

DATE: 10 June 2022
DESIGNER: Aidan Drennan
PROJECT No: 18012
PROJECT NAME: Jacobs Island SHD Application



Lighting BS5489-1:2020

Main Access Roads & Office/Hotel Access Roads-Category P2.

Residential Access Roads-Category P3

Dimming to U14
3000K Luminaires

A-CREE Energy Due TRMA-02-10013L30862W 9.74klm 62W CLO
B-CREE Energy Due TRMA-02-15013L30862W 9.36klm 62W CLO
C-CREE Energy Due TRMA-02-1009L30833W 5.43klm 33W CLO
D-CREE Energy Uno TRSA-02-075-4L3-814W 2.11klm 14W CLO

Outdoor Lighting Report

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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	572619.92	569992.75	454.27	289.36	1.82	1.16
2	Main Access Road	572754.31	570098.19	16.08	89.32	1.15	1.49
3	Block 11 Access Road	572825.53	570246.75	83.63	22.24	1.49	1.24
4	Office Access Road & Car P...	572716.45	570171.58	139.22	28.61	1.50	1.43
5	Hotel Access Road & Drop O...	572627.99	570124.87	96.96	29.18	3.88	1.17
6	Block 14 Access Road	572750.58	570128.93	78.27	15.99	1.91	0.55
7	Parking Court Adjacent Blo...	572797.22	570165.81	79.61	21.81	1.47	1.45
8	Parking Court Adjacent Off...	572859.68	570343.61	58.69	62.44	1.47	1.49
9	Walkway	572727.39	570080.09	19.07	31.74	0.79	1.27
10	Block 14 Walkway	572791.79	570078.16	37.02	17.52	1.48	0.70

Luminaires

Luminaire A Data



Supplier	Cree Lighting
Type	TRMA-02-10013L30862W
Lamp(s)	28L13L62W30K
Lamp Flux (klm)	9.74
File Name	TRMA-02-100-13L-308 62W-203-QL21-R0 6.IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	331.1, 27.4, 0.0
No. in Project	11

Luminaire B Data



Supplier	Cree Lighting
Type	TRMA-02-15013L30862W
Lamp(s)	28D13L62W30K
Lamp Flux (klm)	9.36
File Name	TRMA-02-150-13L-308 62W-1038-QL21-R 02.IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	442.8, 32.9, 0.0
No. in Project	8

Luminaire C Data



Supplier	Cree Lighting
Type	TRMA-02-100-9L30833W
Lamp(s)	20L 9L33W30K
Lamp Flux (klm)	5.43
File Name	TRMA-02-100-9L-308 33W-203-QL21-R06. IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	331.1, 27.4, 0.0
No. in Project	8

Luminaire D Data



Supplier	Cree Lighting
Type	TRSA-02-075-4L30814W
Lamp(s)	8lu4L14W3K
Lamp Flux (klm)	2.11
File Name	TRSA-02-075-4L-308 14W-1088-QL20-R18 .IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	418.0, 31.4, 0.0
No. in Project	4

