

# White Heather, South Circular Road, Dublin 8



Site Lighting Report  
IN2 Project No. D2044  
16<sup>th</sup> March 2022  
Rev 05

## Revision History

Date	Revision	Description
08/02/2021	00	Initial issue for client review
26/02/2021	01	Initial issue for client review
14/07/2021	02	Updated for Landscaping design and Bat Control
09/02/2022	03	Updated Project Description
28/02/2022	04	Updated Project Description
16/03/2022	05	Updated Project Description

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## 1.0 INTRODUCTION

IN2 Engineering Design Partnership have been retained by U and I PLC to complete a Planning Stage Site Lighting Study for the proposed Strategic Housing Development at the White Heather Industrial Estate, South Circular Road, Dolphins Barn, Dublin 8 and No. 307a South Circular Road, Dublin 8 and an industrial building at 12a St James Terrace. The 1.443ha site is bounded by the Grand Canal to the south; Our Lady of Dolour's Church and residential dwellings on the South Circular Road to the north; Priestfield Cottages to the east; and residential dwellings at St James's Terrace to the west.

The site lighting design is for information only and provides an indication of the intent for the developments site lighting only.

The site lighting will not be taken in charge by the city council and the quantities and types of fittings may differ following during the design stage.

The purpose of this report is to demonstrate that the proposed site lighting design will both enhance the development and maintain safe levels of illumination to circulation areas while minimising light overspill on the neighbouring properties and mitigating the residual impacts that the proposed lighting scheme may have on existing habitats within the site.

## 2.0 EXECUTIVE SUMMARY

The following report contains the design layout and accompanying calculations for the proposed site lighting scheme for the proposed new development.

The external lighting for this development has been designed to achieve the performance requirements as set out in the following standards:

- BS 8300:2018 Design of an accessible and inclusive built environment
- Institution of Lighting Professionals – Guidance Notes for the Reduction of Obtrusive Light GN01:2011
- BS EN 13201-2:2015 – Road Lighting Part 2: Performance Requirements
- BS 5489-1:2013 Code of Practice for the Design of Road Lighting
- Chartered Institution of Building Services Engineers – Lighting Guide 6: The Exterior Environment
- ETCI National Rules for Electrical Installations ET 101
- Bats and Lighting – Guidance Notes for Planners, Engineers, Architects and Developers (Bat Conservation Ireland, 2010);
- Bats and Lighting in the UK – Bats and the Built Environment Series (Institute of Lighting Professionals, September 2018).

For the purposes of this report, the development has been classed as an Environmental Zone E3 – Suburban with Medium District Brightness, in Accordance with ILP GN01:2011. The design criteria set out for this development, based on the lighting requirements for the stated environmental zone of E3, are as specified in the table below.

Area	Lighting Levels (Lux)	Uniformity (Uo)
Walkways/Footpaths	5	0.2
Access Routes	5	0.2
Pedestrian Access routes adjacent to the entrances / exits of buildings. Level and gently sloped.	100	0.4
Stairways and ramps in the open Environment	30	0.2
Light Spill (Obtrusive Light)	10 (Maximum)	N/A
Entrance Road (Main Traffic Routes)	10	0.2

Figure 2.1 - Minimum Lighting Requirements

### 3.0 DEVELOPMENT OVERVIEW

Permission is sought by U and I (White Heather) Limited for a Strategic Housing Development at the White Heather Industrial Estate, South Circular Road, Dolphin’s Barn, Dublin 8 and No. 307/307a South Circular Road, Dublin 8 and an industrial building at 12a St James’s Terrace. The 1.535ha site is bounded by the Grand Canal to the south; Our Lady of Dolours Church and residential dwellings on the South Circular Road to the north; Priestfield Cottages to the east; and residential dwellings at St James’s Terrace to the west.

A new residential neighbourhood development of 335 no. units is proposed to make efficient use of this residentially zoned site, which benefits from high-quality amenity space along the Grand Canal and access to high-quality transport links. The site benefits from the opportunity to access the existing Dolphins Barn neighbourhood facilities, as well as enhancing the connectivity of the area for the Dublin 8 community as a whole. A core principle of the proposed residential scheme is to put residential amenity and recreation to the fore, opening up the site and the local area to the Grand Canal.

The proposed development is intended to provide for a vibrant and diverse community, while delivering a connected residential neighbourhood which knits in to both the established and the emerging residential developments in the area. High-quality landscaping and public realm, with a focus on the creation of distinctive character areas is proposed. A new street will run east-west across the north of the site and the creation of a new public space at the heart of the proposed scheme will connect to a publicly accessible linear park along the canal to the south. Permeability is a key feature of the proposed pedestrian realm, including a mix of dedicated and shared surface areas through the site with a c. 190 m continuous amenity strip along the Grand Canal Linear Park.

The entrance to the scheme will be from the existing junction at the South Circular Road, which will be reconfigured and upgraded. The existing access road at St James’s Terrace will provide pedestrian access only to the development. Car parking is proposed at undercroft and at surface levels, with a number of dedicated car sharing spaces in convenient locations. Covered and secure bicycle storage facilities are located at undercroft and at surface level, adjacent to block entrances. A sustainable travel approach has been adopted, particularly with regards to access to Dublin City Centre, with the Luas (850m) and Dublin Bus stops adjacent to the development site. The City Centre area is also accessible by bicycle and walking, at approximately 10 and 30 minutes respectively.



## Site Lighting Report

### White Heather

The proposed residential mix includes a combination of studio units, 1-bedroom apartments, 2-bedroom apartments units within 7 no. blocks and a terrace of 3-bedroom townhouse units. A change of use of an existing residential building at 307/307a South Circular Road to be used as a shared workspace. The proposed Part V social housing requirement is provided at 10% in 2 no. discrete blocks within the proposed scheme. This high-quality Build to Rent scheme will also include 2 no. cafés and a 2-storey creche unit, while the residents will also have access to residential amenity areas at ground floor level and at fifth floor level with access to a roof terrace area overlooking the canal. A landscaped square will be accessible to the public, with private open space and amenity areas for the residents also provided including children's play areas and roof level terraces. Building heights range from 2 no. to 10 no. storeys, with finger blocks arranged in a north-south direction and height tapering down from the centre of the site to the boundary.

The entrance to the scheme will be from the existing junction at the South Circular Road, which will be reconfigured and upgraded. The existing access road at St James's Terrace will provide pedestrian access only to the development. Car parking is proposed at undercroft and at surface levels, with a number of dedicated car sharing spaces in convenient locations. Covered and secure bicycle storage facilities are located at undercroft and at surface level, adjacent to block entrances. A sustainable travel approach has been adopted, particularly with regards to access to Dublin City Centre, with the Luas (850m) and Dublin Bus stops adjacent to the development site. The City Centre area is also accessible by bicycle and walking, at approximately 10 and 30 minutes respectively.

The proposed development is intended to provide for a vibrant and diverse community, while delivering a connected residential neighbourhood which knits in to both the established and the emerging residential developments in the area. High-quality landscaping and public realm, with a focus on the creation of distinctive character areas is proposed. A new street will run east-west across the north of the site and the creation of a new public space at the heart of the proposed scheme will connect to a publicly accessible linear park along the canal to the south. Permeability is a key feature of the proposed pedestrian realm, including a mix of dedicated and shared surface areas through the site with a c. 190 m continuous amenity strip along the Grand Canal Linear Park.

The site location and boundary can be found in Figure 3.1.



Figure 3.1 - Site Boundary

4.0 PROPOSED INSTALLATION

The proposed site lighting for the new development has been designed to ensure that the lighting criteria set out in each of the relevant standards listed previously are met or exceeded and that sufficient illumination is provided to ensure that key requirements such as access/egress, enhanced site security and the safe use of paths is provided. The design has been assessed to establish minimal environmental impact through glare, sky glow and obtrusive light (light spill).

