

**BELLWAY HOMES LTD (NORTH LONDON)**

**LAND AT CAMPUS EAST, WELWYN GARDEN CITY**

**WASTE MANAGEMENT PLAN**

**REPORT REF.  
2007511-14**

**November 2022**

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**Appendix B – Waste Calculations**

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<b>REV</b>	<b>ISSUE PURPOSE</b>	<b>AUTHOR</b>	<b>CHECKED</b>	<b>APPROVED</b>	<b>DATE</b>
-	Draft	RS	AB	DRAFT	30.09.22
-	2 <sup>nd</sup> Draft	RS	RS	DRAFT	04.10.22
-	FINAL	RS			10.11.22

## **Distribution**

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## **1. INTRODUCTION**

- 1.1. Ardent Consulting Engineers (ACE) have been instructed by Bellway Homes Ltd (North London) to prepare a Waste Management Plan to support a full planning application for a residential development consisting of 313 dwellings. The site is located on land to the east of College Way, to the north of Welwyn Garden City.
- 1.2. This Waste Management Plan (WMP) has been prepared to support a full planning application to the local planning authority, Welwyn Hatfield Borough Council (WHBC), with Hertfordshire County Council (HCC) being the local highway authority
- 1.3. This WMP supports a planning application for the redevelopment of the former Campus East Car Park and its associated land which currently occupies the site. The redevelopment scheme seeks to provide a residential development, consisting of 313 residential dwellings (Class C3), associated parking and public open space. The proposed masterplan is shown at **Appendix A** for reference.
- 1.4. A Transport Assessment (TA – **report reference 2007511-11**), Residential Travel Plan (RTP – **report reference 2007511-06**) and Construction Traffic Management Plan (CTMP – **report reference 2007511-10**) and Car Parking Management Plan (CPMP – **report reference 2007511-13**) have also been prepared by ACE to accompany the planning application for the proposed development.
- 1.5. This WMP takes into account the following guidance:
  - National Planning Policy Framework (July, 2021)
  - Planning Practice Guidance (June, 2021).
  - Waste Management Plan for England (2013)
  - National Planning Policy for Waste (2014)
  - Waste Core Strategy and Development Management Policies (November 2012)
  - Manual for Streets (2007) and Manual for Street 2 (2010); and
  - Access to and use of buildings: Approved Document M.



## **2. SITE AND SURROUNDING AREA**

### **Site Location**

- 2.1. The site is located on land to the east of College Way, to the north of Welwyn Garden City. The site currently comprises of a multi-storey two level car park known as Campus East that consists of a 584 parking spaces, of which 325 spaces are public pay and display spaces, with two vehicular points of access onto College Way.
- 2.2. The site is bordered to the west by the East Coast Mainline Railway, to the west by College Way, to the south by a Waitrose Supermarket with associated car parking and servicing areas and to the north by the rear of existing residential dwellings served from Gresley Close. An indicative site boundary in relation to the surrounding network is shown within **Figure 2.1** for reference.



**Plate 2.1:** Site Location (Source: Google Maps)

### **3. DEVELOPMENT DETAILS**

3.1. The proposals consist of the demolition of an existing car park known as Campus East and the redevelopment of a residential scheme comprising of 313 (C3) residential units with associated amenity areas, landscaping, car parking and all ancillary and enabling works.

3.2. The development will provide 313 dwellings with the following breakdown in tenure:

- 42 one-bed affordable units
- 52 two-bed affordable units
- ***Total affordable units: 94 units***
- 74 one-bed private units
- 131 two-bed private units
- 14 three-bed private units
- ***Total private units: 219 units***
- **Total: 313 units**

#### **Servicing & Deliveries**

3.3. With respect to servicing, the largest vehicle that would be likely to serve the proposed residential dwellings on a regular basis would be a refuse collection vehicle. Section 6.8 of Manual for Streets confirms that refuse workers should have to walk no further than 25 metres from the refuse vehicle to collect 2-wheeled containers, or 10 metres for four-wheeled containers. In terms of refuse collections within the site, bins shall be left within the proposed bin stores near to the building entrances, with suitable measures in place to ensure that bins do not obstruct on collection days.

3.4. **ACE Drawing Number 2002770-002I** demonstrates that an 11.4m WHBC Refuse Collection Vehicle would be able to service the site internally. The swept path analysis has been undertaken to show that the vehicle can enter the site from College Way

and manoeuvre within 10 metres of all bin stores and/or bin collection locations and exit onto College Way in a forward gear without conflict.

## **4. WASTE MANAGEMENT STRATEGY METHODOLOGY**

### **Internal Design**

- 4.1. As set out within the Design and Access Statement submitted as part of the application, the internal and external site areas have been designed to the Approved Document Part M 2010 (2015 edition incorporating 2016 amendments). This includes suitable gradients for residents, waste operatives, and management groups to ease the movement of refuse bags/bins between the residential units, bin stores and service vehicles.
- 4.2. Saunders Architecture + Urban Design have prepared a drawing showing the elevations and floor plans of the Ancillary Buildings which will contain the bins. This is presented in **Appendix B**. With regard to the layout of the internal bin stores, these are showed within the ground floor plans in **Appendix A**.

### **Residential Waste Generation**

- 4.3. The residential waste generation has been calculated by Saunders and the resultant number of bins required. A summary of the number of bins per block is provided below with the full calculations presented in **Appendix C**.
- Block 1A: 6 1100L general waste bins and 5 240L recycling bins required;
  - Block A2: 6 1100L bins general waste bins and 6 240L recycling bins required;
  - Block A3: 5 1100L general waste bins 5 240L recycling bins required;
  - Block A4: 5 1100L general waste bins 5 240L recycling bins required;
  - Block B1: 5 1100L general waste bins 5 240L recycling bins required;
  - Block B2: 3 1100L general waste bins 3 240L recycling bins required;
  - Block B3: 3 1100L general waste bins 2 240L recycling bins required;
  - Block B4: 4 1100L general waste bins 3 240L recycling bins required;
  - Block C: 2 1100L general waste bins 2 240L recycling bins required;
  - Block D: 2 1100L general waste bins 2 240L recycling bins required;
  - Block E: 6 1100L general waste bins 6 240L recycling bins required;
  - Block F: 4 1100L general waste bins 4 240L recycling bins required;