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	572752.96	570107.38	10.00	41.00	0.00	0.00	1.00			
2	B	572681.58	570168.17	10.00	96.00	0.00	0.00	1.00			
3	A	572731.85	570137.83	10.00	35.00	0.00	0.00	1.00			
4	A	572709.04	570169.48	10.00	30.00	0.00	0.00	1.00			
6	B	572629.56	570130.32	10.00	90.00	0.00	0.00	1.00			
7	B	572651.36	570147.69	10.00	132.00	0.00	0.00	1.00			
7	A	572714.83	570193.63	10.00	302.00	0.00	0.00	0.40			
8	A	572723.02	570178.88	10.00	109.00	0.00	0.00	0.40			
9	A	572743.48	570212.07	10.00	311.00	0.00	0.00	0.40			
10	A	572754.42	570199.12	10.00	122.00	0.00	0.00	0.40			
11	A	572778.19	570234.90	10.00	305.00	0.00	0.00	0.40			
12	A	572788.66	570220.74	10.00	122.00	0.00	0.00	0.40			
13	A	572813.68	570257.86	10.00	322.00	0.00	0.00	0.40			
14	A	572822.95	570242.70	10.00	131.00	0.00	0.00	0.40			
15	B	572852.76	570258.11	10.00	242.00	0.00	0.00	1.00			
16	B	572889.58	570238.91	10.00	230.00	0.00	0.00	1.00			
17	C	572757.61	570147.61	8.00	308.00	0.00	0.00	0.40			
18	C	572786.80	570169.43	8.00	315.00	0.00	0.00	0.40			
19	C	572914.61	570351.04	10.00	141.00	0.00	0.00	1.00			
20	B	572814.92	570175.35	10.00	243.00	0.00	0.00	1.00			
21	B	572851.61	570151.64	10.00	231.00	0.00	0.00	1.00			
22	B	572863.14	570134.64	10.00	160.00	0.00	0.00	1.00			
23	C	572903.38	570338.27	10.00	136.00	0.00	0.00	1.00			
24	C	572894.57	570369.28	10.00	321.00	0.00	0.00	1.00			
25	C	572907.81	570318.74	6.00	249.00	0.00	0.00	0.40			
27	C	572876.59	570349.97	10.00	320.00	0.00	0.00	1.00			
29	C	572896.63	570332.75	8.00	235.00	0.00	0.00	1.00			
30	D	572735.74	570082.69	8.00	132.00	0.00	0.00	0.40			
31	D	572750.70	570095.92	8.00	120.00	0.00	0.00	0.40			
31	D	572810.36	570095.79	6.00	69.00	0.00	0.00	0.40			
32	D	572792.16	570091.22	6.00	315.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1



Results

Eav	11.06
Emin	1.86
E _{max}	34.39
E _{min} /E _{max}	0.05
E _{min} /E _{av}	0.17

Horizontal Illuminance (lux)

Main Access Road

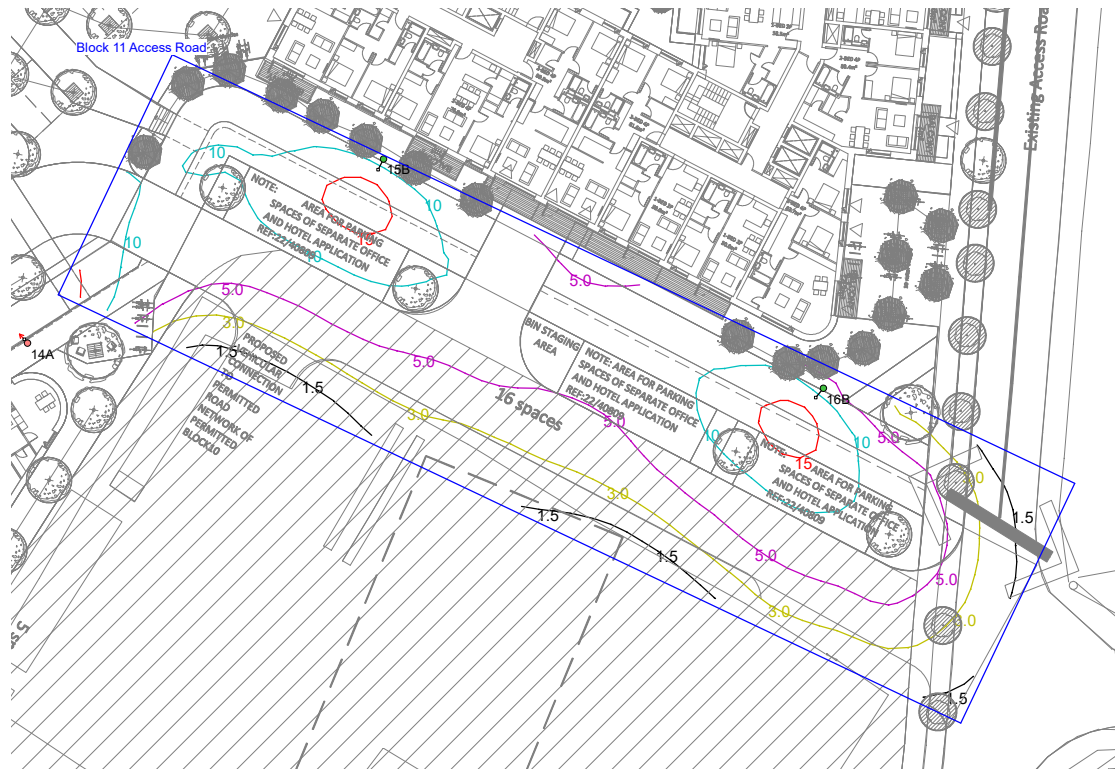


Results

Eav	11.52
Emin	2.48
Emax	26.37
Emin/Emax	0.09
Emin/Eav	0.22

Horizontal Illuminance (lux)