It is proposed to illuminate the Entrance Road and Car park into the site using a Type 'X2' 6-meter pole mounted multi-head Luminaire. The luminaires have a broad spread of light distribution to give the entrance an even light distribution.

To complete the design, 3-meter-high pole mounted 'Type 'X3' multiple elegant directional heads, allowing for greater flexibility for directionality and illumination, shall also be used to light the Pedestrian Access Route and Accessible Route surrounding the Development.

5.0 DESIGN ANALYSIS AND CALCULATION RESULTS

5.1 Entrance Road

The lighting performance at the Entrance Road has been assessed with fitting Type 'X2' 6-meter (H) pole mounted multi-Head Luminaire as per luminaire schedule, Appendix A.

5.1.1 Entrance Road



Evaluation	Target	Result	
$E_{AVERAGE}$ (maintained)	5 - 7.5 lux	12.1 lux	PASS
$U_o$ (Uniformity)	0.20	0.28	PASS

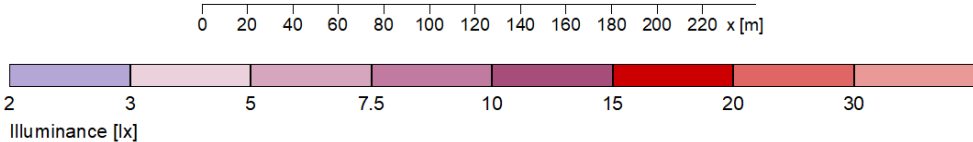


Figure 5.1.1 - Illumination Levels at Entrance Road

Evaluation	Target	Result	
$E_{\text{AVERAGE}}$ (maintained)	10 lux	11.1 lux	PASS
$U_o$ (Uniformity)	0.20	0.22	PASS

Figure 5.1.2 - Analysis Results

5.1.2 Carpark

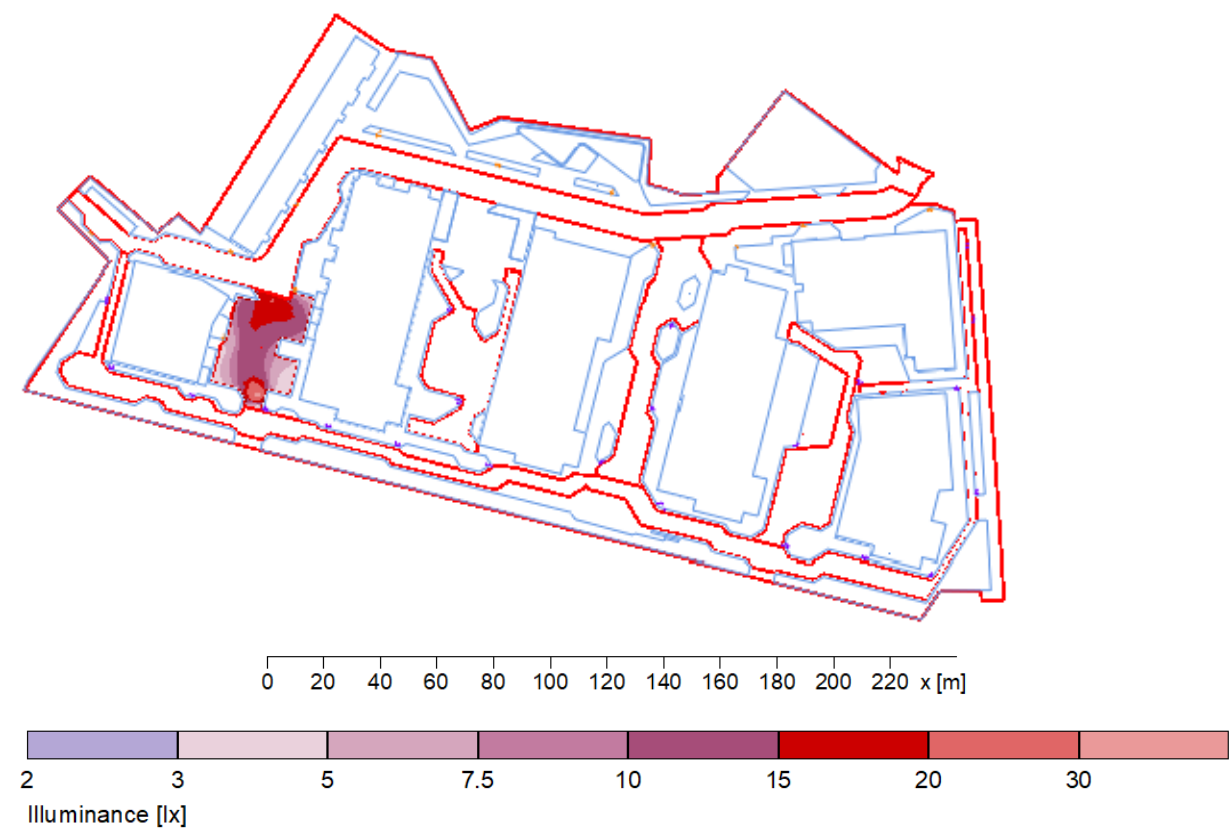


Figure 5.1.3 - Illumination Levels at Carpark

Figure 5.1.4 - Analysis Results



5.2 Pedestrian Access Routes adjacent Canal

It is proposed to light Pedestrian Access Rote using Type 'X2' 3-meter (H) multi-head luminaire. Luminaire as per Schedule in Appendix A of this report. Below is analysis of typical zone of the pedestrian route

