

**DATE:** 09 June 2022  
**DESIGNER:** Graham Sheehan & AN  
**PROJECT No:** SES 07021 Rev B  
**PROJECT NAME:** Heiton Buckley Yard Dwyer Nolan Developments



Residential area designed in accordance with ISEN13201-2 2015 Class P4.

Steps and ramps designed in accordance with EN17210:2021 with illuminance levels as per BS8300-1:2018 Table 5 (Ramps and stairs in the external environment)

Rev A: Junction section added.  
Rev B: Updated site layout.

## Outdoor Lighting Report

**PREPARED BY:** Sabre Electrical Services Ltd.  
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Tolka Valley Road,  
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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	716511.00	739895.00	201.00	175.00	1.50	1.50
2	Grid 2	716660.00	739929.00	16.00	19.00	1.00	1.00
3	Grid 3	716581.32	740045.17	138.00	36.00	1.50	1.50

### Luminaires



#### Luminaire A Data

Supplier	C U Phosco
Type	P852-12-F2-NW-CB0850-32W
Lamp(s)	740C NW
Lamp Flux (klm)	3.86
File Name	P852-12-F2-NW-CB0850-32W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	761.9, 260.5, 34.9
No. in Project	6



#### Luminaire B Data

Supplier	C U Phosco
Type	P852-12-P4-NW-CB0500-20W
Lamp(s)	740C NW
Lamp Flux (klm)	2.51
File Name	P852-12-P4-NW-CB0500-20W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	760.6, 161.3, 0.8
No. in Project	6



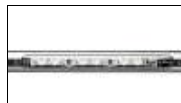
#### Luminaire C Data

Supplier	C U Phosco
Type	P852-12-R3B-NW-CB0200-9W
Lamp(s)	740C NW
Lamp Flux (klm)	1.11
File Name	P852-12-R3B-NW-CB0200-9W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	896.4, 62.1, 1.9
No. in Project	5



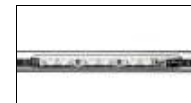
#### Luminaire D Data

Supplier	Urbis Schreder
Type	FLEXIA TOP 5303 Deep shape PC 20 LH3 51C@300mA WW 730 230V
Lamp(s)	20 LH351C@300mA WW 730 230V
LampFlux(klm)/Colour	2.60 WW 3000K/70
File Name	FLEXIA TOP 5303 20 LH351C 300mA WW 730 19.6W 445402 Deep shape PC 230V ...
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	668.3, 98.4, 49.9
No. in Project	9



#### Luminaire E Data

Supplier	Urbis Schreder
Type	ALINEA Handrail 5117 - 3 LED 350mA WW Profiled Poly Clear, Sm
Lamp(s)	3 LEDs WW
Lamp Flux (klm)	0.37
File Name	ALINEA Handrail 5117 3 LED 350mA WW Profiled Poly Clear Smooth WO7312.ltd
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	681.0, 51.7, 4.1
No. in Project	3



#### Luminaire F Data

Supplier	Urbis Schreder
Type	ALINEA Handrail 5121 - 3 LED 350mA WW Profiled Poly Clear, Sm
Lamp(s)	3 LEDs WW
Lamp Flux (klm)	0.37
File Name	ALINEA Handrail 5121 3 LED 350mA WW Profiled Poly Clear Smooth WO7314.ltd
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	230.6, 22.2, 4.1
No. in Project	14

## Luminaires



### Luminaire G Data

Supplier	_Historic Lanterns
Type	MA 50 POSN NO. 2 X
Lamp(s)	SOX+ 135W
Lamp Flux (klm)	20.80
File Name	TM00005.CIB
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	273.0, 198.0, 52.0
No. in Project	7

