DRAFT Waste Management Strategy

60-70 Short Gardens and 14-16 Betterton Street, Covent Garden

11 April 2017

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Client Name:	Span Group
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Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 and BS OHSAS 18001:2007)

Issue	Date	Prepared by	Checked by	Approved by
2	11/04/2017	Dave Martin		

Comments

2nd Issue

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1. Introduction

1.1. Waterman Infrastructure & Environment Limited (WIE) has been instructed by Span Group to provide a Waste Management Plan in support of the proposal for a change of use at 60 - 70 Shorts Gardens and 14-16 Betterton Street, Covent Garden, London and falls under the authority of the London Borough of Camden.

1.2. The site, which was formally offices, has planning permission for office, retail and restaurant use under application number 2011/103/P.

1.3. The development proposal is to provide a total of 4 residential flats, B1, D1/D2 and A1 to A3 uses

1.4. This Waste Management Strategy identifies the method that waste generation of the scheme will be stored, separated and ensure sufficient provisions are provided to safely and effectively stream the waste generations. This strategy has been based upon BS 5906:2005 Waste Management in Building.

1.5. The report should be read in conjunction with the Transport Statement and Delivery Management Plan submitted as part of the planning application.

2. Existing Situation

2.1. The site is located within the London Borough of Camden on Shorts Gardens which is situated approximately 100m, south east of the A40 High Holborn / A40 / Shaftsbury Avenue junction. A site location plan is provided in ***Appendix A*** to this report.

2.2. The site occupies 60 - 70 Shorts Gardens and 14-16 Betterton Street which are currently has planning permission for office, retail and restaurant uses. The building on Shorts Gardens also has a basement but this is not currently used. These buildings are some three storeys in height and situated in a busy urban area. The surrounding area comprises of a mixture of offices, shops, restaurants and residential properties, typical of an inner London site.

On-Street Parking

2.3. The parking provided in the Shorts Gardens development is accessed via a cross-over arrangement into the building.

2.4. The site falls within Camden's controlled parking zone CA-C. The roads within close proximity to the site, namely Shorts Gardens, Betterton Street and Drury Lane, all have double yellow line parking restrictions although loading is permitted at specified times and for a maximum stay for up to 40 minutes.

2.5. On street parking bays are provided on Shorts Gardens for residents with permits; a total of nine spaces are located within close proximity to the site, together with a doctor's bay. On Drury Lane, pay and display parking is provided with one bay designated for disabled use.

Pedestrian / Cycle Access

2.6. The streets around the site have varying footway widths. Along Shorts Gardens the footway width varies from 1.2m to 3m. The footway along the front of the site is approximately 2.5m wide. Street lighting is provided on all surrounding streets including Shorts Gardens, and is either in the form of street lighting columns or lights fixed into building façades.

2.7. A formal crossing point is provided on Drury Lane just a few metres south east of the site which is in the form of a zebra crossing on a table top ramp.

2.8. Approximately 100m north of the site is the A40 High Holborn along which there are a number of controlled crossing facilities for pedestrians, allowing direct access to the existing public transport facilities.

2.9. Drury Lane is classified as being suitable for cyclists as it is a quieter road but is not signposted.

2.10. On-street cycle parking is currently available on Shorts Gardens (4 racks) and Betterton Street (12 racks).

Public Transport Accessibility Level

2.11. An important aspect of reviewing transport links to the proposed development and the characteristics for modal split is to assess its accessibility to the public transport network. The public transport accessibility of the site has been assessed using the PTAL (Public Transport Accessibility Level) method.

2.12. The current PTAL methodology, which has been set out by TfL, assumes a walk speed of 4.8km/hr and considers rail stations within 12 minutes walk (960m) of the site and bus stops within 8 minutes walk (640m).

2.13. The site is situated in an area with a PTAL of 6b, which is rated as excellent, according to TfL's Planning Information Database.

