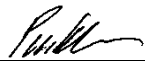
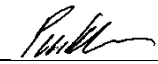


Lighting Strategy

**Officers' Meadow
Shenfield**

LIGHTING STRATEGY

Document Issue Sheet

Version	Project Number	Document Reference	Prepared By	Date	Verified	Date
R0	WLC654	WLC654-LSR-001		22/08/2023		23/08/2023
R1	WLC654	WLC654-LSR-001		September 2023		September 2023
R2	WLC654	WLC654-LSR-001		September 2023		September 2023
R3	WLC654	WLC654-LSR-001		February 2023		February 2023

This Lighting Strategy has been prepared for our client as stated within our appointment only and expressly for the purposes set out in an appointment and we owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law. This report has been based solely on the specific design assumptions and criteria stated herein.

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APPENDIX A: LIGHTING CALCULATION REPORTS

APPENDIX B: LIGHTING STRATEGY (PLAN)

1. Introduction

- 1.1 This Lighting Strategy has been prepared by Williams Lighting Consultants Ltd. for and on behalf of Croudace Homes Ltd. The report describes the exterior lighting works to be provided at the proposed new development at Officers' Meadow, Shenfield (the Proposed Development).
- 1.2 The strategy details the key principles, the exterior lighting design follows. These principles are in place to ensure adequate illumination of external areas, and that the design meets the criteria of the documents detailed in table 1.
- 1.3 Accompanying this strategy, lighting calculations (Appendix A) and an indicative lighting design (Appendix B) have been prepared to demonstrate exterior lighting at the proposed development has a minimal impact on the surrounding environment.
- 1.4 Site Address: Officers' Meadow, Shenfield, Part of allocated Site R03: Land North of Shenfield.
- 1.5 Site Description: The Site forms part of the Strategic Site R03 allocated in the Brentwood Local Plan (BLP) (March 2022). The Site is the largest parcel of land, at 21.32 hectares (ha), which is being independently brought forward by Croudace Homes Ltd as part of the Development Framework for Site R03 alongside a consortium of developers including Redrow Homes, Countryside Properties and Stonebond Properties. The Site is located to the north of Shenfield, a 20 minute walk and a 10 minute cycle to the Shenfield Town Centre. The Site is bound to the north west by Chelmsford Road, its associated dwellings and their rear residential curtilages. Beyond Chelmsford Road lies the A12 (dual carriageway) and open farmland. The eastern boundary of the site is delineated by Ancient Woodland, an area of undesignated woodland and a railway line, beyond which lies additional areas of woodland, residential development, and further farmland. The Site is constrained by Ancient Woodland, a TPO tree belt and a critical drainage area. To the north of the Site lies a Grade II listed Millstone in the northern verge of Chelmsford Road opposite number 179 Chelmsford Road.

2. Lighting Design

2.1 Standards and Guidance

- 2.1.1 An exterior lighting system is required to facilitate safe and secure movement around the Proposed Development for all users. Exterior lighting will be required to light all adoptable highway areas in accordance with the below list of documents and site-specific design criteria:

Table 1: Standards and Guidance Documents	
Document Reference	Document Title
1	ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2021
2	Essex Highways Adoptable Specifications
3	BS 5489-1:2020 Code of Practice for the design of road lighting

2.2 Lighting Class Selection

- 2.2.1 The proposed lighting levels for the site are detailed below (table 2):

Table 2: Proposed Lighting Levels			
Area	Lighting Class	Minimum Average Illuminance (lux)	Minimum Illuminance (lux)
Spine Road	P3*	7.50	1.50
Side Roads	P4**	5.00	1.00
Private Areas + Cycleway	P5***	3.00	0.60

Approach Roundabout	C3****	15	Min Uniformity (Emin/Eave): 40%
*Based on 30mph, E3 environmental zone, busy road usage **Based on 30mph, E3 environmental zone, normal road usage ***Based on 30mph, E3 environmental zone, low road usage – levels reduced considering ecological impacts, ambient light levels and speed restrictions due to road geometry. Cycleway lit considering usage. ****Based on road classification M4, >7000 vehicles, single carriageway			

2.3 Luminaire Selection and shielding

2.3.1 The following lighting fixtures were selected to form the proposals for this site. The fixtures have been compared against the lighting standards and applicable guidance notes.

Table 3: Luminaire Specification and shielding examples				
Luminaire	Proposed Locations	Characteristics		Image
Philips Luma	Adoptable Highways	Upward Light:	0%	
		Colour temperature:	3000K (Warm White)	
		Efficacy:	Up to 140lm/W	
DW Windsor Street	Private Areas	Upward Light:	1%	
		Colour temperature:	3000K (Warm White)	
		Efficacy:	Up to 140lm/W	

2.3.2 Energy efficiency – the design has considered appropriate optic settings for the development layout, ensuring (as practicable as possible) light is only provided where required.

2.3.3 Light pollution (vertically and horizontally) has been minimized as much as possible through careful luminaire selection and shielding (luminaire mounted). The design follows the principles set out in the ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2021 and conforms with the below:

Table 4 (Table 3 GN01/20): Maximum values of vertical illuminance on properties.						
Light technical parameter	Application conditions	Environmental zone				
		E0	E1	E2	E3	E4
Illuminance on the vertical plane (E _v)	Pre-curfew	n/a	2 lx	5 lx	10 lx	25 lx
	Post-curfew	n/a	<0.1 lx	1 lx	2 lx	5 lx

2.3.4 The proposed site is considered under Environmental Zone E3 (medium district brightness). Refer to lux contour plans.

2.3.5 Upward Light Ratios

Table 5 (Table 6 GN01/20) Maximum values of upward light ratio (ULR) of luminaires.					
Light technical parameter	Environmental zone				
	E0	E1	E2	E3	E4
Upward Light Ratio (ULR %)	0	0	2.5	5	15

2.3.6 The maximum permitted ULR is 5%. All lanterns are mounted on the horizontal – 0-degree tilt and the max upward light specified is 1% - below the maximum recommended.

3. Ecology

3.1 After consultations with the Ecology Team, represented by Aspect Ecology, we have developed a set of mitigation measures to reduce the impact on ecological features within our design. These measures are as follows:

- **Colour Temperature Selection:** In line with the Ecology Team's recommendations, we've opted for a 3000K warm white colour temperature, the lowest available for the adoptable specification lantern.
- **Avoidance of Lighting in Private Areas:** We have refrained from proposing any lighting within private areas that are in close proximity to the ancient woodland. This deliberate decision ensures that the natural environment remains undisturbed.
- **Lighting Optics:** Our selection of lighting optics has been careful, with a focus on reducing light spill onto ecological features.
- **Back Light Shields:** Where lighting is necessary in areas adjacent to sensitive ecological features, we propose the installation of backlight shields. These shields serve to redirect light away from these areas, further reducing the ecological impact.

3.2 Refer to Appendix B (WLC937-LS-001-004) for the lighting plans detailing lux contour levels (contour plots do not consider the blocking effect of buildings) and equipment specification, including mitigation methods.

4. Environmental Residual Effects

4.1 The proposed lighting will have residual effects on the environment, and these will occur at different phases during the project. The residual effects have been assessed below and consider the permanent and temporary effects.

4.2 Operational - Landscape and Visual (permanent impact)

4.2.1 There is a permanent impact on the visual scene. With the use of a design practice the impact can be minimized through good design – reducing the number of columns/lanterns required and their height. With the use of modern lanterns and shielding light is well controlled.

4.2.2 **Recommendation:** Design prepared by a competent designer in consultation with the architect and ecologist and in accordance with BS 5489, ILP Guidance on the Reduction of Obtrusive Light.

4.3 Operational - Community (permanent impact)

4.3.1 A well-designed lighting installation will have a positive impact on the local community, providing:

- A reduction in the fear of crime
- Encourage the use of more sustainable modes of transport, such as walking and cycling.
- Encourage the use of shared community spaces.

4.3.2 **Recommendation:** None

4.4 Construction and Demolition - Noise (temporary impact)

4.4.1 Noise during construction

4.4.2 **Recommendation:** Employment of a competent contractor with the use of appropriate tools to minimize noise.

4.5 Construction and Demolition - Dust (temporary impact)

4.5.1 Dust during construction

4.5.2 **Recommendation:** Employment of competent contractor with use of appropriate tools to minimize dust.

4.6 Construction and Demolition – Ground Contamination (temporary impact)

4.6.1 None anticipated

4.6.2 **Recommendation:** None

4.7 Construction and Demolition – Storage of Materials (temporary impact)

4.7.1 Storage of materials is anticipated

4.7.2 **Recommendation:** Hazardous materials are to be handled, stored and transported in accordance with COSHH regulations and manufacturer guidelines.

4.8 Construction and Demolition – Waste

4.8.1 Waste is anticipated

4.8.2 **Recommendation:** Lamps and lanterns are to be disposed of in accordance with WEEE regulations. Columns to be recycled where possible.

5. Summary

5.1 This Lighting Strategy, prepared by Williams Lighting Consultants Ltd., outlines the exterior lighting proposals for the development at Officers' Meadow in Shenfield.

5.2 These proposals are designed considering adoptable specifications and industry guidance, with a particular focus on mitigating light pollution and its potential impact on local wildlife, including bats. The site is situated within an Environmental Zone E3 and meets the maximum recommended levels as per ILP GN01/21 Guidance Notes for the Reduction of Obtrusive Light. Collaboration with site ecologists has been instrumental in developing this strategy.

5.3 The site is illuminated to the appropriate lighting levels for both adoptable and private areas, aligning with the lighting classes specified in BS5489-1:2020, which governs the lighting of roads and public amenity areas. However, it's important to note that we've excluded private streets near ecologically sensitive zones from these proposals as per discussions with the site ecology team.

5.4 Furthermore, our ecological considerations encompass the use of LED warm white light sources, careful shielding, and optic selection to avoid unnecessary light spill on ecologically sensitive areas.

5.5 In summary, this strategy strikes a balance between efficient lighting solutions and a commitment to environmental responsibility.

APPENDIX A: LIGHTING CALCULATION REPORTS

DATE: 16 February 2024
DESIGNER: WLC
PROJECT No: WLC654
PROJECT NAME: Officers' Meadow, Shenfield



R1: REVISED BASE LAYOUT
R2: REVISED BASE LAYOUT

LIGHTING STRATEGY:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASS(ES): C3, P3, P4 AND P5 IN ACCORDANCE WITH BS 5489:2020

LEVELS ACHIEVED:
REFER TO INDIVIDUAL GRID WITHIN REPORT.