Block 11 Access Road



Results

Eav	7.87
Emin	2.04
Emax	17.20
Emin/Emax	0.12
Emin/Eav	0.26

Horizontal Illuminance (lux)

Office Access Road & Car Park



Results

Eav	14.70
Emin	3.68
Emax	26.82
Emin/Emax	0.14
Emin/Eav	0.25

Horizontal Illuminance (lux)

Hotel Access Road & Drop Offs

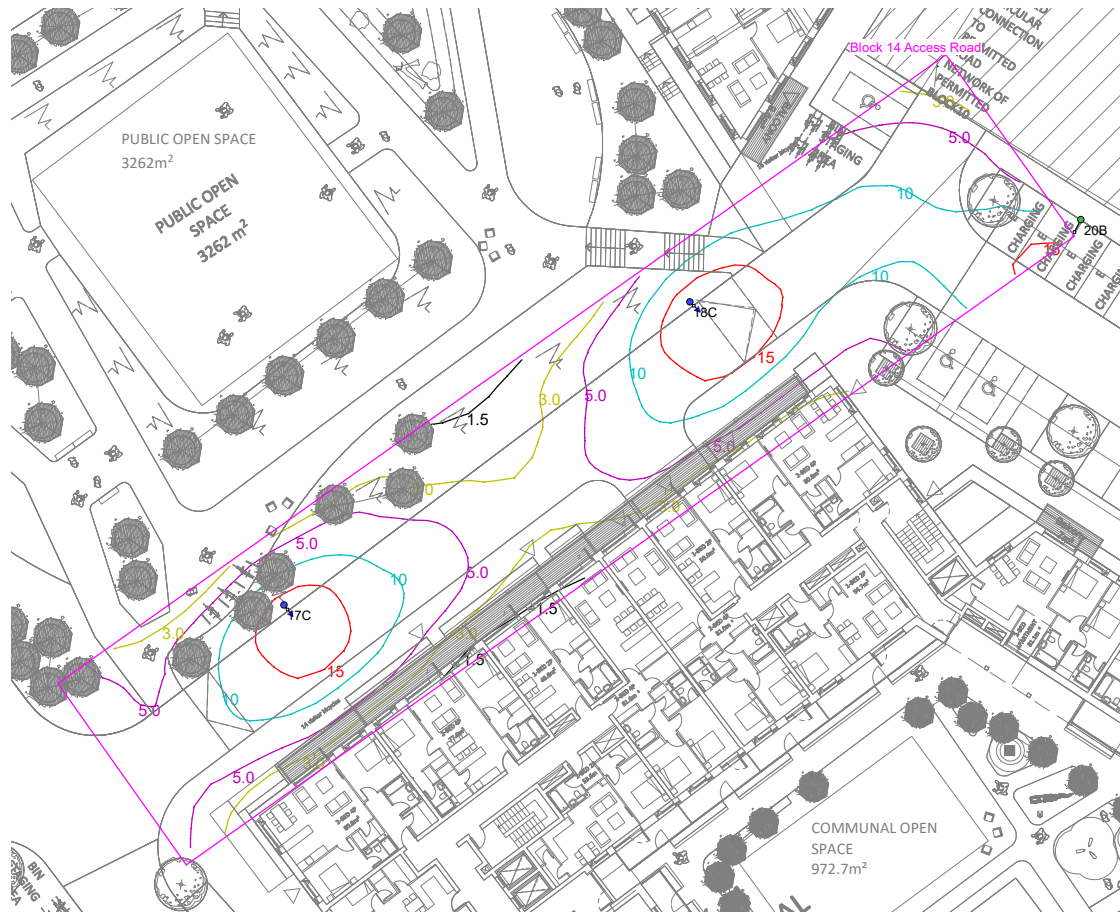


Results

Eav	10.54
Emin	3.91
E _{max}	25.82
E _{min} /E _{max}	0.15
E _{min} /E _{av}	0.37

