

DATE: 19 July 2024
DESIGNER: Alex Naper
PROJECT No: SES 09823 Rev i
PROJECT NAME: Kilternan Village - Liscove Limited



Residential spine road designed in accordance with EN13201-2:2015 Category P3

Residential areas designed in accordance with EN13201-2:2015 Category P4.

Western access junction designed in accordance with EN13201-2:2015 Category C4.

Western access Road designed in accordance with EN13201-2:2015 Category P2.

Eastern access junction designed in accordance with EN13201-2:2015 Category C4.

Commercial area/Cycle route section designed in accordance with EN13201-2:2015 Category C5.

Rev A: Updated site layout

Rev B: Updated layout.

Rev C: Updated site layout.

Rev D: Updated column location 26A, 173i, 177i & 40A.

Rev E: Column 26A updated.

Rev F: Updated site layout.

Rev G: Updated as per comments.

Rev H: Updated as per Master Plan Layout.

Rev i: Latest landscape background used & additional columns added.

Outdoor Lighting Report

PREPARED BY: Sabre Electrical Services Ltd.
Unit 11,
Bellview Industrial Estate,
Tolka Valley Road,
Dublin 11
D11 VN59
Phone Number: 01 8110875
Contact: Graham Sheehan
eMail: graham@sabrelighting.ie

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	720486.18	722251.17	200.67	158.99	1.50	1.50
2	Grid 2	720419.35	722357.12	48.00	40.29	1.50	1.18
3	Grid 3	720473.77	722255.47	48.00	117.00	1.50	1.50
4	Grid 4	720837.72	722198.26	153.00	202.02	1.50	1.50
5	Grid 5	720540.09	722184.02	198.00	87.00	1.50	1.50
6	Grid 6	720666.40	722327.72	160.06	158.99	1.50	1.50
7	Grid 7	720577.91	722460.03	112.31	158.99	1.50	1.50
8	Grid 8	720426.20	722439.63	141.00	98.79	1.50	1.50
9	Grid 9	720545.42	722153.16	24.00	117.00	1.50	1.50
10	Grid 10	720583.60	722127.34	167.49	125.79	1.50	1.50
11	Grid 11	720629.73	722052.09	192.02	159.11	1.49	1.49
12	Grid 12	720757.87	722199.58	105.00	141.00	1.50	1.50
13	Grid 13	720831.34	722246.31	119.75	157.01	1.50	1.50
14	Grid 14	720685.89	722285.36	144.00	42.00	1.50	1.50
15	Grid 15	720652.97	722310.65	36.00	51.00	1.50	1.50

Luminaires

Luminaire A Data

Supplier	C U Phosco
Type	E950-28-P4A-727-C600-16W
Lamp(s)	727N
Lamp Flux (klm)	2.19
File Name	E950-28-P4A-727-C0600-16W.ies
Maintenance Factor	0.81
Imax70,80,90(cd/klm)	659.3, 183.1, 0.3
No. in Project	81

Luminaire B Data

Supplier	C U Phosco
Type	E950-28-P4A-727-C200-7W
Lamp(s)	727N
Lamp Flux (klm)	0.75
File Name	E950-28-P4A-727-C0200-7W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	659.3, 183.1, 0.3
No. in Project	8



Luminaire C Data

Supplier	C U Phosco
Type	E950-28-F2A-727-C600-16W
Lamp(s)	727N
Lamp Flux (klm)	2.23
File Name	E950-28-F2A-727-C0600-16W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	623.6, 113.9, 0.3
No. in Project	31

Luminaire D Data

Supplier	C U Phosco
Type	E950-28-A2A-727-C600-16W
Lamp(s)	727N
Lamp Flux (klm)	2.01
File Name	E950-28-A2A-727-C0600-16W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	470.3, 22.7, 0.9
No. in Project	2

Luminaires

Luminaire E Data



Supplier	C U Phosco
Type	E950-28-P4A-727-BB-SA525-23W
Lamp(s)	727SA
Lamp Flux (klm)	2.35
File Name	E950-28-P4A-727-BB-SA0525-23W.ies
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	592.6, 55.3, 0.6
No. in Project	7

Luminaire F Data



Supplier	C U Phosco
Type	E950-28-P6A-727-C0400-11W
Lamp(s)	727N
Lamp Flux (klm)	1.58
File Name	E950-28-P6A-727-C0400-11W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	961.6, 241.7, 0.0
No. in Project	16

Luminaire I Data



Supplier	C U Phosco
Type	E951-64-R3-G-727-W5-0350-32W
Lamp(s)	727SS
Lamp Flux (klm)	4.60
File Name	E951-64-R3-G-727-W5-0350-32W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	391.9, 31.7, 0.0
No. in Project	12

Luminaire J Data



Supplier	Urbis Schreder
Type	AXIA 3.3 5279 Integrated lenses 64 OSLO N SQUARE GIANT@600mA
Lamp(s)	64 OSLO N SQUARE GIANT@600mA NW 740 230V
LampFlux(klm)/Colour	16.29 NW 4000K/70
File Name	AXIA 3.3 5279 64 OSLO N SQUARE GIANT 600mA NW 740 113W 429344 Integrated I...
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	781.4, 152.7, 3.9
No. in Project	1

Luminaire K Data



Supplier	Urbis Schreder
Type	AXIA 3.3 5294 Integrated lenses 64 OSLO N SQUARE GIANT@500mA
Lamp(s)	64 OSLO N SQUARE GIANT@500mA NW 740 230V
LampFlux(klm)/Colour	14.25 NW 4000K/70
File Name	AXIA 3.3 5294 64 OSLO N SQUARE GIANT 500mA NW 740 94W 441012 Integrated Ie...
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	613.3, 21.0, 0.0
No. in Project	1

Luminaire L Data



Supplier	TRT Lighting
Type	VIA ASY 418mA PCA LED
Lamp(s)	42 0006 0000 100
Lamp Flux (klm)	0.23
File Name	VIA_ASY_418mA_225LM_PCA.ies
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	601.4, 384.8, 53.4
No. in Project	52

Luminaire M Data



Supplier	C U Phosco
Type	E950-28-R3A-727-C250-8W
Lamp(s)	727N
Lamp Flux (klm)	0.98
File Name	E950-28-R3A-727-C0250-8W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	716.7, 30.5, 0.3
No. in Project	67

Luminaire N Data



Supplier	C U Phosco
Type	E950-28-P4A-727-C550-14W
Lamp(s)	727N
Lamp Flux (klm)	2.03
File Name	E950-28-P4A-727-C0550-14W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	659.3, 183.1, 0.3
No. in Project	9

