

PL2503 LIGHTING IMPACT ASSESSMENT



PL2503 LIGHTING IMPACT ASSESSMENT

James Molloy

29th July 2025

Document:	PL2503 Lighting Impact Assessment		
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2			
3			
4			

1.0 Introduction

This document presents a Lighting Impact Assessment (LIA) for the proposed outdoor lighting scheme at Ross Road Killarney, identified as Project PL2503. The design for this project was prepared by James Molloy, with a report date of 29 July 2025. This LIA has been meticulously prepared in strict adherence to the guidance set forth in the Institution of Lighting Professionals (ILP) PLG04: Guidance on Undertaking Environmental Lighting Impact Assessments.

The scope of this assessment encompasses the potential impacts of the proposed artificial lighting on human perception of the night-time environment, as well as on local flora and fauna. It evaluates the design's compliance with relevant lighting standards and its performance against established environmental light limitation criteria. The explicit commitment to ILP PLG04 throughout this report establishes the assessment's credibility and demonstrates compliance with recognized industry best practices and regulatory expectations.

2.0 Site Description

The project site and its surroundings are characterized by a high degree of environmental sensitivity, appropriately classified as Environmental Zone E2 (Low district brightness) as defined by ILP guidance. This inherent environmental sensitivity highlights the importance of the thorough lighting impact assessment undertaken.

The lighting is designed to meet Class P4 requirements, which typically apply to pedestrian and local traffic routes, indicating that the immediate area of illumination is intended for local access and movement.

3.0 Method of Assessment

The Lighting Impact Assessment has been conducted in strict adherence to the systematic methodology outlined in ILP PLG04: Guidance on Undertaking Environmental Lighting Impact Assessments. This comprehensive framework covers the establishment of baseline conditions, the detailed analysis of the proposed lighting development, the assessment of residual effects, and the outlining of necessary mitigation strategies.

The primary data sources for this assessment include the project's own lighting design documentation: the PL2503 Outdoor Lighting Report, and the associated layout drawings PL2503-E-100-I5 and PL2503-E-101-I5. Supplemental guidance documents, crucial for interpreting and evaluating the design, include ILP PLG04 itself, the ILP Guidance Note 8: Bats and Artificial Lighting, and the ILP Guidance Notes for the Reduction of Obtrusive Light (GN01:2011).

The assessment of the proposed design involves a rigorous analytical approach, evaluating the provided lighting data against the performance requirements stipulated by relevant standards such as BS EN 5489-1:2020 and EN-13201-1 to 5. Furthermore, the design's

potential for obtrusive light is assessed against the quantitative limits defined by the determined Environmental Zone, as per ILP GN01:2011.

4.0 Baseline Conditions – Lighting Assessment

Establishing the existing night-time lighting environment is fundamental to understanding the potential impacts of a new development. This section details the baseline conditions, identifying existing light sources and potential light receptors within and around the Ross Road Killarney project area, as guided by ILP PLG04 Section 7.3.

Based on the geographical location of Killarney, renowned for its natural landscapes and proximity to protected areas, the night-time environment is appropriately classified as **Environmental Zone E2 (Low district brightness)**, as per ILP GN01:2011 Table 1. This classification is applied as a conservative approach, recognizing the area's sensitivity to light.

The ILP guidance establishes quantitative limits for obtrusive light based on these environmental zones. These limits are crucial for evaluating the proposed lighting design's environmental performance. Table 1, adapted from ILP GN01:2011, outlines the obtrusive light limitations applicable to Environmental Zone E2:

Table 1: ILP Obtrusive Light Limitations for Exterior Lighting Installations – General Observers (Environmental Zone E2)

Environmental Zone	Sky Glow ULR (Max %)	Light Intrusion (into windows) Ev (lux)	Luminaire Intensity I (candelas)	Building Luminance L (cd/m ²)
		Pre-curfew	Post-curfew	Pre-curfew
E2	2.5	5	1	7,500
Source: ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2011, Table 2				

5.0 Proposed Development

5.1 Design Overview

The design aimed to achieve specific horizontal illuminance criteria: an average illuminance (Eav) greater than 5 Lux, a minimum illuminance (Emin) greater than 1.0 Lux, and an overall uniformity (UO, Emin/Eav) greater than 0.2.¹ The calculated results for Grid 1, as presented in the design report, demonstrate that these objectives have been met:

Table 2: Project Design Parameters and Calculated Results (Grid 1)

