

Land South of Smugglers Lane

Lighting Assessment: Part 1 - Baseline Lighting Survey Report

Baseline conditions recorded to inform the lighting design in support of a full planning application for residential development.

On behalf of Miller Homes & Miller Developments

433.000146.00001

10th October 2025 | Rev01



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Introduction

1 - About the Author

- 1-1 This document has been prepared by Noah Derrington, Associate Lighting Consultant who is a Lighting Designer and Assessor with extensive experience in this field of work and has stood as an expert witness in the field of Lighting and Environmental Impact Assessment.
- 1-2 The SLR Lighting design team have extensive experience with master planning, architectural lighting design, urban realm, industrial sites, mining, waste management, historic buildings and highways schemes. The team has a long standing specialisation in developing lighting schemes for ecologically and environmentally sensitive sites. Experience extends throughout the planning process including surveys, design, photometric modelling, monitoring, validation and compliance tasks.

Table 1 - Issue and Revision Record

Revision	Date	Written	Edited	Authorised	Amendments
01	03.10.25	Noah Derrington	Tavey See	Noah Derrington	First Issue

1-3 The Brief

- 1-4 SLR Consulting Ltd (SLR) has been commissioned by Miller Homes & Miller Developments to provide lighting consultancy services to inform the design of a residential development, comprising approximately 65 dwellings (the 'Proposed Development') on land to the south of Smugglers Lane, Barns Green (the 'Site'). Miller Homes & Miller Developments intend to submit a full planning application to West Sussex County Council (the 'Council').
- 1-5 The Site currently comprises agricultural land, located to the west of the village of Barns Green, bounded by:
 - Smugglers' Lane and open fields including grazing land to the north;
 - Chapel Road, The Queen's Head pub, the Barns Green Village Shop and residential properties to the east;
 - Sumners Ponds Fishery and Campsite to the south;
 - Sumners Fields housing development to the south;
 - Betty's Lake, ancient & semi-natural woodland, along with undeveloped agricultural land to the west;See. **Figure 3 - Proposed Development Site on page 4.**
- 1-6 A Lighting Design and Lighting Impact Assessment is required including a Baseline Lighting Survey to identify lighting related risks to ecological or residential receptors, establish suitable design parameters and a produce a compliant design for lighting within the Site boundary.
- 1-7 The Lighting Design shall set out how the objective of preventing lighting adversely affecting ecological habitats or other sensitive receptors such as adjacent residential properties will be achieved.



Figure 2 - Red Line Boundary & Illustrative Layout Plan

Document Shown:
Drawing Number: 24088/C101
(Not to Scale)



Coloured Site Layout
Barns Green, Horsham
24088 / C101

Scale 1:500 @ A1 September 2025

OSP Architecture, Broadwater House, Tarrant Business Park, Weydon Lane, Tarrant, Surrey GU24 0BP Tel: 01252 267676 www.osparchitecture.com

2 - Methodology

- 2-1 A Baseline Lighting Survey was undertaken by SLR Lighting Assessors on the day of the 23.09.2025.
- 2-2 In order to conduct the Baseline Lighting Survey, viewpoints were established by SLR based on suitable locations to assess the lighting conditions on and around the Proposed Development Site.
- 2-3 A daytime survey was conducted by SLR with photography taken along with relevant data on the location and prevailing weather conditions.
- 2-4 A night time survey was conducted on the same date with all viewpoints revisited after dark. Again relevant data and photography was recorded to establish the existing lighting conditions in and around the Proposed Development Site.
- 2-5 During the survey, potential receptors such as residential properties adjacent or with overlooking views are identified along with any habitat features observed such as mature tree lines, woodland and hedgerow that may be suitable habitat for light sensitive ecology.

Overview

3 - Context

3-1 The Proposed Development Site red line boundary is shown in context in **Figure 3** which illustrates the internal areas of potential ecological sensitivity and potential residential receptors in the surrounding context.

4 - Sky Quality

4-1 A Sky Quality Meter (SQM) survey was undertaken within the Proposed Development Site during the survey.

4-2 Conditions were ideal for relatively accurate SQM readings due to the absence of cloud cover. The values recorded show a rating of **Class 5** on the Bortle Scale indicating low to moderate levels of light pollution.