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	I	720506.55	722262.91	8.00	207.00	0.00	0.00	0.50			
2	A	720582.32	722469.04	6.00	135.00	0.00	0.00	0.40			
3	A	720553.87	722449.11	6.00	120.00	0.00	0.00	0.40			
4	A	720499.01	722416.44	6.00	117.00	0.00	0.00	0.40			
5	A	720528.26	722432.85	6.00	138.00	0.00	0.00	0.40			
6	A	720542.97	722400.21	6.00	213.00	0.00	0.00	0.40			
7	A	720542.98	722376.60	6.00	32.00	0.00	0.00	0.40			
8	A	720548.90	722361.11	6.00	115.00	0.00	0.00	0.40			
9	A	720573.92	722372.79	6.00	129.00	0.00	0.00	0.40			
10	A	720561.05	722355.78	6.00	38.00	0.00	0.00	0.40			
11	C	720555.73	722308.88	6.00	119.00	0.00	0.00	0.40			
12	A	720524.12	722349.27	6.00	127.00	0.00	0.00	0.40			
13	A	720575.39	722441.71	6.00	33.00	0.00	0.00	0.40			
14	A	720490.41	722336.01	6.00	297.00	0.00	0.00	0.40			
15	A	720591.92	722415.80	6.00	36.00	0.00	0.00	0.40			
16	A	720609.54	722394.81	6.00	34.00	0.00	0.00	0.40			
17	A	720602.41	722396.25	6.00	129.00	0.00	0.00	0.40			
18	A	720578.75	722344.25	6.00	205.00	0.00	0.00	0.40			
19	A	720449.17	722395.53	6.00	256.00	0.00	0.00	0.40			
20	A	720465.69	722405.93	6.00	303.00	0.00	0.00	0.40			
21	L	720582.19	722456.13	1.00	191.00	0.00	0.00	0.00			
22	L	720620.70	722421.35	1.00	113.00	0.00	0.00	0.00			
23	L	720595.24	722449.85	1.00	264.00	0.00	0.00	0.00			
24	L	720599.87	722444.48	1.00	208.00	0.00	0.00	0.00			
25	L	720604.11	722436.19	1.00	209.00	0.00	0.00	0.00			
26	L	720609.27	722428.74	1.00	219.00	0.00	0.00	0.00			
27	L	720613.53	722421.52	1.00	36.00	0.00	0.00	0.00			
28	L	720619.17	722414.07	1.00	193.00	0.00	0.00	0.00			
29	A	720736.39	722369.81	6.00	4.00	0.00	0.00	0.40			
30	E	720797.64	722363.39	5.00	270.00	0.00	0.00	0.40			
31	E	720780.62	722350.95	6.00	92.00	0.00	0.00	0.40			
32	C	720524.26	722287.14	6.00	114.00	0.00	0.00	0.40			
33	A	720605.97	722331.47	6.00	311.00	0.00	0.00	0.40			
34	E	720655.82	722341.41	6.00	224.00	0.00	0.00	0.40			
35	E	720670.52	722320.39	6.00	68.00	0.00	0.00	0.40			
36	E	720731.22	722342.94	6.00	291.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
37	A	720584.50	722311.84	6.00	308.00	0.00	0.00	0.40			
38	A	720569.64	722297.32	6.00	312.00	0.00	0.00	0.40			
39	A	720528.67	722268.31	6.00	297.00	0.00	0.00	0.40			
40	A	720555.03	722261.00	6.00	115.00	0.00	0.00	0.40			
41	A	720521.48	722246.13	6.00	112.00	0.00	0.00	0.40			
42	A	720557.12	722282.54	6.00	297.00	0.00	0.00	0.40			
43	A	720583.20	722321.07	6.00	51.00	0.00	0.00	0.40			
44	A	720553.02	722292.74	6.00	33.00	0.00	0.00	0.40			
45	C	720543.23	722295.78	6.00	114.00	0.00	0.00	0.40			
46	A	720521.28	722413.85	6.00	31.00	0.00	0.00	0.40			
47	I	720466.92	722319.38	8.00	28.00	0.00	0.00	0.50			
48	I	720442.69	722380.60	8.00	202.00	0.00	0.00	0.50			
49	I	720456.22	722352.82	8.00	208.00	0.00	0.00	0.50			
50	I	720436.37	722407.70	8.00	193.00	0.00	0.00	0.50			
51	I	720504.51	722246.57	8.00	16.00	0.00	0.00	0.50			
52	I	720481.19	722310.58	8.00	199.00	0.00	0.00	0.50			
53	I	720493.29	722286.75	8.00	206.00	0.00	0.00	0.50			
54	I	720527.70	722224.22	8.00	205.00	0.00	0.00	0.50			
55	J	720822.95	722343.22	10.00	194.00	5.00	0.00	0.50			
56	K	720815.79	722383.03	10.00	184.00	5.00	0.00	0.50			
57	L	720580.98	722461.73	1.00	202.00	0.00	0.00	0.00			
58	L	720625.20	722408.21	1.00	260.00	0.00	0.00	0.00			
59	L	720614.12	722403.68	1.00	113.00	0.00	0.00	0.00			
60	L	720617.83	722407.95	1.00	284.00	0.00	0.00	0.00			
61	L	720626.31	722426.82	1.00	290.00	0.00	0.00	0.00			
62	L	720631.98	722399.08	1.00	26.00	0.00	0.00	0.00			
63	L	720638.75	722394.95	1.00	222.00	0.00	0.00	0.00			
64	L	720643.50	722389.11	1.00	222.00	0.00	0.00	0.00			
65	L	720648.56	722380.57	1.00	189.00	0.00	0.00	0.00			
66	L	720654.36	722372.89	1.00	254.00	0.00	0.00	0.00			
67	L	720664.04	722370.01	1.00	222.00	0.00	0.00	0.00			
68	L	720667.76	722362.29	1.00	212.00	0.00	0.00	0.00			
69	L	720671.46	722355.85	1.00	216.00	0.00	0.00	0.00			
70	L	720677.02	722349.33	1.00	223.00	0.00	0.00	0.00			
71	L	720688.96	722344.43	1.00	270.00	0.00	0.00	0.00			
72	L	720676.94	722331.99	1.00	169.00	0.00	0.00	0.00			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
