



St James's Place UK Plc

Planning Application
for Development
at
Albany Park
Frimley

External Lighting & CCTV
Assessment

Issue 5

Albany Park, Frimley
External Lighting & CCTV Assessment



Client Name	St James's Place UK Plc
Client Address	c/o Orchard Street Investment Management LLP 16 New Burlington Place Mayfair London W1S 2HX
Property:	Albany Park Frimley
Project Reference:	4538
Issue:	Issue 5: Planning Submission
Date:	March 2021
Prepared by:	PDJ
Checked by:	MDC
Validated by:	MDC



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APPENDIX

Drawing No. 4538/E/100 – Design Intent External Lighting & CCTV Layout

Drawing No. 4538/E/101 – External Lighting Design Criteria



1.00 INTRODUCTION

The purpose of this document is to summarise the intended external lighting and external CCTV scheme to be provided to the industrial units development site known as Albany Park, Frimley on behalf of St James's Place UK Plc.

This external lighting and CCTV assessment supports the Planning Application for the redevelopment of the site to provide 3no. units of industrial building, areas for car parking, services yards, landscaping and associated works.



2.00 EXTERNAL LIGHTING

The proposed external lighting scheme and the luminaires should comply with the recommendation of:

- BS5489 Code of practice for the design of road lighting, Part 1 Lighting of roads and public amenity areas
- BS EN 13201 Road Lighting, Part 2 Performance Requirements
- Institution of Lighting Professions (ILP) Guidance Notes for the Reduction of Obtrusive Light GN01: 2011

Considering the above documents, the acceptable level of luminous intensity of the proposed luminaires should comply with Class G4, G5 or G6 requirements which is shown in the table below.

Angle from the downward vertical	Maximum Luminous Intensity (cd/klm)		
	Class G4	Class G5	Class G6
70°	500	350	350
80°	100	100	100
90°	10	10	0
>95°	0	0	0

While compliance with any class listed above is acceptable to minimise light pollution it is particularly desirable to comply with Class G6 due to its zero luminous intensity above 90° angle.

Applying the above recommendations i.e. using luminaires without any upward light component (zero light output at a maximum of 90° from the downward vertical), to an initial external lighting scheme for the proposed development layout indicates that a reasonable external lighting scheme can be produced with the use of class G4 luminaires and the use of some class G6 luminaires.

In accordance with the ILP Guidance Notes the site has been assessed as Environmental Zone Category E3 (a small town centre or suburban location with a medium district brightness lighting environment).

To suit the operational requirements of the recommendations of the British Standards noted above, the external lighting scheme for the industrial element of the development has been sub-divided into the following usage areas:

1. Car park
2. Circulation
3. Service yard
4. Handling zone

The separate usage areas are indicated on drawing number 4538/E/101 contained in the appendix and have the following external lighting design criteria, the lux levels quoted are at roadway surface level.



Car park	10 lux average 5 lux minimum
Circulation	10 lux average 2 lux minimum
Service yard	25 lux average 0.4 uniformity
Handling zone	50 lux average

The proposed external lighting scheme, based on the above criteria, is indicated on drawing number 4538/E/100 contained in the appendix. The drawing indicates lux level isolines to show areas of equal lighting levels. The scheme consists of building and column mounted floodlights and wall mounted luminaires.

The following observations can be drawn from the illuminance levels indicated on drawing number 4538/E/100:

1. Based on the lux levels plotted on the attached drawing the average illuminance values meet the design criteria. Due to limited space where luminaires can be located the illuminance values in certain areas of the service yards and car parks exceed minimum requirements in order to achieve overall required average illuminance level.
2. The column mounted floodlights are located at the perimeter of the yards to minimise light spill to the surrounding areas.
3. As the operational requirements of the service yard dictate the location of the lighting columns and the applicant's requirement to reduce lighting energy consumption by using LED luminaires the lighting levels in the adjacent areas have been minimised.
4. The 10 lux illuminance level isoline generally follows the boundary of the car park and service yard.
5. The 5 lux illuminance level isoline generally follows the boundary of the car park and service yard, a few meters outside the boundary of the development.
6. The scheme complies with the obtrusive light limitations for exterior lighting installations recommendations of the ILP Guidance Notes for Environmental Zone E3.

The proposed luminaire's details are stated on drawing number 4538/E/100.



2.01 Conclusion

The following conclusions can be drawn from this assessment.

1. The operational external lighting design criteria is met in each separate functional area of the site.
2. The proposed luminaires have no upward light output.
3. The scheme complies with the ILP Guidance for Environmental Zone E3.