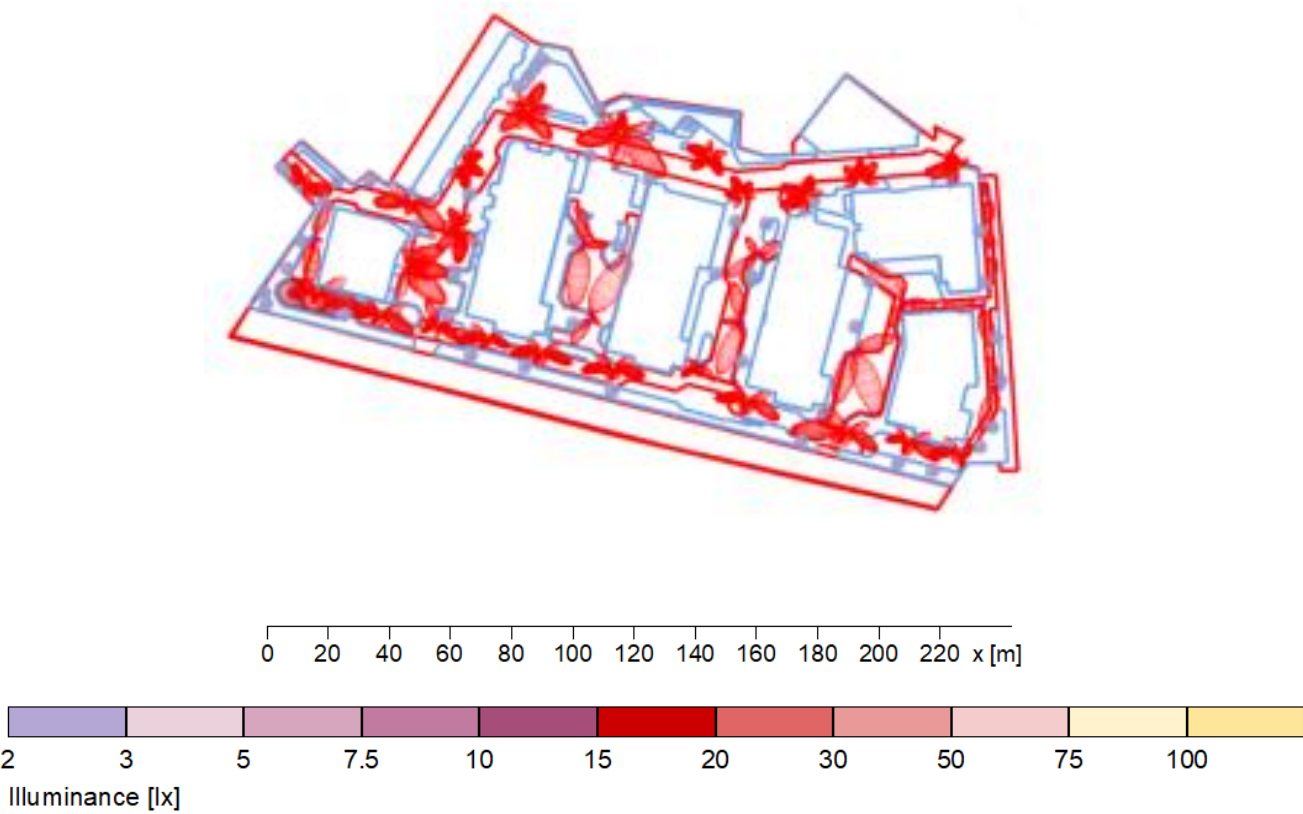


Figure 5.2.1 - Illumination Levels at Accessible routes

Evaluation	Target	Result	
E <sub>AVERAGE</sub> (maintained)	5-7.5 lux	17.1 lux	PASS
U <sub>O</sub> (Uniformity)	0.2	0.21	PASS

Figure 5.2.2 - Analysis Results

5.3 Accessible Pathway

It is proposed to light Pedestrian Access Rote using Type 'X2' 3-meter (H) multi-head luminaire. Luminaire as per Schedule in Appendix A of this report.

5.3.1 Accessible Route Between Block 02 and Block 04

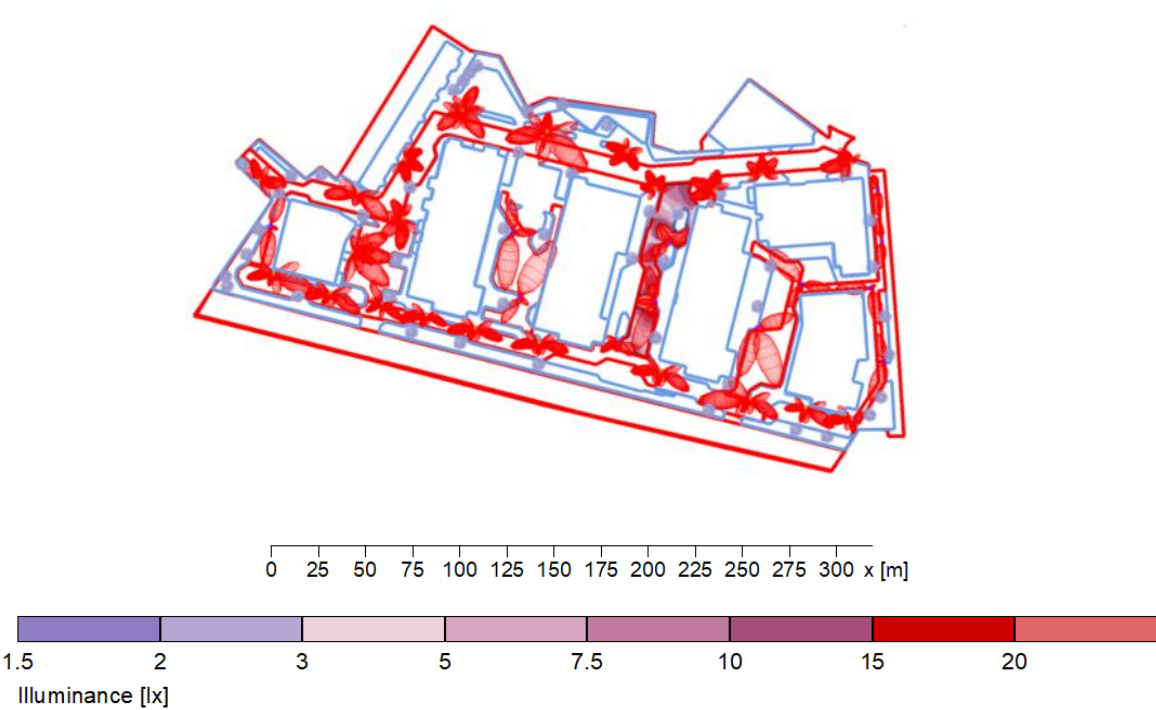


Figure 5.3.1 - Illumination Levels on Pedestrian Access Route

Evaluation	Target	Result	
E <sub>AVERAGE</sub> (maintained)	5 - 7.5 lux	12lux	PASS
U <sub>O</sub> (Uniformity)	0.20	0.20	PASS

Figure 5.3.2 - Analysis Results

5.3.2 Accessible Route Between Block 02 and Block 03

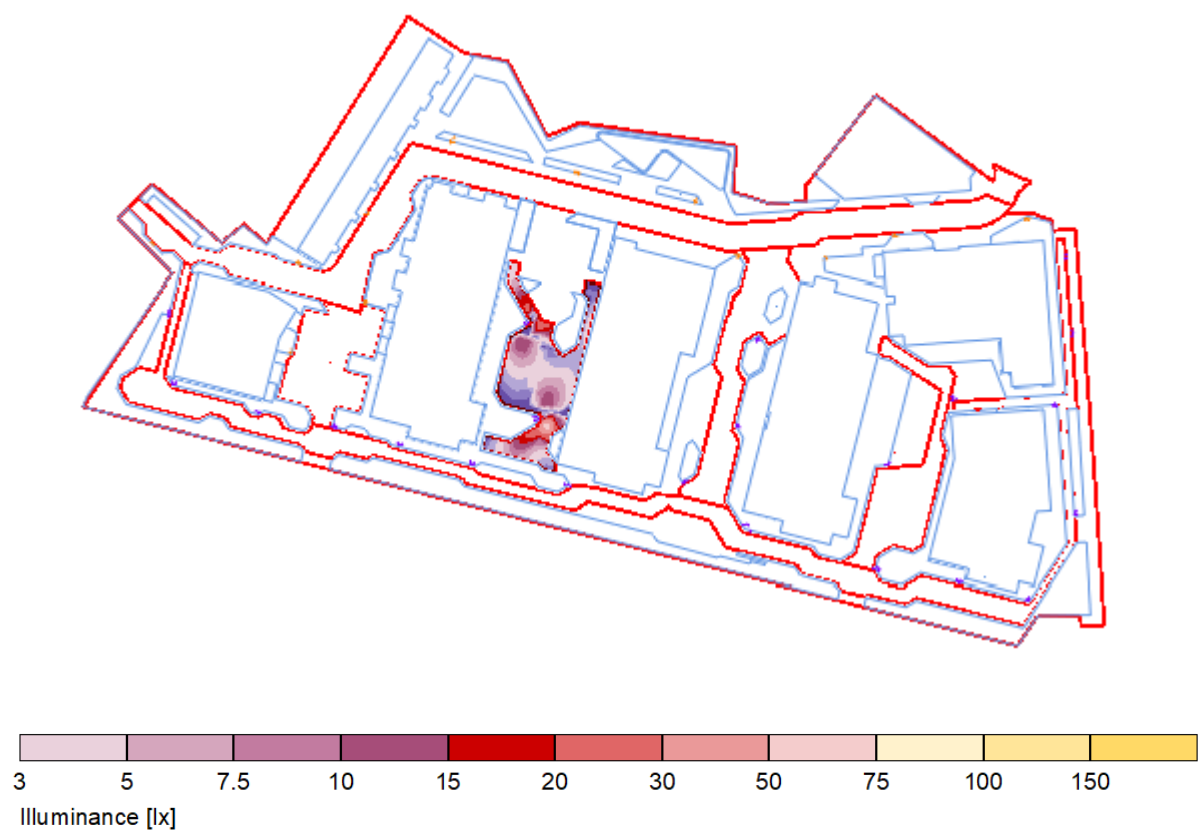


Figure 5.3.3 - Illumination Levels to Accessible routes

Evaluation	Target	Result	
E <sub>AVERAGE</sub> (maintained)	5-7.5 lux	7.6 lux	PASS
U <sub>O</sub> (Uniformity)	0.2	0.2	PASS