3. Proposed Situation

3.1. The development proposes the schedule as follows.

Table 1: Proposed Development Schedule

Floor	Shorts Gardens		Betterton Street	
	Use	(GIA m^2)	Use	(GIA m^2)
Basement - 1	D1/D2/A3	445	-	-
Basement Mezzanine	D1/D2/A3	361	Ancillary	145
Ground	B1/D1/D2	537	A1/D1	153
Ground Mezzanine	B1/D1/D2	243	A1/D1	58
First	B1	536	C3	158
Second	B1	536	C3	162
Third	B1	385	C3	166
Fourth	B1	382	C3	130
Fifth	-	-	C3	97
Total		3,426		1,069

3.2. The above table indicates the total gross internal area (GIA) of development on Shorts Gardens is 3,426m^2 and 1,069m^2 on Betterton Street.

3.3. The C3 residential use is for 4 residential flats with a total of 9 bedrooms.

4. Refuse Storage Collection

4.1. The refuse volume for the various uses has been considered, as follows.

Residential Flats

4.2. Camden Planning Guidance note 1 states for residential developments of 6 dwellings or fewer the following.

"Developments are usually serviced by a kerbside waste and recyclables collection. The designs for waste and recycling facilities need to ensure that:

- *internal and external storage areas are designed into each unit;*
- *internal space is provided for recycling storage, i.e. kitchens and utility rooms are generally the most appropriate locations;*
- *storage for both mixed recyclables, organic kitchen waste and non recyclable waste.*
- *recycling waste storage comprises either a box or bag which are normally stored inside and taken to the kerbside on collection days;*
- *organic waste (food) kitchen caddies are stored inside the property and emptied into larger external, free-standing organic waste receptacles;*
- *external space for the storage of garden waste i.e. in large hessian sacks; and*
- *external storage for both waste and recyclables outside the buildings within the curtilage (for waste collector)."*

4.3. Contrary to the above the preferred situation is to provide bin stores on Betterton Street. This will ensure that refuse from the residential dwellings does not impinge on the footway.

4.4. BS5906:2005 guidance provides storage volume requirements for residential dwellings, as follows

- Volume arising is number of dwellings × {(volume per bedroom [70 l] × average number of bedrooms) + 30}

4.5. Given the proposals for 3 x 2 bed and 1 x 3 bed flats the storage requirements are as follows.

- 660L (630 + 30)

4.6. The residential waste is to be stored in 140L bins, therefore a total of 5 bins are to be provided.

Office Use

4.7. In relation to office use the BS5906:2005 guidance provide storage volume requirement, as follows.

- Volume arising per employee (50 l) x number of employees

4.8. Given the forecast of a total of 50 employees this equates to a total storage volume of.

- 15,000L (300 employees x 50 litres per employee)

Retail Use

4.9. BS5906:2005 guidance provides storage volume requirements for a department store which is considered the closest match compared to the likely use, as follows.

- Volume arising per cover (10 l) x sales area

4.10. The sales area is not known at this stage therefore the total floor area of 933m^2 has been used to forecast total storage volume, as follows.

- 9,333L (933m^2 x 10 litres per employee)

Restaurant/Café Use

4.11. BS5906:2005 guidance provides storage volume requirements for restaurant and café use, as follows.

- Volume arising per cover (75 l) x number of covers

4.12. Given the forecast of a total of 55 covers (dining spaces) this equates to a total storage volume of.

- 4,125L (55 covers x 75 litres per employee)

D1/D2 Class Uses

4.13. BS5906:2005 guidance provides storage volume requirements for D1/D2 Class uses, as follows.

- volume arising per m^2 floor area (5L) x floor area

4.14. Based on the proposed area of 1,797m^2 this equates to a total storage volume of.

- 8,985L (5L x 1,797m^2).

4.15. The about storage requirements are incorrect and will be confirmed once the use classes have been better determined.

Methods to Reduce Bin Storage

4.16. In order to reduce the dwell time for refuse vehicles on the public highway it is proposed to provide measures to reduce the overall number of bins stores. Firstly, it is proposed to provide bin compactors on site, similar to those presented in the website link below.

http://www.bergmanndirect.co.uk/products/bergmann-1100-litre-wheelie-bin-compactor--new.htm

4.17. The above bin compactors rate of compaction ratios is stated as being at least 5 times and up to 9 times. In order to provide an element of robustness a ratio of 3 times has been considered.