3.00 CCTV

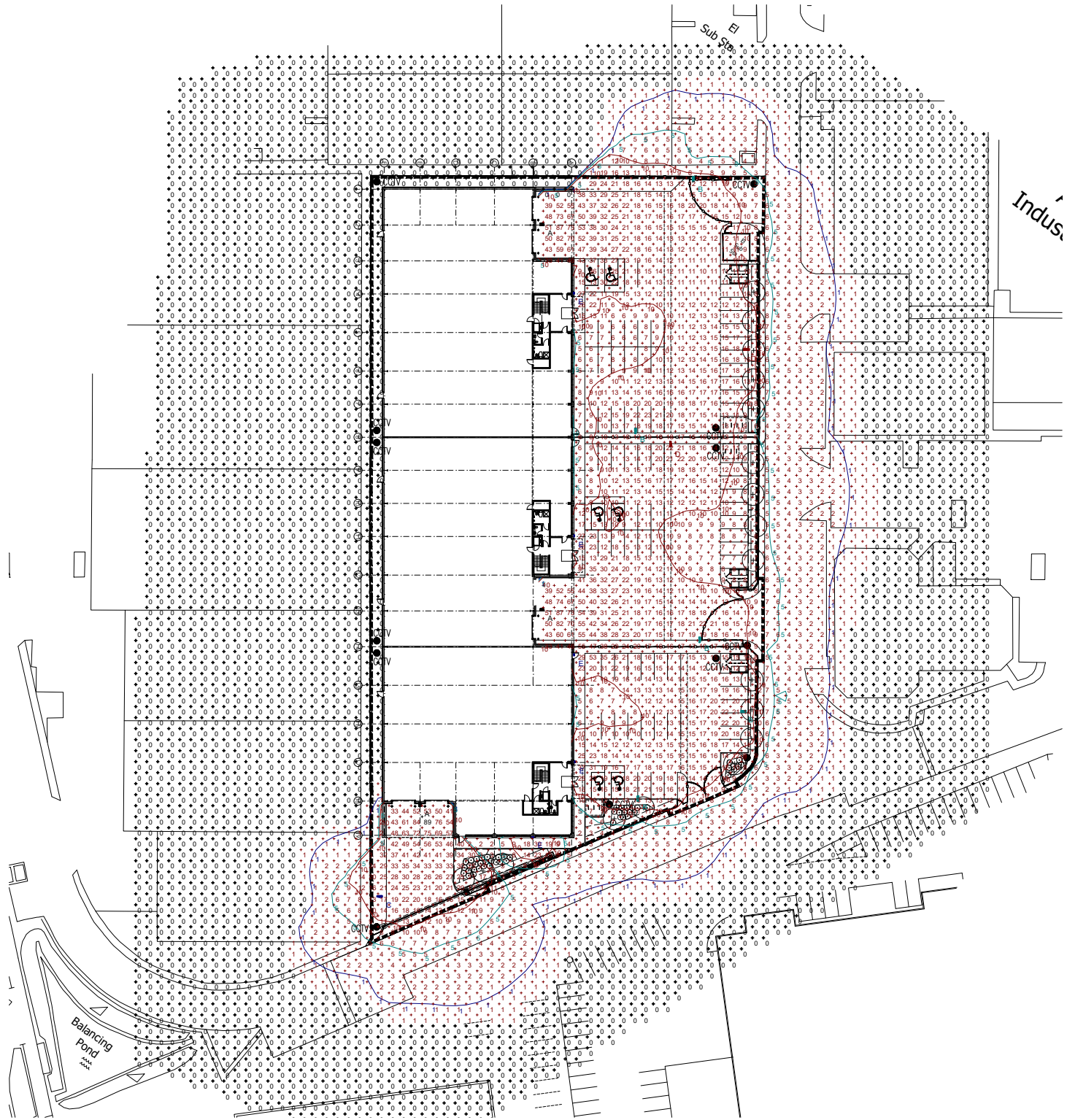
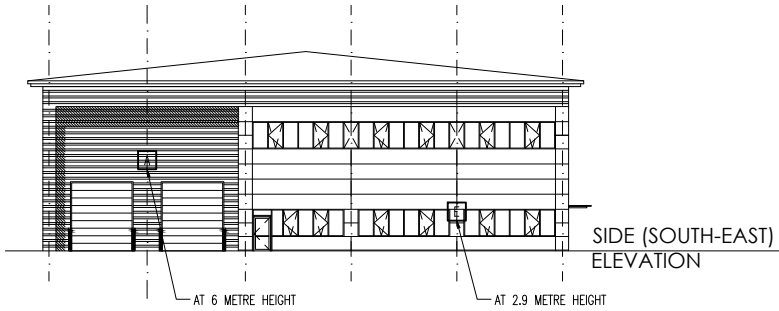
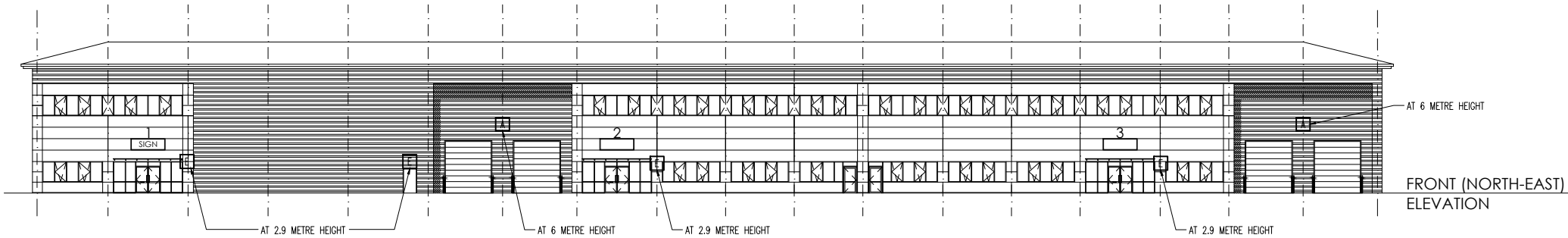
There is the potential for future tenants to install external CCTV systems to the units. Tenants generally locate their CCTV columns in the corners of their service yards and car parks. The potential future locations of these CCTV columns are indicated on drawing number 4538/E/100. The landlord will provide below ground ducts to the proposed tenant CCTV column locations to facilitate the potential future tenant CCTV installations.