Parameter	Target Value (P4 Class) ¹	Achieved Value (Grid 1) ¹	Compliance
Average Illuminance (Eav)	> 5 Lux	5.84 Lux	Met
Minimum Illuminance (Emin)	> 1.0 Lux	1.14 Lux	Met
Overall Uniformity (UO, Emin/Eav)	> 0.2	0.20	Met
Maximum Illuminance (Emax)	N/A	15.71 Lux	N/A
Emin/Emax	N/A	0.07	N/A

A critical design feature, and a significant environmental consideration, is the consistent use of 2700K Warm White light types throughout the installation.¹ This choice of colour temperature is particularly relevant for mitigating impacts on nocturnal wildlife.

5.2 Design Process

The design explicitly states adherence to several key standards and best practice guidelines, including EN-13201-1 to 5, BS5489-1-2020, best practices published by BAT Conservation Ireland, and ILP Guidance Note 8: Bats and Artificial Lighting [1, 1]. This commitment to ecological guidelines from the outset is a proactive measure to minimize environmental disruption.

Luminaire Details

The project utilizes three types of Philips LumiStreet Micro luminaires (A, B, and C), all of which are LED-based and designed for post-top mounting on hexagonal galvanised rolled steel columns [1, 1, 1]. A summary of their specifications is provided below:

Table 3: Luminaire Specifications Summary

Luminaire Type	Supplier	Model	Wattage (W) [1, 1]	Lamp Flux (klm) ₁	Color Temp (K) ₁	Maintenance Factor (MF) ₁	No. in Project ₁	Height (m) ₁
A	Philips	BGP291 DW10	19	3.00	2700	0.76	26	6.00
B	Philips	BGP291 DX10	19	3.00	2700	0.76	8	6.00
C	Phillips	BGP291 DW10	13	2.60	2700	0.76	8	6.00

Control Strategy

All luminaires are equipped with 7-pin Westire photocells, set to switch ON at 20 LUX and OFF at 20 LUX, as per SEAI Profile U14B. This control strategy ensures that the lighting operates only when ambient light levels fall below a predetermined threshold, optimizing energy use and minimizing unnecessary night-time illumination.

Maintenance Factors

A Maintenance Factor (MF) of 0.76 has been applied in the design calculations for the task lighting requirements. This factor accounts for the deterioration of light source flux over time and dirt accumulation on fittings, ensuring that the specified illuminance levels are maintained throughout the luminaire's operational life.

6.0 Residual Effects

This section assesses the anticipated changes and impacts that the proposed lighting development will have on the environment and its receptors during both the construction and operational phases, as per ILP PLG04 Section 9.¹ The evaluation of these impacts is structured using the 7-point table format, which assesses the magnitude of change and its overall significance, as provided in ILP PLG04 Figure 12.

Construction Phase Effects

During the construction phase, temporary lighting installations will be necessary for site offices, security, and general construction areas. These installations are temporary and will

be managed to minimize localized light disturbance, protecting nearby residents and nocturnal wildlife.

Operational Phase Effects

The operational phase represents the long-term impact of the permanent lighting installation.

Illumination of Roads and Accesses

The proposed design successfully meets the performance requirements for a P4 lighting class, providing an average illuminance (E_{av}) of 5.84 lux and a minimum illuminance (E_{min}) of 1.14 lux.¹ This ensures adequate illumination for pedestrian and local vehicular traffic, enhancing safety and security within the development. This is considered a positive residual effect, improving the usability and safety of the area during night-time hours.

Spill Light

Spill light refers to light extending beyond the intended illuminated area. The selection of Philips LumiStreet Micro luminaires, which feature an I_{max90} of 0.0 cd/klm for Luminaire A and C, and 0.0 cd/klm for Luminaire B, indicates a design intent to minimize direct upward light emission. This is a critical design feature for controlling light spill and reducing sky glow, ensuring controlled light distribution.

Source Intensity (Glare)

Glare, the uncomfortable brightness of a light source, is a key concern. The luminaire intensity values (I_{max70} , I_{max80} , I_{max90}) provided in the design report ¹ are crucial for assessing potential glare. For Luminaire A and C, the intensity at 70 degrees is 415.9 cd/klm, and for Luminaire B, it is 513.2 cd/klm. When considering the respective lamp fluxes (3.0 klm for A and B, 2.6 klm for C) and applying the maintenance factor of 0.76, the maximum intensity at 70 degrees would be approximately 1247.7 cd for Luminaire A/C and 1539.6 cd for Luminaire B. These values are significantly below the pre-curfew Luminaire Intensity limit of 7,500 cd for Environmental Zone E2. This suggests that the design effectively controls direct glare from the luminaires, minimizing discomfort for observers outside the immediate illuminated area.