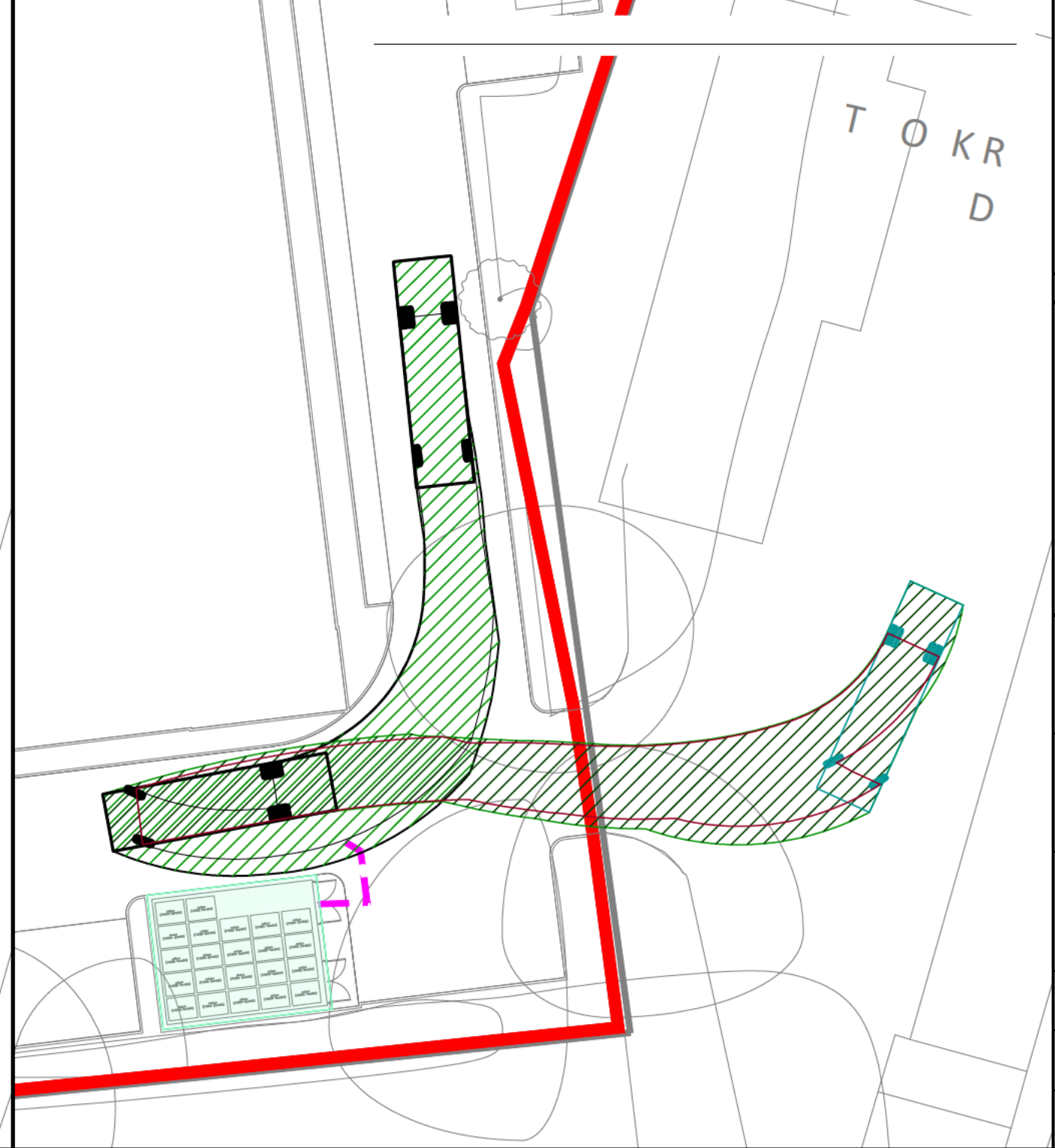
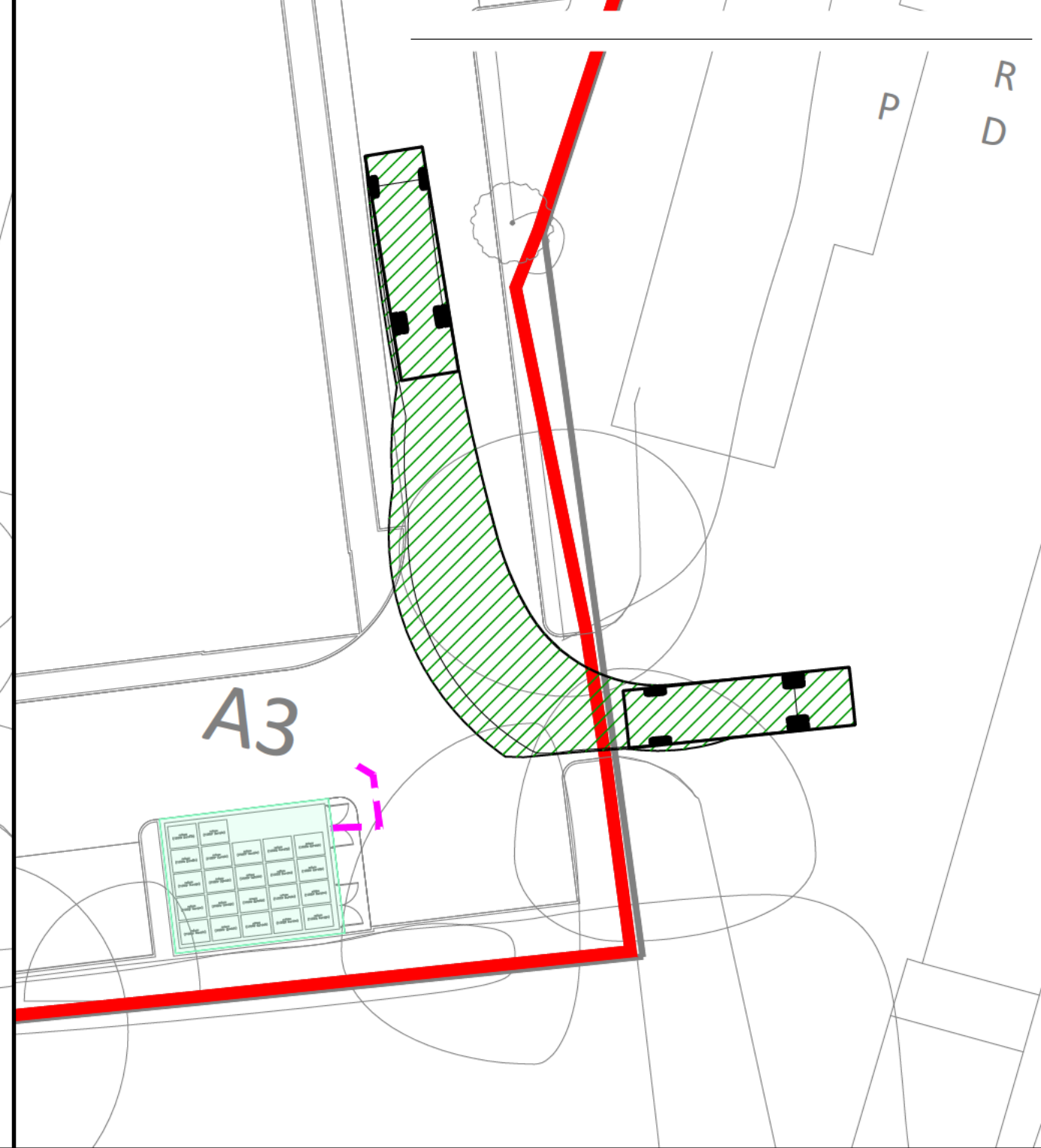
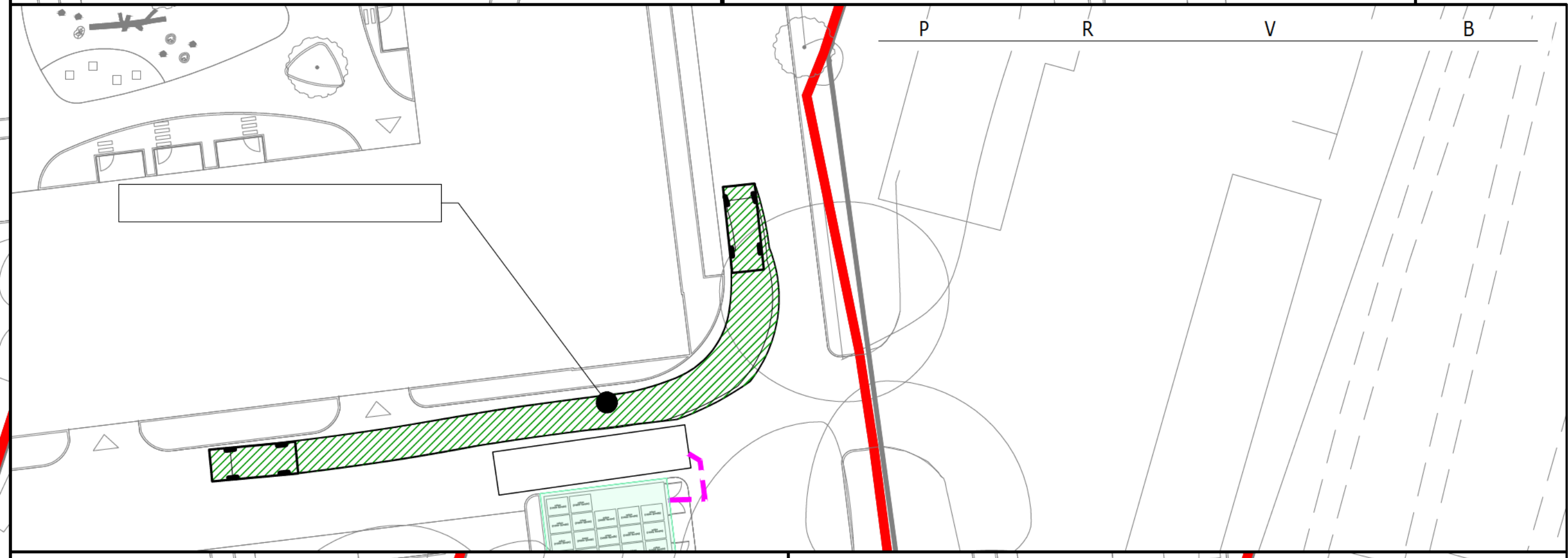