4-3 *Class 5 - Suburban Sky*
20.40 SQM mag/arcsec²

Table 2 - SQM Survey

SQM	18°c	23:01	
N	E	S	W
20.44	20.40	20.31	20.39
20.43	20.39	20.34	20.41
20.43	20.42	20.41	20.41
20.41	20.41	20.41	20.43
Averages			
20.43	20.41	20.37	20.41
Overall Average			
20.40			
Bortle Scale Class			
Class 5		19.5 - 20.49	

Figure 3 - Proposed Development Site

Red Line Boundary & Surrounding Context



On-Site Survey

5 - Existing Site Condition

- 5-1 SLR conducted a Baseline Lighting Survey during the day and night of the 23.09.2025 to assess the extent of artificial lighting on and around the Proposed Development Site location.
- 5-2 Two viewpoints were visited with 360° photography taken along with light measurements during the nighttime survey.
- 5-3 The map in **Figure 4** displays the defined view points' locations. For detailed location maps and GPS coordinates, refer to the individual view point survey pages within this document.
- 5-4 **Proposed Development Location:**
Land South of Smugglers Lane, Barns Green, Horsham RH13 0PS

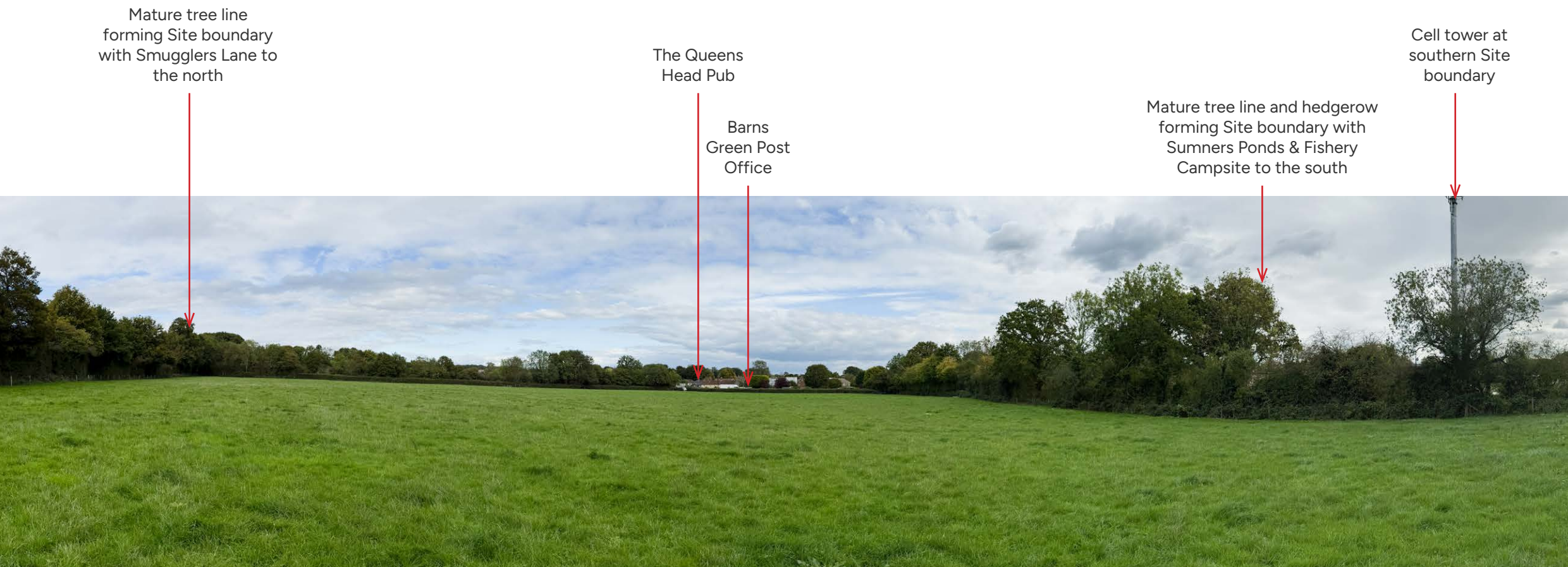
Google:
2JJ3+J3W Horsham

What3Words:
///roadways.coder.educated
- 5-5 The boundary of the Proposed Development Site is shown in red in **Figure 2**.
- 5-6 **On-Site View Point Locations:**
- 5-7 Locations of On-Site viewpoints are marked in **Figure 4** with the orientation indicated and numbered sequentially.