Horizontal Illuminance (lux)

Block 14 Access Road

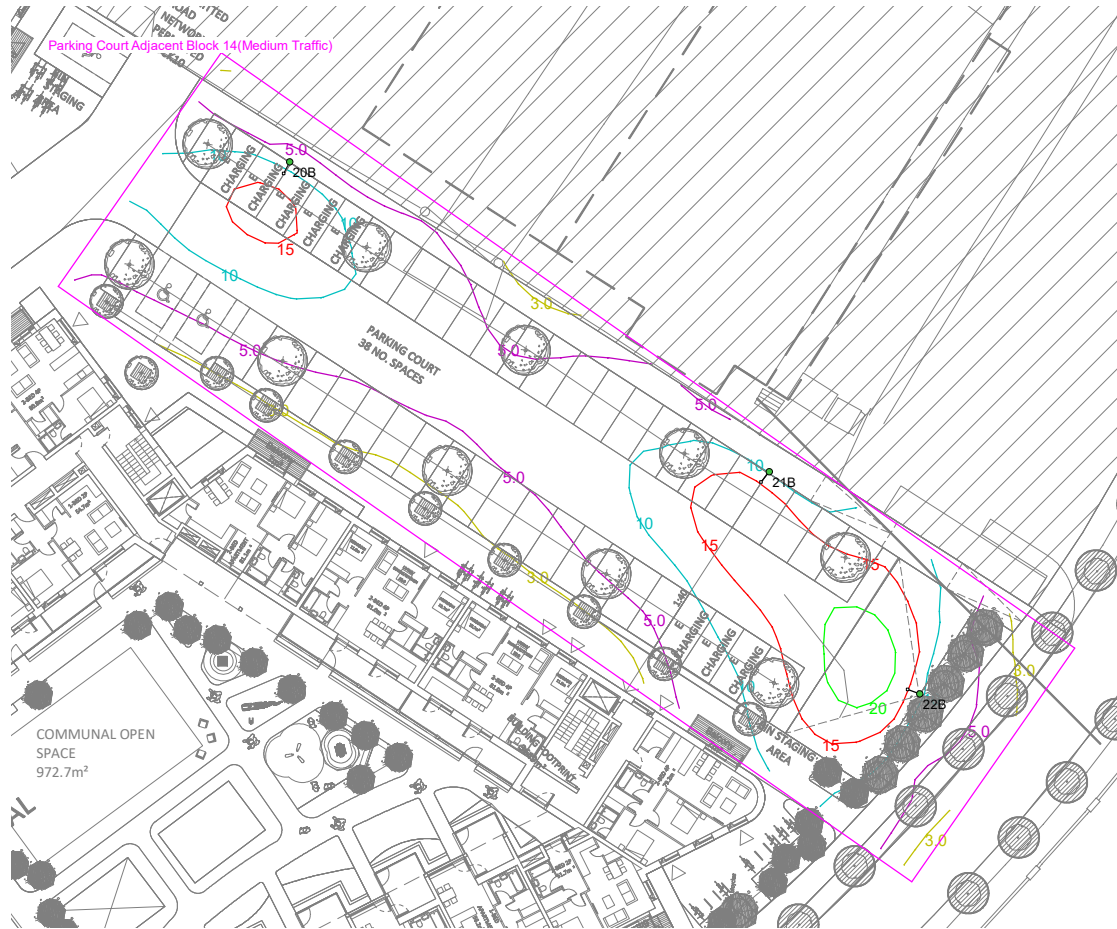


Results

Eav	9.48
Emin	2.51
E _{max}	19.90
E _{min} /E _{max}	0.13
E _{min} /E _{av}	0.26

Horizontal Illuminance (lux)

Parking Court Adjacent Block 14(Medium Traffic)