73	L	720683.74	722340.00	1.00	105.00	0.00	0.00	0.00			
74	L	720696.10	722341.55	1.00	111.00	0.00	0.00	0.00			
75	L	720702.12	722347.88	1.00	289.00	0.00	0.00	0.00			
76	L	720710.91	722347.74	1.00	269.00	0.00	0.00	0.00			
77	L	720720.69	722357.79	1.00	289.00	0.00	0.00	0.00			
78	L	720718.31	722350.79	1.00	164.00	0.00	0.00	0.00			
79	L	720728.47	722359.90	1.00	285.00	0.00	0.00	0.00			
80	L	720736.71	722357.20	1.00	93.00	0.00	0.00	0.00			
81	L	720784.06	722378.04	1.00	242.00	0.00	0.00	0.00			
82	L	720775.46	722380.57	1.00	51.00	0.00	0.00	0.00			
83	L	720768.36	722370.53	1.00	290.00	0.00	0.00	0.00			
84	L	720777.47	722386.72	1.00	171.00	0.00	0.00	0.00			
85	L	720777.25	722371.14	1.00	277.00	0.00	0.00	0.00			
86	L	720783.75	722371.92	1.00	277.00	0.00	0.00	0.00			
87	L	720791.96	722373.10	1.00	242.00	0.00	0.00	0.00			
88	L	720778.72	722395.80	1.00	164.00	0.00	0.00	0.00			
89	L	720762.23	722366.64	1.00	334.00	0.00	0.00	0.00			
90	L	720761.62	722360.23	1.00	97.00	0.00	0.00	0.00			
91	L	720749.66	722359.01	1.00	91.00	0.00	0.00	0.00			
92	A	720629.88	722351.25	6.00	309.00	0.00	0.00	0.40			
93	L	720674.14	722336.83	1.00	356.00	0.00	0.00	0.00			
94	L	720632.62	722406.78	1.00	262.00	0.00	0.00	0.00			
95	F	720585.08	722216.08	5.00	307.00	0.00	0.00	0.40			
96	A	720628.96	722372.98	6.00	34.00	0.00	0.00	0.40			
97	L	720645.85	722374.06	1.00	39.00	0.00	0.00	0.00			
98	L	720587.58	722452.08	1.00	254.00	0.00	0.00	0.00			
99	F	720580.80	722203.84	5.00	110.00	0.00	0.00	0.40			
100	F	720601.92	722223.71	5.00	132.00	0.00	0.00	0.40			
101	F	720614.59	722239.37	5.00	315.00	0.00	0.00	0.40			
102	E	720755.63	722355.59	6.00	289.00	0.00	0.00	0.40			
103	E	720702.92	722328.97	6.00	281.00	0.00	0.00	0.40			
104	F	720622.98	722230.07	5.00	36.00	0.00	0.00	0.40			
105	F	720575.54	722196.67	5.00	219.00	0.00	0.00	0.40			
106	F	720562.11	722176.17	5.00	136.00	0.00	0.00	0.40			
107	M	720578.30	722230.45	5.00	38.00	0.00	0.00	0.40			
108	M	720562.66	722247.66	5.00	37.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
109	I	720545.59	722197.80	8.00	205.00	0.00	0.00	0.50			
110	D	720564.49	722189.57	5.00	206.00	0.00	0.00	0.40			
111	L	720682.27	722350.10	1.00	333.00	0.00	0.00	0.00			
112	L	720674.93	722343.40	1.00	7.00	0.00	0.00	0.00			
113	L	720685.73	722356.21	1.00	333.00	0.00	0.00	0.00			
114	L	720775.07	722404.81	1.00	240.00	0.00	0.00	0.00			
115	L	720768.85	722409.39	1.00	233.00	0.00	0.00	0.00			
116	I	720562.31	722165.00	8.00	209.00	0.00	0.00	0.50			
117	A	720606.84	722194.55	6.00	309.00	0.00	0.00	0.50			
118	A	720589.03	722175.02	6.00	318.00	0.00	0.00	0.50			
119	A	720584.93	722156.38	6.00	27.00	0.00	0.00	0.50			
120	D	720589.34	722140.79	6.00	307.00	0.00	0.00	0.50			
121	C	720632.29	722186.17	6.00	38.00	0.00	0.00	0.50			
122	A	720625.29	722212.29	6.00	308.00	0.00	0.00	0.50			
123	B	720741.00	722446.08	5.00	21.00	0.00	0.00	0.50			
124	M	720715.63	722467.91	5.00	125.00	0.00	0.00	0.50			
125	A	720739.23	722395.99	6.00	200.00	0.00	0.00	0.50			
126	B	720752.11	722468.63	5.00	180.00	0.00	0.00	0.50			
127	F	720596.13	722200.29	5.00	229.00	0.00	0.00	0.40			
128	I	720584.76	722132.61	8.00	204.00	0.00	0.00	0.50			
129	A	720540.32	722518.53	6.00	107.00	0.00	0.00	0.40			
130	A	720510.46	722524.75	6.00	251.00	0.00	0.00	0.40			
131	C	720510.94	722506.01	6.00	112.00	0.00	0.00	0.40			
132	A	720478.27	722513.33	6.00	115.00	0.00	0.00	0.40			
133	B	720478.02	722542.61	5.00	212.00	0.00	0.00	0.40			
134	M	720496.95	722553.43	6.00	337.00	0.00	0.00	0.40			
135	A	720444.73	722515.20	6.00	292.00	0.00	0.00	0.40			
136	A	720472.37	722529.44	6.00	301.00	0.00	0.00	0.40			
137	A	720444.47	722495.98	6.00	111.00	0.00	0.00	0.40			
138	A	720431.67	722488.15	6.00	12.00	0.00	0.00	0.40			
139	C	720434.08	722523.14	6.00	214.00	0.00	0.00	0.40			
140	M	720426.81	722469.52	5.00	294.00	0.00	0.00	0.40			
141	M	720508.04	722539.56	6.00	287.00	0.00	0.00	0.40			
142	M	720532.17	722539.79	6.00	253.00	0.00	0.00	0.40			
143	M	720510.05	722562.51	6.00	205.00	0.00	0.00	0.40			
144	N	720602.30	722469.04	6.00	223.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