DAYTIME SURVEY

Location	1A
Date	23.09.2025
Time	14:15
GPS	51.01523, 0.23555
Compass	60° NE
Temp	16°C
Visibility	Good / Partial Cloud



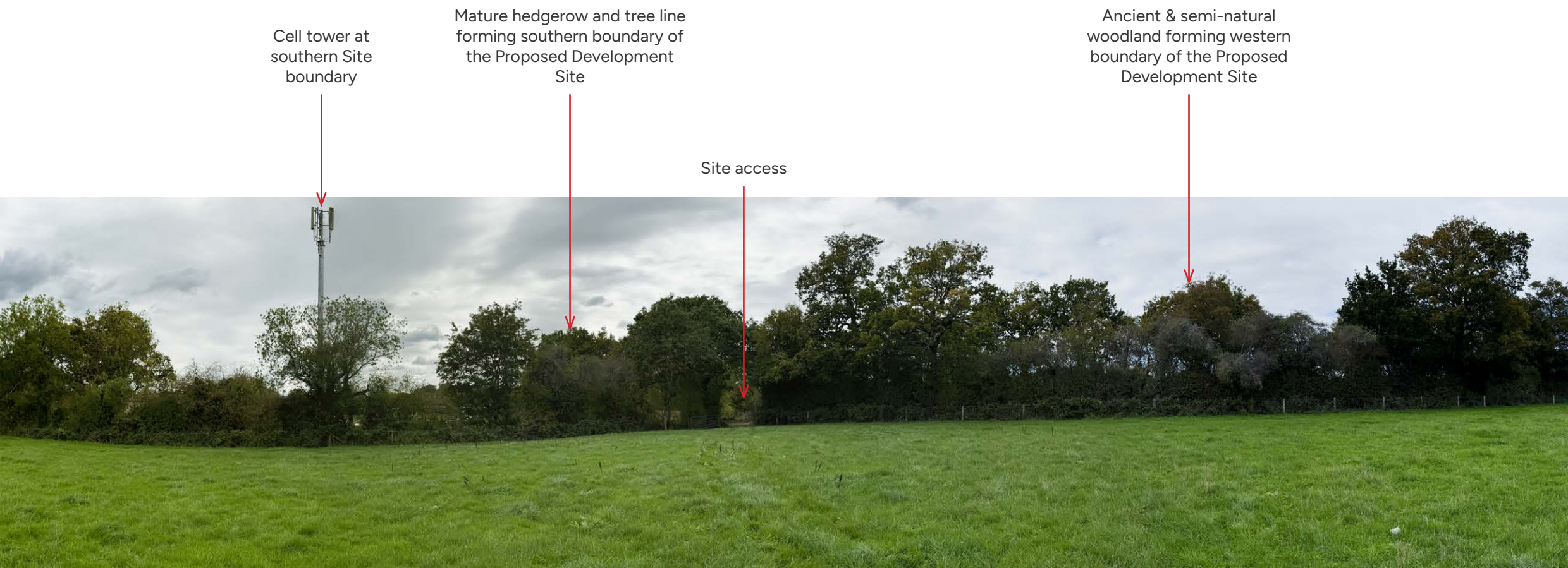
NIGHT SURVEY

Location	1A
Date	23.09.2025
Time	22:23
GPS	51.01523, 0.23555
Compass	60° NE
Temp	12°C
Visibility	Good / Clear



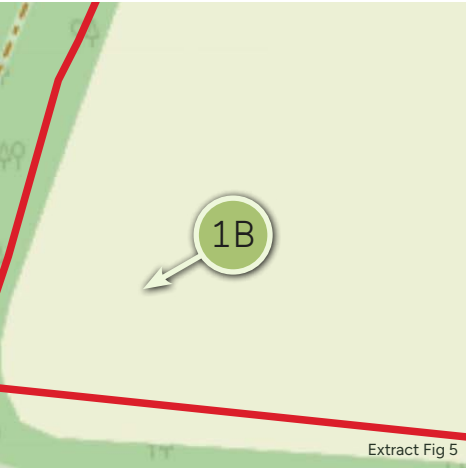
DAYTIME SURVEY

Location	1B
Date	23.09.2025
Time	14:15
GPS	51.01523, 0.23555
Compass	240° SW
Temp	16°C
Visibility	Good / Partial Cloud