Figure 5.3.4 - Analysis Results

5.3.3 4 Accessible Route between Block 04 and Block 07



Figure 5.3.5 - Illumination Levels to Accessible routes

Evaluation	Target	Result	
E <sub>AVERAGE</sub> (maintained)	5-7.5 lux	5.9 lux	PASS
U <sub>O</sub> (Uniformity)	0.2	0.20	PASS

Figure 5.3.6 - Analysis Results

5.3.4 Residual Impact on Bat Populations

An Ecological Impact Assessment is being undertaken on the site to identify the residual impacts that the proposed development will have on any possible bat populations present on the site, the area beside the canal is the area of main concern.

The relevant guidance documents mentioned in Section 2.0 of this report state that a maximum of 1 lux is permissible to bat roosts and areas of foraging.

Figure 5.4.1 below indicates the light spill along the zone adjacent the canal site which is considered to be of ecological sensitivity and a possible Bat corridor. We shall aim to achieve a maximum illuminance of 1 lux resulting from the proposed lighting installation on the site, the below calculation is at 1M above finished ground level and achieves 0.91Lux.

5.4 Site Lighting 3D Render

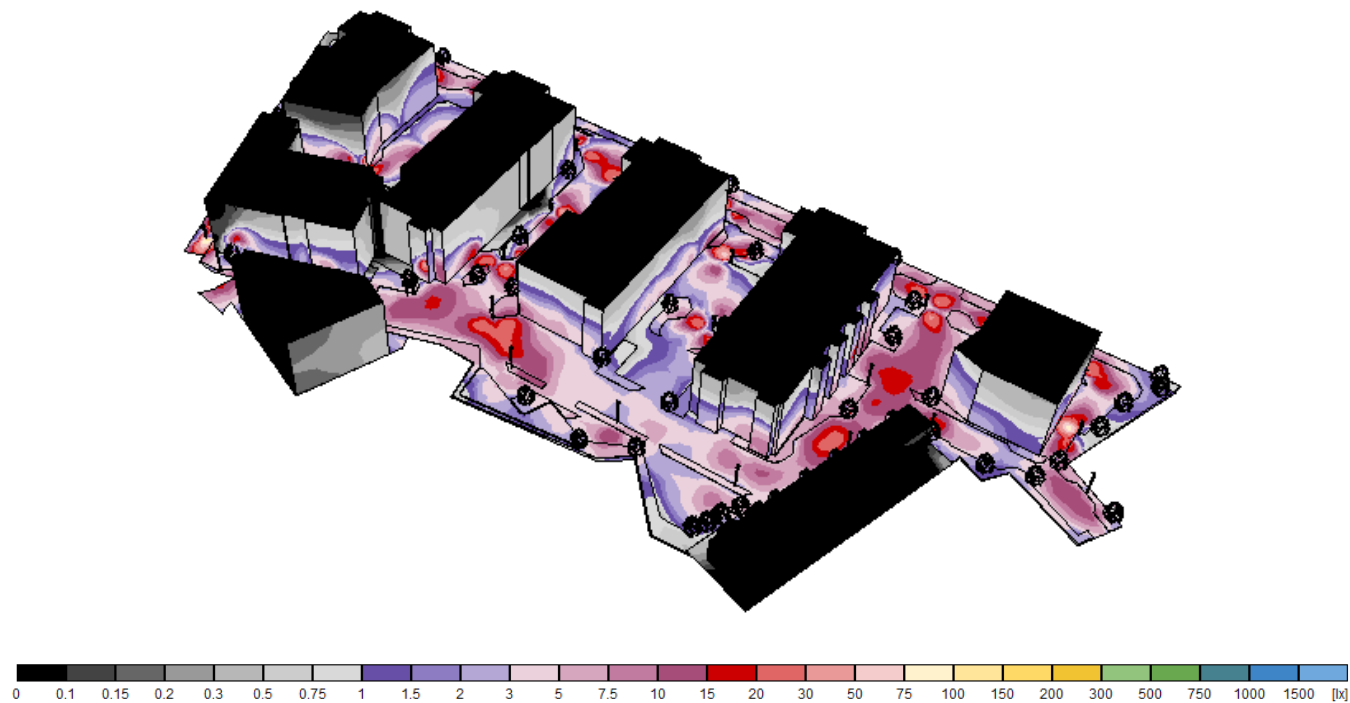


Figure 5.4.1 - 3D Model indicating Site Illumination Levels



Figure 5.4.1 - Analysis Results

Evaluation	Target	Result	
E <sub>AVERAGE</sub> (maintained)	Max. 1 lux	0.91 lux at 1m AFGL	PASS