Upward Light Ratio (ULR) and Sky Glow

The Upward Light Ratio (ULR) quantifies the percentage of luminaire flux that goes directly into the sky, contributing to sky glow. The I_{max90} value of 0.0 cd/klm for all luminaires is a strong indicator of excellent control over direct upward light. This characteristic is highly beneficial for reducing sky glow, especially important in an environmentally sensitive area

classified as E2. The E2 limit for ULR is 2.5% pre-curfew.¹ The luminaire specifications suggest that the design is well-positioned to comply with this limit.

Effects on Wildlife (Flora & Fauna)

The most significant positive environmental aspect of the proposed design is the exclusive use of 2700K Warm White light. This choice is directly aligned with "Best Practice as published by Bat Conservation Ireland & ILP Guidance Note 8 Bats and Artificial Lighting". Research indicates that shorter wavelength (bluer) light is more disruptive to nocturnal wildlife, particularly bats, by affecting their foraging behaviour, migration patterns, and overall health. By selecting a warmer colour temperature, the design proactively mitigates potential adverse effects on light-sensitive species, demonstrating a responsible approach to ecological conservation within the development area. This represents a substantial beneficial effect on the night-time environment for wildlife.

7.0 Potential Mitigation

Effective mitigation strategies are an inherent component of professional lighting design, aiming to achieve illumination objectives while minimizing adverse environmental impacts. The proposed lighting design for Ross Road Killarney already incorporates several key mitigation measures.

Existing Mitigation in Design

The design demonstrates a proactive approach to mitigation through its fundamental choices:

- **Luminaire Choice:** The selection of Philips LumiStreet Micro luminaires (BGP291 DW10 and DX10) with specific photometric characteristics is a primary mitigation measure.¹ Notably, these luminaires have an I_{max90} value of 0.0 cd/klm, indicating that they are designed to emit virtually no direct light above the horizontal plane. This significantly reduces upward light spill and, consequently, sky glow, which is crucial for maintaining the quality of the night sky in an environmentally sensitive area.
- **Colour Temperature:** The consistent use of 2700K Warm White light throughout the development is a critical ecological mitigation strategy.¹ This choice directly addresses the recommendations of "Bat Conservation Ireland & ILP Guidance Note 8 Bats and Artificial Lighting". Warmer colour temperatures are considerably less disruptive to nocturnal wildlife, particularly bats, compared to cooler, bluer light, which can disorient and deter them from foraging or commuting routes. This demonstrates a commitment to minimizing biodiversity impact from the design stage.
- **Mounting Height:** The consistent mounting height of 6.00 meters for all luminaires helps to control the spread of light, ensuring that illumination is directed downwards and contained within the intended areas, reducing light trespass into adjacent sensitive zones.
- **Control Mechanisms:** The integration of 7-pin Westire photocells, set to switch ON and OFF at 20 LUX, ensures that the lighting operates only during necessary periods (i.e., when natural light levels drop below the threshold). This intelligent control

minimizes unnecessary illumination, reducing overall energy consumption and potential light pollution during periods when artificial light is not required.

The design's inherent features, particularly the luminaire selection and the choice of 2700K CCT, represent significant proactive mitigation measures that directly address potential environmental and ecological impacts. This demonstrates a comprehensive and responsible approach to lighting design from the project's inception.

8.0 Conclusions

The Lighting Impact Assessment for the Ross Road Killarney (PL2503) outdoor lighting design, conducted in accordance with ILP PLG04, provides a comprehensive evaluation of the proposed scheme's performance and its potential environmental effects.

The analysis confirms that the proposed lighting design successfully meets the specified task lighting requirements for a P4 lighting class, achieving an average illuminance (E_{av}) of 5.84 lux and a minimum illuminance (E_{min}) of 1.14 lux, with an overall uniformity (E_{min}/E_{av}) of 0.20.¹ These values ensure adequate and safe illumination for pedestrian and local traffic areas within the development.

A highly commendable aspect of the design is the consistent use of 2700K Warm White light throughout the installation. This choice aligns with best practices from BAT Conservation Ireland and ILP Guidance Note 8 demonstrating a proactive and responsible approach to minimizing disruption to nocturnal wildlife, particularly light-sensitive species like bats.¹ This significantly reduces potential adverse ecological effects, representing a substantial beneficial impact.