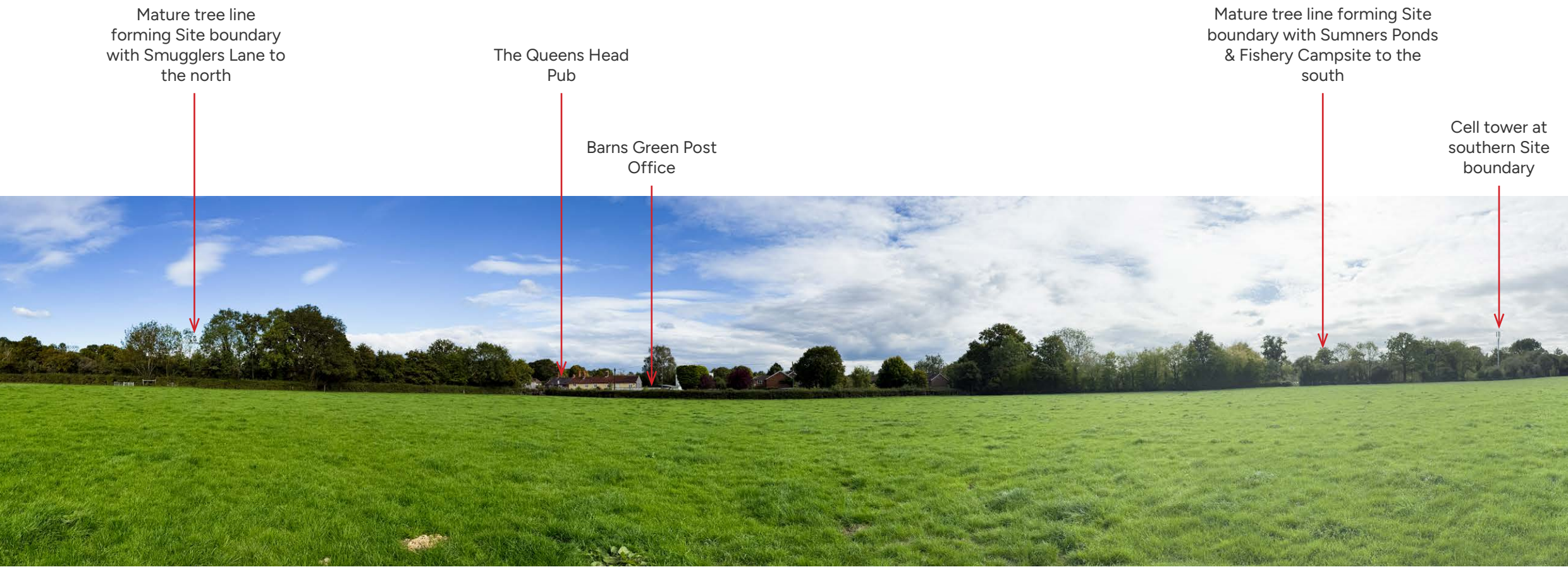
NIGHT SURVEY

Location	1B
Date	23.09.2025
Time	22:23
GPS	51.01523, 0.23555
Compass	240° SW
Temp	12°C
Visibility	Good / Clear