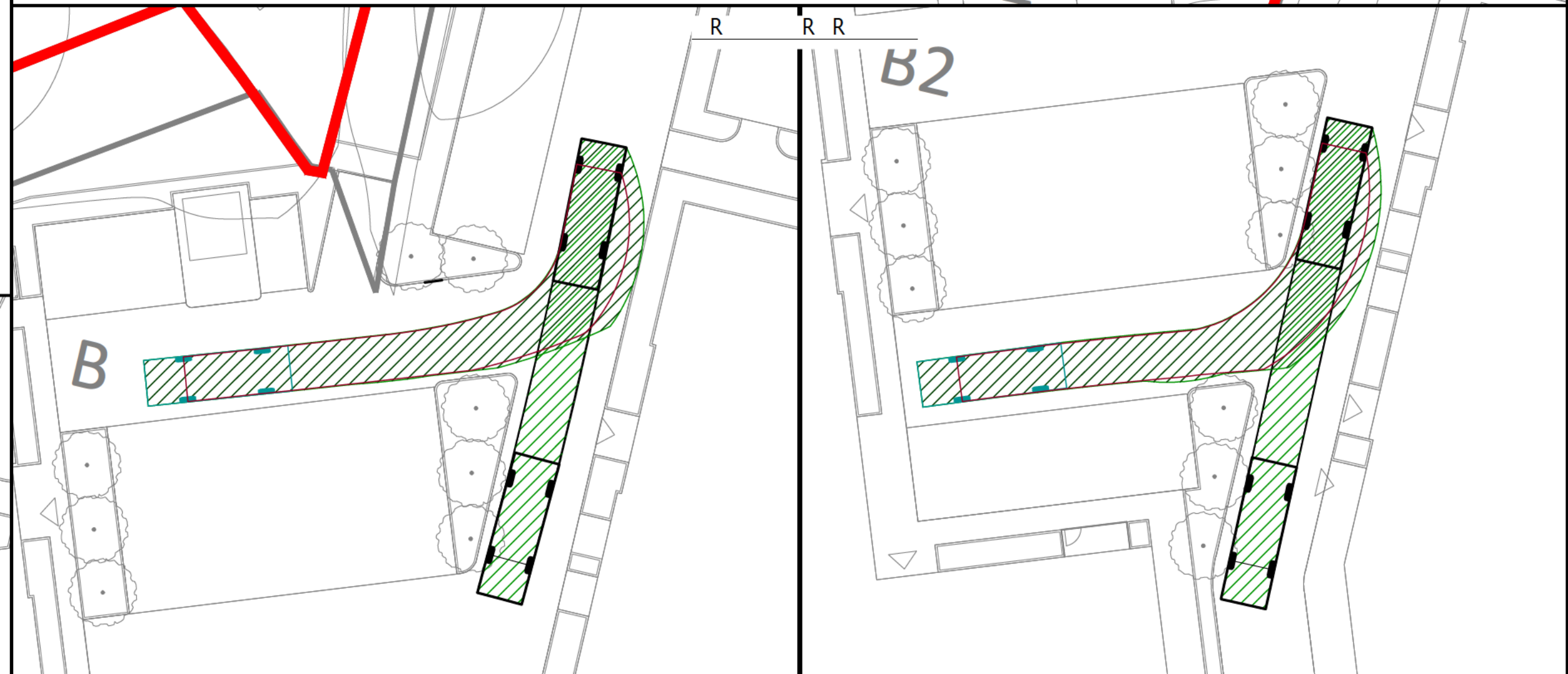
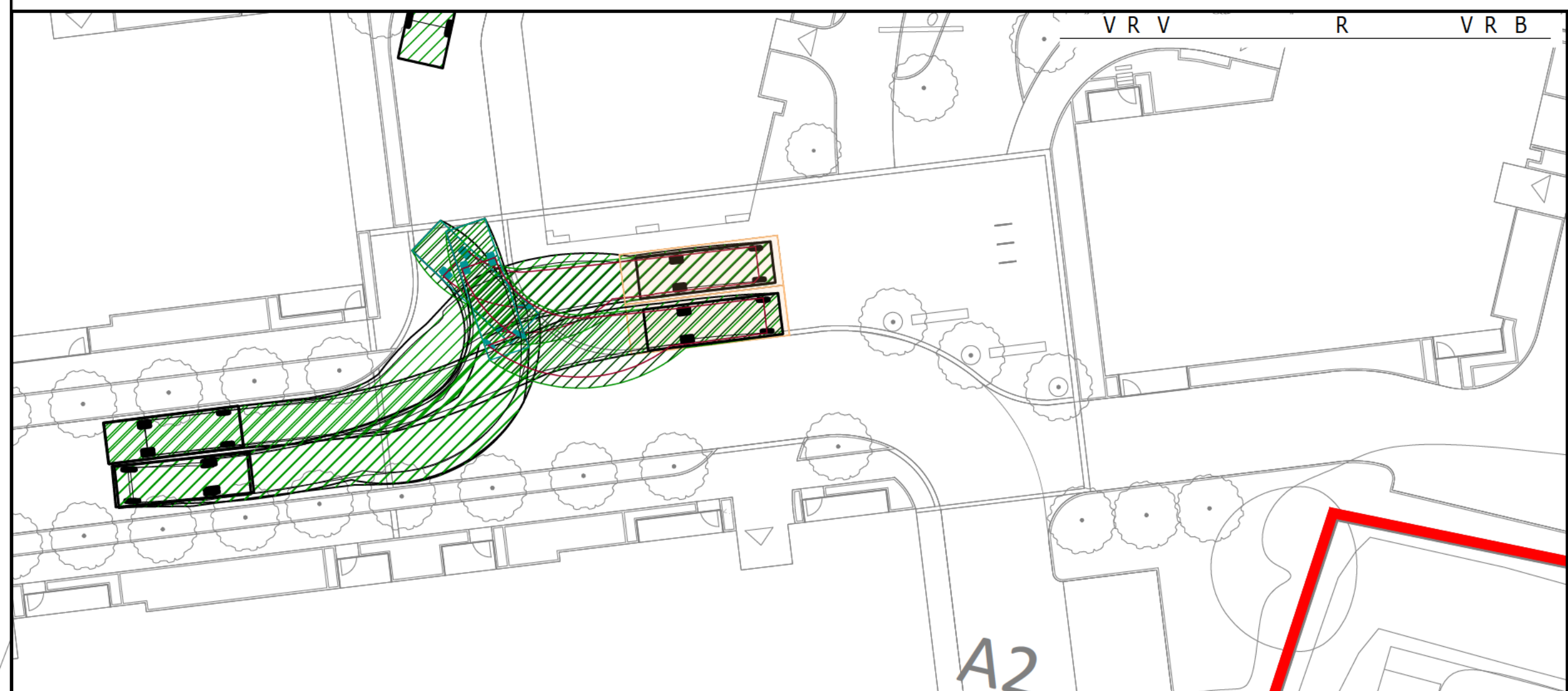
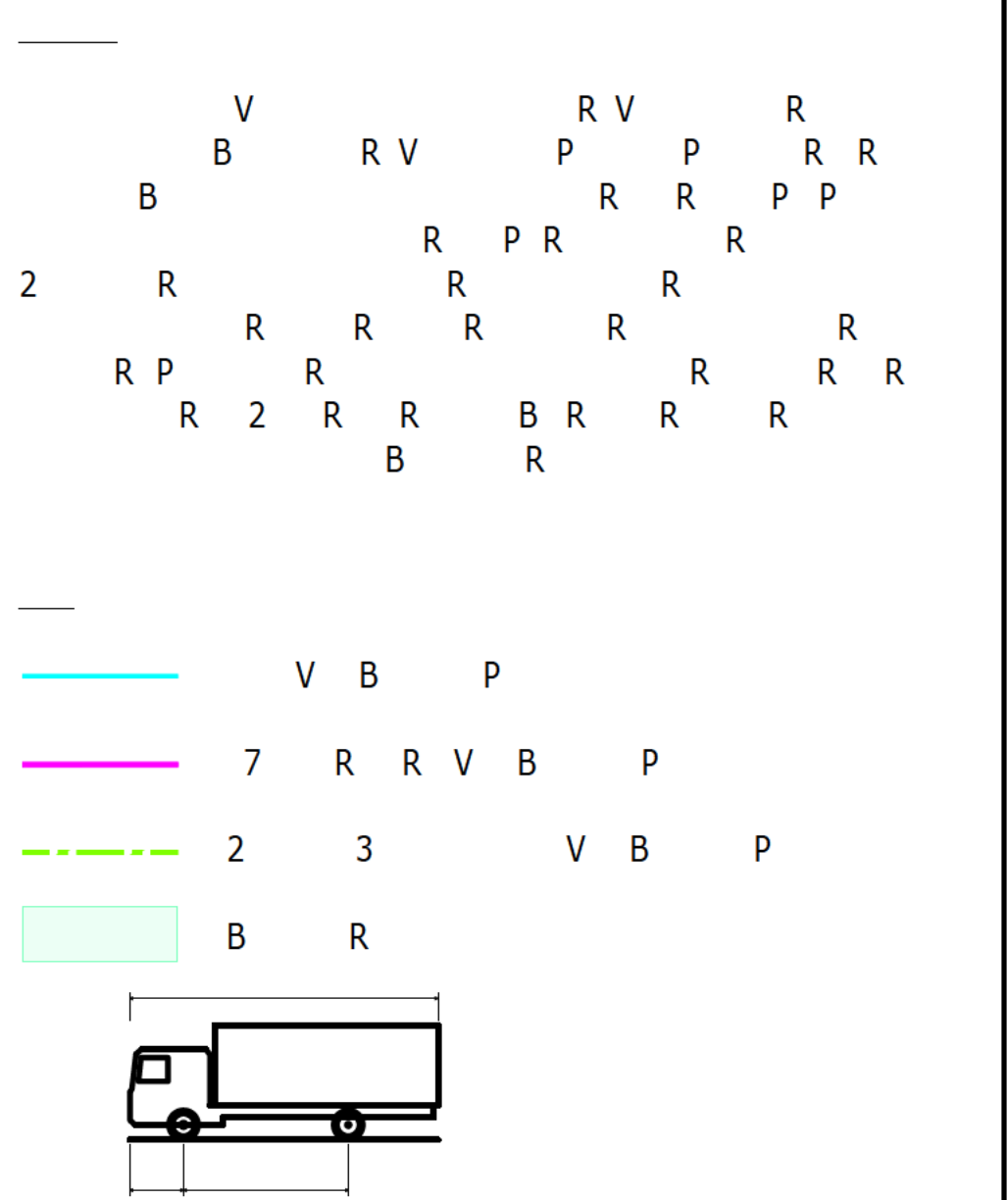
- Block G: 3 1100L general waste bins 3 240L recycling bins required;
- Block H: 5 1100L general waste bins 5 240L recycling bins required;