Based on the Environmental Zone E2 (Low district brightness) for the Killarney area, the luminaire intensity values (I_{max70} , I_{max80} , I_{max90}) for the proposed luminaires are well within the recommended limits for glare control. Furthermore, the I_{max90} value of 0.0 cd/klm for all luminaires indicates excellent control over direct upward light, suggesting a low Upward Light Ratio (ULR) and minimal contribution to sky glow, which is crucial for maintaining the quality of the night sky in this sensitive environment.

In conclusion, the proposed lighting design for Ross Road Killarney demonstrates strong adherence to task lighting standards and incorporates significant proactive measures for environmental protection, particularly concerning nocturnal wildlife. The choice of warm colour temperature and luminaires with controlled light distribution are key strengths. The project is anticipated to deliver positive impacts in terms of enhanced safety and security, coupled with a thoughtful approach to mitigating environmental light pollution.

DATE: 29 July 2025
DESIGNER: James Molloy
PROJECT No: PL2503
PROJECT NAME: Ross Road Killarney

**LIGHTING
REALITY**

Lighting Design to BS EN 5489-1: 2020

Class P4
Eav> 5 Lux, Emin> 1.0, UO> 0.2

2700K Warm White light types used throughout.

Outdoor Lighting Report

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	8826.85	-8575.79	302.52	346.95	1.50	1.50

Luminaires

Luminaire A Data



Supplier	Philips
Type	BGP291 DW10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	3.00
File Name	LumiStreet Gen2 Micro_BGP291_DW10_3000_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	415.9, 39.5, 0.0
No. in Project	26

Luminaire B Data



Supplier	Philips
Type	BGP291 DX10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	3.00
File Name	LumiStreet Gen2 Micro_BGP291_DX10_3000_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	513.2, 85.3, 0.0
No. in Project	8

Luminaire C Data



Supplier	Philips
Type	BGP291 DW10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.60
File Name	LumiStreet Gen2 Micro_BGP291_DW10_2600_10LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	415.9, 39.5, 0.0
No. in Project	8

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	B	8786.81	-8157.50	6.00	23.00	0.00	0.00	0.30			
2	B	8792.39	-8179.59	6.00	4.00	0.00	0.00	0.30			
3	B	8796.28	-8204.23	6.00	9.00	0.00	0.00	0.30			
4	B	8802.23	-8226.62	6.00	9.00	0.00	0.00	0.30			
6	B	8806.87	-8271.19	6.00	6.00	0.00	0.00	0.30			
7	A	8820.00	-8229.31	6.00	96.00	0.00	0.00	0.30			
8	A	8863.45	-8237.87	6.00	2.00	0.00	0.00	0.30			
9	A	8877.13	-8208.93	6.00	277.00	0.00	0.00	0.30			
10	A	8848.44	-8226.61	6.00	96.00	0.00	0.00	0.30			
12	A	8866.53	-8262.12	6.00	8.00	0.00	0.00	0.30			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
13	A	8844.64	-8346.71	6.00	101.00	0.00	0.00	0.30			
14	A	8869.19	-8289.51	6.00	6.00	0.00	0.00	0.30			
15	A	8895.17	-8336.85	6.00	102.00	0.00	0.00	0.30			
16	A	8873.53	-8341.12	6.00	98.00	0.00	0.00	0.30			
17	B	8820.41	-8301.43	6.00	189.00	0.00	0.00	0.30			
18	A	8823.09	-8330.47	6.00	184.00	0.00	0.00	0.30			
19	A	8814.45	-8352.80	6.00	103.00	0.00	0.00	0.30			
20	A	8785.59	-8362.10	6.00	105.00	0.00	0.00	0.30			
21	A	8769.72	-8344.12	6.00	23.00	0.00	0.00	0.30			
22	A	8794.18	-8300.06	6.00	286.00	0.00	0.00	0.30			
23	A	8765.46	-8306.51	6.00	284.00	0.00	0.00	0.30			
24	A	8744.43	-8311.16	6.00	285.00	0.00	0.00	0.30			
25	A	8762.64	-8321.74	6.00	15.00	0.00	0.00	0.30			
26	A	8779.21	-8374.42	6.00	12.00	0.00	0.00	0.30			
27	A	8795.41	-8402.80	6.00	203.00	0.00	0.00	0.30			
28	B	8805.04	-8433.15	6.00	195.00	0.00	0.00	0.30			
29	A	8810.08	-8455.83	6.00	191.00	0.00	0.00	0.30			
30	A	8817.73	-8480.12	6.00	202.00	0.00	0.00	0.30			
31	A	8826.59	-8508.27	6.00	198.00	0.00	0.00	0.30			
32	A	8817.79	-8529.92	6.00	104.00	0.00	0.00	0.30			
33	A	8844.73	-8524.49	6.00	100.00	0.00	0.00	0.30			
34	B	8805.81	-8248.73	6.00	1.00	0.00	0.00	0.30			
34	A	8879.65	-8229.00	6.00	95.00	0.00	0.00	0.30			
35	A	8871.35	-8312.74	6.00	1.00	0.00	0.00	0.30			
35	C	8799.76	-8525.09	6.00	348.00	0.00	0.00	0.30			
36	C	8807.37	-8508.16	6.00	333.00	0.00	0.00	0.30			
37	C	8843.96	-8503.21	6.00	202.00	0.00	0.00	0.30			
38	C	8763.37	-8380.98	6.00	286.00	0.00	0.00	0.30			
39	C	8798.39	-8318.64	6.00	322.00	0.00	0.00	0.30			
40	C	8804.60	-8337.51	6.00	54.00	0.00	0.00	0.30			
41	C	8781.53	-8347.69	6.00	331.00	0.00	0.00	0.30			
42	C	8781.79	-8324.00	6.00	255.00	0.00	0.00	0.30			