WLC654-LC-AC-001 R2

PREPARED BY: Williams Lighting Consultants Ltd.
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website: www.wclighting.co.uk

Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Grid 1	561654.89	196080.69	114.00	55.47	1.50	1.50
2	Grid 2	561804.83	196037.42	192.00	138.00	1.50	1.50
3	Grid 3	561936.82	196263.07	157.23	120.00	1.50	1.50
4	Grid 4	561907.97	196263.13	48.00	69.00	1.50	1.50
5	Grid 5	561716.72	195888.78	84.00	69.00	1.50	1.50
6	Grid 6	561691.29	195818.79	63.00	48.00	1.50	1.50
7	Grid 7	562009.68	196081.10	87.00	54.00	1.50	1.50
8	Grid 8	561491.76	196196.22	81.00	106.20	1.50	1.50
9	Grid 9	561573.76	196163.62	153.00	105.00	1.50	1.50
10	Grid 10	561737.64	196098.01	210.80	48.00	1.50	1.50
11	Grid 11	561907.01	196179.54	199.00	90.00	1.50	1.50
12	Grid 12	561997.95	196109.73	39.00	129.00	1.50	1.50
13	Grid 13	561789.41	196068.51	27.00	75.00	1.50	1.50
14	Grid 14	561643.54	195833.42	168.00	246.95	1.50	1.50
15	Grid 15	561647.84	195770.03	51.00	69.00	1.50	1.50
16	Grid 16	561522.16	195792.11	132.00	97.41	1.50	1.50

Luminaires



Luminaire B Data

Supplier	Philips
Type	BGP702 DW52
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	5.20
File Name	Luma Gen2 Micro_BGP702_DW52_5200_2_0LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	40

Luminaire C Data

Supplier	
Type	BGP702 DW50 BL2
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	5.20
File Name	Luma Gen2 Micro_BGP702_DW50 BL2_5200_20LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	1



Luminaire D Data

Supplier	Philips
Type	BGP703 DM10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	10.00
File Name	Luma Gen2 Mini_BGP703_DM10_10000_4_0LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.83
Lum. Int. Class	G3
No. in Project	7

Luminaire F Data

Supplier	
Type	BGP702 DW50 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	13.50
File Name	Luma Gen2 Micro_BGP702_DW50 BL1_6400_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Lum. Int. Class	G3
No. in Project	5

Luminaires

Luminaire H Data

Supplier	
Type	BGP702 DM10 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.60
File Name	Luma Gen2 Micro_BGP702_DM10 BL1_26 00_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Lum. Int. Class	G3
No. in Project	5

Luminaire I Data

Supplier	
Type	BGP702 DN09 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	1.00
File Name	Luma Gen2 Micro_BGP702_DN09 BL1_10 00_6LED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Lum. Int. Class	G2
No. in Project	4



Luminaire J Data

Supplier	D W Windsor
Type	Windsor Street -LX3- 16LED-3k-A1 200mA UMSUG 42 0012 0000 100
Lamp(s)	16x 3k LED
Lamp Flux (klm)	1.20
File Name	Windsor Street -LX3- 16LED-3k-A1_200mA UMSUG 42 0012 0000 100.ies
Maintenance Factor	1.00
Lum. Int. Class	None
No. in Project	28

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
1	B	561665.38	195797.30	6.00	223.00	0.00	0.00	0.30	100%			
2	B	561662.62	195773.83	6.00	39.00	0.00	0.00	0.30	100%			
3	I	561643.12	195819.60	6.00	222.00	0.00	0.00	0.30	100%			
6	J	561923.49	196284.02	5.00	0.00	0.00	0.00	0.00	100%			
7	J	561924.13	196304.94	5.00	359.00	0.00	0.00	0.00	100%			
8	J	561931.34	196319.17	5.00	282.00	0.00	0.00	0.00	100%			
9	B	561583.16	196167.98	6.00	49.00	0.00	0.00	0.30	100%			
10	B	561592.27	196181.24	6.00	222.00	0.00	0.00	0.30	100%			
11	B	561615.25	196156.97	6.00	223.00	0.00	0.00	0.30	100%			
12	B	561637.97	196138.10	6.00	267.00	0.00	0.00	0.30	100%			
13	B	561682.69	196130.90	6.00	72.00	0.00	0.00	0.30	100%			
14	B	561661.79	196138.68	6.00	106.00	0.00	0.00	0.30	100%			
15	B	561709.50	196121.96	6.00	76.00	0.00	0.00	0.30	100%			
16	B	561738.57	196125.95	6.00	272.00	0.00	0.00	0.30	100%			
17	B	561758.34	196123.57	6.00	117.00	0.00	0.00	0.30	100%			
18	B	561781.42	196133.88	6.00	123.00	0.00	0.00	0.30	100%			
19	B	561759.70	196147.45	6.00	29.00	0.00	0.00	0.30	100%			
20	B	561808.09	196133.33	6.00	207.00	0.00	0.00	0.30	100%			
21	B	561803.64	196153.52	6.00	298.00	0.00	0.00	0.30	100%			
22	B	561840.81	196160.29	6.00	114.00	0.00	0.00	0.30	100%			
23	B	561859.04	196178.14	6.00	291.00	0.00	0.00	0.30	100%			
24	B	561885.99	196180.26	6.00	116.00	0.00	0.00	0.30	100%			
25	B	561914.32	196193.10	6.00	117.00	0.00	0.00	0.30	100%			
26	B	561923.29	196216.09	6.00	332.00	0.00	0.00	0.30	100%			
27	B	561933.60	196242.49	6.00	180.00	0.00	0.00	0.30	100%			
28	B	561956.61	196255.37	6.00	270.00	0.00	0.00	0.30	100%			
29	B	561933.46	196259.58	6.00	177.00	0.00	0.00	0.30	100%			
30	B	561990.06	196246.67	6.00	91.00	0.00	0.00	0.30	100%			
31	B	562026.83	196251.66	6.00	250.00	0.00	0.00	0.30	100%			
32	B	562041.77	196239.49	6.00	79.00	0.00	0.00	0.30	100%			
33	B	562063.72	196243.56	6.00	260.00	0.00	0.00	0.30	100%			
35	H	562028.02	196225.85	6.00	168.00	0.00	0.00	0.30	100%			
36	B	562089.72	196237.75	6.00	254.00	0.00	0.00	0.30	100%			
37	H	562022.65	196195.10	6.00	175.00	0.00	0.00	0.30	100%			
38	H	562018.44	196166.17	6.00	174.00	0.00	0.00	0.30	100%			
38	B	561676.99	195849.56	6.00	324.00	0.00	0.00	0.30	100%			

Layout Continued

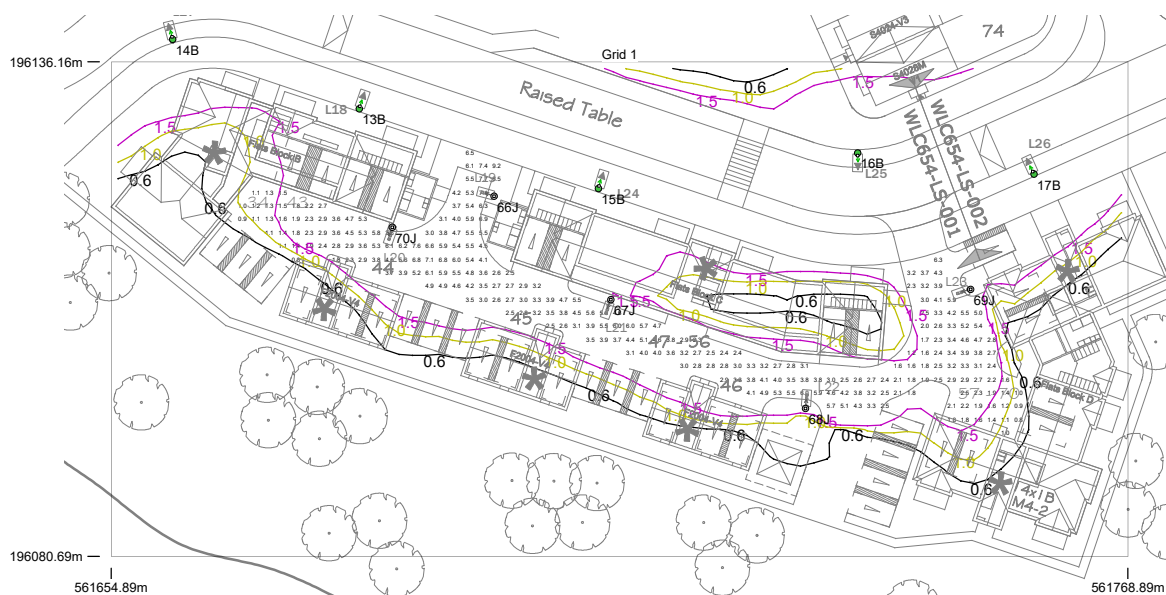
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41	H	562006.01	196110.13	6.00	158.00	0.00	0.00	0.30	100%			
43	B	561798.61	196108.97	6.00	355.00	0.00	0.00	0.30	100%			
44	C	561812.05	196093.76	6.00	266.00	0.00	0.00	0.30	100%			
45	B	561790.01	196072.99	6.00	311.00	0.00	0.00	0.30	100%			
46	B	561764.07	196057.25	6.00	311.00	0.00	0.00	0.30	100%			
47	B	561741.01	196035.20	6.00	321.00	0.00	0.00	0.30	100%			
48	B	561739.45	196008.40	6.00	173.00	0.00	0.00	0.30	100%			
49	B	561739.84	195982.07	6.00	178.00	0.00	0.00	0.30	100%			
50	B	561730.99	195959.02	6.00	158.00	0.00	0.00	0.30	100%			
52	B	561707.66	195925.82	6.00	346.00	0.00	0.00	0.30	100%			
54	B	561708.92	195899.68	6.00	169.00	0.00	0.00	0.30	100%			
56	B	561691.05	195871.87	6.00	335.00	0.00	0.00	0.30	100%			
57	B	561663.41	195830.28	6.00	319.00	0.00	0.00	0.30	100%			
58	D	561543.40	196209.60	10.00	316.00	0.00	0.00	0.50	100%			
59	D	561534.75	196186.03	10.00	316.00	0.00	0.00	0.30	100%			
60	D	561546.60	196169.98	10.00	123.00	0.00	0.00	0.30	100%			
61	D	561565.53	196173.92	10.00	91.00	0.00	0.00	0.30	100%			
62	D	561580.94	196203.10	10.00	194.00	0.00	0.00	0.30	100%			
63	D	561563.96	196224.74	10.00	316.00	0.00	0.00	0.30	100%			
64	D	561588.98	196225.30	10.00	137.00	0.00	0.00	0.30	100%			
65	F	561514.74	196173.01	10.00	305.00	0.00	0.00	0.30	100%			
66	F	561502.95	196142.99	10.00	139.00	0.00	0.00	0.30	100%			
67	F	561467.74	196132.03	10.00	325.00	0.00	0.00	0.30	100%			
68	F	561449.24	196110.58	10.00	316.00	0.00	0.00	0.30	100%			
69	F	561445.14	196079.67	10.00	149.00	0.00	0.00	0.30	100%			
63	I	561617.36	195847.83	6.00	225.00	0.00	0.00	0.30	100%			
64	I	561588.52	195863.25	6.00	249.00	0.00	0.00	0.30	100%			
65	I	561544.79	195876.68	6.00	254.00	0.00	0.00	0.30	100%			
66	J	561697.79	196121.10	5.00	160.00	0.00	0.00	0.00	75%			
67	J	561710.89	196109.48	5.00	247.00	0.00	0.00	0.00	75%			
68	J	561732.72	196097.29	5.00	85.00	0.00	0.00	0.00	75%			
69	J	561751.23	196110.64	5.00	195.00	0.00	0.00	0.00	75%			
70	J	561686.40	196117.59	5.00	247.00	0.00	0.00	0.00	75%			
71	J	561842.16	196101.28	5.00	303.00	0.00	0.00	0.00	100%			
72	J	561871.14	196116.65	5.00	299.00	0.00	0.00	0.00	100%			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
73	J	561902.43	196119.89	5.00	121.00	0.00	0.00	0.00	100%			
74	J	561926.85	196132.79	5.00	108.00	0.00	0.00	0.00	100%			
75	J	561908.90	196096.61	5.00	205.00	0.00	0.00	0.00	100%			
76	J	561903.79	196073.91	5.00	324.00	0.00	0.00	0.00	100%			
77	J	561930.04	196084.71	5.00	280.00	0.00	0.00	0.00	100%			
78	J	561961.22	196148.21	5.00	107.00	0.00	0.00	0.00	100%			
79	J	561984.47	196150.92	5.00	176.00	0.00	0.00	0.00	100%			
80	J	561960.25	196316.30	5.00	94.00	0.00	0.00	0.00	100%			
81	J	562003.02	196321.15	5.00	101.00	0.00	0.00	0.00	100%			
82	J	562045.33	196326.91	5.00	98.00	0.00	0.00	0.00	100%			
83	J	562060.85	196311.78	5.00	187.00	0.00	0.00	0.00	100%			
84	J	562054.48	196282.49	5.00	164.00	0.00	0.00	0.00	100%			
86	J	561742.50	195928.86	5.00	65.00	0.00	0.00	0.00	100%			
87	J	561769.35	195914.72	5.00	43.00	0.00	0.00	0.00	100%			
88	J	561707.07	195856.99	5.00	237.00	0.00	0.00	0.00	75%			
89	J	561724.21	195837.98	5.00	65.00	0.00	0.00	0.00	75%			
90	J	562029.96	196116.78	5.00	254.00	0.00	0.00	0.00	100%			
91	J	562061.45	196111.01	5.00	269.00	0.00	0.00	0.00	100%			