**Layout**

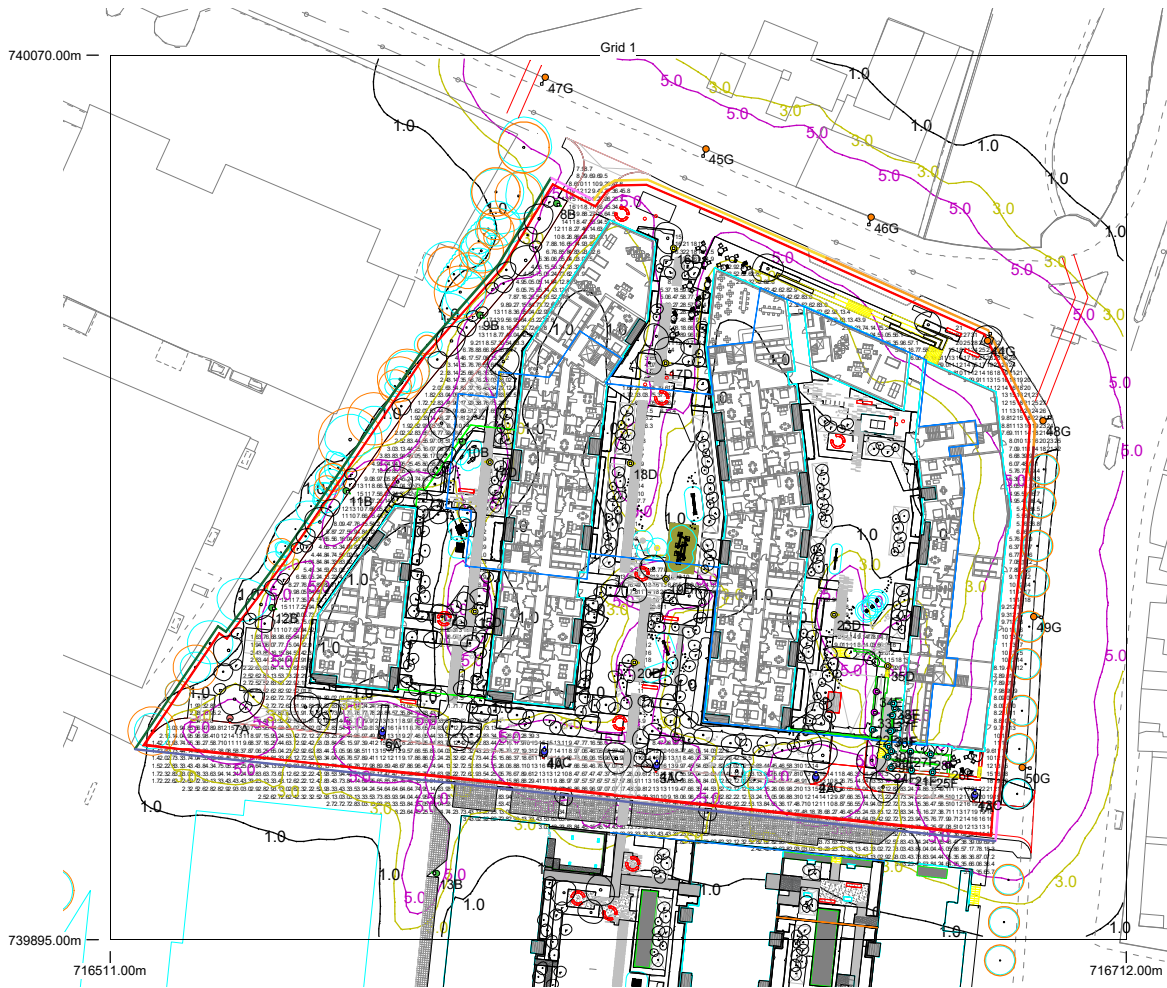
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	716681.89	739923.42	6.00	259.00	0.00	0.00	0.40			
2	A	716650.52	739927.08	6.00	262.00	0.00	0.00	0.40			
3	A	716619.01	739929.20	6.00	262.00	0.00	0.00	0.40			
4	A	716596.76	739931.89	6.00	262.00	0.00	0.00	0.40			
5	A	716564.77	739935.53	6.00	266.00	0.00	0.00	0.40			
6	C	716564.80	739936.07	6.00	82.00	0.00	0.00	0.40			
7	A	716534.71	739938.92	6.00	263.00	0.00	0.00	0.40			
8	B	716599.32	740040.67	6.00	328.00	0.00	0.00	0.40			
9	B	716584.13	740018.62	6.00	322.00	0.00	0.00	0.40			
10	B	716580.69	739993.53	6.00	145.00	0.00	0.00	0.40			
11	B	716557.66	739983.85	6.00	326.00	0.00	0.00	0.40			
12	B	716542.98	739960.71	6.00	344.00	0.00	0.00	0.40			
13	B	716575.53	739908.20	6.00	169.00	0.00	0.00	0.40			
14	D	716586.08	739989.56	5.00	176.00	0.00	0.00	0.00			
15	D	716583.09	739959.94	5.00	176.00	0.00	0.00	0.00			
16	D	716622.39	740031.85	5.00	353.00	0.00	0.00	0.00			
17	D	716620.87	740009.10	5.00	0.00	0.00	0.00	0.00			
18	D	716613.85	739989.31	5.00	356.00	0.00	0.00	0.00			
19	D	716620.88	739966.42	5.00	267.00	0.00	0.00	0.00			
20	D	716614.63	739949.94	5.00	353.00	0.00	0.00	0.00			
21	F	716669.45	739928.60	1.00	81.00	0.00	0.00	0.10			
22	F	716661.72	739936.60	1.00	350.00	0.00	0.00	0.10			
23	D	716654.13	739959.34	5.00	359.00	0.00	0.00	0.00			
24	F	716665.39	739929.06	1.00	83.00	0.00	0.00	0.10			
25	F	716673.65	739928.18	1.00	83.00	0.00	0.00	0.01			
26	E	716676.72	739929.66	1.00	167.00	0.00	0.00	0.01			
27	F	716669.27	739932.28	1.00	265.00	0.00	0.00	0.01			
28	F	716673.23	739931.73	1.00	268.00	0.00	0.00	0.01			
29	F	716664.78	739931.20	1.00	178.00	0.00	0.00	0.01			
30	F	716664.97	739933.28	1.00	174.00	0.00	0.00	0.01			
31	F	716665.68	739936.49	1.00	352.00	0.00	0.00	0.01			
32	F	716666.16	739940.83	1.00	352.00	0.00	0.00	0.01			
33	E	716662.12	739940.00	1.00	350.00	0.00	0.00	0.10			
34	E	716662.52	739944.14	1.00	351.00	0.00	0.00	0.10			
35	D	716664.75	739949.24	5.00	352.00	0.00	0.00	0.00			
36	F	716665.32	739936.30	1.00	173.00	0.00	0.00	0.10			

