



## PUBLIC LIGHTING REPORT

LRD OPINION RESPONSE  
WHITESTOWN WAY LRD,  
WHITESTOWN WAY,  
TALLAGHT,  
DUBLIN 24.

**Prepared for:**

**ARP 4.2 Sustainable Communities (Ireland) Fund (a sub-fund of  
Ardstone Partners ICAV).**

WTW-XX-60-XX-XXX-RP-FDE-EE-1000



## PROJECT DETAILS

Project Number	Project Name
2480	Whitestown Way, Tallaght, County Dublin.

## DOCUMENT DETAILS

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P1-P01	Information	FD	FD	MF	17.04.2026
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## 1 INTRODUCTION

This report outlines the design intent and technical basis for the proposed public lighting installation at Whitestown Way, Tallaght, County Dublin.

The lighting design has been developed by Fallon Design to provide adequate illuminance levels in compliance with all relevant Irish and European standards. The objectives of the proposed public lighting scheme are as follows:

- To provide adequate illumination to ensure the safe use of access roads and footpaths for vehicular and pedestrian traffic.
- To minimise light spill and lighting pollution to surrounding properties and adjacent areas.
- To reduce glare for pedestrians, cyclists, and vehicular users.
- To utilise high-efficiency LED luminaires to reduce energy consumption and long-term operational costs.

The installation will be designed and constructed in accordance with the following standards, regulations, and guidance documents:

- S.I. No. 291 of 2013 – Safety, Health and Welfare at Work (Construction) Regulations 2013
- ETCI National Rules for Electrical Installations (ET101:2008, as amended)
- IS EN 13201 (Parts 1–5) – Road Lighting
- BS 5489-1:2020 – Code of Practice for the Design of Road Lighting
- CIBSE Lighting Guide 7 – Outdoor and Public Amenity Lighting
- ESB Networks – Housing Scheme Guidebook and National Code of Practice
- Bat Conservation Trust – Guidance Note 08/18: Bats and Artificial Lighting
- Bats & Lighting – Guidance Notes for Planners, Engineers, Architects and Developers (2010)
- **South Dublin County Council Public Lighting Technical Specification**

## 2 DEVELOPMENT DESCRIPTION

The proposed development consists of:

ARP 4.2 Sustainable Communities (Ireland) Fund intends to apply for permission for the development of a 'Large-Scale Residential Development' (LRD) at a site of approximately 1.32 Ha principally located at Whitestown Way, Dublin 24. The site is generally bound: to the east by Whitestown Way; to the south by Riverside Business Park; to the west by Whitestown Road / Whitestown Industrial Estate, undeveloped lands and the Vita Actives premises; and to the north by, the Vita Actives premises and The Arena mixed-used development. It also extends to include part of Whitestown Way for junction, road infrastructure and landscape works.

The proposed development principally comprises the construction of a mixed-use development in 2 No. Blocks (Block A to the east and Block B to the west) with a gross floor area of 14,976.5 sq m (excluding undercroft car parking area of 1,975.8 sq m) and ranging in height from 1 No. Storey to 6 No. Storeys. The blocks are connected via a single-storey undercroft/podium level. The development includes: 169 No. Residential units (80 No. 1-bed, 85 No. 2-bed and 4 No. 3-bed); 2 No. Class 1 / class 2 commercial units (totalling 356.5 sq m); and a crèche (162.8 sq m) with external play area.

The development also comprises: new street at the site's southern side and junction with Whitestown Way to the east; 81 No. Car parking spaces, with 66 No. Within the undercroft car parking area and 15 No. On-street; 1 No. Set-down bay; cycle parking; hard and soft landscaping, including public open space, communal amenity space and incidental spaces; private amenity spaces (as balconies and terraces facing all directions); boundary treatments; sub-station; plant/operational rooms; bin stores; public lighting; green roofs; rooftop plant, PV arrays, lift overruns, telecommunications infrastructure and automatic opening vents; and all associated works above and below ground.

The lighting design covers all public roads, footpaths, and communal external areas intended for adoption (where applicable) or long-term management.

### **3 DESIGN CONCEPT**

The public lighting design has been developed to provide safe and comfortable night-time visibility for residents and visitors, while maintaining environmental sensitivity.

Key design principles include:

- Compliance with the appropriate lighting class in accordance with IS EN 13201 and BS 5489.
- Use of energy-efficient LED luminaires throughout the development.
- Careful selection of luminaire optics to achieve required uniformity while minimising glare.
- Controlled light distribution to reduce upward light ratio (ULR) and obtrusive light.
- Consideration of ecological constraints, including minimisation of impact on bat habitats where applicable.

The scheme is designed to achieve a balance between safety, visual comfort, environmental responsibility, and long-term sustainability.

### **4 DETAILED DESIGN**

The proposed installation comprises:

- 3 No. LED luminaires
- 11 No. luminaire types
- 8 No. luminaire types
- 5 No. luminaire types
- Mounting heights and beam distributions selected to suit the road and footpath hierarchy throughout the development

The lighting design has been developed to achieve Class P4 in accordance with IS EN 13201-2:2015 and BS 5489-1:2020, appropriate for residential access roads and footpaths with low traffic volumes.