145	A	720583.45	722493.83	6.00	312.00	0.00	0.00	0.40			
146	A	720611.94	722523.05	6.00	299.00	0.00	0.00	0.40			
147	M	720586.25	722517.09	5.00	28.00	0.00	0.00	0.40			
148	A	720608.94	722504.17	6.00	132.00	0.00	0.00	0.40			
149	A	720638.26	722521.83	6.00	230.00	0.00	0.00	0.40			
150	M	720638.54	722534.77	5.00	267.00	0.00	0.00	0.40			
151	M	720656.00	722519.50	5.00	208.00	0.00	0.00	0.40			
152	M	720621.39	722538.10	5.00	40.00	0.00	0.00	0.40			
153	M	720579.21	722570.42	6.00	38.00	0.00	0.00	0.40			
154	A	720561.59	722566.32	6.00	128.00	0.00	0.00	0.40			
155	A	720535.24	722569.54	6.00	308.00	0.00	0.00	0.40			
156	A	720554.68	722587.22	6.00	300.00	0.00	0.00	0.40			
157	M	720600.40	722553.72	5.00	57.00	0.00	0.00	0.40			
158	M	720557.49	722593.82	5.00	228.00	0.00	0.00	0.40			
159	A	720518.83	722578.37	6.00	219.00	0.00	0.00	0.40			
160	A	720546.19	722548.14	6.00	219.00	0.00	0.00	0.40			
161	A	720557.87	722518.59	6.00	210.00	0.00	0.00	0.40			
162	A	720572.93	722490.56	6.00	213.00	0.00	0.00	0.40			
163	M	720552.28	722502.34	6.00	33.00	0.00	0.00	0.40			
164	M	720564.47	722479.96	6.00	33.00	0.00	0.00	0.40			
165	A	720655.16	722501.44	6.00	50.00	0.00	0.00	0.40			
166	C	720567.74	722542.42	6.00	304.00	0.00	0.00	0.40			
167	C	720597.74	722540.61	6.00	133.00	0.00	0.00	0.40			
168	C	720585.22	722556.17	6.00	304.00	0.00	0.00	0.40			
169	C	720569.70	722525.00	6.00	110.00	0.00	0.00	0.40			
170	M	720671.42	722507.09	5.00	248.00	0.00	0.00	0.40			
171	A	720682.14	722475.20	6.00	34.00	0.00	0.00	0.40			
172	N	720618.84	722447.61	6.00	228.00	0.00	0.00	0.40			
173	N	720639.66	722426.88	6.00	219.00	0.00	0.00	0.40			
174	N	720659.04	722398.15	6.00	216.00	0.00	0.00	0.40			
175	N	720679.60	722372.38	6.00	229.00	0.00	0.00	0.40			
176	N	720700.21	722368.68	6.00	308.00	0.00	0.00	0.40			
177	N	720733.34	722377.73	6.00	90.00	0.00	0.00	0.40			
178	C	720750.05	722396.31	6.00	300.00	0.00	0.00	0.40			
179	A	720704.39	722452.71	6.00	206.00	0.00	0.00	0.40			
180	A	720701.52	722426.20	6.00	39.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
181	A	720723.15	722420.10	6.00	216.00	0.00	0.00	0.40			
182	N	720722.89	722389.18	5.00	288.00	0.00	0.00	0.40			
183	C	720750.42	722409.30	6.00	2.00	0.00	0.00	0.40			
184	C	720742.48	722431.89	6.00	37.00	0.00	0.00	0.40			
185	M	720734.43	722451.69	5.00	197.00	0.00	0.00	0.40			
186	M	720728.49	722470.06	5.00	217.00	0.00	0.00	0.40			
187	B	720650.10	722435.42	5.00	141.00	0.00	0.00	0.40			
188	B	720673.82	722454.67	5.00	159.00	0.00	0.00	0.50			
189	B	720660.95	722446.86	5.00	335.00	0.00	0.00	0.50			
190	B	720684.56	722458.18	5.00	119.00	0.00	0.00	0.50			
191	C	720582.22	722271.82	6.00	38.00	0.00	0.00	0.50			
192	C	720603.41	722296.97	6.00	216.00	0.00	0.00	0.50			
193	C	720617.09	722281.58	6.00	226.00	0.00	0.00	0.50			
194	C	720593.86	722258.28	6.00	38.00	0.00	0.00	0.50			
195	C	720631.75	722266.10	6.00	230.00	0.00	0.00	0.50			
196	C	720608.35	722244.60	6.00	38.00	0.00	0.00	0.50			
197	A	720625.81	722326.67	6.00	133.00	0.00	0.00	0.50			
198	A	720600.55	722302.54	6.00	128.00	0.00	0.00	0.50			
199	M	720633.79	722291.02	5.00	131.00	0.00	0.00	0.50			
200	M	720634.37	722311.19	5.00	227.00	0.00	0.00	0.50			
201	M	720621.98	722303.81	5.00	308.00	0.00	0.00	0.50			
202	A	720681.15	722299.26	5.00	181.00	0.00	0.00	0.50			
203	N	720769.95	722338.19	6.00	6.00	0.00	0.00	0.50			
204	A	720637.93	722227.65	6.00	209.00	0.00	0.00	0.50			
205	A	720652.15	722205.17	6.00	220.00	0.00	0.00	0.50			
206	A	720670.49	722180.00	6.00	246.00	0.00	0.00	0.50			
207	A	720685.38	722185.72	6.00	297.00	0.00	0.00	0.50			
208	A	720715.48	722194.89	6.00	120.00	0.00	0.00	0.50			
209	C	720714.79	722212.95	6.00	37.00	0.00	0.00	0.50			
210	C	720722.07	722238.67	6.00	214.00	0.00	0.00	0.50			
211	A	720696.11	722253.85	6.00	33.00	0.00	0.00	0.50			
212	C	720675.94	722274.00	6.00	44.00	0.00	0.00	0.50			
213	M	720661.97	722269.25	5.00	133.00	0.00	0.00	0.50			
214	M	720643.37	722250.70	5.00	133.00	0.00	0.00	0.50			
215	A	720744.27	722208.71	6.00	110.00	0.00	0.00	0.50			
216	M	720734.65	722232.56	5.00	289.00	0.00	0.00	0.50			