Figure 5.4.2 - Analysis Results

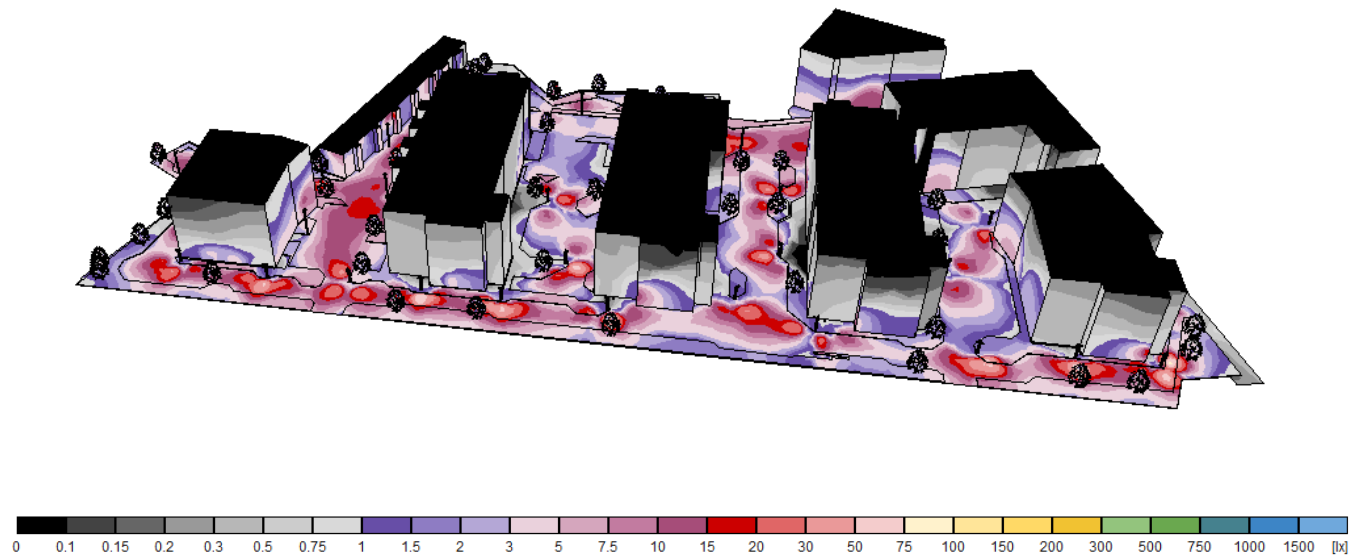
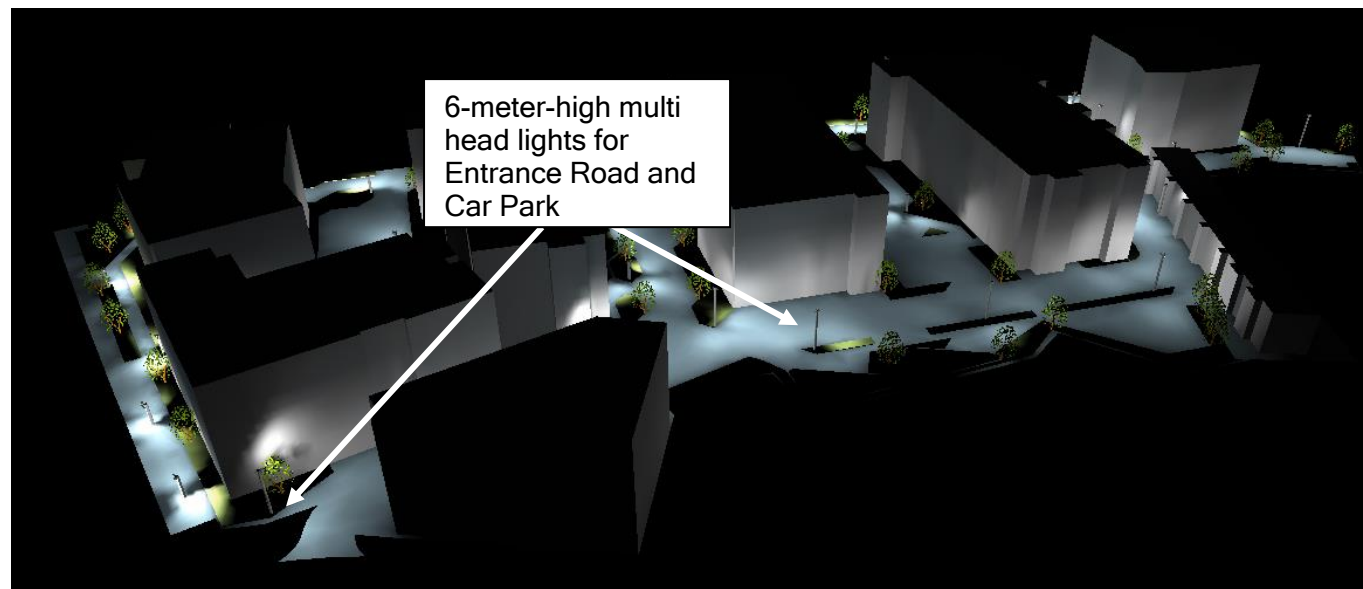
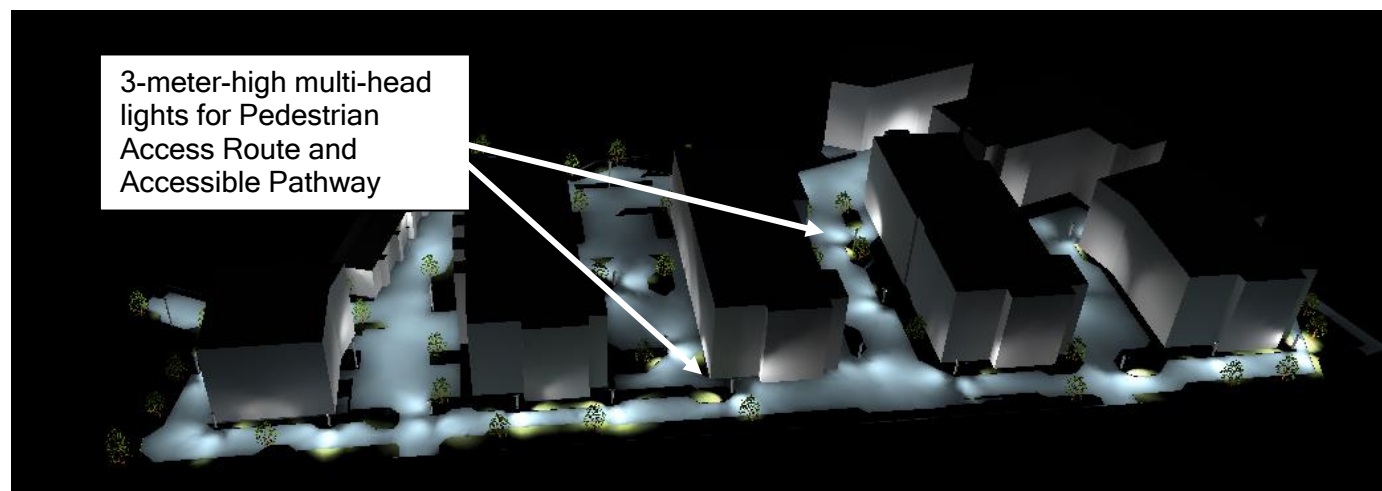


Figure 5.4.2 - 3D Model indicating Site Illumination Levels



*Figure 5.4.3- 3D Model Lux Levels*



*Figure 5.4.4 - 3D Model Lux Levels*



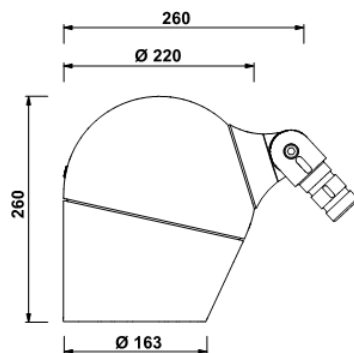
## 5.5 APPENDIX A – LUMINAIRE SCHEDULE

# White Heather South Circular Road, Dublin 8

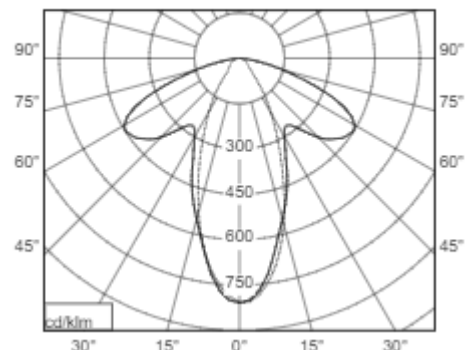
## LUMINAIRE SCHEDULE



Luminaire Reference	X2	Manufacturer	Selux Olivio Medio
Body Description	Die-Cast aluminium, IP67, IK06	Recessed/Surface or Wall Mounted	6M pole mounted
Diffuser Type	Clear Polycarbonate	Lamps	27W LED
Reflector	Prismatic disc	Lumen Output	2400 lumens
Control Gear	230V, 50-60Hz	Colour of Lamps	4000K
Area of Application	Pedestrian Routes	Lamp Life	50,000hours
Dimensions (mm)	163mm(D) x 260mm(H)	IEC Photometric Code	840/339
Wavelength	Peak > 550nm	IESNA LM 80-80 tested	Yes
luminaire head, rotation symmetrical 40° (± 20°), Asymmetrical beam, luminaire head to be mounted on Olivio Candelabra, Sistema or Floracion poles and brackets, adjustable head joint ensures precise direction of luminaire head, wide pivoting range from 20° to 195°, can be rotated + / - 180°, shielding made of safety glass, medium reflector hidden cable entry through the head joint, incl. 10m feed cable, easy maintenance access via lockbar mechanism, 6 kg, 0,05 CertificationsIP67, IK06, CE, Protection Class II, optional I			
Lumen Depreciation	L80 B50	Power Factor	> 0.9
Colour rendering Index	CRI>80	LED luminaire tested	To be in accordance with IESNA LM-79-08.
Manufacturing Standard	EN 60 598-1:2015, EN 60598-2-2:2012, IEC/TR 62778:2014	LED drivers shall conform to	To be in accordance with IEC 61347-2-13 & IEC 62384.
Warranty Length	Five-year on-site warranty to include failure of all luminaire components, inclusive of driver, electronics & LED modules. Contractor to include for all fixtures and fixings necessary for correct mounting and operation.		