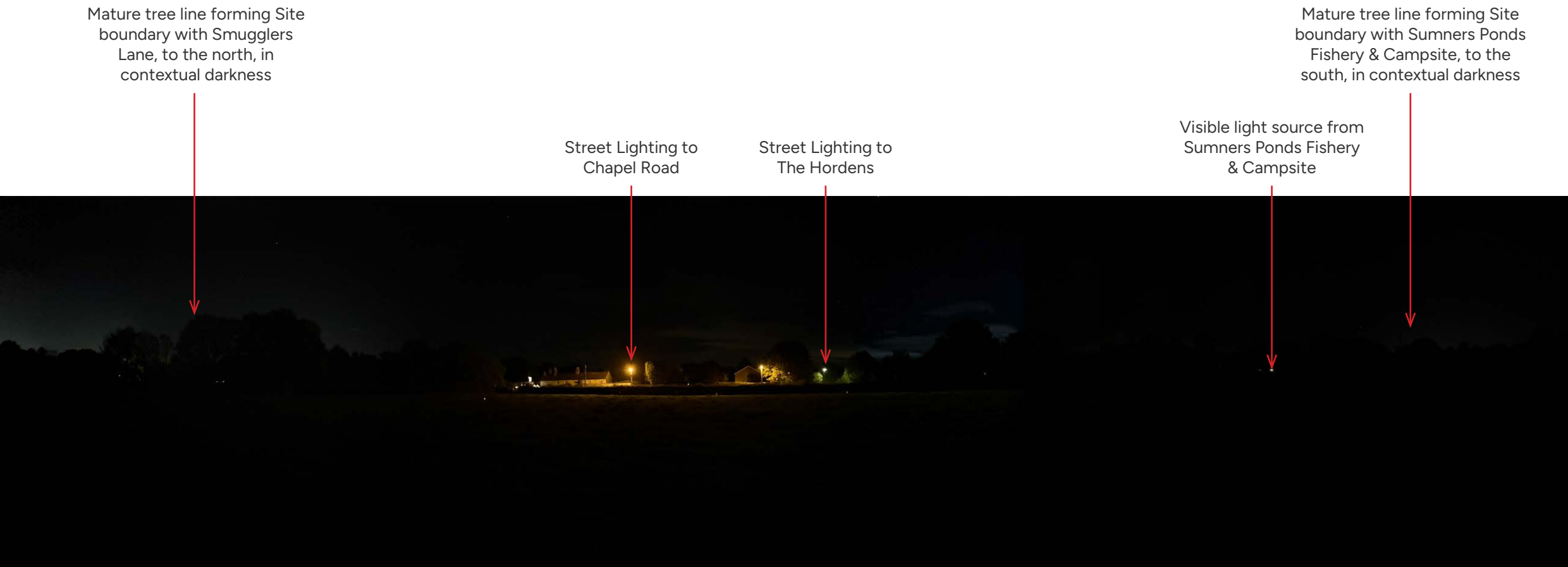
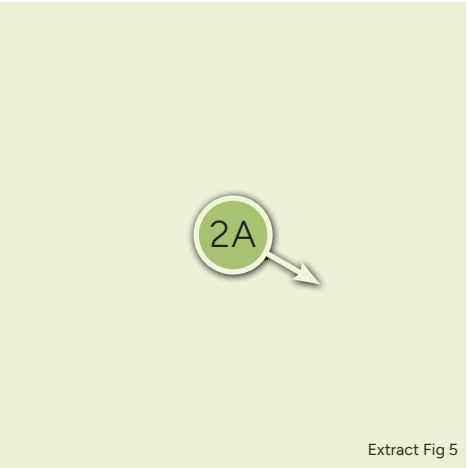
DAYTIME SURVEY

Location	2A
Date	23.09.2025
Time	14:33
GPS	51.01533, 0.23490
Compass	120° SE
Temp	17°C
Visibility	Good / Partial Cloud



NIGHT SURVEY

Location	2A
Date	23.09.2025
Time	22:43
GPS	51.01533, 0.23490
Compass	120° SE
Temp	12°C
Visibility	Good / Clear