Layout Continued

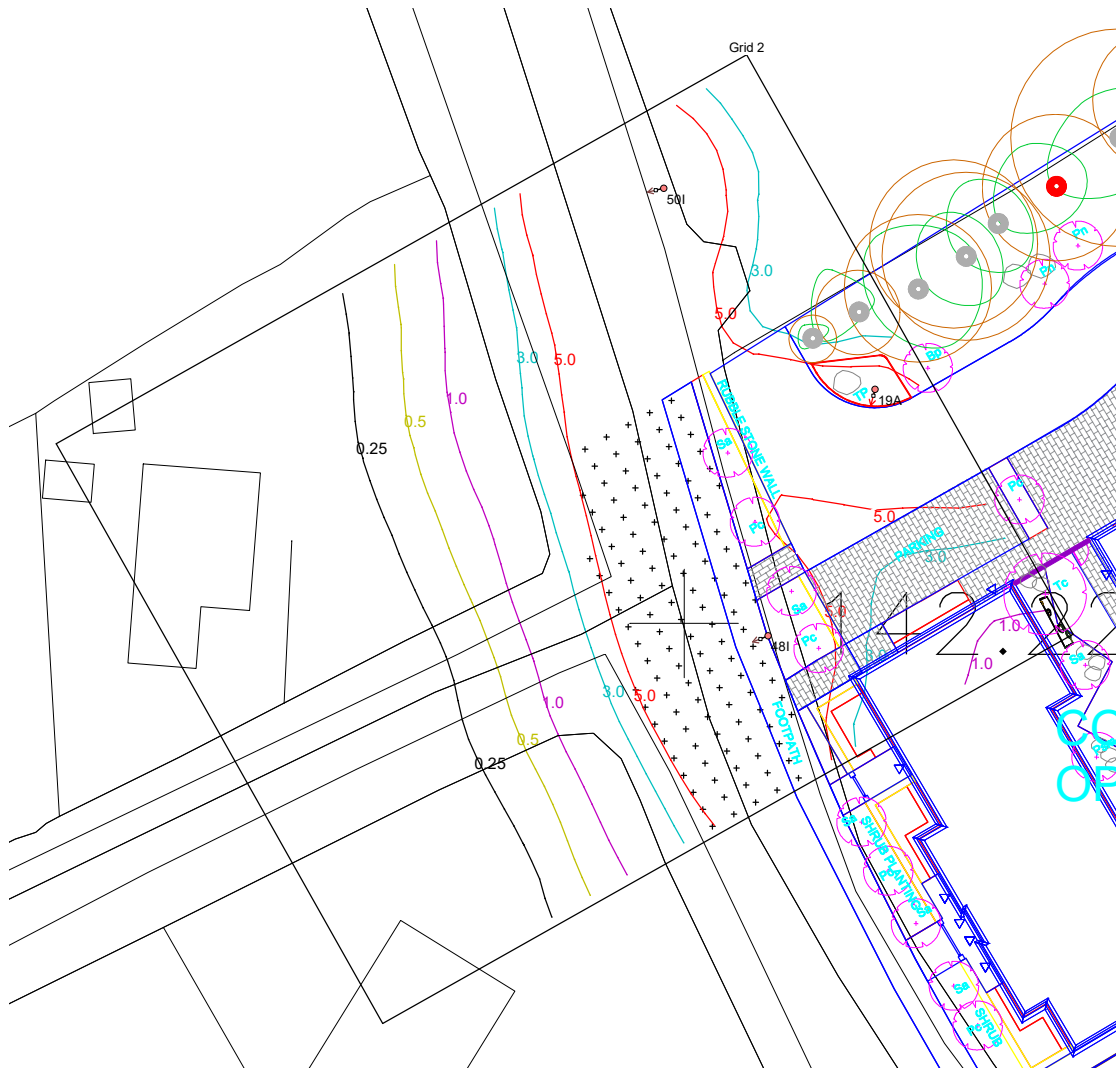
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
217	M	720757.86	722246.64	5.00	289.00	0.00	0.00	0.50			
218	M	720753.37	722228.30	5.00	198.00	0.00	0.00	0.50			
219	A	720774.97	722229.46	6.00	289.00	0.00	0.00	0.40			
220	A	720787.10	722245.38	6.00	358.00	0.00	0.00	0.50			
221	A	720803.29	722275.93	6.00	189.00	0.00	0.00	0.50			
222	A	720785.68	722276.04	6.00	11.00	0.00	0.00	0.50			
223	A	720795.66	722309.12	6.00	193.00	0.00	0.00	0.50			
224	A	720776.60	722310.51	6.00	8.00	0.00	0.00	0.50			
225	C	720780.58	722255.13	6.00	106.00	0.00	0.00	0.50			
226	M	720760.86	722271.50	5.00	208.00	0.00	0.00	0.40			
227	M	720754.59	722292.44	5.00	202.00	0.00	0.00	0.50			
228	M	720745.70	722308.60	5.00	305.00	0.00	0.00	0.40			
229	M	720720.13	722294.64	5.00	299.00	0.00	0.00	0.40			
230	M	720727.62	722313.73	5.00	207.00	0.00	0.00	0.40			
231	A	720692.52	722284.74	6.00	270.00	0.00	0.00	0.40			
232	M	720768.72	722318.13	5.00	288.00	0.00	0.00	0.40			
233	A	720800.94	722239.53	5.00	166.00	0.00	0.00	0.40			
234	M	720871.95	722281.33	5.00	20.00	0.00	0.00	0.40			
235	M	720860.74	722308.70	5.00	14.00	0.00	0.00	0.40			
236	M	720873.59	722304.36	5.00	142.00	0.00	0.00	0.40			
237	M	720862.52	722351.93	5.00	317.00	0.00	0.00	0.40			
238	M	720856.29	722331.29	5.00	0.00	0.00	0.00	0.40			
239	M	720869.92	722320.97	5.00	33.00	0.00	0.00	0.40			
240	M	720866.60	722340.38	5.00	4.00	0.00	0.00	0.40			
241	M	720879.87	722338.57	5.00	195.00	0.00	0.00	0.40			
242	M	720891.20	722329.02	5.00	287.00	0.00	0.00	0.40			
243	M	720883.40	722361.76	5.00	285.00	0.00	0.00	0.40			
244	M	720874.27	722357.14	5.00	198.00	0.00	0.00	0.40			
245	M	720884.28	722311.46	5.00	228.00	0.00	0.00	0.40			
246	F	720633.30	722253.39	5.00	132.00	0.00	0.00	0.40			
247	F	720643.58	722269.27	5.00	318.00	0.00	0.00	0.40			
248	F	720658.03	722283.25	5.00	313.00	0.00	0.00	0.40			
249	F	720561.67	722203.07	5.00	220.00	0.00	0.00	0.40			
250	F	720573.37	722162.62	5.00	320.00	0.00	0.00	0.40			
251	F	720671.32	722288.42	5.00	96.00	0.00	0.00	0.40			
252	F	720670.93	722300.66	5.00	25.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
253	F	720666.40	722315.80	5.00	326.00	0.00	0.00	0.40			
254	B	720625.16	722212.40	6.00	131.00	0.00	0.00	0.40			
255	A	720848.71	722246.91	6.00	101.00	0.00	0.00	0.40			
256	A	720880.52	722249.28	6.00	93.00	0.00	0.00	0.40			
257	A	720909.72	722252.77	6.00	97.00	0.00	0.00	0.40			
258	A	720942.34	722256.81	6.00	95.00	0.00	0.00	0.40			
259	C	720936.20	722272.03	6.00	191.00	0.00	0.00	0.40			
260	M	720842.40	722259.30	5.00	330.00	0.00	0.00	0.40			
261	M	720860.89	722262.47	5.00	272.00	0.00	0.00	0.40			
262	M	720881.06	722261.94	5.00	87.00	0.00	0.00	0.40			
263	M	720896.43	722272.77	5.00	273.00	0.00	0.00	0.40			
264	M	720916.76	722268.33	5.00	248.00	0.00	0.00	0.40			
265	M	720910.42	722283.33	5.00	319.00	0.00	0.00	0.40			
266	C	720933.28	722296.86	6.00	191.00	0.00	0.00	0.40			
267	C	720926.46	722324.12	6.00	227.00	0.00	0.00	0.40			
268	C	720906.48	722319.60	6.00	114.00	0.00	0.00	0.40			
269	C	720894.46	722344.33	6.00	23.00	0.00	0.00	0.40			
270	C	720916.74	722347.01	6.00	196.00	0.00	0.00	0.40			
271	C	720902.05	722367.56	6.00	254.00	0.00	0.00	0.40			
272	M	720827.17	722351.37	5.00	191.00	0.00	0.00	0.40			
273	M	720833.02	722372.04	5.00	290.00	0.00	0.00	0.40			
274	M	720857.03	722382.77	5.00	299.00	0.00	0.00	0.40			
275	M	720876.65	722398.08	5.00	297.00	0.00	0.00	0.40			
276	M	720885.73	722404.54	5.00	334.00	0.00	0.00	0.40			
277	M	720861.72	722375.44	5.00	272.00	0.00	0.00	0.40			
278	M	720880.43	722375.44	5.00	304.00	0.00	0.00	0.40			
279	M	720892.55	722374.93	5.00	223.00	0.00	0.00	0.40			
280	C	720917.49	722300.49	5.00	0.00	0.00	0.00	0.40			
281	M	720698.77	722313.82	5.00	96.00	0.00	0.00	0.40			
282	M	720728.08	722325.51	5.00	125.00	0.00	0.00	0.40			
283	M	720750.98	722337.93	5.00	115.00	0.00	0.00	0.40			
284	M	720650.44	722326.99	5.00	49.00	0.00	0.00	0.40			
285	M	720707.80	722481.27	5.00	249.00	0.00	0.00	0.50			
286	M	720685.48	722491.84	5.00	234.00	0.00	0.00	0.50			
287	M	720700.31	722472.44	5.00	153.00	0.00	0.00	0.50			

Horizontal Illuminance (lux)

Grid 2



Results

Eav	10.35
Emin	4.50
Emax	20.19
Emin/Emax	0.22
Emin/Eav	0.43

Horizontal Illuminance (lux)