Horizontal Illuminance (lux)

Grid 1

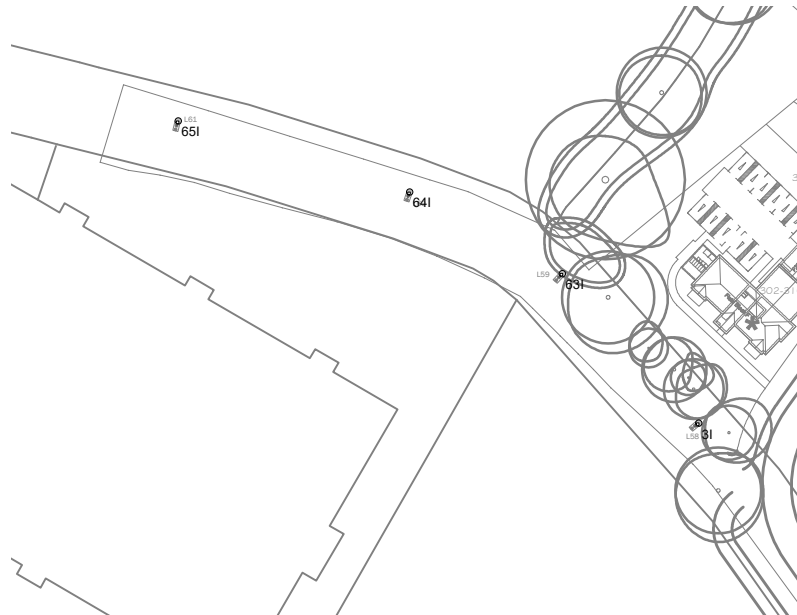


Results

Eav	3.57
Emin	0.79
Emax	9.25
Emin/Emax	0.09
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 2



Horizontal Illuminance (lux)

Grid 3

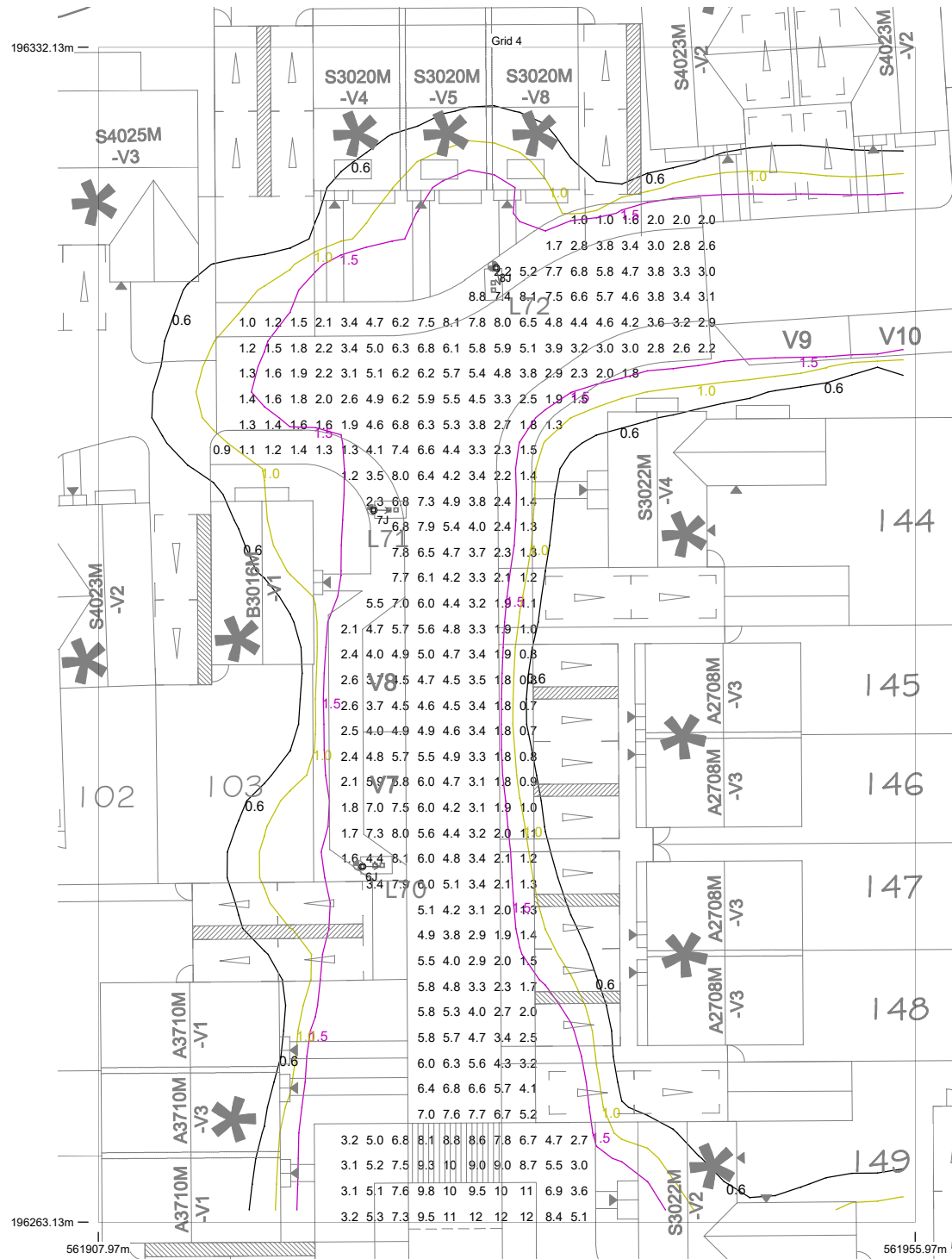


Results

Eav	3.03
Emin	0.81
Emax	7.98
Emin/Emax	0.10
Emin/Eav	0.27

Horizontal Illuminance (lux)