## **5. CONCLUSIONS**



- 5.1. Ardent Consulting Engineers (ACE) have been instructed by Bellway Homes Ltd (North London) to prepare a Waste Management Plan to support a full planning application for a residential development consisting of 313 dwellings. The site is located on land to the east of College Way, to the north of Welwyn Garden City.
- 5.2. Saunders Architecture + Urban Design have calculated the number of bins required using industry standard methodology. The above shows that the level of bins provided on-site sufficiently accommodates the likely recycle/waste demands of the proposed residential uses and should therefore be acceptable.
- 5.3. The internal building designs and external bin stores have been identified in line with latest policy and design guides and should therefore be acceptable.

## Drawings





**ARDENT**

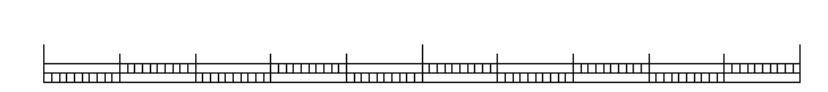
  


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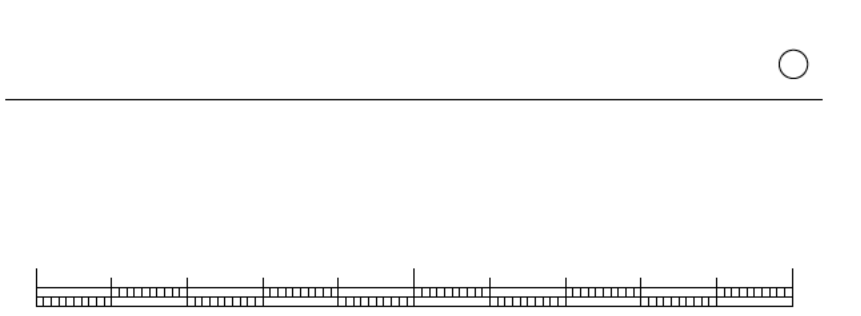
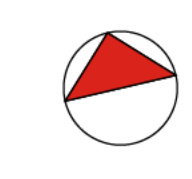
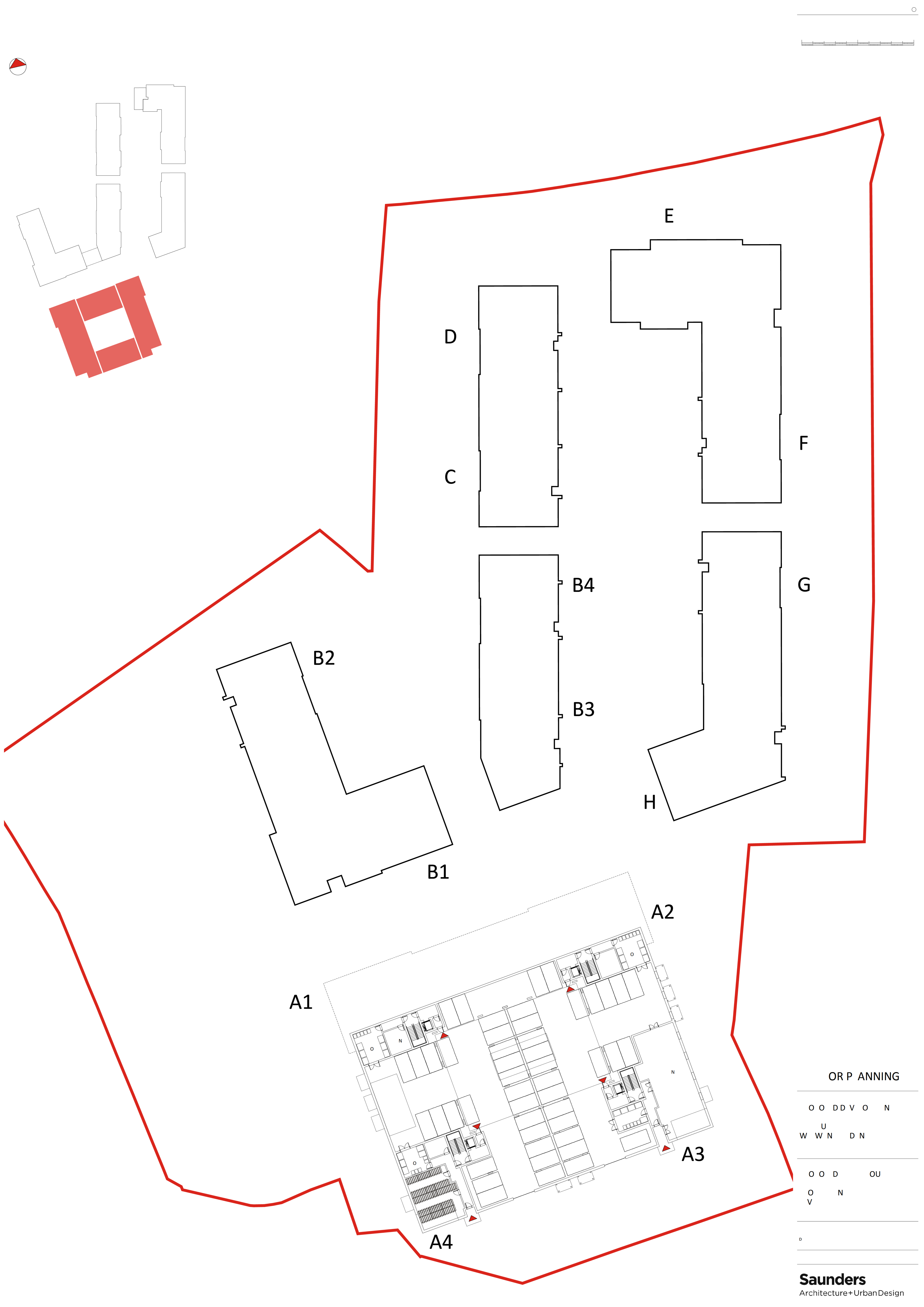
**Appendix A**  
**Proposed Masterplan**