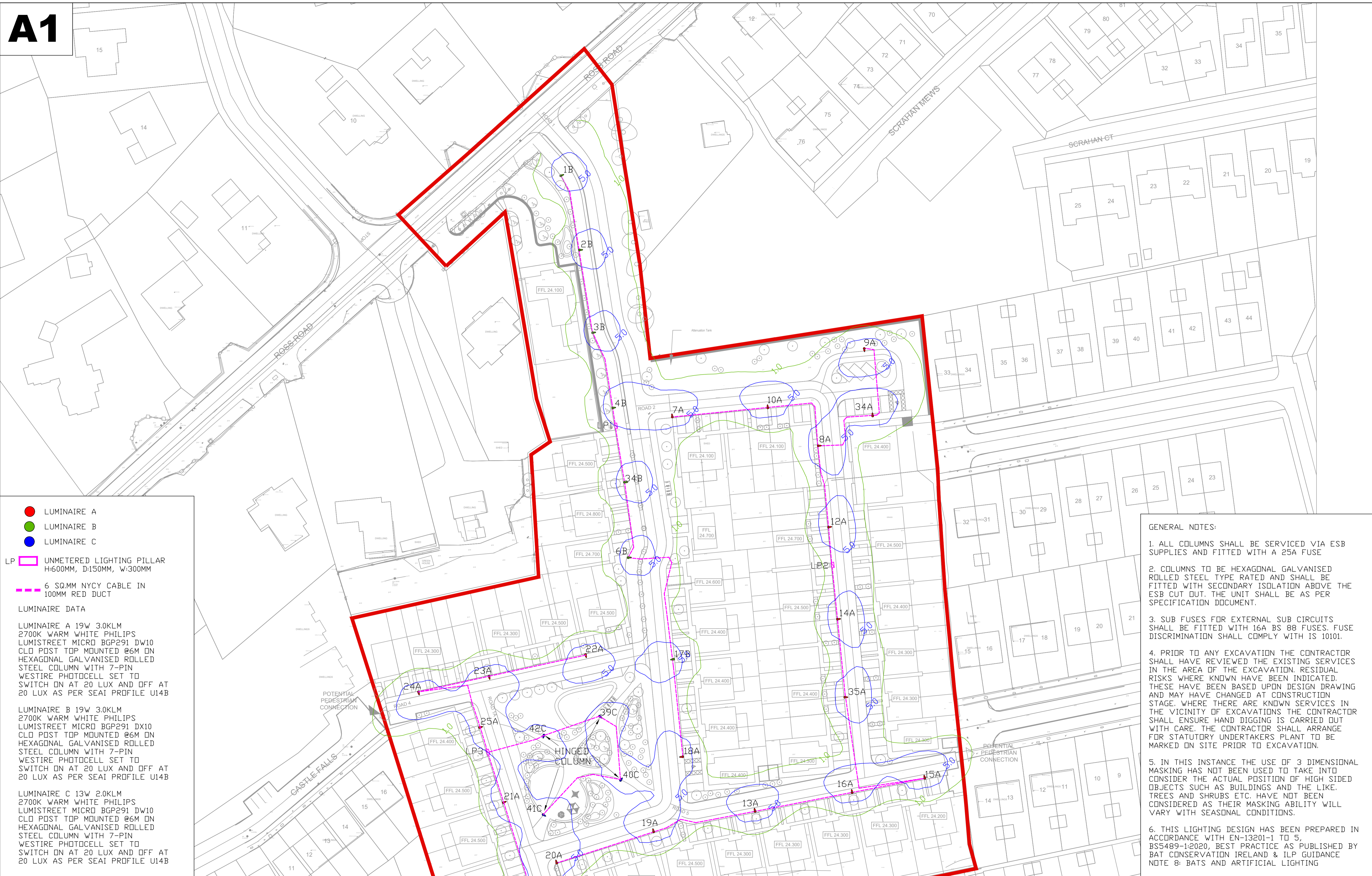
Horizontal Illuminance (lux)