Grid 4

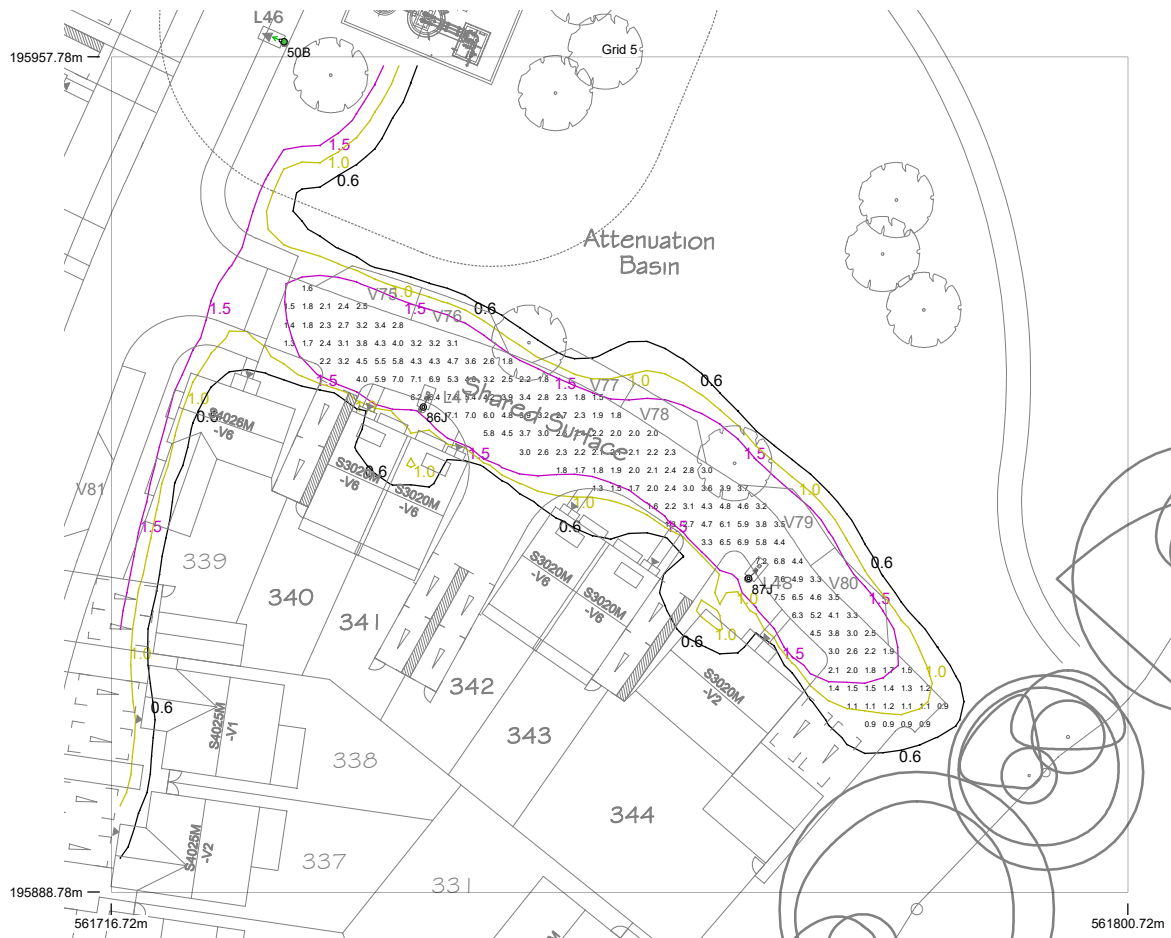


Results

Eav	4.29
Emin	0.70
E _{max}	12.04
Emin/E _{max}	0.06
Emin/Eav	0.16

Horizontal Illuminance (lux)

Grid 5

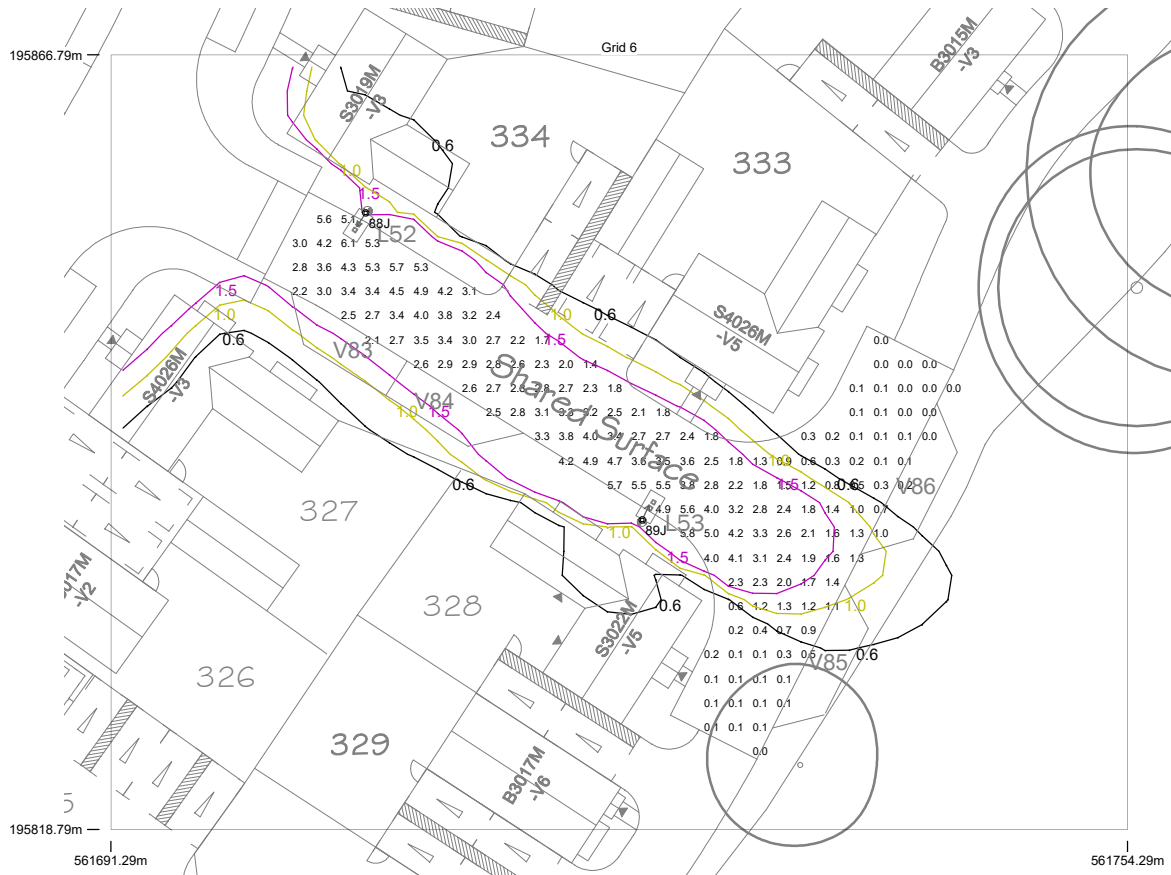


Results

Eav	3.25
Emin	0.89
Emax	7.59
Emin/Emax	0.12
Emin/Eav	0.27

Horizontal Illuminance (lux)

Grid 6

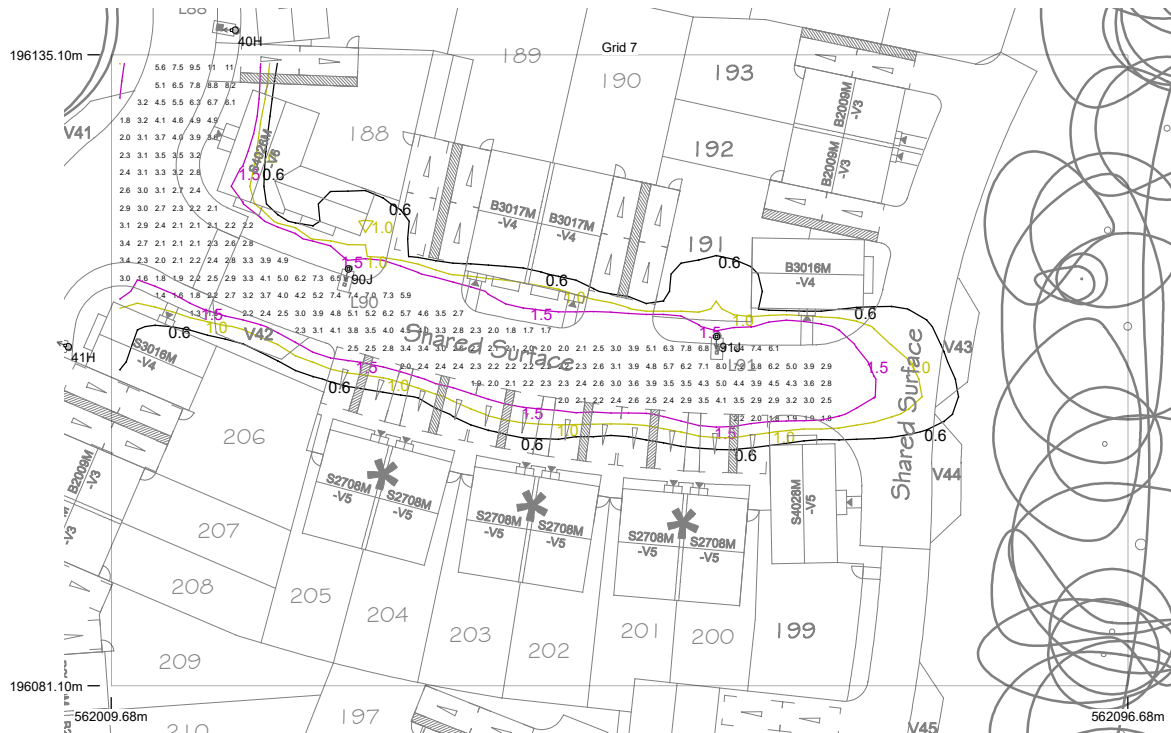


Results

Eav	2.17
Emin	0.03
Emax	6.08
Emin/Emax	0.00
Emin/Eav	0.01

Horizontal Illuminance (lux)