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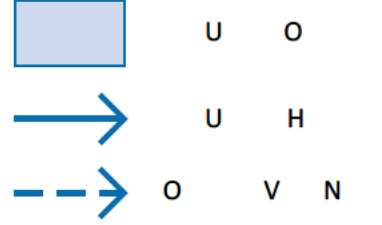
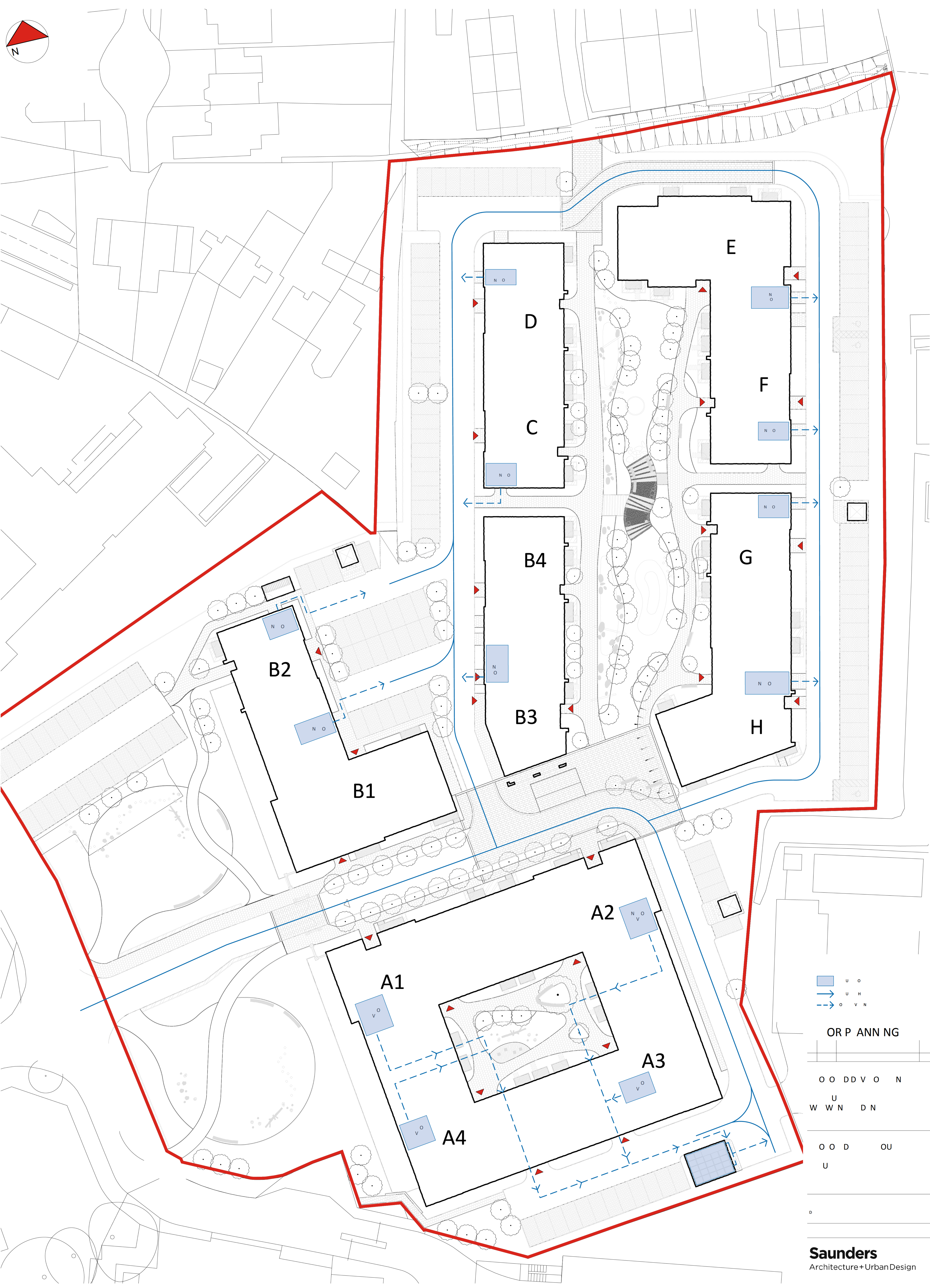
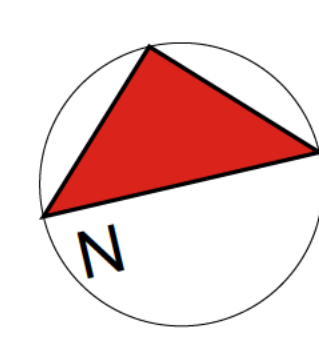
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**Saunders**  
Architecture+UrbanDesign