APPENDICES

Drawing No. 4538/E/100 – Design Intent External Lighting & CCTV Layout

Drawing No. 4538/E/101 – External Lighting Design Criteria



NOTES:-
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND LEGEND DRAWING.
2. DO NOT SCALE FROM THIS DRAWING.

LEGEND:-

1.0 LUX ISOLINE

5.0 LUX ISOLINE

10.0 LUX ISOLINE

CCTV

FUTURE CCTV CAMERA

Schedule						
Symbol	Label	Quantity	Catalog Number	Description	Lamp	Light Loss Factor
<div></div>	A	3	BS1242424V	D-Series 1 Luminaire, Forward throw distribution, wall mounted at 6m	LED C800LM-4000K	69 008
<div></div>	B	5	BS1242424V	D-Series 1 Luminaire, Forward throw distribution, column mounted at 6m	LED C800LM-4000K	69 06
<div></div>	C	1	BS1242424V	D-Series 1 Luminaire, Forward throw distribution, column mounted at 6m	LED C800LM-4000K	69 06
<div></div>	D	2	BS1242424V	D-Series 1 Luminaire, Forward throw distribution, column mounted at 6m	LED C800LM-4000K	69 06
<div></div>	E	5	BS1242424V	D-Series 1 Luminaire, Forward throw distribution, column mounted at 6m	LED C800LM-4000K	69 02
Statistics						
Description	Symbol	Avg	Max	Min	Min/Max	Min/Avg
Spill Light	<div></div>	1 lux	23 lux	0 lux	0.00	0.00
Unit 1 Handling Zone	<div></div>	59 lux	87 lux	38 lux	0.44	0.64
Unit 1 Parking & Circulation	<div></div>	15 lux	48 lux	0 lux	0.04	0.13
Unit 1 Service Yard	<div></div>	86 lux	147 lux	10 lux	0.01	0.08
Unit 2 Service Yard	<div></div>	26 lux	54 lux	12 lux	0.22	0.46
Unit 2 Handling Area	<div></div>	58 lux	86 lux	26 lux	0.42	0.62
Unit 2 Parking & Circulation	<div></div>	13 lux	27 lux	0 lux	0.16	0.46
Unit 3 Service Yard	<div></div>	25 lux	48 lux	12 lux	0.25	0.48
Unit 3 Handling Area	<div></div>	57 lux	85 lux	27 lux	0.44	0.65
Unit 3 Parking & Circulation	<div></div>	13 lux	28 lux	0 lux	0.16	0.46

PL5	LUMINAIRE TYPE E MOUNTING HEIGHT CHANGED TO 2.9 METRES	MAR 2021
PL4	LUMINAIRE TYPE E MOUNTING HEIGHT CHANGED TO 2.6 METRES AND RELOCATED AT BUILDING ENTRANCES	MAR 2021
PL3	ADDITIONAL DETAILS ADDED	SEP 2019
PL2	ARCHITECTS BACKGROUND UPDATED	JUL 2019
Ref.	Revision	Date