Grid 7

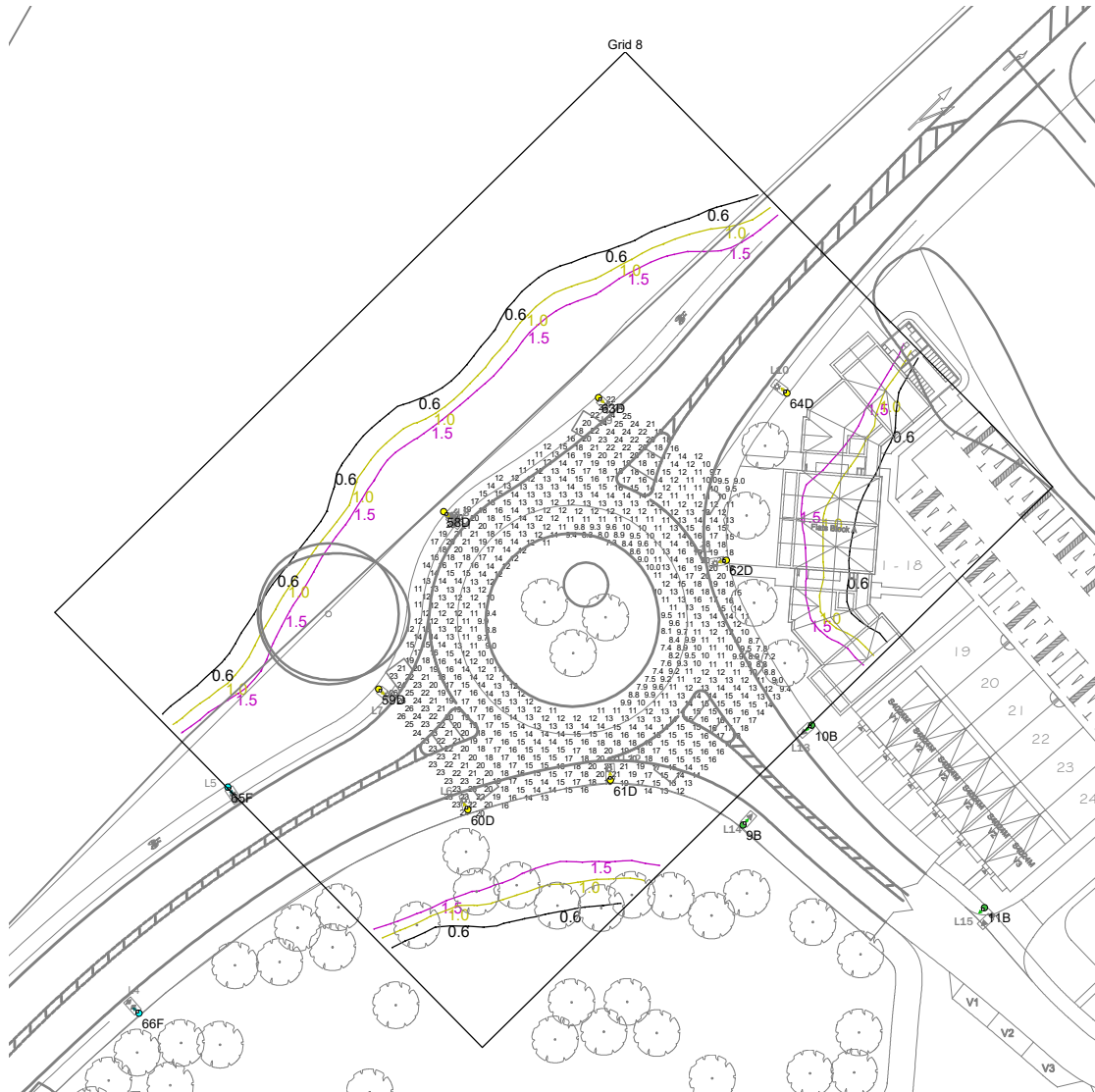


Results

Eav	3.60
Emin	1.33
Emax	10.95
Emin/Emax	0.12
Emin/Eav	0.37

Horizontal Illuminance (lux)

Grid 8



Results

Eav	15.04
Emin	7.23
Emax	26.35
Emin/Emax	0.27
Emin/Eav	0.48

Horizontal Illuminance (lux)

Grid 9



Results

Eav	8.55
Emin	1.58
Emax	17.96
Emin/Emax	0.09
Emin/Eav	0.18

Horizontal Illuminance (lux)

Grid 10

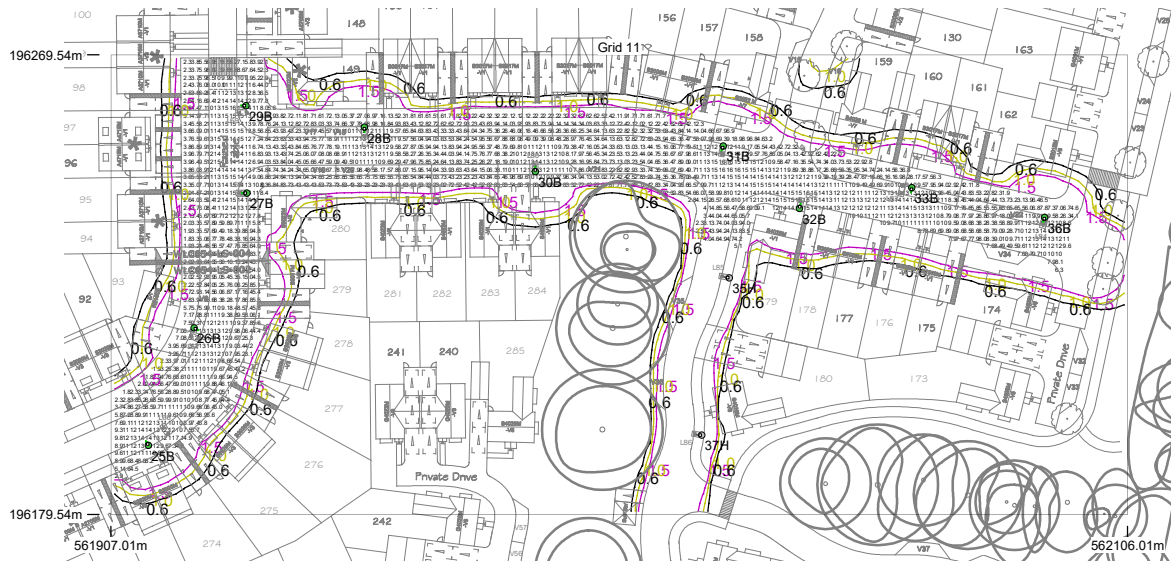


Results

Eav	7.63
Emin	1.52
Emax	16.02
Emin/Emax	0.09
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 11

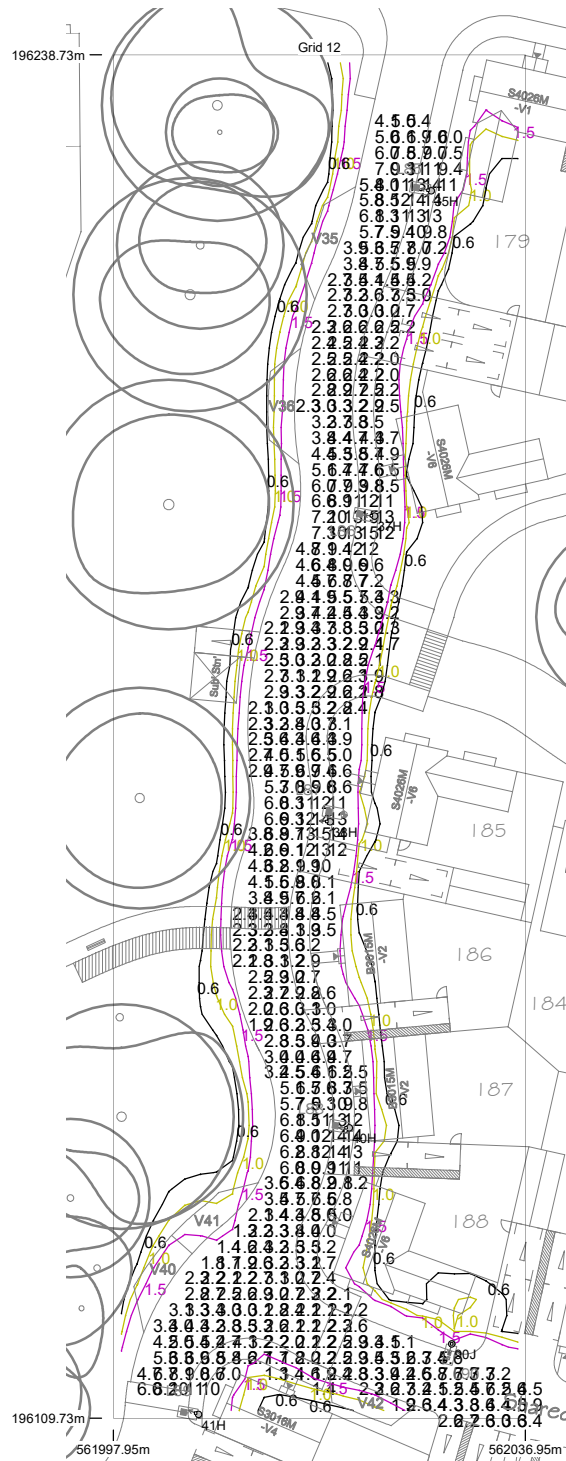


Results

Eav	7.60
Emin	1.55
Emax	15.99
Emin/Emax	0.10
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 12

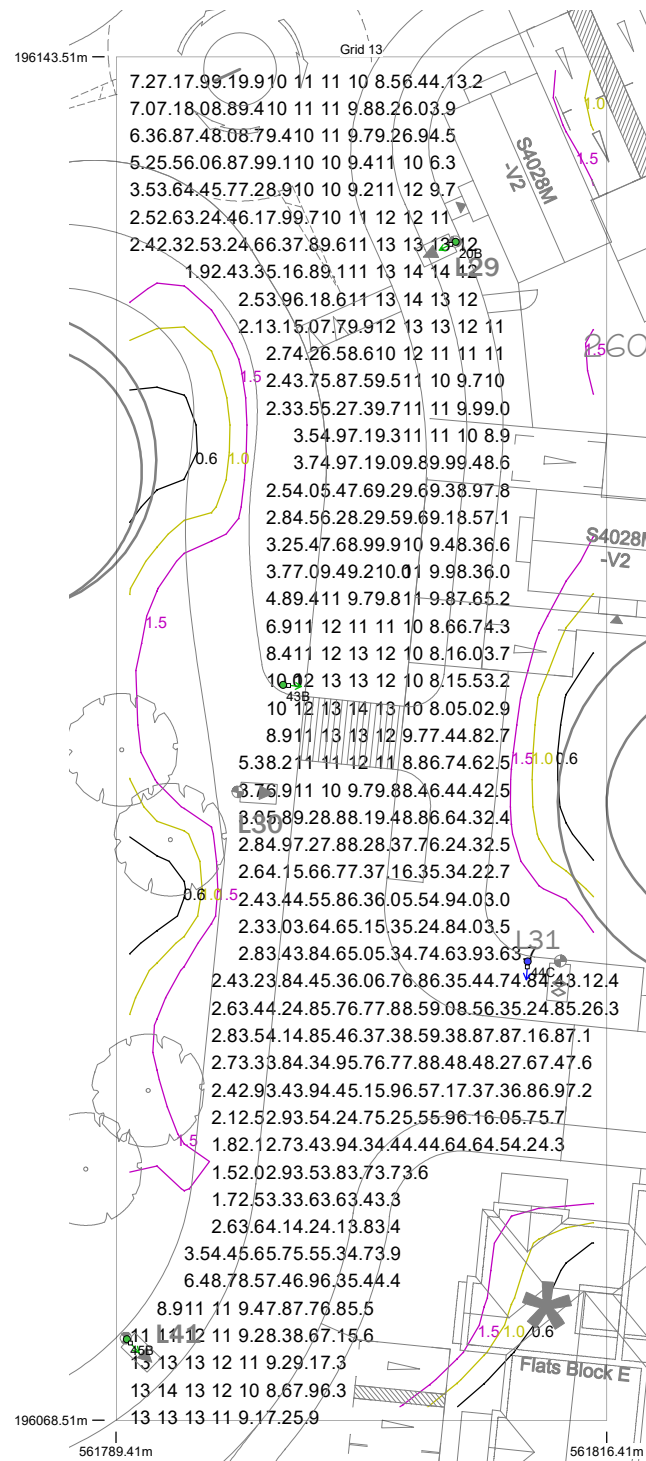


Results

Eav	5.15
Emin	1.29
Emax	14.89
Emin/Emax	0.09
Emin/Eav	0.25

Horizontal Illuminance (lux)