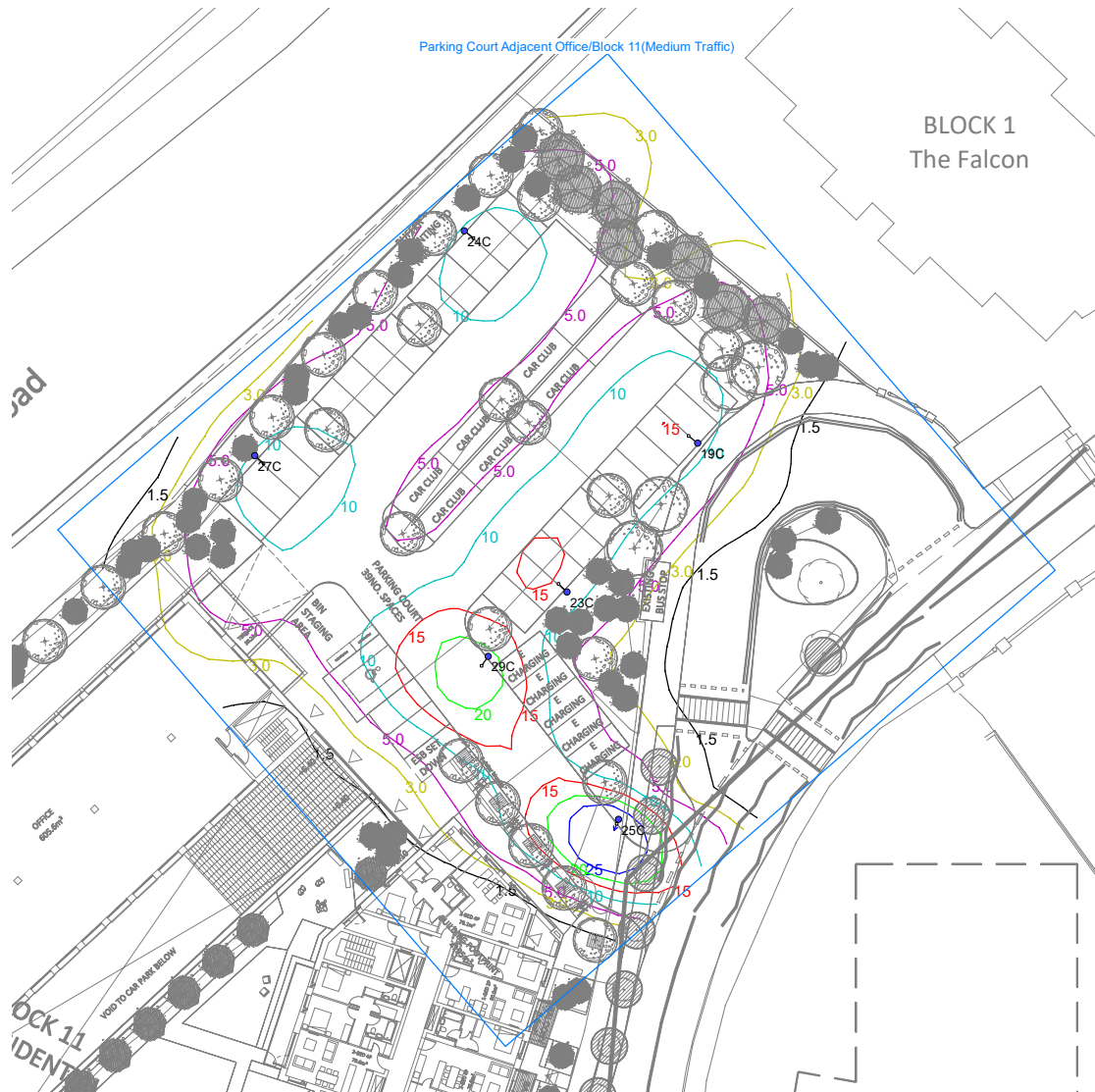


Results

Eav	10.03
Emin	2.97
E _{max}	23.32
E _{min} /E _{max}	0.13
E _{min} /E _{av}	0.30

Horizontal Illuminance (lux)