Grid 1



Results

Eav	5.84
Emin	1.14
Emax	15.71
Emin/Emax	0.07
Emin/Eav	0.20



- LUMINAIRE A
 - LUMINAIRE B
 - LUMINAIRE C
 - UNMETERED LIGHTING PILLAR
H:600MM, D:150MM, W:300MM
 - 6 SQ.MM NYCY CABLE IN
100MM RED DUCT
- LUMINAIRE DATA**
- LUMINAIRE A** 19W 3.0KLM
2700K WARM WHITE PHILIPS
LUMISTREET MICRO BGP291 DW10
CLO POST TOP MOUNTED @6M ON
HEXAGONAL GALVANISED ROLLED
STEEL COLUMN WITH 7-PIN
WESTIRE PHOTOCELL SET TO
SWITCH ON AT 20 LUX AND OFF AT
20 LUX AS PER SEAI PROFILE U14B
- LUMINAIRE B** 19W 3.0KLM
2700K WARM WHITE PHILIPS
LUMISTREET MICRO BGP291 DX10
CLO POST TOP MOUNTED @6M ON
HEXAGONAL GALVANISED ROLLED
STEEL COLUMN WITH 7-PIN
WESTIRE PHOTOCELL SET TO
SWITCH ON AT 20 LUX AND OFF AT
20 LUX AS PER SEAI PROFILE U14B
- LUMINAIRE C** 13W 2.0KLM
2700K WARM WHITE PHILIPS
LUMISTREET MICRO BGP291 DW10
CLO POST TOP MOUNTED @6M ON
HEXAGONAL GALVANISED ROLLED
STEEL COLUMN WITH 7-PIN
WESTIRE PHOTOCELL SET TO
SWITCH ON AT 20 LUX AND OFF AT
20 LUX AS PER SEAI PROFILE U14B