Grid 13

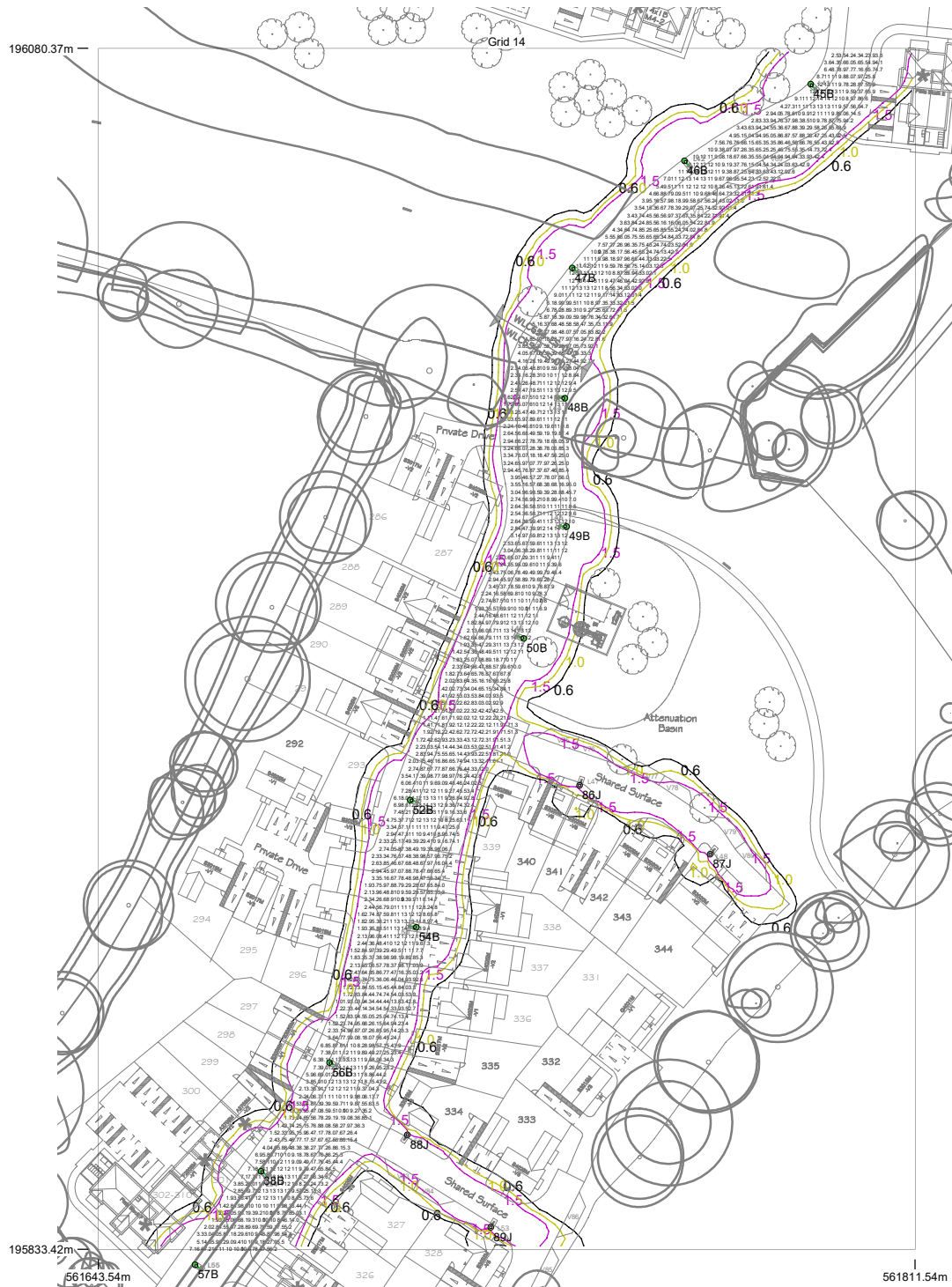


Results

Eav	7.16
Emin	1.51
Emax	14.16
Emin/Emax	0.11
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 14

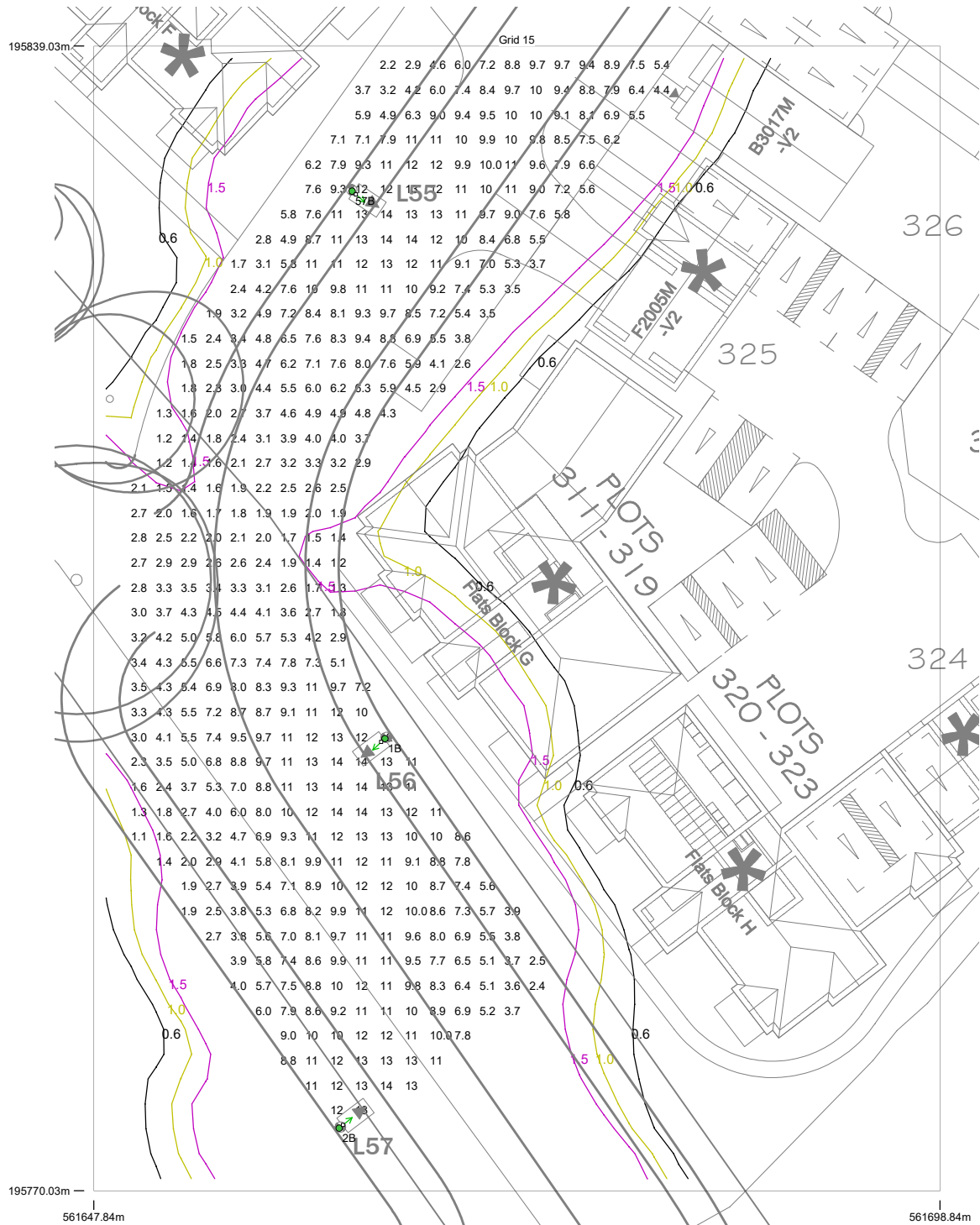


Results

Eav	6.89
Emin	1.03
Emax	14.26
Emin/Emax	0.07
Emin/Eav	0.15

Horizontal Illuminance (lux)

Grid 15

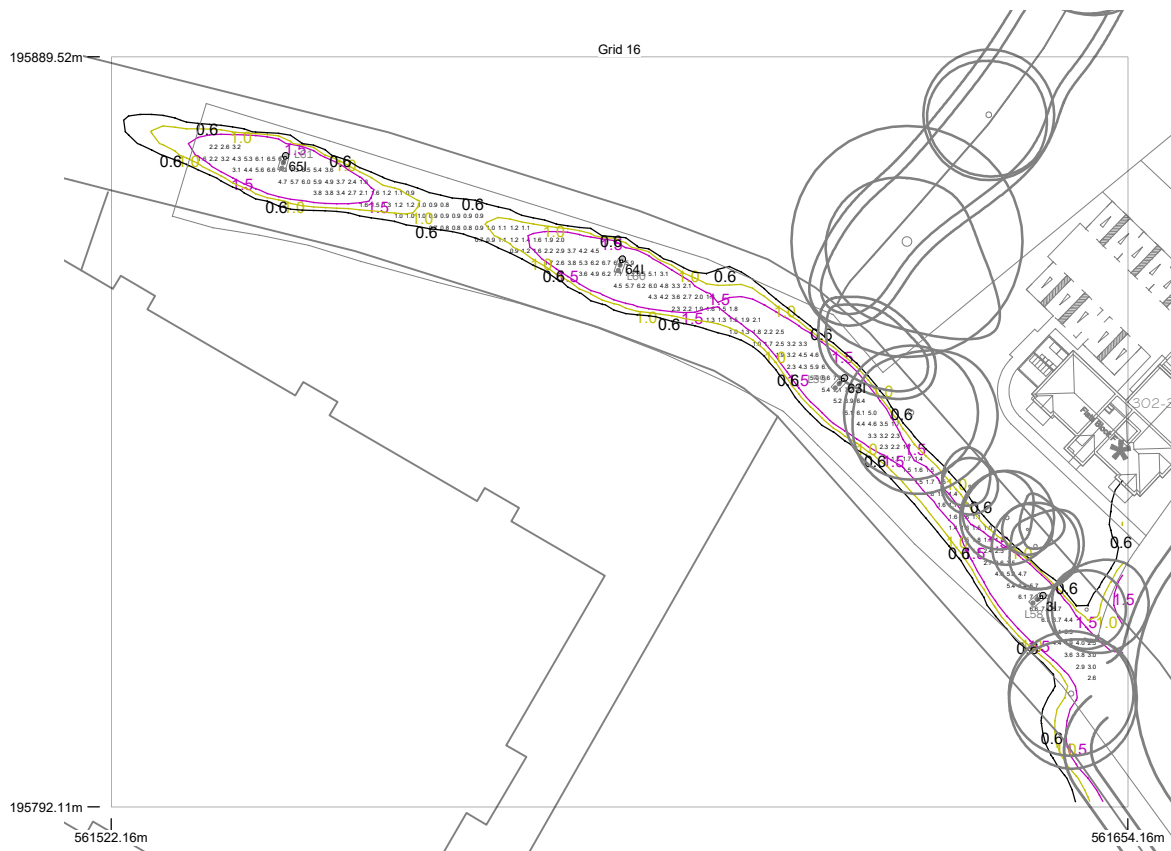


Results

Eav	6.91
Emin	1.10
Emax	14.33
Emin/Emax	0.08
Emin/Eav	0.16

Horizontal Illuminance (lux)