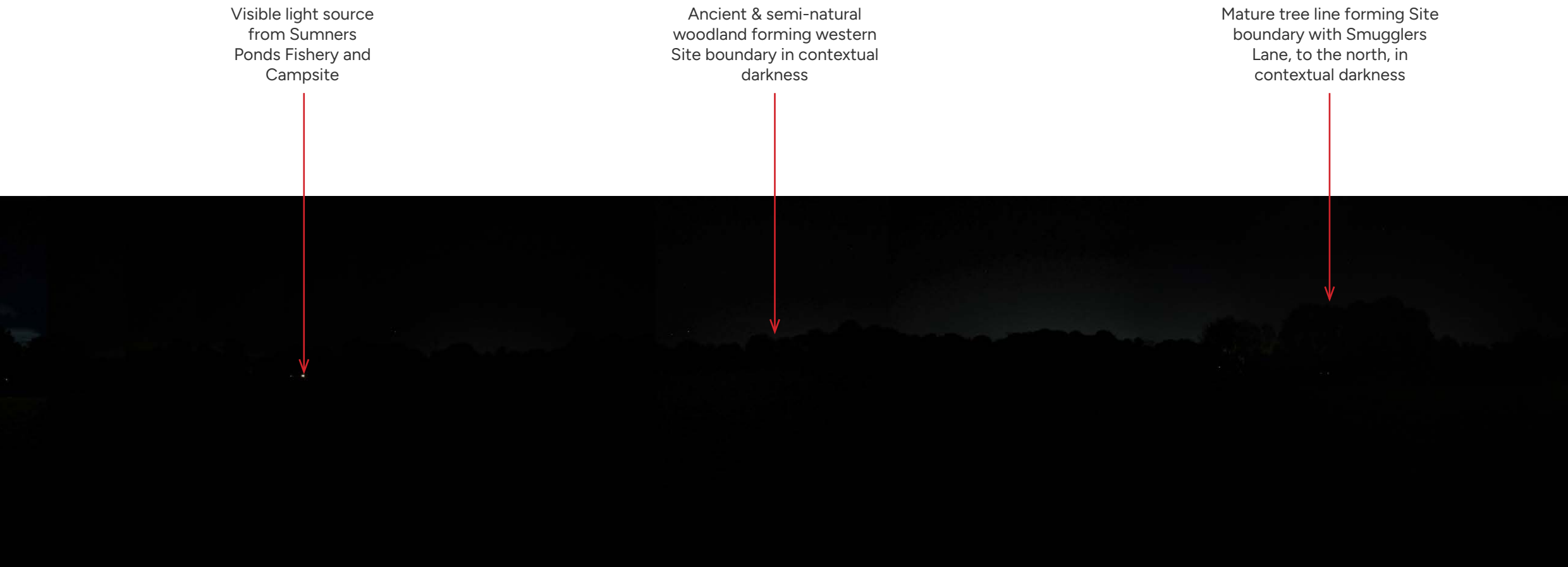
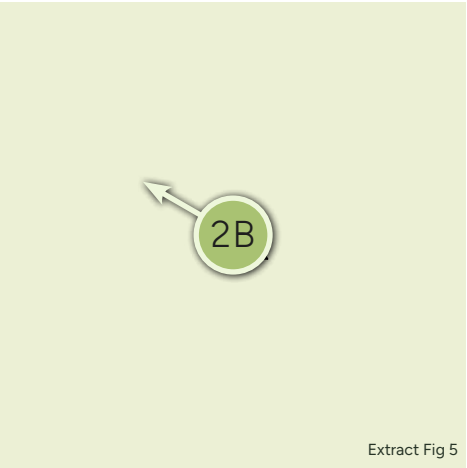
DAYTIME SURVEY

Location	2B
Date	23.09.2025
Time	14:33
GPS	51.01533, 0.23490
Compass	300° NW
Temp	17°C
Visibility	Good / Partial Cloud



NIGHT SURVEY

Location	2B
Date	23.09.2025
Time	22:43
GPS	51.01533, 0.23490
Compass	300° NW
Temp	12°C
Visibility	Good / Clear