4.18. Based on the provision of bin compactors and additional collections the amount of bin storage can be reduced as follows.

Table 2: Bin Storage Reduction

Description	Total Storage	Number of 1,100L bins	Reduction due to Compaction (x3)
B1 Office	15,000L	13.6	4.5
A1 Retail Use	9,333L	8.5	2.8
A3 Restaurant/café	4,125L	3.75	1.25
D1/D2 Use	8,985L	8.2	2.7
Total		34.05	11.25

Note: The above table presents double counting of refuse storage and which not be able to be built out given some areas can have up to 3 use classes.

4.19. The above table indicates that a total of 11 x 1,100L bins are required for the whole site, however this does include double counting of some uses and could be 1- 3 bins less.

4.20. The bin will be stored in the dedicated area which can be accessed by waste collection operatives on collections days.

5. Refuse Collection Methodology

5.1. The proposed scheme incorporates on-site store refuse provision for the proposed non-residential uses. Refuse for all non-residential elements of the scheme will be managed.

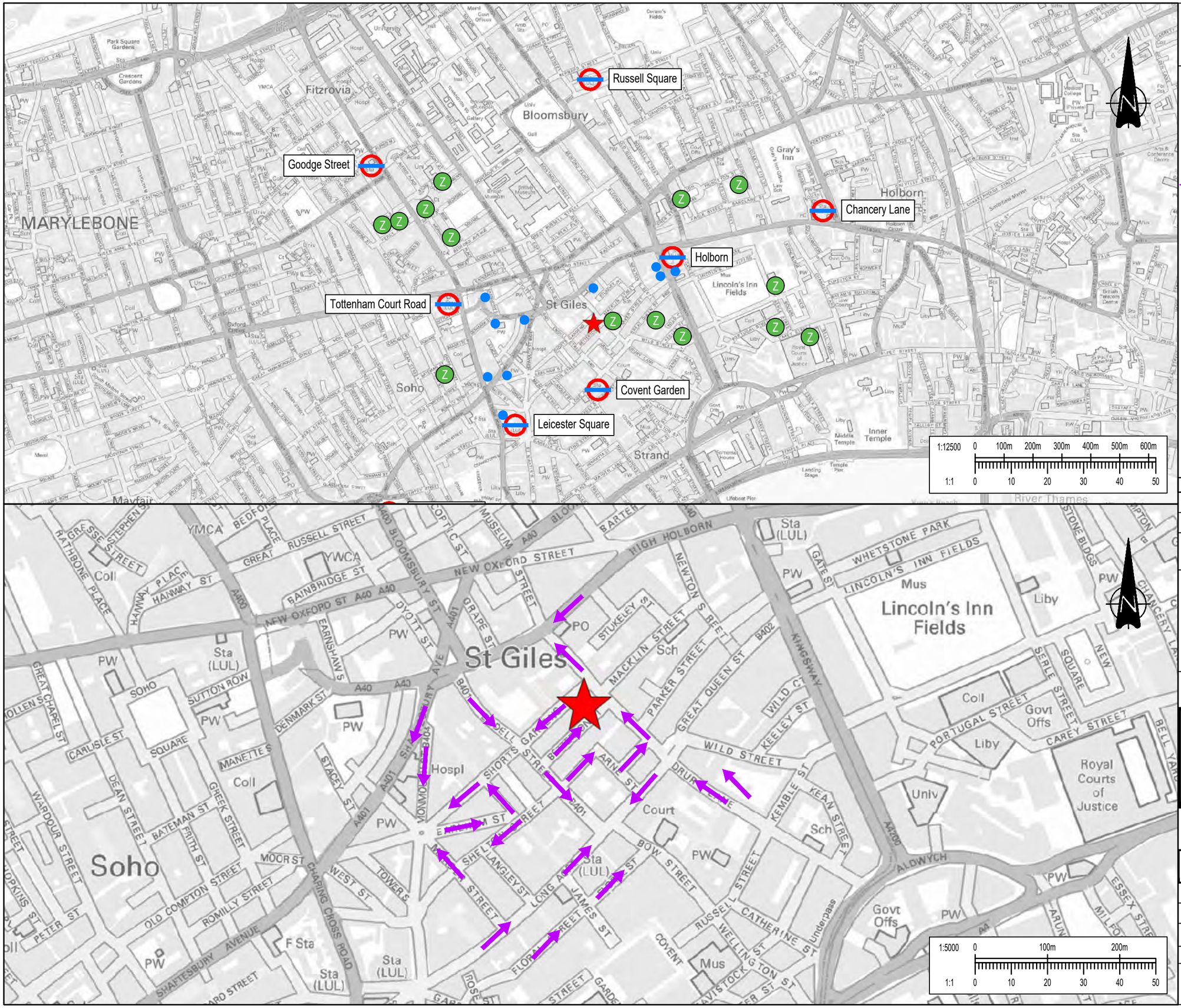
5.2. To accommodate the waste generations, drag distances for refuse collection are around 10m on Shorts Gardens, thus reducing refuse vehicle dwell times on the public highway.