**Layout Continued**

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
37	F	716665.72	739939.42	1.00	173.00	0.00	0.00	0.10			
38	F	716665.97	739941.76	1.00	173.00	0.00	0.00	0.10			
39	F	716665.46	739932.37	1.00	352.00	0.00	0.00	0.01			
40	C	716596.82	739932.23	6.00	87.00	0.00	0.00	0.40			
41	C	716619.06	739929.52	6.00	87.00	0.00	0.00	0.40			
42	C	716650.56	739927.33	6.00	87.00	0.00	0.00	0.40			
43	C	716681.99	739923.69	6.00	87.00	0.00	0.00	0.40			
44	G	716684.52	740013.52	9.00	69.00	5.00	0.00	1.50			
45	G	716628.79	740051.42	9.00	248.00	5.00	0.00	1.50			
46	G	716661.50	740037.95	9.00	252.00	5.00	0.00	1.50			
47	G	716597.04	740065.64	9.00	243.00	5.00	0.00	1.50			
48	G	716695.48	739997.70	10.00	27.00	5.00	0.00	1.50			
49	G	716693.62	739958.96	10.00	356.00	5.00	0.00	1.50			
50	G	716691.39	739929.14	10.00	356.00	5.00	0.00	1.50			

# Horizontal Illuminance (lux)

Grid 1

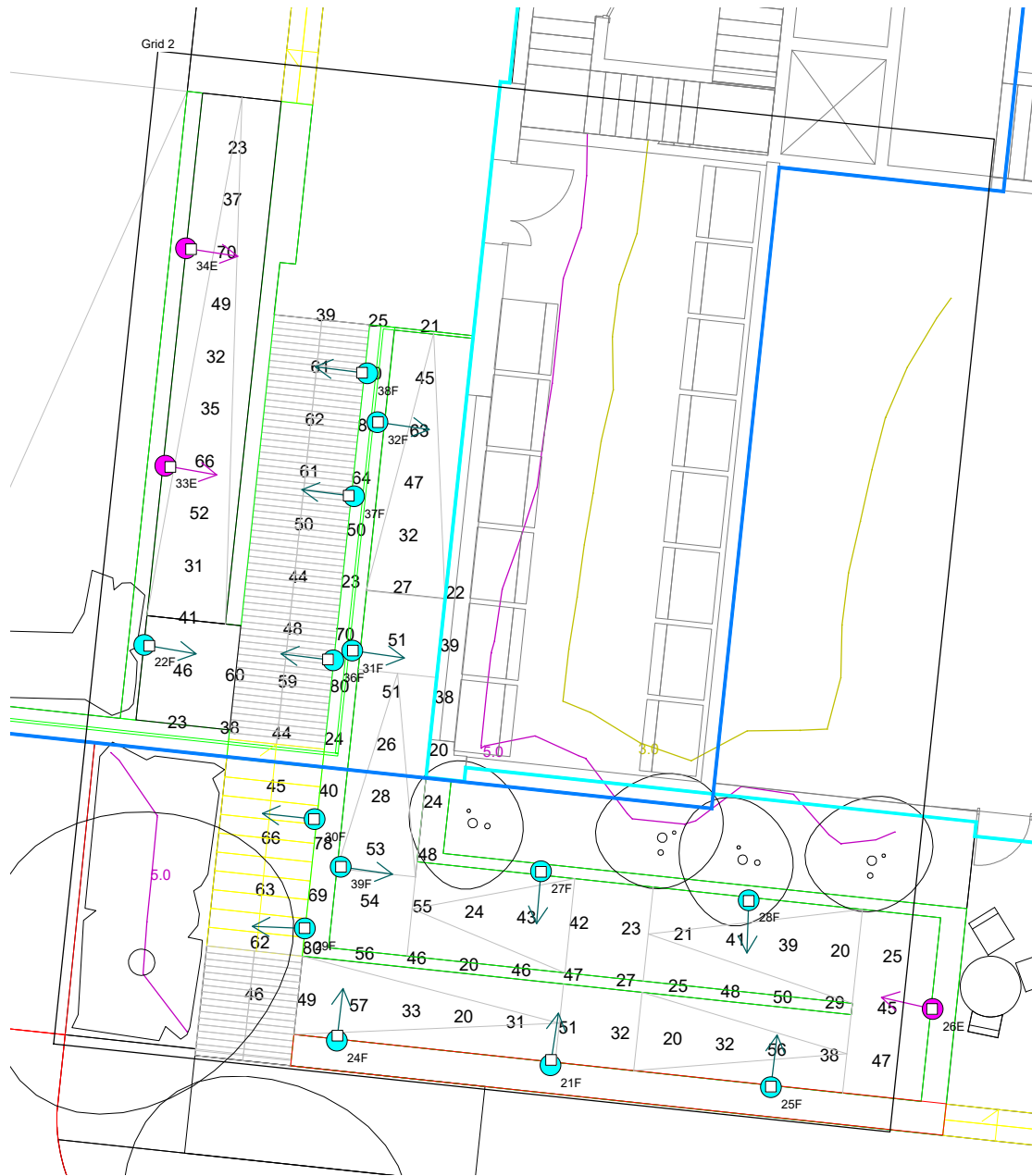


## Results

Eav	6.83
Emin	1.36
Emax	32.12
Emin/Emax	0.04
Emin/Eav	0.20

# Horizontal Illuminance (lux)

Grid 2

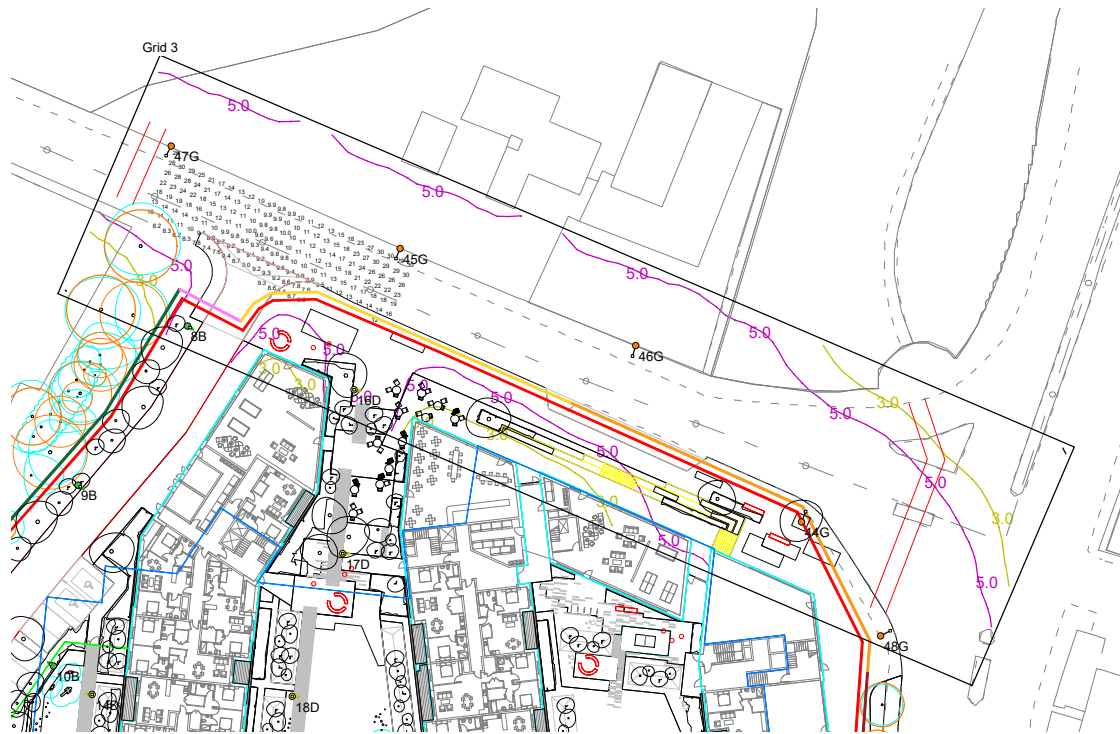


### Results

Eav	43.80
Emin	19.81
Emax	80.47
Emin/Emax	0.25
Emin/Eav	0.45

# Horizontal Illuminance (lux)

Grid 3



## Results

Eav	14.72
Emin	6.55
E <sub>max</sub>	30.34
E <sub>min</sub> /E <sub>max</sub>	0.22
E <sub>min</sub> /E <sub>av</sub>	0.45