The proposed layout is shown on drawing:

WTW-XX-60-SW-XXX-DR-FDE-EE-1000 – Public Lighting Layout

Lighting calculations have been undertaken using approved lighting design software to verify:

- Average maintained illuminance
- Minimum illuminance
- Uniformity ratios
- Glare control (where applicable)

All calculated results demonstrate compliance with the required lighting class.

## 5 LUMINAIRES

All luminaires proposed are LED type, incorporating:

### Luminaire A Data

Supplier	
Type	Veelite Metro Streetlight 19w LED Street Optic R01
Lamp(s)	8LED 3000K G4
Lamp Flux (klm)	2.15
File Name	5MTA08LGA-R01-3K.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	680.3, 387.6, 0.6
No. in Project	3

### Luminaire B Data

Supplier	
Type	Veelite Metro Streetlight 36w LED Street Optic R03
Lamp(s)	16LED 3000K G4
Lamp Flux (klm)	4.54
File Name	5MTA12LGA-R03-3K.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	537.8, 56.5, 0.3
No. in Project	11

### Luminaire C Data

Supplier	
Type	Veelite Metro Streetlight 36w LED Symmetric
Lamp(s)	16LED 3000K G4
Lamp Flux (klm)	4.36
File Name	5MTA12LGA-SYM-3K.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	375.5, 40.5, 0.0
No. in Project	8

### Luminaire D Data

Supplier	
Type	Veelite Chi Series 14w LED Street Optic Wide A13
Lamp(s)	8LED 3000K 500mA
Lamp Flux (klm)	1.34
File Name	5CHI06LGA-A13-3K.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	533.8, 296.7, 70.9
No. in Project	5

Final luminaire selection will comply with the relevant County Council technical specification.

## 6 LIGHTING CALCULATION RESULTS

### 6.1 Horizontal Illuminance (lux) – Road & Paths 1



#### Results

Eav	9.06
Emin	1.79
E <sub>max</sub>	36.44
Emin/E <sub>max</sub>	0.05
Emin/Eav	0.20

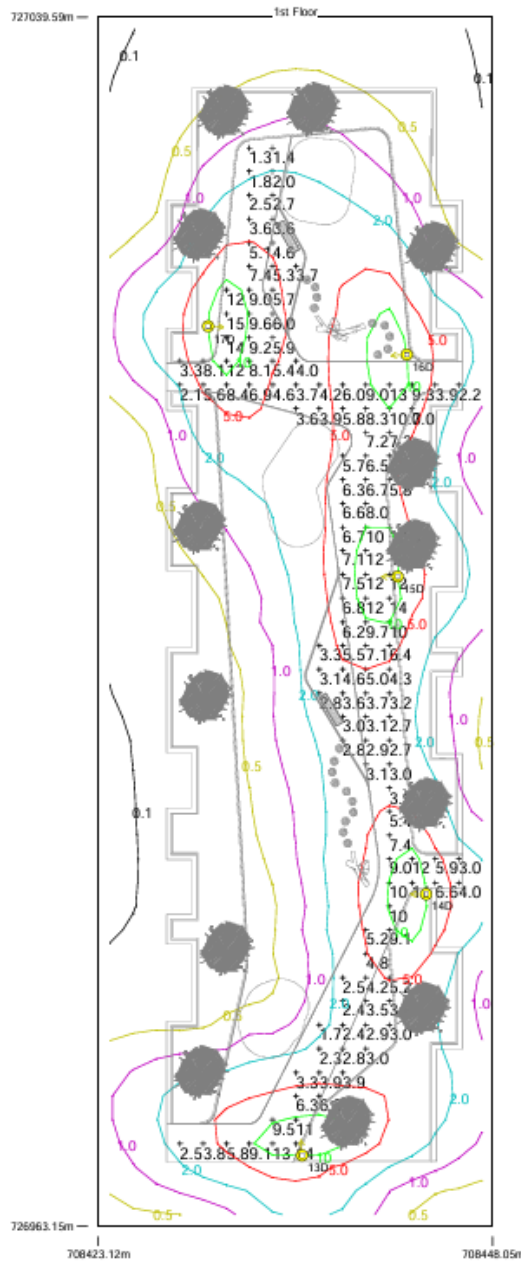
## 6.2 Horizontal Illuminance (lux) – Road & Paths 2



### Results

Eav	9.06
Emin	1.79
Emax	36.44
Emin/Emax	0.05
Emin/Eav	0.20

### 6.3 Horizontal Illuminance (lux) – 1st Floor



### Results

Eav	6.21
Emin	1.26
E <sub>max</sub>	15.15
Emin/E <sub>max</sub>	0.08
Emin/Eav	0.20

## **7 ENERGY EFFICIENCY**

Energy performance has been carefully considered in the design of the public lighting installation to ensure reduced operational costs and environmental impact over the lifetime of the development.

The following measures are incorporated:

- Use of high-efficiency LED luminaires to significantly reduce energy consumption compared to traditional discharge lighting.
- Long service life components to reduce maintenance requirements.
- Integrated programmable dimming profiles to reduce lighting levels during late-night periods of low activity, while maintaining safety compliance.
- Optimised spacing and optical design to prevent over-lighting.

The proposed installation represents a sustainable and compliant public lighting solution suitable for long-term operation.