Grid 4

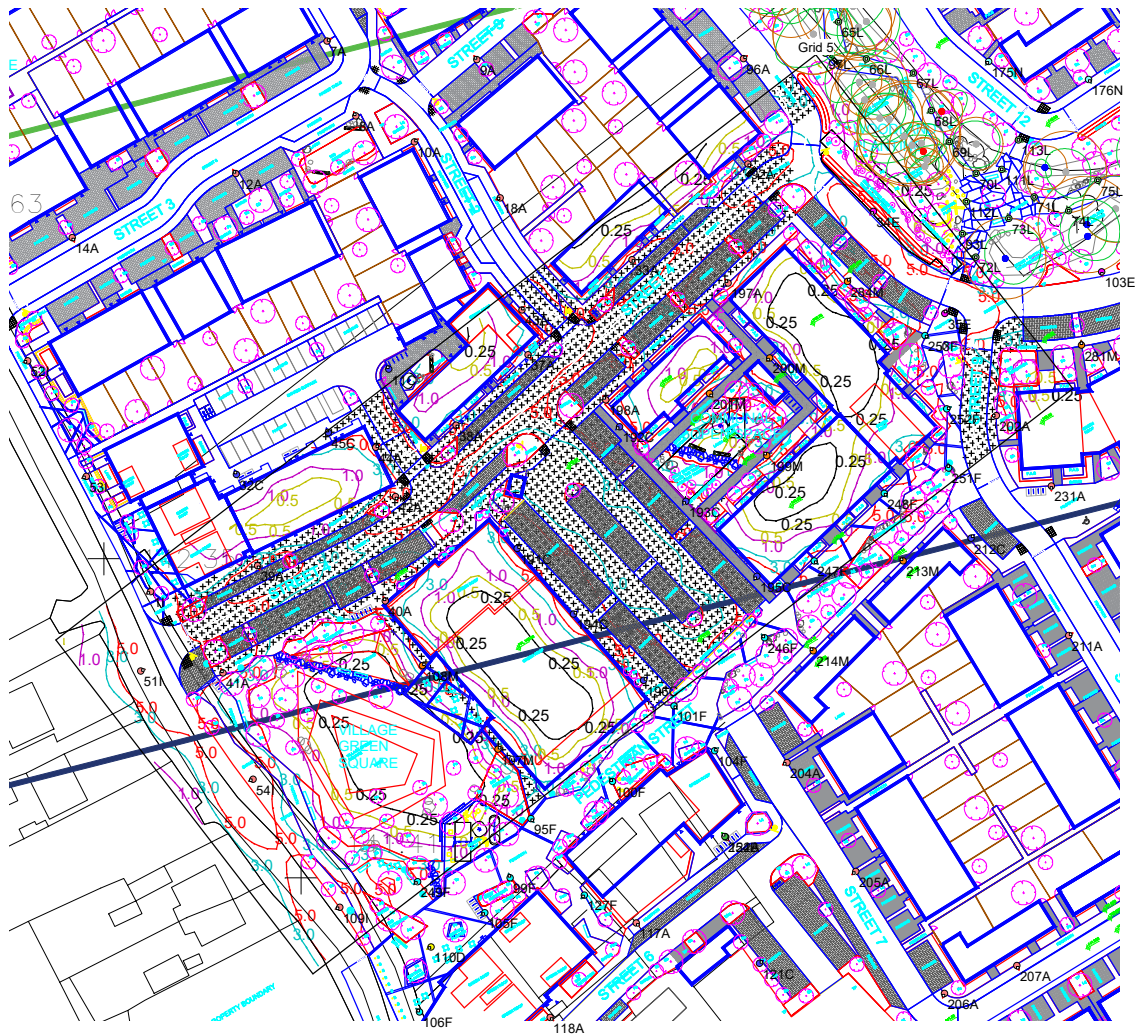


Results

Eav	5.61
Emin	1.21
E _{max}	15.37
E _{min} /E _{max}	0.08
E _{min} /E _{av}	0.21

Horizontal Illuminance (lux)

Grid 5



Results

Eav	5.39
Emin	1.08
Emax	24.42
Emin/Emax	0.04
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 6



Results

Eav	5.16
Emin	1.06
Emax	20.94
Emin/Emax	0.05
Emin/Eav	0.21

Horizontal Illuminance (lux)

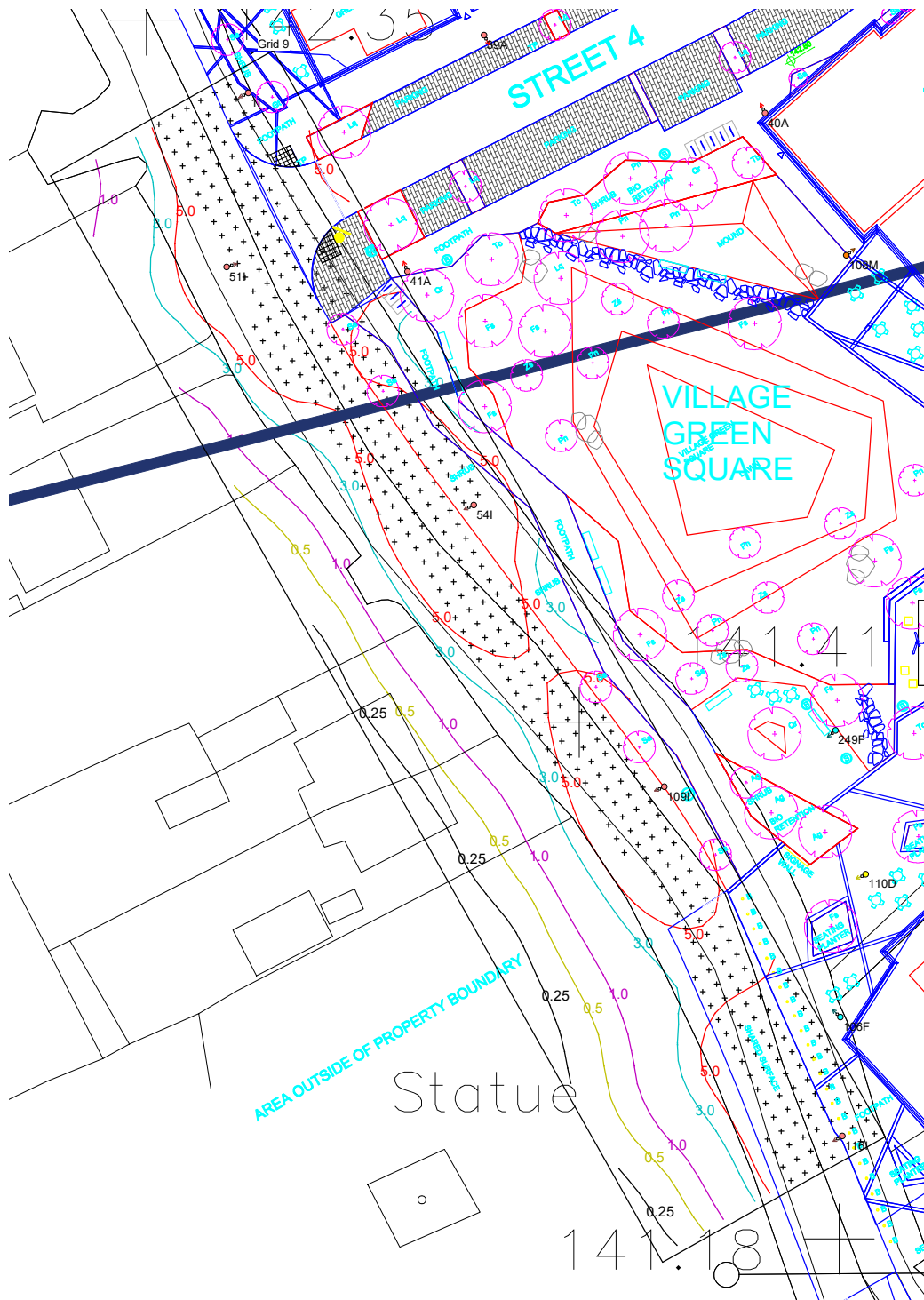


Results

Eav	5.56
Emin	1.10
Emax	15.87
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 9



Results

Eav	10.73
Emin	3.44
Emax	24.61
Emin/Emax	0.14
Emin/Eav	0.32

Horizontal Illuminance (lux)