5.3. The site management will ensure that the 1,100L bins are compacted in between collection days to ensure capacity is maintained.

5.4. Given the small number of refuse bins that need to be collected it is considered this should be acceptable particularly given this is an existing situation which occurs currently at the site and other premises/businesses in the area.

APPENDICES

A. Site Location Plan



Based upon the Ordnance Survey's 1:10,000 Map of 2016 with permission of the controller of Her Majesty's Stationery Office, Crown copyright reserved. Waterman Infrastructure & Environment Ltd. – Pickfords Wharf, Clink Street, London SE1 9DG.

Key:

- Site Location
- London Underground Station
- Closest Bus Stops to the Site
- Traffic Flow Direction
- Car Club

Rev	Date	Description	By
A01	10.02.17	FIRST ISSUE	AJJ

Amendments

Project
60-70 Shorts Gdns & 14-16 Betterton St

Title
Site Location Plan & Local Transport Facilities

Client
Span Group

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Drawing Status
PRELIMINARY

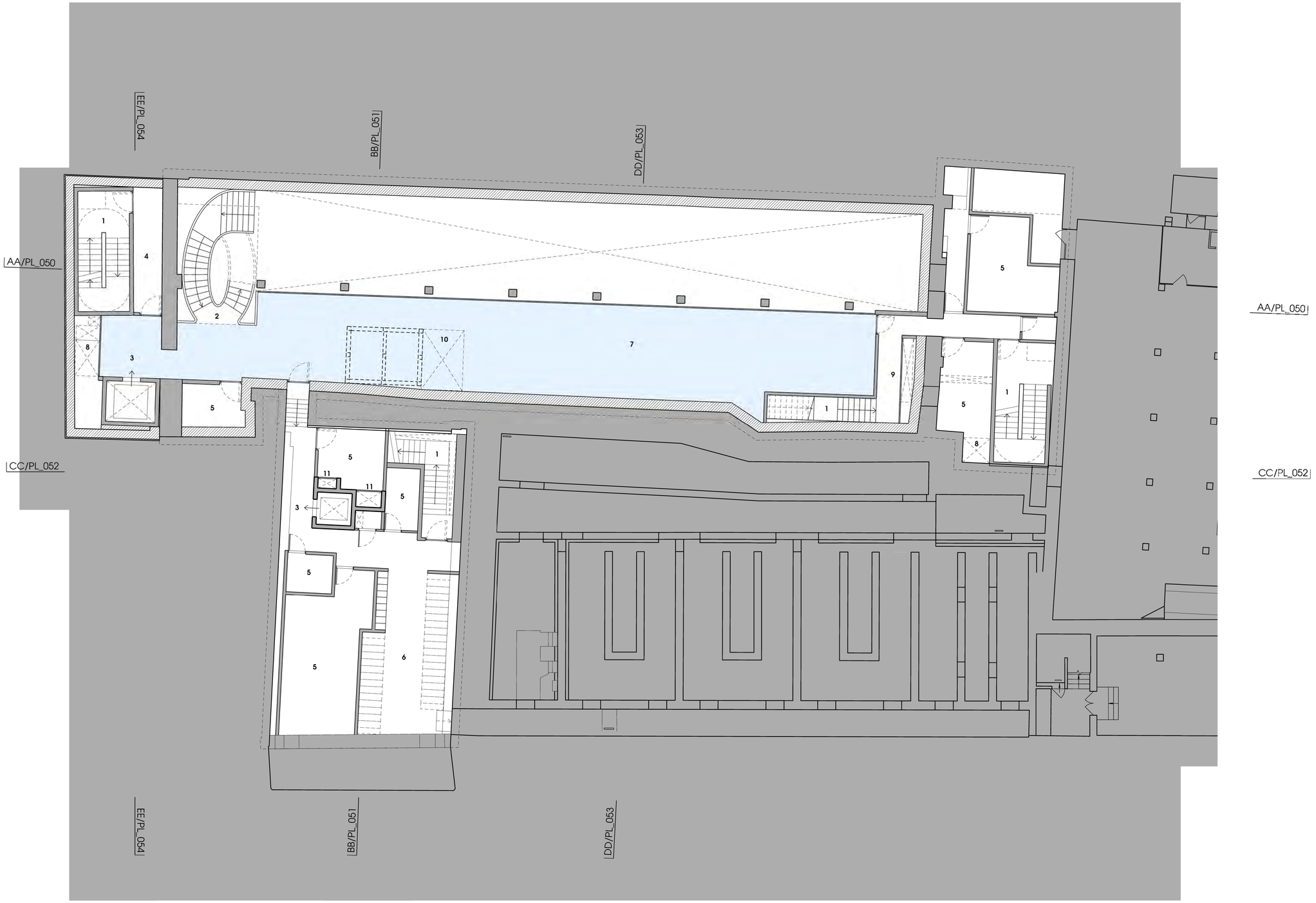
Designed by	AJT	Checked by	AJT	Project No	WIE10452
Drawn by	AJJ	Date	FEBRUARY 2017		
Scales @ A3 work to figured dimensions only	1:5000 & 1:12500			Computer File No	WIE-10452-SA-06-0001-A01.dwg