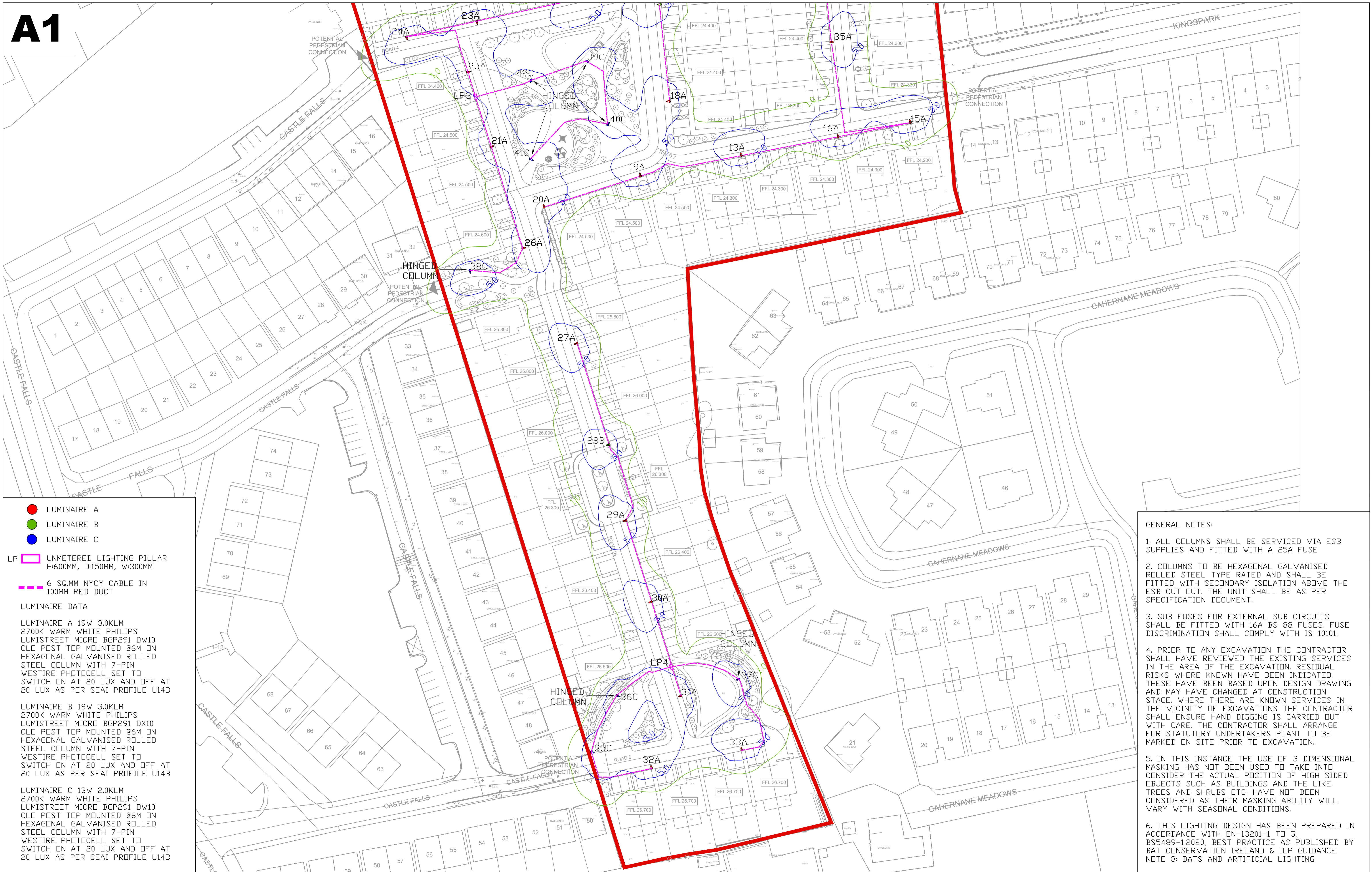
- GENERAL NOTES:**
1. ALL COLUMNS SHALL BE SERVICED VIA ESB SUPPLIES AND FITTED WITH A 25A FUSE
 2. COLUMNS TO BE HEXAGONAL GALVANISED ROLLED STEEL TYPE RATED AND SHALL BE FITTED WITH SECONDARY ISOLATION ABOVE THE ESB CUT OUT. THE UNIT SHALL BE AS PER SPECIFICATION DOCUMENT.
 3. SUB FUSES FOR EXTERNAL SUB CIRCUITS SHALL BE FITTED WITH 16A BS 88 FUSES. FUSE DISCRIMINATION SHALL COMPLY WITH IS 10101.
 4. PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL HAVE REVIEWED THE EXISTING SERVICES IN THE AREA OF THE EXCAVATION. RESIDUAL RISKS WHERE KNOWN HAVE BEEN INDICATED. THESE HAVE BEEN BASED UPON DESIGN DRAWING AND MAY HAVE CHANGED AT CONSTRUCTION STAGE. WHERE THERE ARE KNOWN SERVICES IN THE VICINITY OF EXCAVATIONS THE CONTRACTOR SHALL ENSURE HAND DIGGING IS CARRIED OUT WITH CARE. THE CONTRACTOR SHALL ARRANGE FOR STATUTORY UNDERTAKERS PLANT TO BE MARKED ON SITE PRIOR TO EXCAVATION.
 5. IN THIS INSTANCE THE USE OF 3 DIMENSIONAL MASKING HAS NOT BEEN USED TO TAKE INTO CONSIDER THE ACTUAL POSITION OF HIGH SIDED OBJECTS SUCH AS BUILDINGS AND THE LIKE. TREES AND SHRUBS ETC. HAVE NOT BEEN CONSIDERED AS THEIR MASKING ABILITY WILL VARY WITH SEASONAL CONDITIONS.
 6. THIS LIGHTING DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH EN-13201-1 TO 5, BS5489-1:2020, BEST PRACTICE AS PUBLISHED BY BAT CONSERVATION IRELAND & ILP GUIDANCE NOTE 8: BATS AND ARTIFICIAL LIGHTING