Off-Site Survey

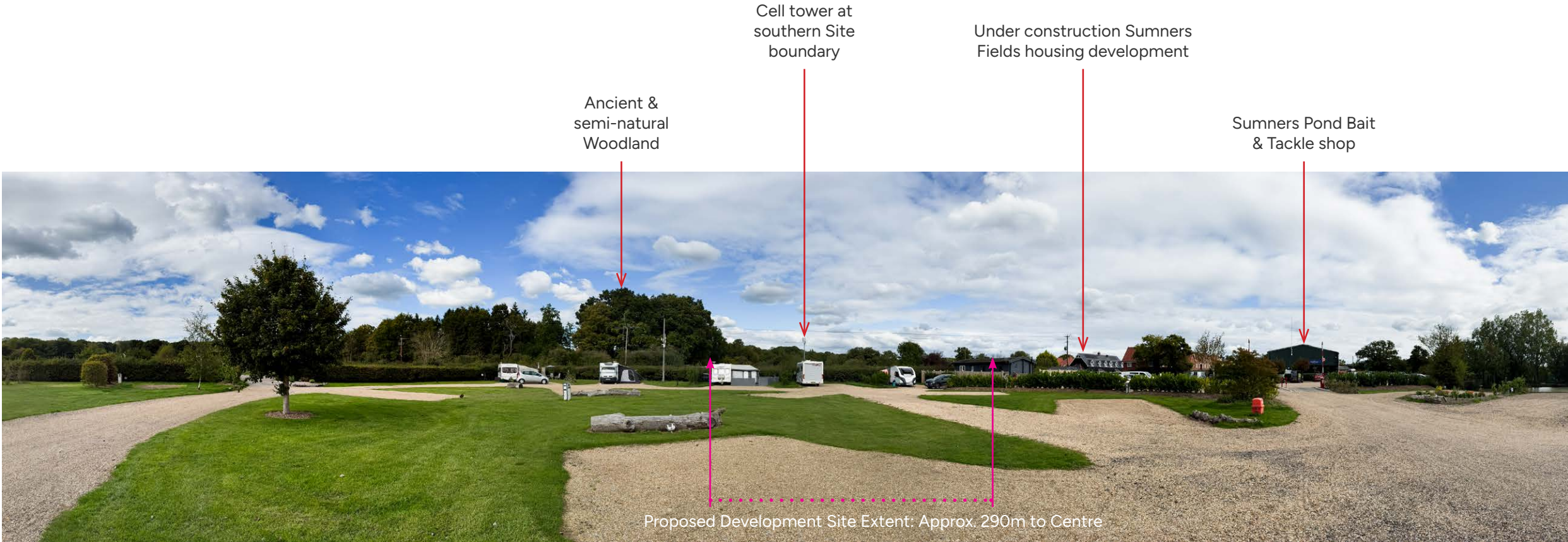
6 - Existing Site Condition

- 6-1 SLR conducted a Baseline Lighting Survey during the day and night of 23.09.2025 to assess the extent of artificial lighting on and around the Proposed Development Site location.
- 6-2 Six view points were visited and photography taken along with light measurements during the night time survey.
- 6-3 **Figure 5** displays the defined viewpoints' locations. For detailed location maps and GPS coordinates, refer to the individual view point survey pages within this document.
- 6-4 **Proposed Development Location:**
Land South of Smugglers Lane, Barns Green, Horsham RH13 OPS
Google:
2JJ3+J3W Horsham
What3Words:
///roadways.coder.educated
- 6-5 The boundary of the Proposed Development Site is shown in red in **Figure 2**.
- 6-6 **Off-Site View Point Locations:**
- 6-7 Locations of Off-Site viewpoints are marked in **Figure 5** with the orientation indicated and identified sequentially.



DAYTIME SURVEY

Location	A
Date	23.09.2025
Time	13:28
GPS	51.01457, 0.23587
Compass	30° NE
Temp	15°C
Visibility	Good / Partial Cloud



NIGHT SURVEY

Location	A
Date	23.09.2025
Time	21:24
GPS	51.01457, 0.23587
Compass	30° NE
Temp	13°C
Visibility	Good / Clear



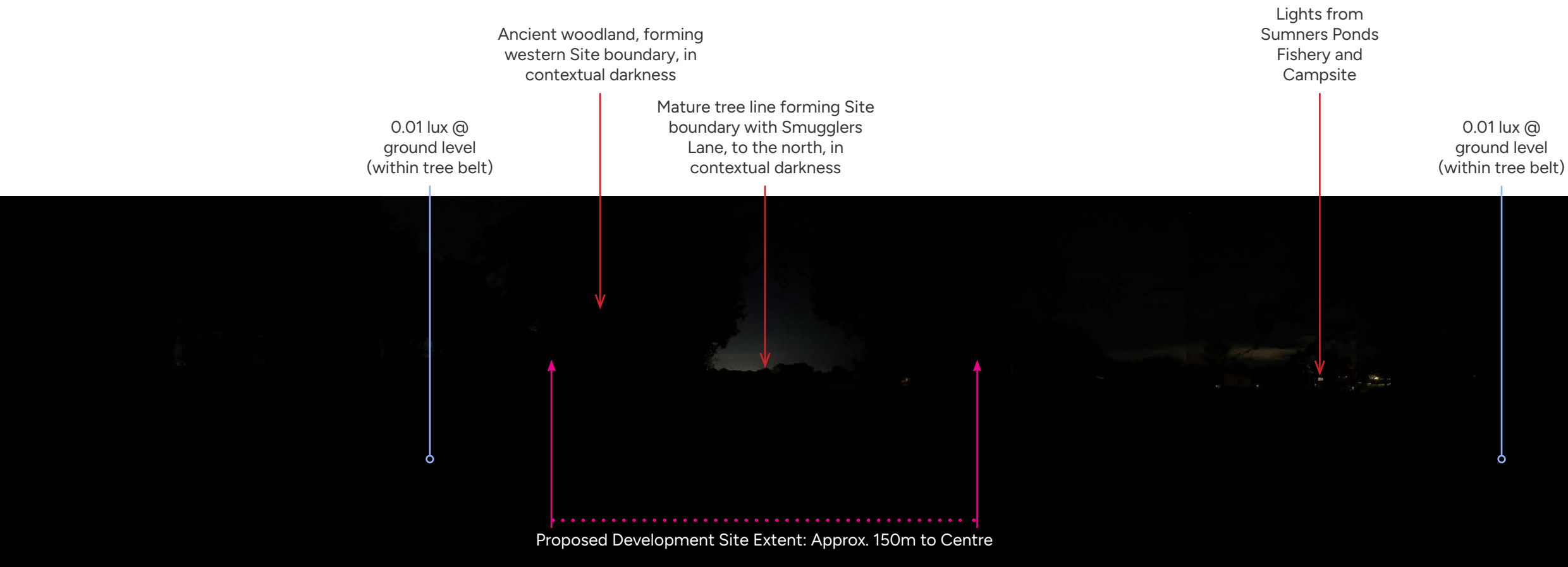
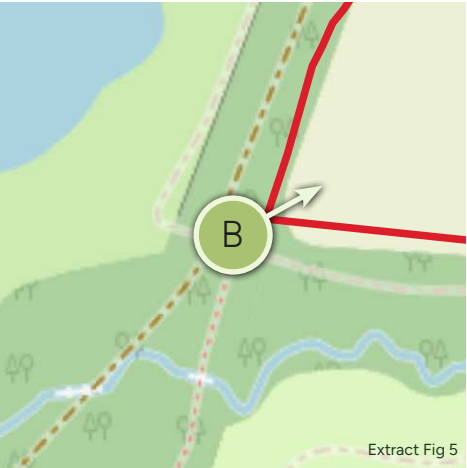
DAYTIME SURVEY