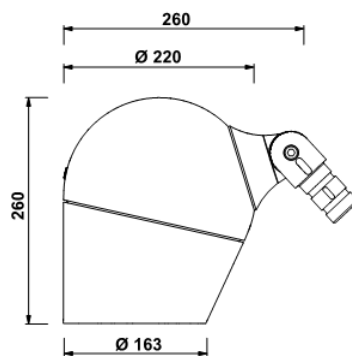


Technics

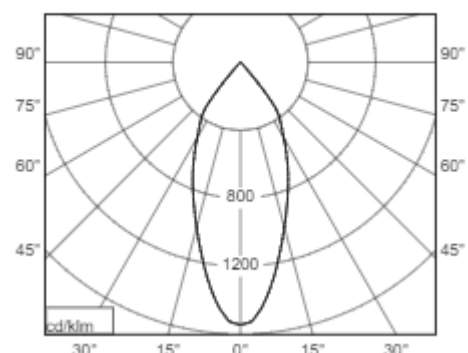


Contractor to ensure catalogue numbers are the latest and are correct prior to ordering.

<b>Luminaire Reference</b>	<b>X3</b>	<b>Manufacturer</b>	<b>Selux Olivio Medio</b>
Body Description	Die-Cast aluminium, IP67, IK06	Recessed/Surface or Wall Mounted	3M pole mounted
Diffuser Type	Clear Polycarbonate,	Lamps	27W LED
Reflector	Medium Reflector	Lumen Output	3000 lumens
Control Gear	230V, 50-60Hz	Colour of Lamps	4000K
Area of Application	Pedestrian Routes	Lamp Life	50,000hours
Dimensions (mm)	163mm(D) x 260mm(H)	IEC Photometric Code	840/339
Wavelength	Peak > 550nm	IESNA LM 80-80 tested	Yes
luminaire head, rotation symmetrical 40° (± 20°), medium beam, luminaire head to be mounted on Olivio Candelabra, Sistema or Floracion poles and brackets, adjustable head joint ensures precise direction of luminaire head, wide pivoting range from 20° to 195°, can be rotated + / - 180°, shielding made of safety glass, medium reflector hidden cable entry through the head joint, incl. 10m feed cable, easy maintenance access via lockbar mechanism, 6 kg, 0,05 Certifications IP67, IK06, CE, Protection Class II, optional I			
Lumen Depreciation	L80 B50	Power Factor	> 0.9
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Warranty Length	Five-year on-site warranty to include failure of all luminaire components, inclusive of driver, electronics & LED modules. Contractor to include for all fixtures and fixings necessary for correct mounting and operation.		



Technics



Contractor to ensure catalogue numbers are the latest and are correct prior to ordering.

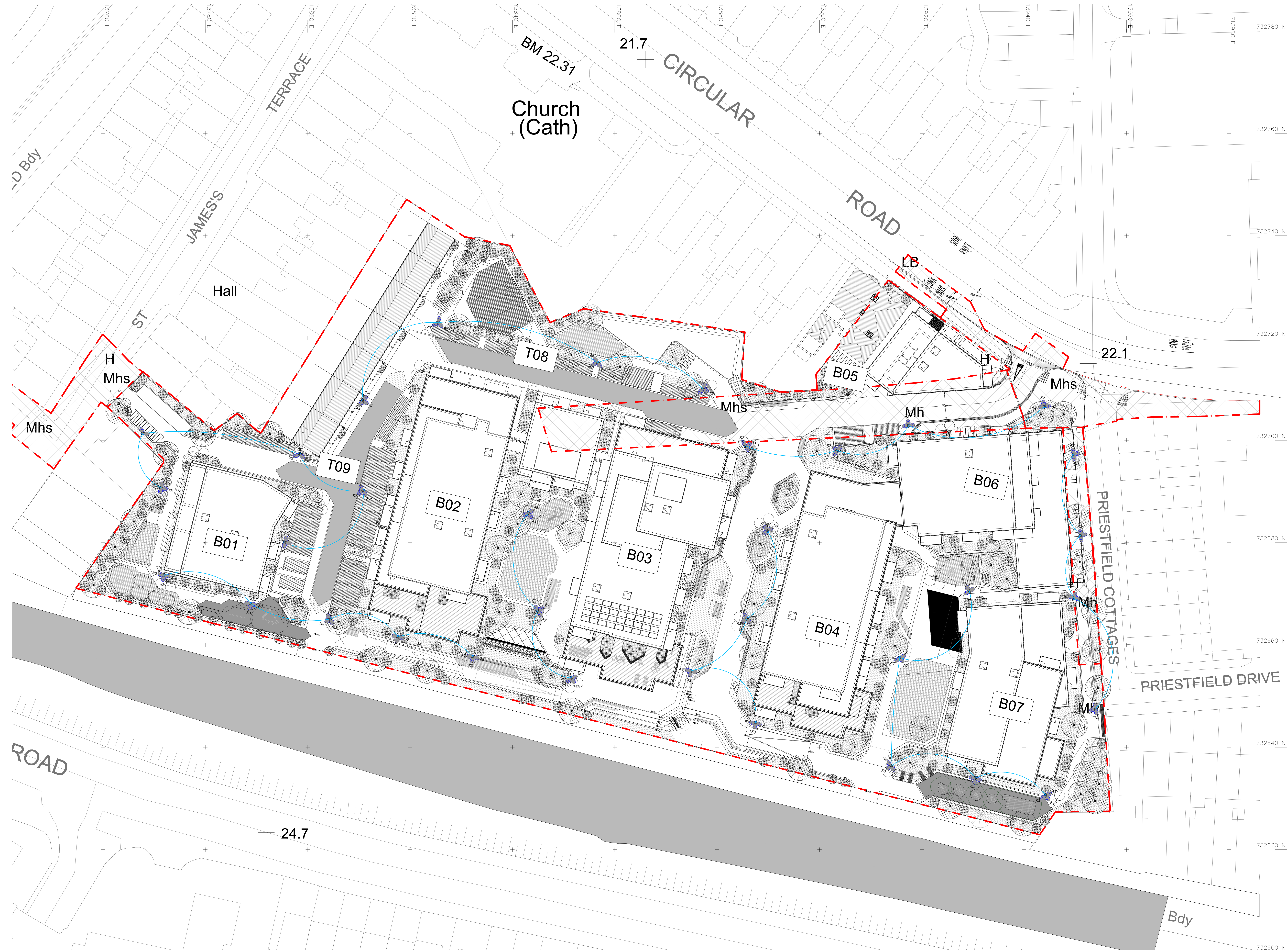


## 6.0 APPENDIX B – LIGHTING DRAWINGS

Refer to IN2 Drawing:

1. D2044-IN2-ZZ-00-DR-E-0101
2. D2044-IN2-ZZ-00-DR-E-0102





SITE LIGHTING INSTALLATION NOTES

- 1.00 LIGHTING POLES TO BE ALUMINIUM, ROOT MOUNTED, CONE SHAPED WITH TOP TAIL OF 900mm z/w CLASS II 4x16mm<sup>2</sup> SHUNT TERMINAL CONNECTION BLOCK.
- 2.00 ALL CABLEING TO EXTERNAL LIGHTING LOCATIONS TO BE WIRED IN 3 Core 8mm<sup>2</sup> CU/XLPE/SWALSOH CONTAINED IN HOPE DUCTS.
- 3.00 ALL IN GROUND HOPE DUCTS TO BE INSTALLED BY THE MAIN CONTRACTOR UNDER THE COORDINATION OF THE ELECTRICAL CONTRACTOR.
- 4.00 THE ELECTRICAL CONTRACTOR SHALL, PRIOR TO THE INSTALLATION, VERIFY THE CAPACITY OF THE IN-GROUND DUCT NETWORKS TO THE MAIN CONTRACTOR.
- 5.00 EACH EXTERNAL LIGHTING LUMINAIRE SHALL BE SWITCHED BY MINATURE PHOTO-ELECTRONIC SWITCH INTEGRATED INTO THE LED LUMINAIRE SUCH AS THE SELC 442 OR APPROVED EQUAL AND EACH LUMINAIRE SHALL BE INDIVIDUALLY CONTROLLED BY THIS PHOTOCELL.
- 6.00 THE PHOTOCELL USED SHALL COMPLY WITH THE LATEST VERSION OF BS5972. THE PHOTOCELL CONTROL SHALL SWITCH ON/OFF THE LUMINAIRE AT 35 / 18 LUX RESPECTIVELY.
- 7.00 ALL OUTGOING CIRCUITS SHALL BE INDIVIDUALLY FUSED BY MEANS OF A 16A OR 20A HRC CUT-OUT TYPE AND CAPABLE OF ACCOMMODATING CABLE SIZES UP TO 28mm<sup>2</sup>. THESE FUSES SHALL BE RATED 20A MINIMUM RUPERTING CAPACITY AND SHALL COMPLY WITH BS88.
- 8.00 ALL COLUMNS ARE SUPPLIED FROM A LIGHTING MIN-SECTION PILLAR, LOCATED ADJACENT TO THE ESB NETWORKS MIN-SECTION PILLAR, NOT MORE THAN 6 COLUMNS SHALL BE SUPPLIED FROM ANY ONE CIRCUIT AND NOT MORE THAN 4 CIRCUITS SHALL BE TAKEN FROM ANY ONE AUXILIARY MIN-SECTION PILLAR.
- 9.00 THE CONTRACTOR SHALL MAKE A FULL TECHNICAL SUBMITTAL TO THE DESIGN TEAM FOR ALL EXTERNAL LIGHTING FOR APPROVAL PRIOR TO ORDERING.
- 10.00 THE DEVELOPER SHALL NOTE THAT NO EXISTING PUBLIC LIGHTS CAN BE REMOVED WITHOUT THE PERMISSION AND APPROVAL OF PUBLIC LIGHTING SERVICES.
- 11.00 THE DEVELOPER SHALL CONTACT PUBLIC LIGHTING SERVICES AT LEAST 6 WEEKS IN ADVANCE OF WORKS STARTING ON SITE, TO FIND OUT WHAT IS REQUIRED TO BE DONE TO EXISTING PUBLIC LIGHTING THAT IS WITHIN THE SITE BOUNDARY.
- 12.00 ANY COSTS ASSOCIATED WITH THE RE-ARRANGEMENT OR ALTERATION OF EXISTING PUBLIC LIGHTING SHALL BE ENTIRELY AT THE DEVELOPERS EXPENSE, INCLUDING ESB NETWORK COSTS.
- 13.00 WHERE PUBLIC ROADS ARE TO REMAIN IN USE, THEN THE PUBLIC LIGHTING MUST BE MAINTAINED BY THE DEVELOPER IN AN OPERATING CONDITION THROUGHOUT THE DEVELOPMENT PERIOD.

SITE LIGHTING SYMBOLS REFERENCE KEY

- LIGHTING CIRCUIT
- X2 6m POLE MOUNTED LUMINAIRE
- X3 3m POLE MOUNTED LUMINAIRE
- LC LIGHTING COLUMN
- MCP LIGHTING MICRO-PILLAR

REF: 'X2' LUMINAIRES



REF: 'X3' LUMINAIRES



IN2 DUBLIN

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w: www.in2.ie

STATUS	DATE	DESCRIPTION	DRN	ENG	APP

STATUS	DATE	DESCRIPTION	DRN	ENG	APP

STATUS	DATE	DESCRIPTION	DRN	ENG	APP

STATUS	DATE	DESCRIPTION	DRN	ENG	APP
P3-4	26.02.2022	PLANNING STAGE ISSUE	JL	TJ	JR
P3-3	02.03.2021	PLANNING STAGE ISSUE	JL	TJ	JR
P3-2	17.02.2021	PLANNING STAGE ISSUE	JL	TJ	JR
P3-1	29.01.2021	PLANNING STAGE ISSUE	JL	TJ	JR

PROJECT  
WHITE HEATHER BTR  
WHITE HEATHER IND. EST. DUBLIN 8

CLIENT  
U + I

DRAWING TITLE  
ELECTRICAL SERVICES INSTALLATION  
SITE PLAN - LEVEL 00  
SITE LIGHTING LAYOUT

IN2 REF:  
D2044

DRAWING No.  
D2044-IN2-ZZ-00-DR-E-0101

SCALE  
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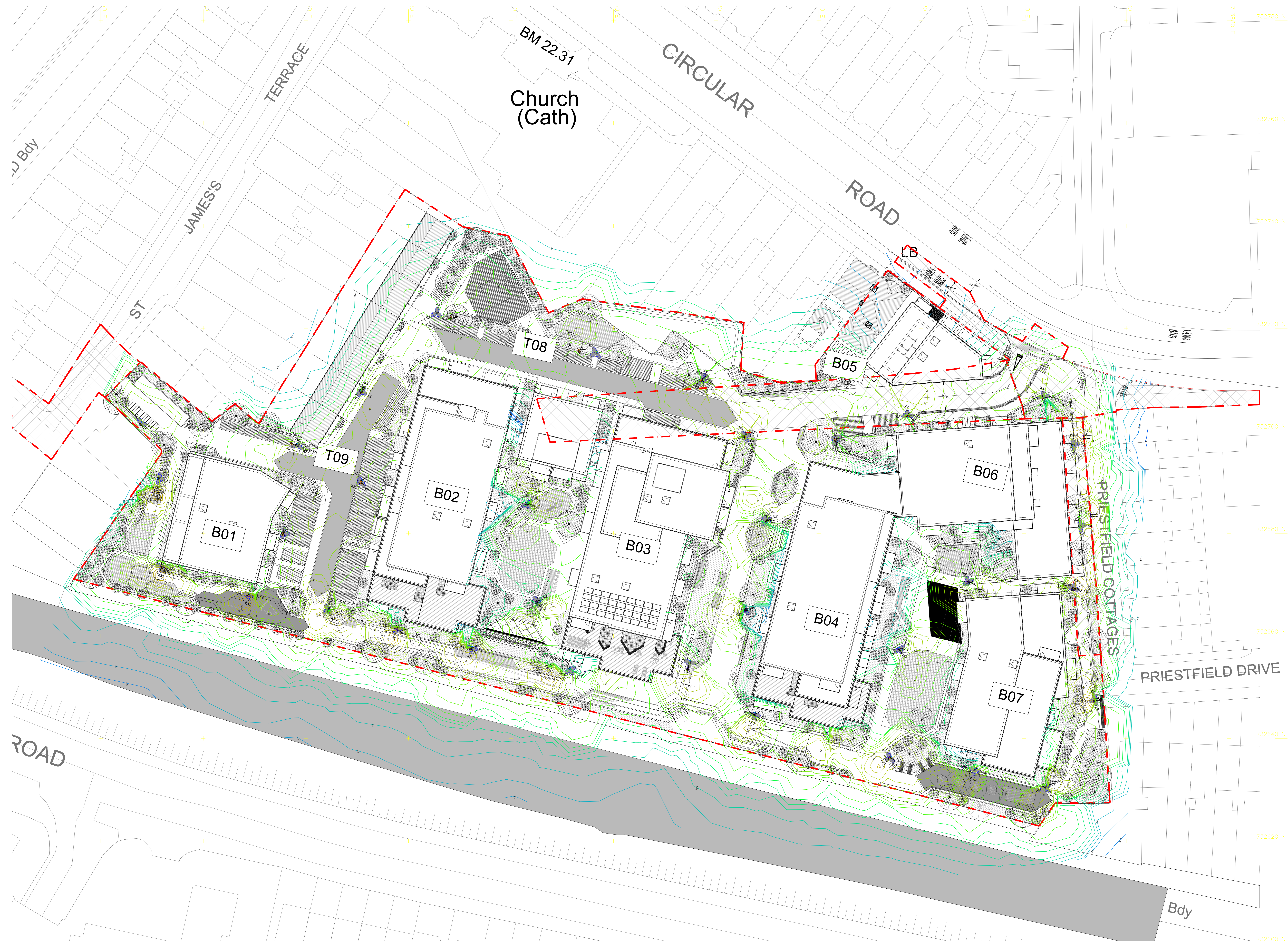
SIZE  
A0