STAGE	INFO 5
DATE	29/07/2025
SCALE	1:500---A1
DRAWN	James Molloy
CHECKED	James Molloy
TITLE	Public Lighting Layout

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CLIENT	PROJECT	DWG NO.
Homeland Projects	New Development, Ross Road, Killarney, Co. Kerry	PL2503-E-100-15



● LUMINAIRE A
● LUMINAIRE B
● LUMINAIRE C
LP UNMETERED LIGHTING PILLAR
 H:600MM, D:150MM, W:300MM
 6 SQ.MM NYCY CABLE IN
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LUMINAIRE DATA
LUMINAIRE A 19W 3.0KLM
 2700K WARM WHITE PHILIPS
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 CLO POST TOP MOUNTED @6M ON
 HEXAGONAL GALVANISED ROLLED
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 SWITCH ON AT 20 LUX AND OFF AT
 20 LUX AS PER SEAI PROFILE U14B
LUMINAIRE B 19W 3.0KLM
 2700K WARM WHITE PHILIPS
 LUMISTREET MICRO BGP291 DX10
 CLO POST TOP MOUNTED @6M ON
 HEXAGONAL GALVANISED ROLLED
 STEEL COLUMN WITH 7-PIN
 WESTIRE PHOTOCELL SET TO
 SWITCH ON AT 20 LUX AND OFF AT
 20 LUX AS PER SEAI PROFILE U14B
LUMINAIRE C 13W 2.0KLM
 2700K WARM WHITE PHILIPS
 LUMISTREET MICRO BGP291 DW10
 CLO POST TOP MOUNTED @6M ON
 HEXAGONAL GALVANISED ROLLED
 STEEL COLUMN WITH 7-PIN
 WESTIRE PHOTOCELL SET TO
 SWITCH ON AT 20 LUX AND OFF AT
 20 LUX AS PER SEAI PROFILE U14B

- GENERAL NOTES:**
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 2. COLUMNS TO BE HEXAGONAL GALVANISED ROLLED STEEL TYPE RATED AND SHALL BE FITTED WITH SECONDARY ISOLATION ABOVE THE ESB CUT OUT. THE UNIT SHALL BE AS PER SPECIFICATION DOCUMENT.
 3. SUB FUSES FOR EXTERNAL SUB CIRCUITS SHALL BE FITTED WITH 16A BS 88 FUSES. FUSE DISCRIMINATION SHALL COMPLY WITH IS 10101.
 4. PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL HAVE REVIEWED THE EXISTING SERVICES IN THE AREA OF THE EXCAVATION. RESIDUAL RISKS WHERE KNOWN HAVE BEEN INDICATED. THESE HAVE BEEN BASED UPON DESIGN DRAWING AND MAY HAVE CHANGED AT CONSTRUCTION STAGE. WHERE THERE ARE KNOWN SERVICES IN THE VICINITY OF EXCAVATIONS THE CONTRACTOR SHALL ENSURE HAND DIGGING IS CARRIED OUT WITH CARE. THE CONTRACTOR SHALL ARRANGE FOR STATUTORY UNDERTAKERS PLANT TO BE MARKED ON SITE PRIOR TO EXCAVATION.
 5. IN THIS INSTANCE THE USE OF 3 DIMENSIONAL MASKING HAS NOT BEEN USED TO TAKE INTO CONSIDER THE ACTUAL POSITION OF HIGH SIDED OBJECTS SUCH AS BUILDINGS AND THE LIKE. TREES AND SHRUBS ETC. HAVE NOT BEEN CONSIDERED AS THEIR MASKING ABILITY WILL VARY WITH SEASONAL CONDITIONS.
 6. THIS LIGHTING DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH EN-13201-1 TO 5, BS5489-1:2020, BEST PRACTICE AS PUBLISHED BY BAT CONSERVATION IRELAND & ILP GUIDANCE NOTE 8: BATS AND ARTIFICIAL LIGHTING



STAGE	INFO 5
DATE	29/07/2025
SCALE	1:500---A1
DRAWN	James Molloy
CHECKED	James Molloy
TITLE	Public Lighting Layout

MOLLOY CONSULTING ENGINEERS LTD.	
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CLIENT	Homeland Projects
PROJECT	New Development, Ross Road, Killarney, Co. Kerry
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