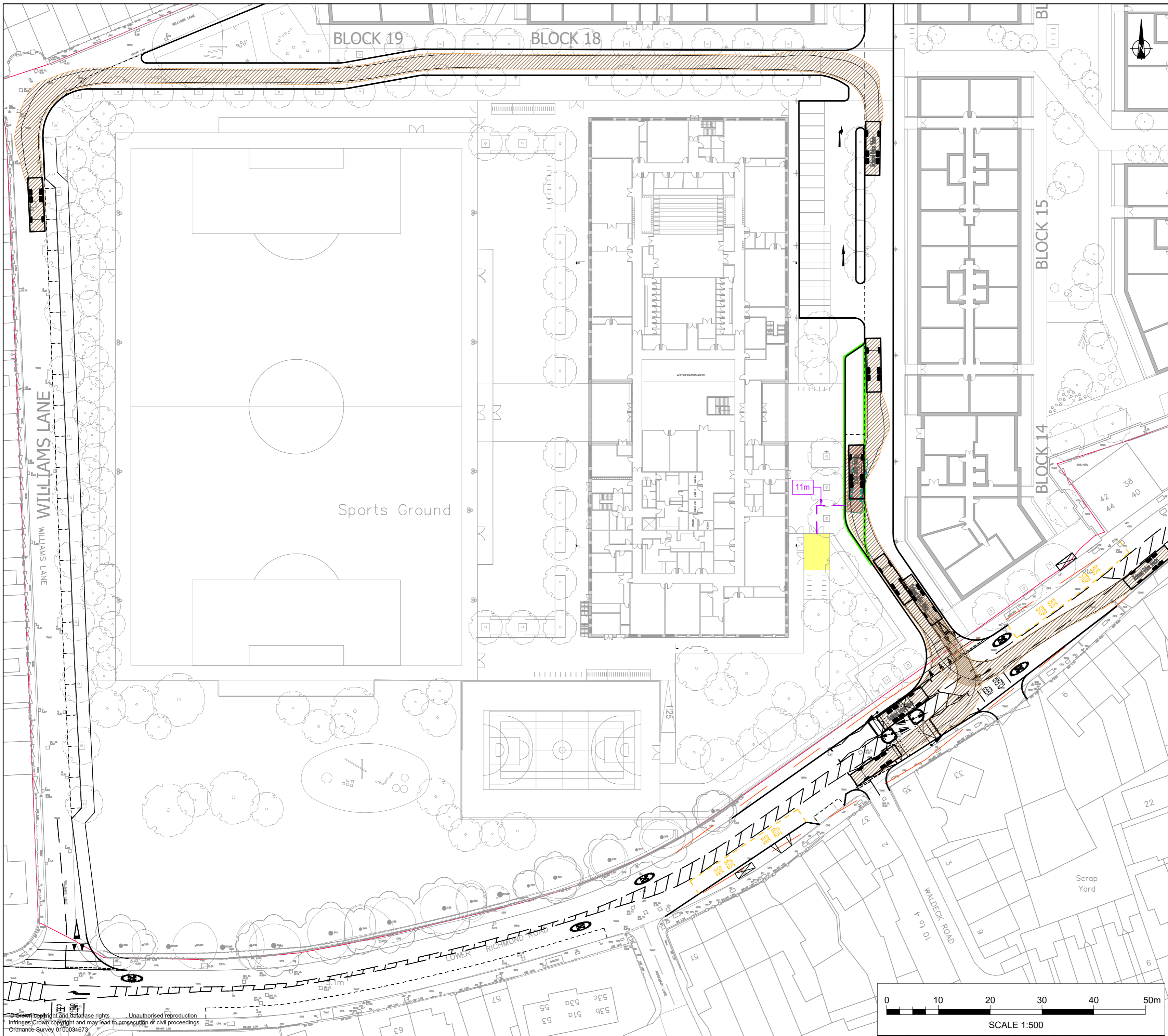
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KHO	16/01/18	1:50 @ A1
		1:100 @ A3
Job Number	Drawing number	Revision
18125	C645_B12_P_00_004	E



Appendix C School Waste Collection

Contents

- Drawing Number: 38262-5520-27



Richmond Refuse Vehicle
 Overall Length 10.400m
 Overall Body Height 2.900m
 Min Body Ground Clearance 0.366m
 Track Width 2.450m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 9.350m

- REFUSE STORE LOCATIONS (GROUND LEVEL)
- BIN TRANSFER ROUTES FROM REFUSE STORE
- LOADING BAY

Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale this drawing - any errors or omissions shall be reported to Stantec without delay.
 UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status
FOR INFORMATION

**STAG BREWERY, MORTLAKE
 DELIVERY & SERVICING STRATEGY - PHASE 2
 VEHICLE SWEEP PATH ANALYSIS FOR A
 REFUSE TRUCK**

Client
**RESELTON
 PROPERTIES**

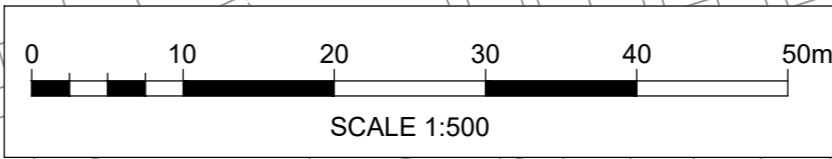


Date of 1st Issue 22.03.2022	Designed REM	Drawn REM
A2 Scale 1:500	Checked PW	Approved PW

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Drawing Number
38262/5520/27

Revision
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 user name: mallist, richard