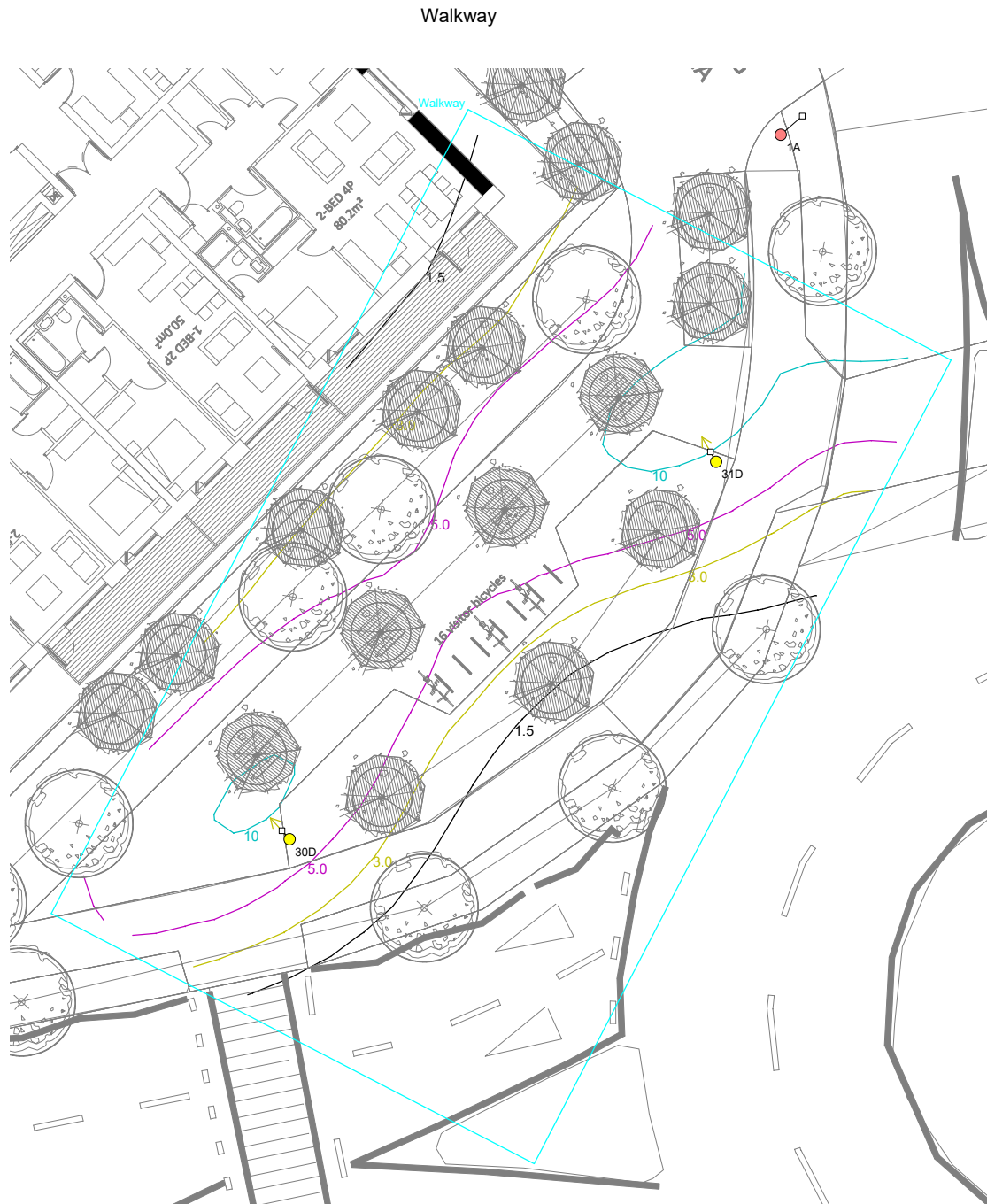
Parking Court Adjacent Office/Block 11(Medium Traffic)



Results

Eav	10.44
Emin	3.43
Emax	35.44
Emin/Emax	0.10
Emin/Eav	0.33

Horizontal Illuminance (lux)



Results

Eav	7.35
Emin	3.53
E _{max}	12.15
E _{min} /E _{max}	0.29
E _{min} /E _{av}	0.48

Horizontal Illuminance (lux)

Block 14 Walkway



Results

Eav	8.35
Emin	2.25
E _{max}	18.53
E _{min} /E _{max}	0.12
E _{min} /E _{av}	0.27