PLANNING

watkins payne

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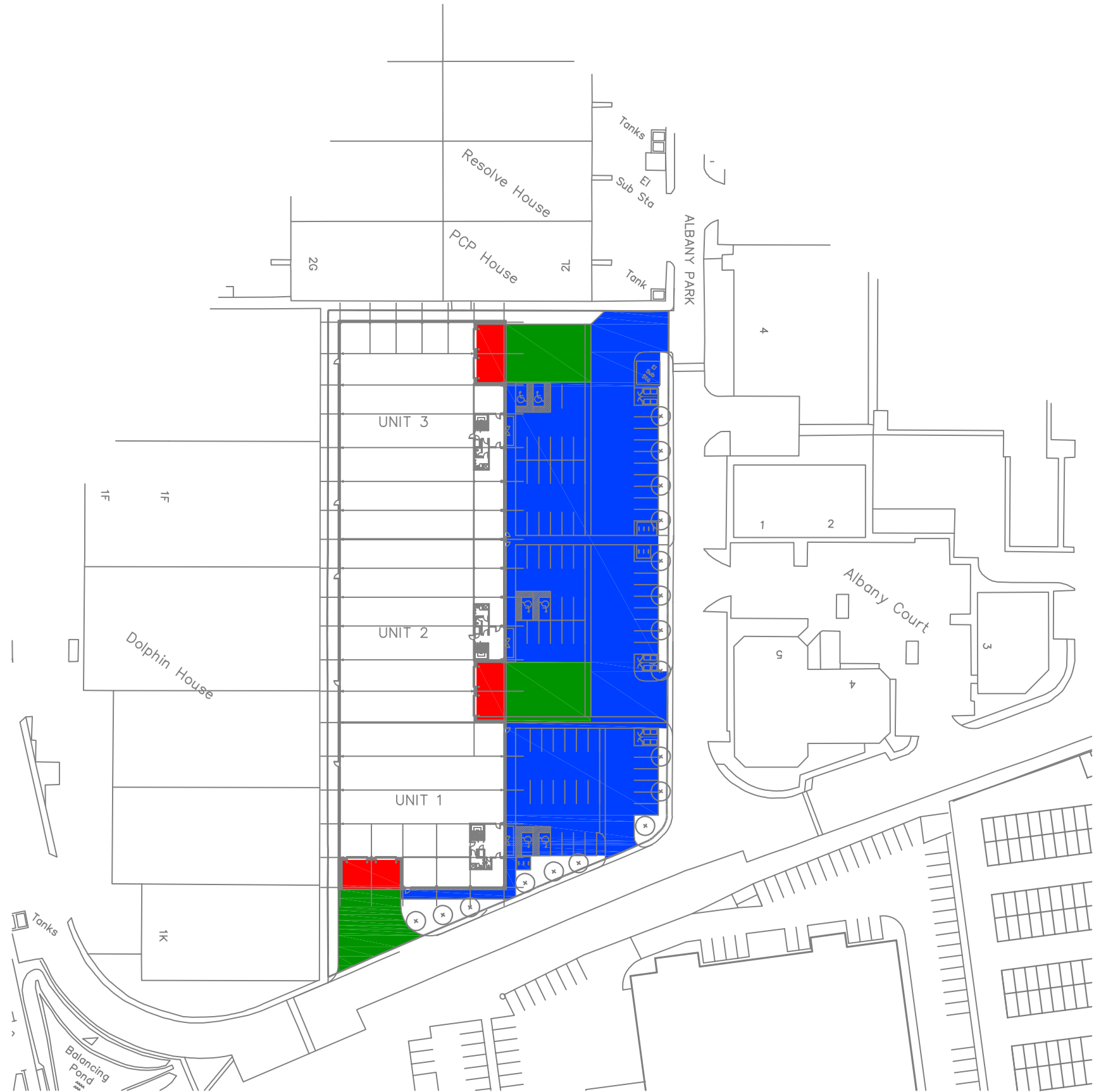
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Client
ST. JAMES'S PLACE UK PLC

Project
ALBANY PARK FRIMLEY

Title
DESIGN INTENT
EXTERNAL LIGHTING AND CCTV
LAYOUT

Date	JULY 2019	Scale at A1	1:500
Drawn By	PDJ	Validated	
Checked			
Drawing Number	4538/E/100	Revision	PL5



NOTES:-

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND LEGEND DRAWING.
2. DO NOT SCALE FROM THIS DRAWING.

LEGEND:-

- HANDLING ZONE
50 LUX AVERAGE
- SERVICE YARD
25 LUX AVERAGE
0.4 LUX MINIMUM
- CAR PARK & CIRCULATION
10 LUX AVERAGE
5 LUX MINIMUM

Ref.	Revision	Date
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PLANNING



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Client
ORCHARD STREET INVESTMENT MANAGEMENT

Project
**ALBANY PARK
FRIMLEY**

Title
**EXTERNAL LIGHTING DESIGN
CRITERIA**

Date	JULY 2019	Scale at A1	1:500
Drawn By	PDJ	Validated	
Checked			
Drawing Number	4538/E/101	Revision	PL1