Grid 10

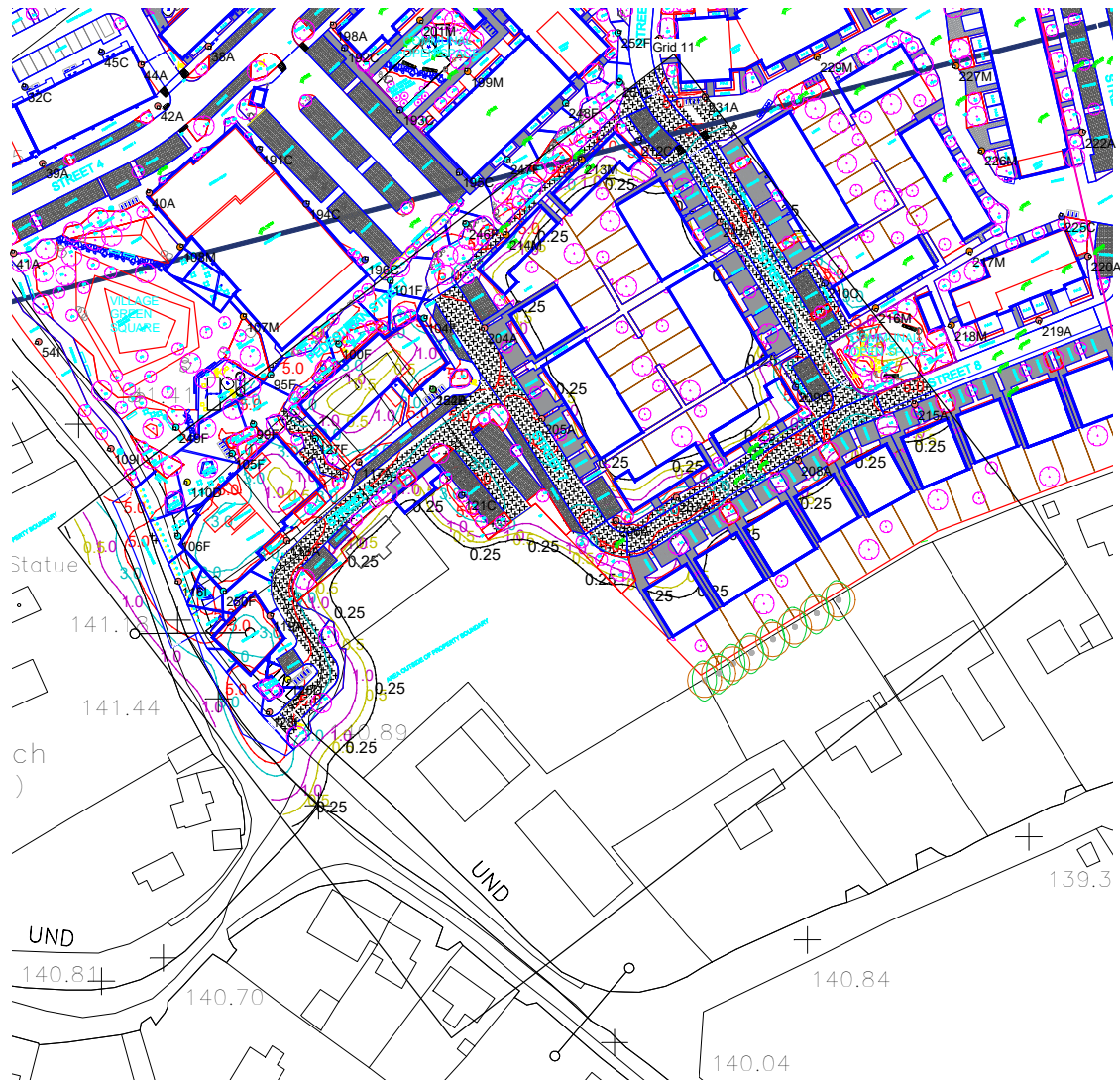


Results

Eav	7.72
Emin	3.11
Emax	19.87
Emin/Emax	0.16
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 11

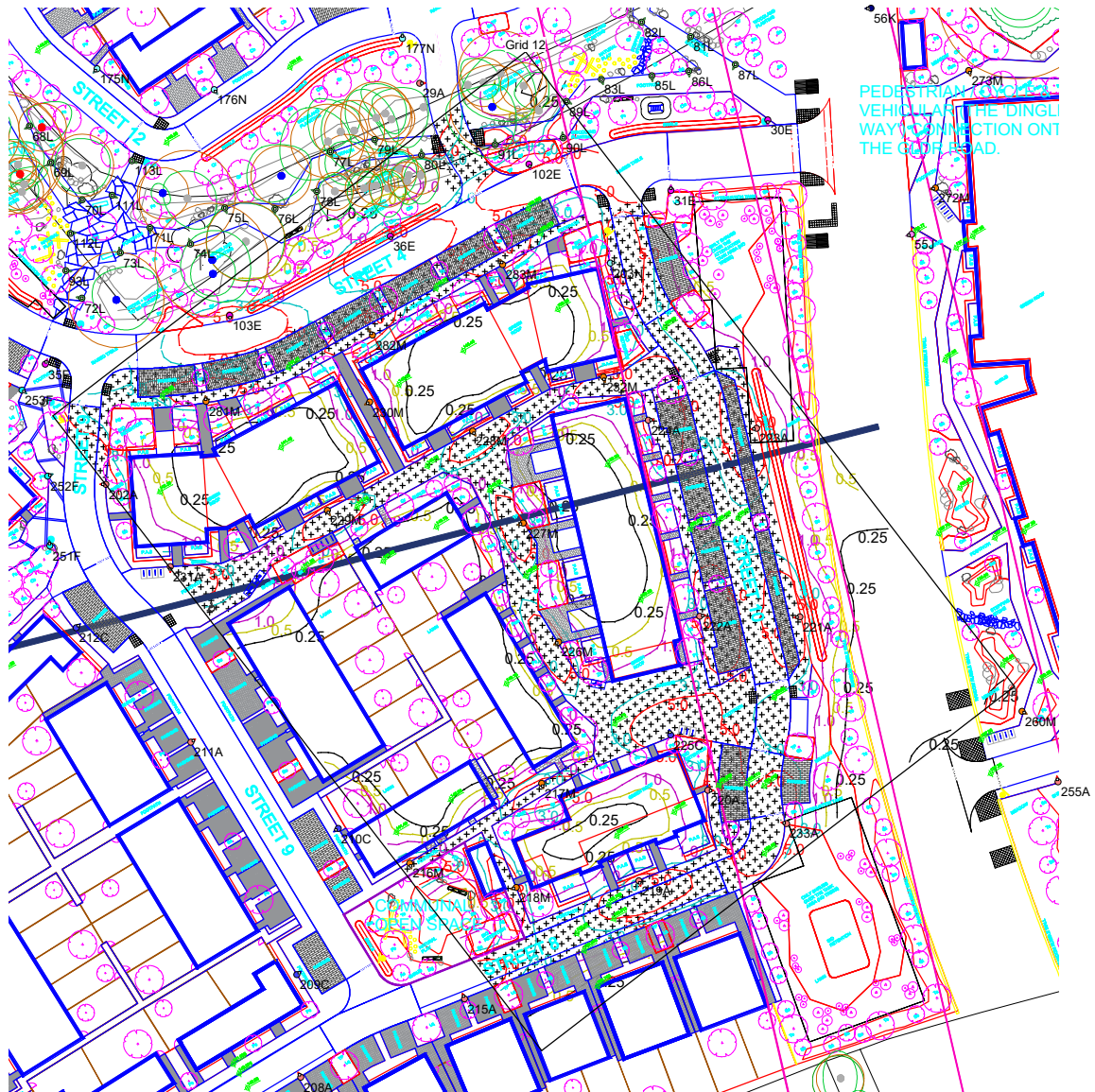


Results

Eav	5.30
Emin	1.08
Emax	15.97
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 12



Results

Eav	5.00
Emin	1.04
E _{max}	21.50
Emin/E _{max}	0.05
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 13