STATUS

P3-4





SITE LIGHTING INSTALLATION NOTES

- 1.00 LIGHTING POLES TO BE ALUMINIUM, ROOT MOUNTED, CONE SHAPED WITH TOP TAIL OF 600mm c/w CLASS II 4x16mm<sup>2</sup> SHUNT TERMINAL CONNECTION BLOCK.
- 2.00 ALL CABLING TO EXTERNAL LIGHTING LOCATIONS TO BE WIRED IN 3 Core 6mm<sup>2</sup> CU/XLPE/SW/LSH CONTAINED IN HOPE DUCTS.
- 3.00 ALL IN-GROUND HOPE DUCTS TO BE INSTALLED BY THE MAIN CONTRACTOR UNDER THE COORDINATION OF THE ELECTRICAL CONTRACTOR.
- 4.00 THE ELECTRICAL CONTRACTOR SHALL, PRIOR TO THE INSTALLATION, VERIFY THE CAPACITY OF THE IN-GROUND DUCT NETWORK TO THE MAIN CONTRACTOR.
- 5.00 EACH EXTERNAL LIGHTING LUMINAIRE SHALL BE SWITCHED BY MINATURE PHOTO-ELECTRONIC SWITCH INTEGRATED INTO THE LED LUMINAIRE SUCH AS THE SELC 8482 OR APPROVED EQUAL AND EACH LUMINAIRE SHALL BE INDIVIDUALLY CONTROLLED BY THIS PHOTOCELL.
- 6.00 THE PHOTOCELL USED SHALL COMPLY WITH THE LATEST VERSION OF BS6872. THE PHOTOCELL CONTROL SHALL SWITCH ON/OFF THE LUMINAIRE AT 35 / 18 LUX RESPECTIVELY.
- 7.00 ALL OUTGOING CIRCUITS SHALL BE INDIVIDUALLY FUSED BY MEANS OF A 16A OR 20A HRC C/T-OFF TYPE AND CAPABLE OF ACCOMMODATING CABLE SIZES UP TO 25mm<sup>2</sup>. THESE FUSES SHALL BE RATED 20A MINIMUM RUPTURING CAPACITY AND SHALL COMPLY WITH BS88.
- 8.00 ALL COLUMNS ARE SUPPLIED FROM A LIGHTING MINI-SECTION PILLAR, LOCATED ADJACENT TO THE ESB NETWORKS MINI-SECTION PILLAR, NOT MORE THAN 6 COLUMNS SHALL BE SUPPLIED FROM ANY ONE CIRCUIT AND NOT MORE THAN 4 CIRCUITS SHALL BE TAKEN FROM ANY ONE AUXILIARY MINI-SECTION PILLAR.
- 9.00 THE CONTRACTOR SHALL MAKE A FULL TECHNICAL SUBMITAL TO THE DESIGN TEAM FOR ALL EXTERNAL LIGHTING FOR APPROVAL PRIOR TO ORDERING.
- 10.00 THE DEVELOPER SHALL NOTE THAT NO EXISTING PUBLIC LIGHTS CAN BE REMOVED WITHOUT THE PERMISSION AND APPROVAL OF PUBLIC LIGHTING SERVICES.
- 11.00 THE DEVELOPER SHALL CONTACT PUBLIC LIGHTING SERVICES AT LEAST 6 WEEKS IN ADVANCE OF WORKS STARTING ON SITE, TO FIND OUT WHAT IS REQUIRED TO BE DONE TO EXISTING PUBLIC LIGHTING THAT IS WITHIN THE SITE BOUNDARY.
- 12.00 ANY COSTS ASSOCIATED WITH THE RE-ARRANGEMENT OR ALTERATION OF EXISTING PUBLIC LIGHTING SHALL BE ENTIRELY AT THE DEVELOPER'S EXPENSE, INCLUDING ESB NETWORK COSTS.
- 13.00 WHERE PUBLIC ROADS ARE TO REMAIN IN USE, THEN THE PUBLIC LIGHTING MUST BE MAINTAINED BY THE DEVELOPER IN AN OPERATING CONDITION THROUGHOUT THE DEVELOPMENT PERIOD.

SITE LIGHTING SYMBOLS REFERENCE KEY

- LIGHTING CIRCUIT
- X2 6m POLE MOUNTED LUMINAIRE
- X3 3m POLE MOUNTED LUMINAIRE
- LC LIGHTING COLUMN
- MCP LIGHTING MICRO-PILLAR

REF: 'X2' LUMINAIRES



REF: 'X3' LUMINAIRES



SITE LIGHTING ILLUMINATION LUX LEVELS ISOLINES KEY

- |               |               |
|---------------|---------------|
| 0.1 LUX LEVEL | 5 LUX LEVEL   |
| 0.3 LUX LEVEL | 10 LUX LEVEL  |
| 0.5 LUX LEVEL | 20 LUX LEVEL  |
| 1 LUX LEVEL   | 30 LUX LEVEL  |
| 1.5 LUX LEVEL | 50 LUX LEVEL  |
| 2 LUX LEVEL   | 75 LUX LEVEL  |
| 3 LUX LEVEL   | 100 LUX LEVEL |

IN2 DUBLIN

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STATUS	DATE	DESCRIPTION	DRN	ENG	APP

STATUS	DATE	DESCRIPTION	DRN	ENG	APP

STATUS	DATE	DESCRIPTION	DRN	ENG	APP

P3-5	28.02.2022	PLANNING STAGE ISSUE	JL	TJ	JR
P3-4	16.07.2022	PLANNING STAGE ISSUE	JL	TJ	JR
P3-3	02.03.2021	PLANNING STAGE ISSUE	JL	TJ	JR
P3-2	17.02.2021	PLANNING STAGE ISSUE	JL	TJ	JR
P3-1	29.01.2021	PLANNING STAGE ISSUE	JL	TJ	JR

PROJECT  
WHITE HEATHER BTR  
WHITE HEATHER IND. EST. DUBLIN 8

CLIENT  
U + I

DRAWING TITLE  
ELECTRICAL SERVICES INSTALLATION  
SITE PLAN - LEVEL 00  
LUX LEVEL LAYOUT

IN2 REF: D2044  
DRAWING No. D2044-IN2-ZZ-00-DR-E-0102

SCALE  
1:250

SIZE  
A0



STATUS  
P3-5





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