Publisher	Zone	Category	Number	Revision
WIE	SA	06	0001	A01

File Path N:\Projects\WIE10452\CAD\06\CAD\

A3-Waterman-S

B. Proposed Site Layout



Notes

Contractor to check all dimensions on site. Do not scale from this drawing. Stanton Williams to be advised of any variation between the drawings and site conditions.

To be read in conjunction with the specification and all relevant drawings.

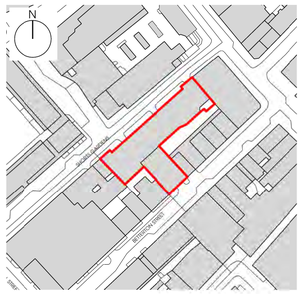
KEY

1. **FIRE ESCAPE**
2. **OPEN STAIRS**
3. **LIFT**
4. **LOBBY**
5. **PLANT ROOM**
6. **BIKE STORAGE & LOCKERS FOR A1, A3, B1, D1, &D2 USE**
7. **FLEXIBLE USE**
8. **BASEMENT GENERAL VENTILATION RISER**
9. **OFFICE RISER**
10. **BASEMENT MULTI- SERVICE RISER**
11. **RESIDENTIAL RISER**

FLEXIBLE USE
A3, D1 ,D2
Proposed GEA Shorts Gardens: 459 sqm
Proposed GIA Shorts Gardens: 361 sqm

Revision Date Description

Location



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Project
Shorts Gardens

Drawing Title
Proposed Upper Basement Plan

Drawn	Checked	Approved
TK	WK	PR

Date	Scale @ A1 (@A3)	Status
05/04/2017	1:100 (1:200)	Planning

Project No.	Drawing No.	Revision
498	PL_038	00

Shorts Gardens

EE/PL_054

BB/PL_051

DD/PL_053

AA/PL_050

CC/PL_052

Courtyard

Drury Lane

Betterton Street

Platform Lift

Notes

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To be read in conjunction with the specification and all relevant drawings.