**Appendix B**  
**Bin Store Details and Refuse Strategy**





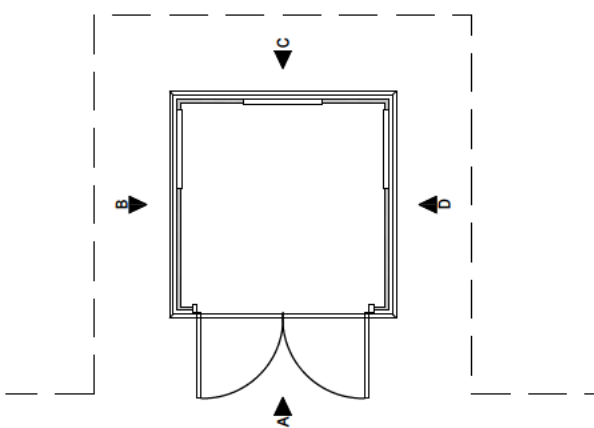
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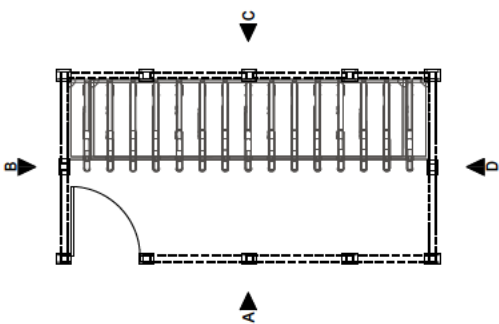
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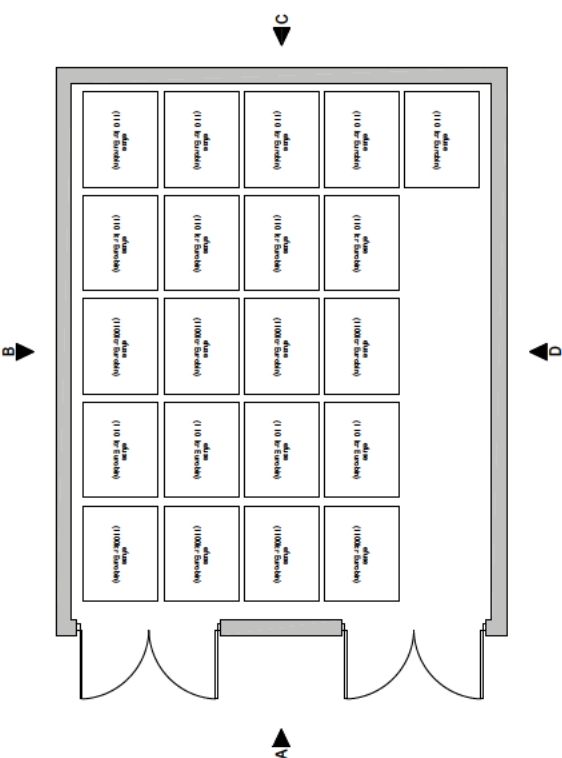




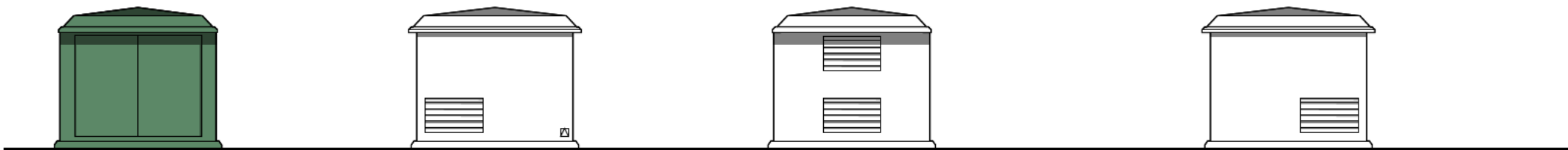
PLAN  
SUBSTATION A, B & C



PLAN  
EXTERNAL CYCLE STORE  
BLOCK B2



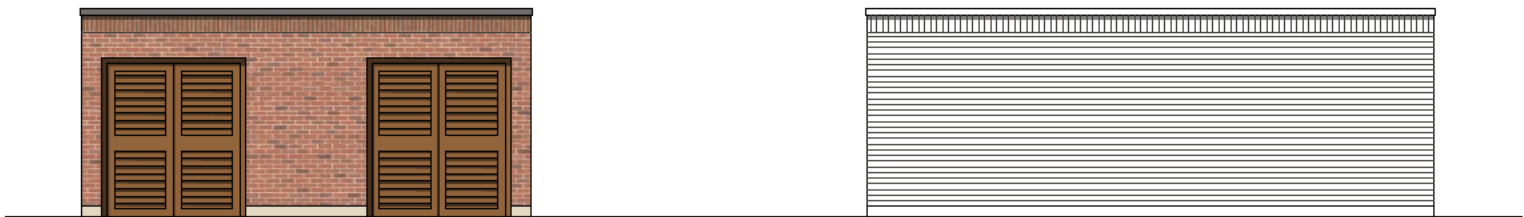
PLAN  
EXTERNAL BIN STORE  
BLOCK A



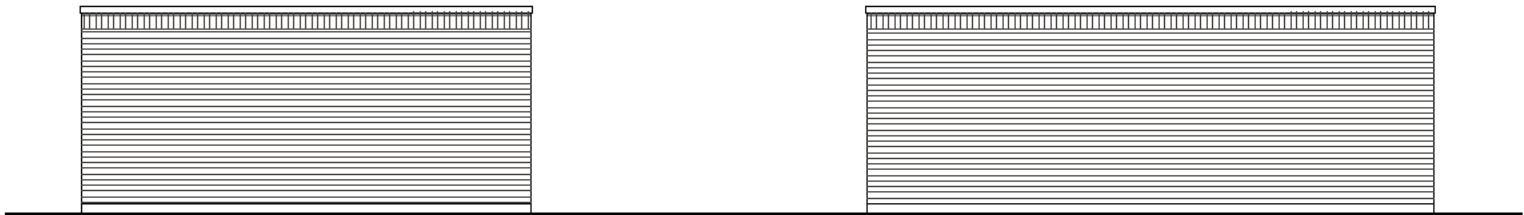
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ELEVATION A      ELEVATION B      ELEVATION C      ELEVATION D



ELEVATION A      ELEVATION B



ELEVATION C      ELEVATION D

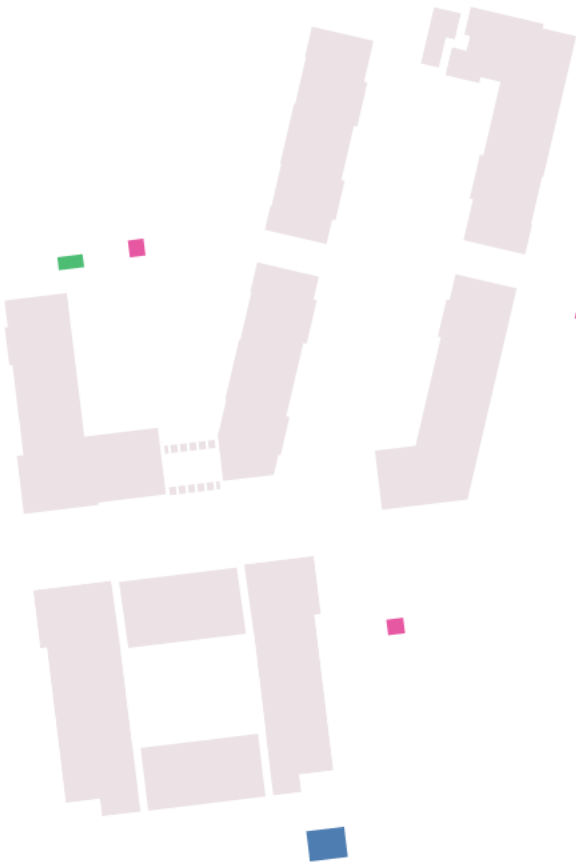
NOTES

This drawing to be read in accordance with the specification/Bills of Quantities and related drawings.  
No Dimensions to be scaled from this drawing. All stated dimensions to be verified on site and the Architect notified of any discrepancies.