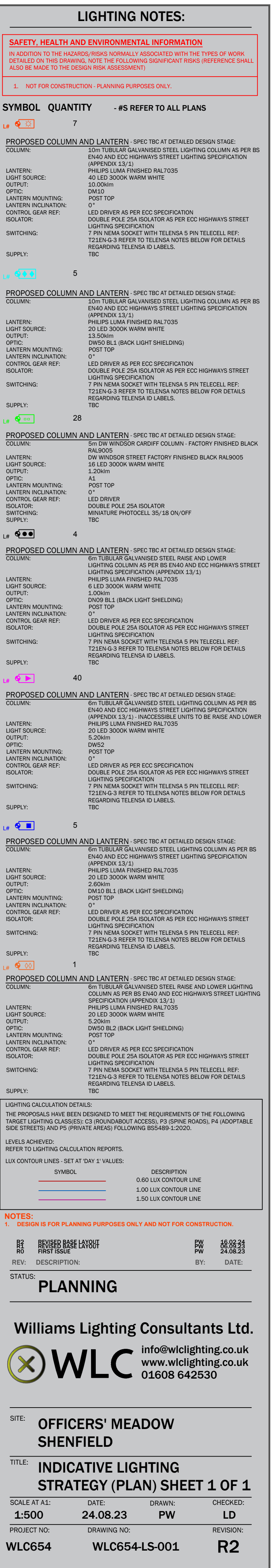
Grid 16



Results

Eav	3.25
Emin	0.68
Emax	7.37
Emin/Emax	0.09
Emin/Eav	0.21

APPENDIX B: LIGHTING STRATEGY (PLAN)



School Site

LIGHTING NOTES:

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN RISK ASSESSMENT)

1. NOT FOR CONSTRUCTION - PLANNING PURPOSES ONLY

SYMBOL QUANTITY

7

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN640 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION

LANTERN: PHILIPS LUMA FINISHED RAL7035

LIGHT SOURCE: 40 LED 3000K WARM WHITE

OUTPUT: 30,000lm

OPTIC: DM10 BULB (BACK LIGHT SHIELDING)

LANTERN MOUNTING: POST TOP

LANTERN INCLINATION: 0°

CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION

ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION

SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS.

SUPPLY: TBC

5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN640 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION

LANTERN: PHILIPS LUMA FINISHED RAL7035

LIGHT SOURCE: 40 LED 3000K WARM WHITE

OUTPUT: 30,000lm

OPTIC: DM10 BULB (BACK LIGHT SHIELDING)

LANTERN MOUNTING: POST TOP

LANTERN INCLINATION: 0°

CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION

ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION

SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS.

SUPPLY: TBC

28

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

COLUMN: 6m DW WINDSOR CARDIFF COLUMN - FACTORY FINISHED BLACK RAL8005

LANTERN: DW WINDSOR STREET FACTORY FINISHED BLACK RAL8005

LIGHT SOURCE: 40 LED 3000K WARM WHITE

OUTPUT: 30,000lm

OPTIC: AL

LANTERN MOUNTING: POST TOP

LANTERN INCLINATION: 0°

CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION

ISOLATOR: DOUBLE POLE 25A ISOLATOR

SWITCHING: MINUTURE PHOTOCELL 30/AS ON/OFF

SUPPLY: TBC

4

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

COLUMN: 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN640 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION

LANTERN: PHILIPS LUMA FINISHED RAL7035

LIGHT SOURCE: 40 LED 3000K WARM WHITE

OUTPUT: 30,000lm

OPTIC: DM10 BULB (BACK LIGHT SHIELDING)

LANTERN MOUNTING: POST TOP

LANTERN INCLINATION: 0°

CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION

ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION

SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS.

SUPPLY: TBC

40

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

COLUMN: 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN640 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION

LANTERN: PHILIPS LUMA FINISHED RAL7035

LIGHT SOURCE: 40 LED 3000K WARM WHITE

OUTPUT: 30,000lm

OPTIC: DM10 BULB (BACK LIGHT SHIELDING)

LANTERN MOUNTING: POST TOP

LANTERN INCLINATION: 0°

CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION

ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION

SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS.

SUPPLY: TBC

5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN640 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION

LANTERN: PHILIPS LUMA FINISHED RAL7035

LIGHT SOURCE: 40 LED 3000K WARM WHITE

OUTPUT: 30,000lm

OPTIC: DM10 BULB (BACK LIGHT SHIELDING)

LANTERN MOUNTING: POST TOP

LANTERN INCLINATION: 0°

CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION

ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION

SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS.

SUPPLY: TBC

1

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN640 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION

LANTERN: PHILIPS LUMA FINISHED RAL7035

LIGHT SOURCE: 40 LED 3000K WARM WHITE

OUTPUT: 30,000lm

OPTIC: DM10 BULB (BACK LIGHT SHIELDING)

LANTERN MOUNTING: POST TOP

LANTERN INCLINATION: 0°

CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION

ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION

SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS.

SUPPLY: TBC

LIGHTING CALCULATION DETAILS:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASSES: C3 (ROUNDABOUT ACCESS), P3 (SPUR ROADS), P4 (ADAPTABLE SIDE STREETS) AND P5 (PRIVATE AREAS) FOLLOWING BS5489-1:2020.

LEVELS ACHIEVED: REFER TO LIGHTING CALCULATION REPORTS.

LUX CONTOUR LINES - SET AT DAY 1 VALUES:

SYMBOL	DESCRIPTION
0.60 LUX CONTOUR LINE	
1.00 LUX CONTOUR LINE	
1.50 LUX CONTOUR LINE	

NOTES:

1. DESIGN IS FOR PLANNING PURPOSES ONLY AND NOT FOR CONSTRUCTION.

STATUS:

PLANNING

REVISIONS:

REV.	DESCRIPTION:	BY:	DATE:
R2	REVISED BASE LAYOUT	PW	16.02.24
R1	REVISED BASE LAYOUT	PW	24.08.23

WILLIAMS LIGHTING CONSULTANTS LTD.

WLC

info@wlcighting.co.uk
www.wlcighting.co.uk
01608 642530

SITE: OFFICERS' MEADOW SHENFIELD

TITLE: INDICATIVE LIGHTING STRATEGY (PLAN) SHEET 2 OF 2

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
1:500	24.08.23	PW	LD

PROJECT NO:	DRAWING NO:	REVISION:
WLC654	WLC654-LS-002	R2



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN RISK ASSESSMENT)

1. NOT FOR CONSTRUCTION - PLANNING PURPOSES ONLY

SYMBOL	QUANTITY	-#S REFER TO ALL PLANS
	7	
PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE: COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) LANTERN: PHILIPS LUMA FINISHED RAL7035 LIGHT SOURCE: 40 LED 3000K WARM WHITE OUTPUT: 32,000lm OPTIC: DM10 LANTERN MOUNTING: POST TOP LANTERN INCLINATION: 0° CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS. SUPPLY: TBC		
	5	
PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE: COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) LANTERN: PHILIPS LUMA FINISHED RAL7035 LIGHT SOURCE: 40 LED 3000K WARM WHITE OUTPUT: 32,000lm OPTIC: DM10 B.L. (BACK LIGHT SHIELDING) LANTERN MOUNTING: POST TOP LANTERN INCLINATION: 0° CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS. SUPPLY: TBC		
	28	
PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE: COLUMN: 6m DW WINDSOR CARDIFF COLUMN - FACTORY FINISHED BLACK RAL8005 LANTERN: DW WINDSOR STREET FACTORY FINISHED BLACK RAL8005 LIGHT SOURCE: 16 LED 3000K WARM WHITE OUTPUT: 1,200lm OPTIC: A1 LANTERN MOUNTING: POST TOP LANTERN INCLINATION: 0° CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION ISOLATOR: DOUBLE POLE 25A ISOLATOR SWITCHING: MINUTURE PHOTOCELL 30/AS ON/OFF SUPPLY: TBC		
	4	
PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE: COLUMN: 6m TUBULAR GALVANISED STEEL RISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) LANTERN: PHILIPS LUMA FINISHED RAL7035 LIGHT SOURCE: 6 LED 3000K WARM WHITE OUTPUT: 1,000lm OPTIC: CNOR B.L. (BACK LIGHT SHIELDING) LANTERN MOUNTING: POST TOP LANTERN INCLINATION: 0° CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS. SUPPLY: TBC		
	40	
PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE: COLUMN: 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) LANTERN: PHILIPS LUMA FINISHED RAL7035 LIGHT SOURCE: 20 LED 3000K WARM WHITE OUTPUT: 5,200lm OPTIC: DM10 B.L. (BACK LIGHT SHIELDING) LANTERN MOUNTING: POST TOP LANTERN INCLINATION: 0° CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS. SUPPLY: TBC		
	5	
PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE: COLUMN: 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) LANTERN: PHILIPS LUMA FINISHED RAL7035 LIGHT SOURCE: 20 LED 3000K WARM WHITE OUTPUT: 5,200lm OPTIC: DM10 B.L. (BACK LIGHT SHIELDING) LANTERN MOUNTING: POST TOP LANTERN INCLINATION: 0° CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS. SUPPLY: TBC		
	1	
PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE: COLUMN: 6m TUBULAR GALVANISED STEEL RISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) LANTERN: PHILIPS LUMA FINISHED RAL7035 LIGHT SOURCE: 20 LED 3000K WARM WHITE OUTPUT: 5,200lm OPTIC: DM10 B.L. (BACK LIGHT SHIELDING) LANTERN MOUNTING: POST TOP LANTERN INCLINATION: 0° CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA 5 PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS. SUPPLY: TBC		

LIGHTING CALCULATION DETAILS:
THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASSES: C3 (ROUNDRABOUT ACCESS), P3 (SPINE ROADS), P4 (ADAPTABLE SIDE STREETS) AND P5 (PRIVATE AREAS) FOLLOWING BS5489-1:2020.