KEY

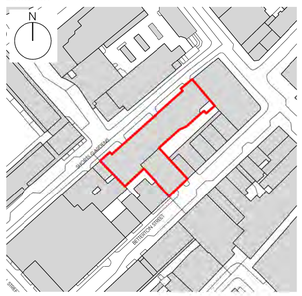
1. MAIN ENTRANCE
2. RESIDENTIAL ENTRANCE/ ESCAPE DOOR
3. GROUND FLOOR ENTRANCE LOBBY FOR OFFICES
4 . BASEMENT ENTRANCE LOBBY
5. OPEN STAIRS
6. GOODS LIFT
7. REFUSE AND RECYCLING FOR A3/ B1/ D1/ D2 SPACE
8. ESCAPE STAIRS
9. BIKE STORAGE FOR RESIDENTIAL C3
10. SMOKE VENTS
11. LOBBY
12. WC's
13. SHOWER
14. B1/ D1/ D2 USE
15. A1/ D1 USE
16. PROPOSED LOADING BAY
17. BASEMENT VENTILATION RISER
18. OFFICE RISER
19. BASEMENT MULTI- SURVICE RISER
20. RESIDENTIAL RISER
21. REFUSE AND RECYCLING FOR RESIDENTIAL C3 USE
22. REFUSE COMPACTOR
23. SUBSTATION

FLEXIBLE USE
B1, D1, D2
Proposed GEA Shorts Gardens: 588 sqm
Proposed GIA Shorts Gardens: 537 sqm

A1 , D1
Proposed GEA Betterton Street: 186 sqm
Proposed GIA Betterton Street: 153 sqm

Revision	Date	Description

Location



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STANTON WILLIAMS

Project
Shorts Gardens

Drawing Title
Proposed Ground Floor Plan

Drawn	Checked	Approved
TK	WK	PR
Date	**Scale @ A1 (@A3)**	**Status**
05/04/2017	1:100 (1:200)	Planning
Project No.	**Drawing No.**	**Revision**
498	PL_039	00

Shorts Gardens

EE/PL_054

BB/PL_051

DD/PL_053

AA/PL_050

CC/PL_052

Courtyard below

Drury Lane

Betterton Street

Platform Lift

1 ESCAPE STAIRS
2 LIFT
3 OPEN STAIRS
4 LOBBY
5 WC'S
6 SHOWER
7 B1/ D1/ D2 USE
8 A1/ D1 USE
9 BASEMENT GENERAL VENTILATION RISER
10 OFFICE RISER
11 BASEMENT MULTI- SERVICE RISER
12 RESIDENTIAL RISER

Notes

Contractor to check all dimensions on site. Do not scale from this drawing. Stanton Williams to be advised of any variation between the drawings and site conditions.

To be read in conjunction with the specification and all relevant drawings.

KEY.

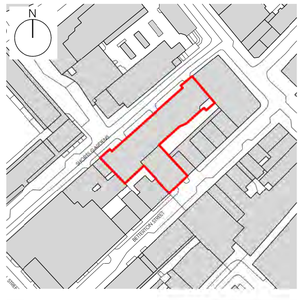
1. ESCAPE STAIRS
2. LIFT
3. OPEN STAIRS
4. LOBBY
5. WC'S
6. SHOWER
7. B1/ D1/ D2 USE
8. A1/ D1 USE
9. BASEMENT GENERAL VENTILATION RISER
10. OFFICE RISER
11. BASEMENT MULTI- SERVICE RISER
12. RESIDENTIAL RISER

FLEXIBLE USE
B1, D1, D2
Proposed GEA Shorts Gardens: 298 sqm
Proposed GIA Shorts Gardens: 243 sqm

A1 , D1
Proposed GEA Betterton Street: 89 sqm
Proposed GIA Betteron Street: 58 sqm

Revision	Date	Description

Location



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STANTON WILLIAMS

Project
Shorts Gardens

Drawing Title
Proposed Ground Floor Mezzanine Plan

Drawn	Checked	Approved
TK	WK	PR
Date	**Scale @ A1 (@A3)**	**Status**
05/04/2017	1:100 (1:200)	Planning
Project No.	**Drawing No.**	**Revision**
498	PL_040	00

UK and Ireland Office Locations