0 70  
Scale bar 70mm at 1:1

NOTES:

SUBSTATION DESIGN BASED ON UK POWER NETWORKS  
DRAWING NUMBER EDS\_07-3102.01 VERSION B -  
SUBSTATION IN GRP ENCLOSURE.  
FOR FULL DETAILS OF SUBSTATION DESIGNS PLEASE REFER  
TO UK POWER NETWORKS' DETAILED SPECIFICATIONS.



KEY PLAN

PRELIMINARY

-	-	-	-
REV	DATE	NOTE	IN

Project  
PROPOSED DEVELOPMENT

CAMPUS EAST  
WELWYN GARDEN CITY

Title  
ANCILLARY BUILDINGS

Scale 1:100 @ A2	Date SEPT 2022
Drawn KO	Checked RC
Drawing Number 8375/SKXXX	Revision -

Saunders  
Architecture + Urban Design

**Appendix C**  
**Waste Calculations**

Accommodation Schedule : Bin totals

Flat Block 1A			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0	1	5	
Level 1	1	3	2
Level 2	1	3	2
Level 3	1	3	2
Level 4	1	3	
Level 5	1	2	
Total units	6	19	6
Total Litres	1080	3420	1440
Total Litres	5940		
Bins (1100L)	5.4	6.0	Total Bins
Recycling Bins (240L)		5.0	Total Bins

Flat Block A2			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0	3	3	
Level 1	4	3	
Level 2	4	3	
Level 3	4	3	
Level 4	3	2	
Level 5	1	2	
Total units	19	16	0
Total Litres	3420	2880	0
Total Litres	6300		
Bins (1100L)	5.727273	6.0	Total Bins
Recycling Bins (240L)		6.0	Total Bins

Flat Block A3			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0	3	3	
Level 1	3	3	
Level 2	3	3	
Level 3	3	1	
Level 4	3	1	
Total units	15	11	0
Total Litres	2700	1980	0
Total Litres	4680		
Bins (1100L)	4.254545	5.0	Total Bins
Recycling Bins (240L)		5.0	Total Bins

Flat Block A4			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0	3	3	
Level 1	2	4	
Level 2	2	4	
Level 3	3	1	
Level 4	3	1	
Total units	13	13	0
Total Litres	2340	2340	0
Total Litres	4680		
Bins (1100L)	4.254545	5.0	Total Bins
Recycling Bins (240L)		5.0	Total Bins

Flat Block B1			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0		5	
Level 1	1	4	1
Level 2	1	4	1
Level 3	1	4	1
Level 4	1	4	1
Total units	4	21	4
Total Litres	720	3780	960
Total Litres	5460		
Bins (1100L)	4.963636	5.0	Total Bins
Recycling Bins (240L)		5.0	Total Bins

Flat Block B2			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0	2		
Level 1		3	
Level 2		3	
Level 3		3	
Level 4		3	
Total units	2	13	0
Total Litres	360	2340	0
Total Litres	2700		
Bins (1100L)	2.454545	3.0	Total Bins
Recycling Bins (240L)		3.0	Total Bins

Flat Block B3			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0	1		
Level 1		3	
Level 2		4	
Level 3		4	
Level 4		4	
Total units	0	16	0
Total Litres	0	2880	0
Total Litres	2880		
Bins (1100L)	2.618182	3.0	Total Bins
Recycling Bins (240L)		2.0	Total Bins

Flat Block B4			
	1 Bed	2 Bed	3 beds
Unit:			
Bin Requirement (Ltrs)	180	180	240
Level 0	0	3	
Level 1	2	2	
Level 2	2	2	
Level 3	2	2	
Level 4	2	2	
Total units	8	11	0
Total Litres	1440	1980	0
Total Litres	3420		
Bins (1100L)	3.109091	4.0	Total Bins
Recycling Bins (240L)		3.0	Total Bins

Flat Block C			
	1 Bed	2 Bed	WHCH
Unit:			
Bin Requirement (Ltrs)	180	180	180
Level 0	2	1	
Level 1		3	
Level 2		3	
Level 3			
Total units	2	7	
Total Litres	360	1260	0
Total Litres	1620		
Bins (1 00L)	1.472727	2.0	Total Bins
Recyc ing Bins (240L)		2.0	Total Bins

Flat Block D			
	1 Bed	2 Bed	WHCH
Unit:			
Bin Requirement (Ltrs)	180	180	180
Level 0	0	3	
Level 1	2	2	
Level 2	2	2	
Level 3			
Total units	4	7	
Total Litres	720	1260	0
Total Litres	1980		
Bins (1 00L)	1.8	2.0	Total Bins
Recyc ing Bins (240L)		2.0	Total Bins

Flat Block E			
	1 Bed	2 Bed	WHCH
Unit:			
Bin Requirement (Ltrs)	180	180	180
Level 0	4	1	1
Level 1	3	4	
Level 2	3	4	
Level 3	3	4	
Level 4	3	3	
Total units	16	16	1
Total Litres	2880	2880	180
Total Litres	5940		
Bins (1 00L)	3.4	6.0	Total Bins
Recyc ing Bins (240L)		6.0	Total Bins

Flat Block F			
	1 Bed	2 Bed	WHCH
Unit:	1.3	2.6	WC1
Bin Requirements (Ltrs)	180	180	180
Level 0	1	1	1
Level 1	2	2	
Level 2	2	2	
Level 3	2	2	
Level 4	2	2	
Total units	9	9	1
Total Litres	1620	620	180
Total Litres	3420		
Bins (1 00L)	3. 09091	4.0	Total Bins
Recyc ing Bins (240L)		4.0	Total Bins

Flat Block G			
	1 Bed	2 Bed	WHCH
Unit:	1.3	2.6	WC1
Bin Requirements (Ltrs)	180	180	180
Level 0	2	1	
Level 1		3	
Level 2		3	
Level 3		3	
Level 4		3	
Total units	2	13	0
Total Litres	360	2340	0
Total Litres	2700		
Bins (1 00L)	2.454545	3.0	Total Bins
Recyc ing Bins (240L)		3.0	Total Bins

Flat Block H				
	1 Bed	2 Bed	WHCH	3 Bed
Unit:	1.3	2.6e	1.19	1.19
Bin Requirements (Ltrs)	180	180	180	240
Level 0	2	1	1	
Level 1	3	2		1
Level 2	3	2		1
Level 3	3	2		1
Level 4	3	2		1
Total units	14	10	1	4
Total Litres	2520	800	180	960
Total Litres	5460			
Bins (1 00L)	4.963636	5.0	Total Bins	
Recyc ing Bins (240L)		5.0	Total Bins	