LEVELS ACHIEVED:
REFER TO LIGHTING CALCULATION REPORTS.

LUX CONTOUR LINES - SET AT DAY 1 VALUES:

SYMBOL	DESCRIPTION
	0.60 LUX CONTOUR LINE
	1.00 LUX CONTOUR LINE
	1.50 LUX CONTOUR LINE

NOTES:
1. DESIGN IS FOR PLANNING PURPOSES ONLY AND NOT FOR CONSTRUCTION.

R2	REVISED BASE LAYOUT	PW	16.02.24
R0	REVISED BASE LAYOUT	PW	06.08.23
REV.	DESCRIPTION:	BY:	DATE:

STATUS:

PLANNING

SITE: **OFFICERS' MEADOW SHENFIELD**

TITLE: **INDICATIVE LIGHTING STRATEGY (PLAN) SHEET 3 OF 3**

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
1:500	24.08.23	PW	LD
PROJECT NO:	DRAWING NO:	REVISION:	
WLC654	WLC654-LS-003		R2

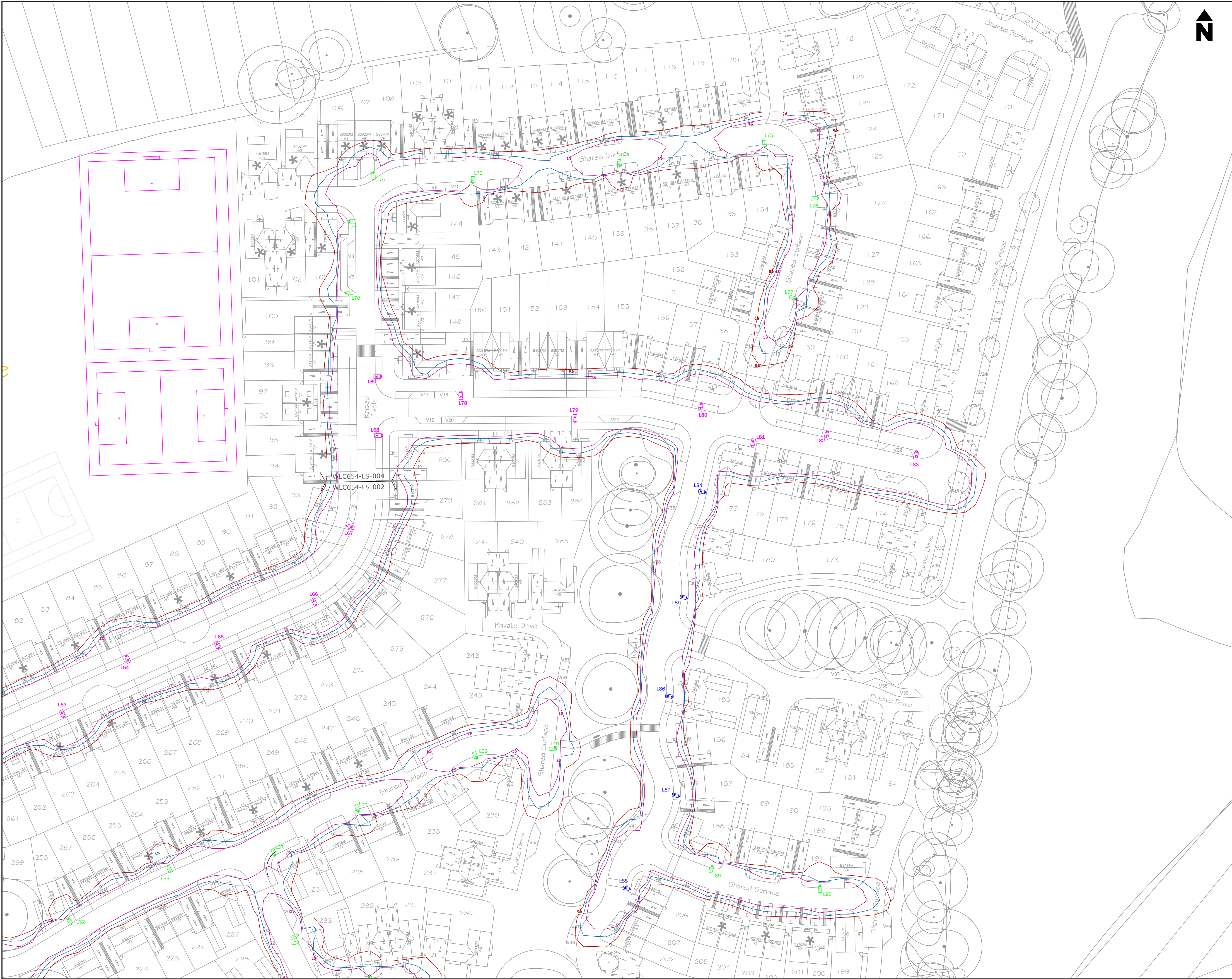
WLC

info@wclighting.co.uk
www.wclighting.co.uk
01608 642530

SITE: **OFFICERS' MEADOW SHENFIELD**

TITLE: **INDICATIVE LIGHTING STRATEGY (PLAN) SHEET 3 OF 3**

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
1:500	24.08.23	PW	LD
PROJECT NO:	DRAWING NO:	REVISION:	
WLC654	WLC654-LS-003		R2



LIGHTING NOTES:

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN RISK ASSESSMENT)

1. NOT FOR CONSTRUCTION - PLANNING PURPOSES ONLY

SYMBOL QUANTITY -#5 REFER TO ALL PLANS

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:
COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13.1)
LANTERN: PHILIPS LUMA FINISHED RAL7035
LIGHT SOURCE: 40 LED 3000K WARM WHITE
OUTPUT: 23,500lm
OPTIC: DM12 (BACK LIGHT SHIELDING)
LANTERN MOUNTING: POST TOP
LANTERN INCLINATION: 0°
CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION
ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION
SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA S PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS
SUPPLY: TBC

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:
COLUMN: 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13.1)
LANTERN: PHILIPS LUMA FINISHED RAL7035
LIGHT SOURCE: 40 LED 3000K WARM WHITE
OUTPUT: 23,500lm
OPTIC: DM12 (BACK LIGHT SHIELDING)
LANTERN MOUNTING: POST TOP
LANTERN INCLINATION: 0°
CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION
ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION
SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA S PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS
SUPPLY: TBC

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:
COLUMN: 6m DW WINDSOR CARDIFF COLUMN - FINISH: BLACK RAL8005
LANTERN: DW WINDSOR STREET FACTORY FINISHED BLACK RAL8005
LIGHT SOURCE: 18 LED 3000K WARM WHITE
OUTPUT: 1,200lm
OPTIC: AL
LANTERN MOUNTING: POST TOP
LANTERN INCLINATION: 0°
CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION
ISOLATOR: DOUBLE POLE 25A ISOLATOR
SWITCHING: MINUTURE PHOTOCELL 30/AS ON/OFF
SUPPLY: TBC

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:
COLUMN: 6m TUBULAR GALVANISED STEEL RISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13.1)
LANTERN: PHILIPS LUMA FINISHED RAL7035
LIGHT SOURCE: 6 LED 3000K WARM WHITE
OUTPUT: 1,000lm
OPTIC: ONOR BL (BACK LIGHT SHIELDING)
LANTERN MOUNTING: POST TOP
LANTERN INCLINATION: 0°
CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION
ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION
SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA S PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS
SUPPLY: TBC

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:
COLUMN: 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13.1)
LANTERN: PHILIPS LUMA FINISHED RAL7035
LIGHT SOURCE: 20 LED 3000K WARM WHITE
OUTPUT: 2,000lm
OPTIC: DM12 (BACK LIGHT SHIELDING)
LANTERN MOUNTING: POST TOP
LANTERN INCLINATION: 0°
CONTROL GEAR REF: LED DRIVER AS PER ECC SPECIFICATION
ISOLATOR: DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION
SWITCHING: 7 PIN NEMA SOCKET WITH TELENDA S PIN TELECELL REF. T21EN-G-3 REFER TO TELENDA NOTES BELOW FOR DETAILS REGARDING TELENDA ID LABELS
SUPPLY: TBC

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SUPPLY: TBC

LIGHTING CALCULATION DETAILS:
THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASSES: C3 (ROUNDABOUT ACCESS), P1 (SPINE ROADS), P4 (ADAPTABLE SIDE STREETS) AND P5 (PRIVATE AREAS) FOLLOWING BS5489-1:2020.
LEVELS ACHIEVED:
REFER TO LIGHTING CALCULATION REPORTS.
LUX CONTOUR LINES - SET AT 'DAY 1' VALUES:
SYMBOL DESCRIPTION
0.60 LUX CONTOUR LINE
1.00 LUX CONTOUR LINE
1.50 LUX CONTOUR LINE

NOTES:

1. DESIGN IS FOR PLANNING PURPOSES ONLY AND NOT FOR CONSTRUCTION.

R2	REVISED BASE LAYOUT	PW	16.02.24
R0	REVISED BASE LAYOUT	PW	24.08.23
REV:	DESCRIPTION:	BY:	DATE:

STATUS:

PLANNING

Williams Lighting Consultants Ltd.

WLC info@wlighting.co.uk
www.wlighting.co.uk
01608 642530

SITE: OFFICERS' MEADOW
SHENFIELD

TITLE: INDICATIVE LIGHTING
STRATEGY (PLAN) SHEET 4 OF 4

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
1:500	24.08.23	PW	LD

PROJECT NO:	DRAWING NO:	REVISION:
WLC654	WLC654-LS-004	R2