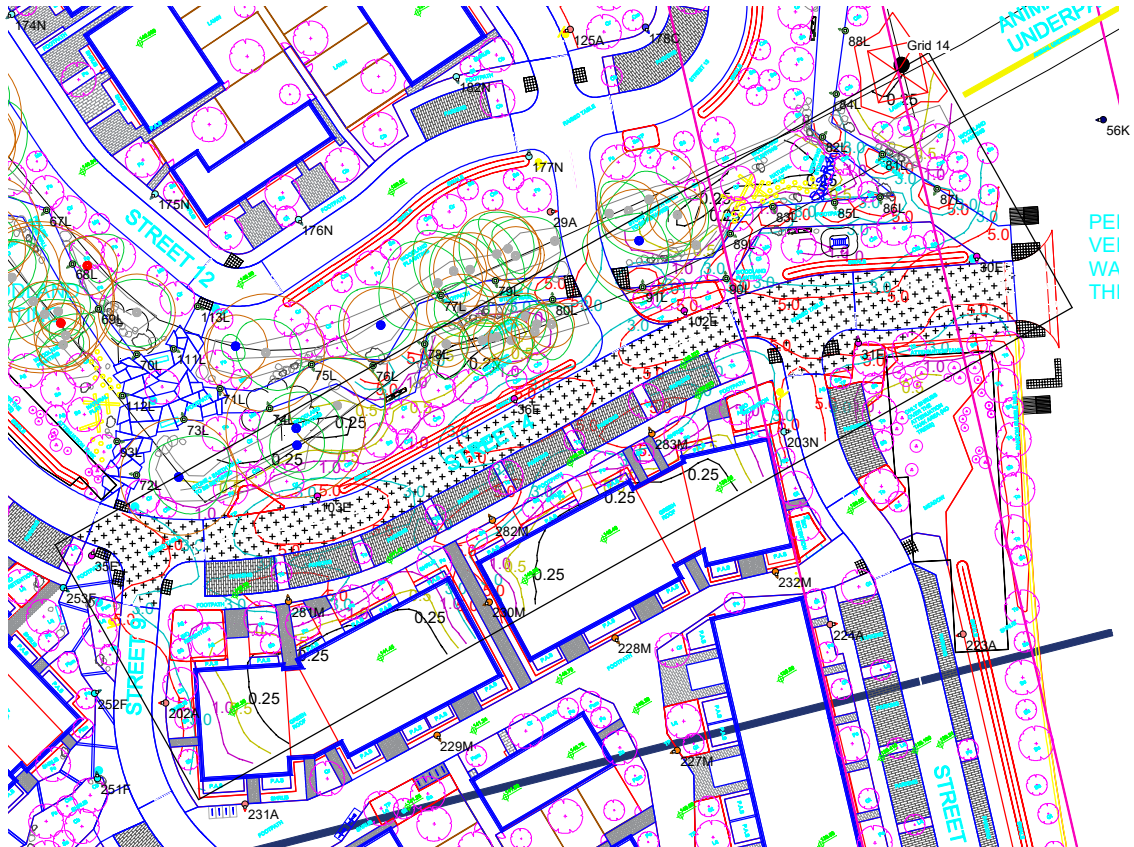


Results

Eav	6.25
Emin	1.24
E _{max}	17.11
E _{min} /E _{max}	0.07
E _{min} /E _{av}	0.20

Horizontal Illuminance (lux)

Grid 14

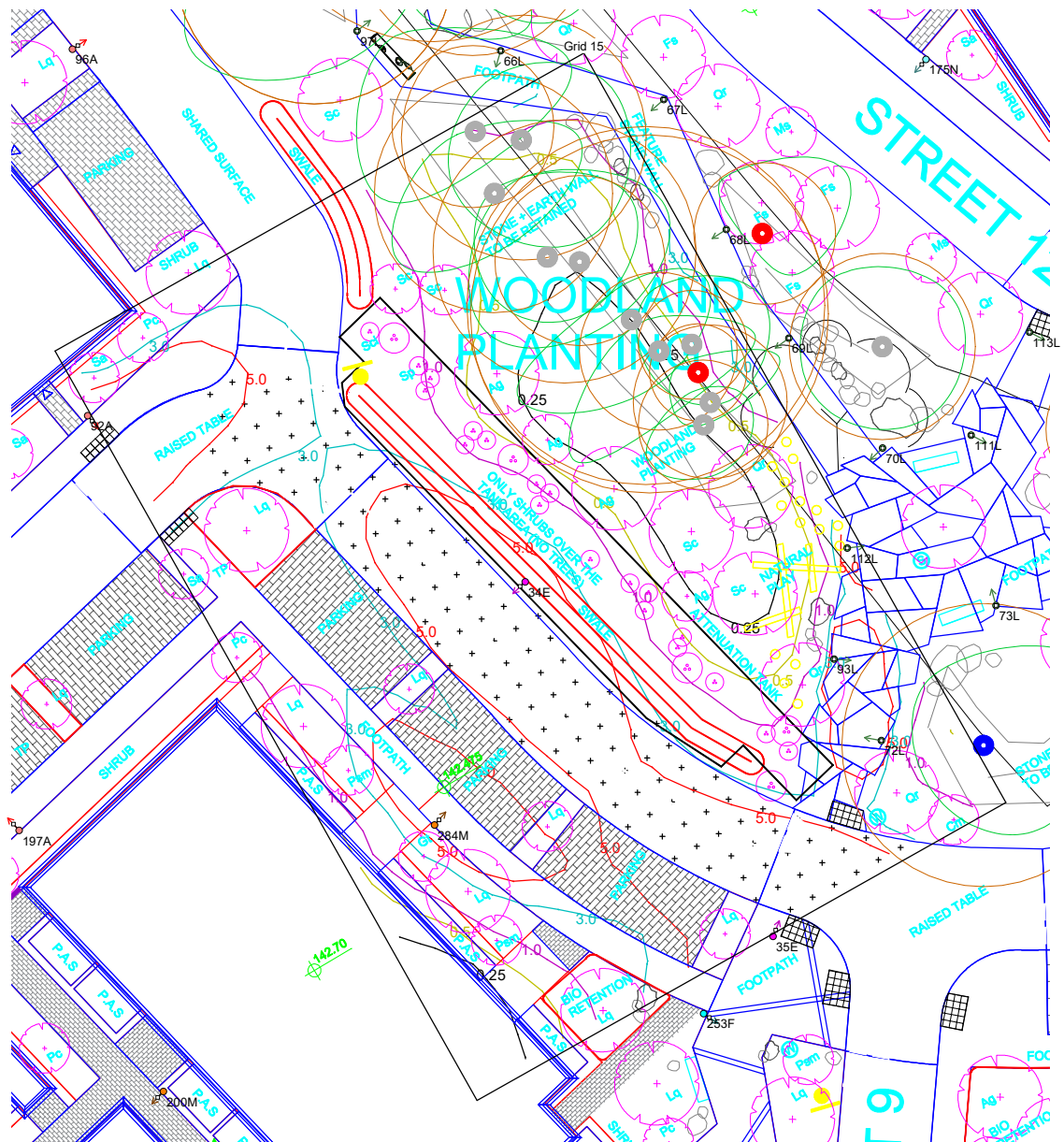


Results

Eav	7.69
Emin	1.56
Emax	28.91
Emin/Emax	0.05
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 15



Results

Eav	7.51
Emin	2.49
Emax	19.30
Emin/Emax	0.13
Emin/Eav	0.33