Location	B
Date	23.09.2025
Time	13:47
GPS	51.01514, 0.23578
Compass	60° NE
Temp	15°C
Visibility	Good / Partial Cloud



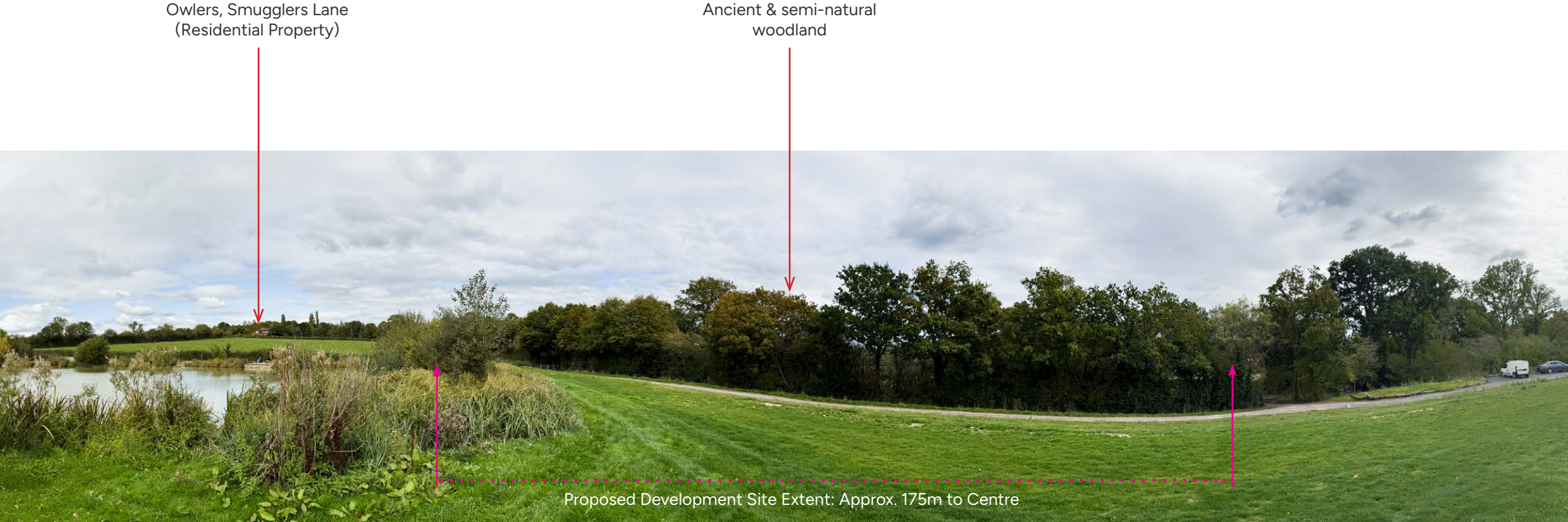
NIGHT SURVEY

Location	B
Date	23.09.2025
Time	21:49
GPS	51.01514, 0.23578
Compass	60° NE
Temp	13°C
Visibility	Good / Clear



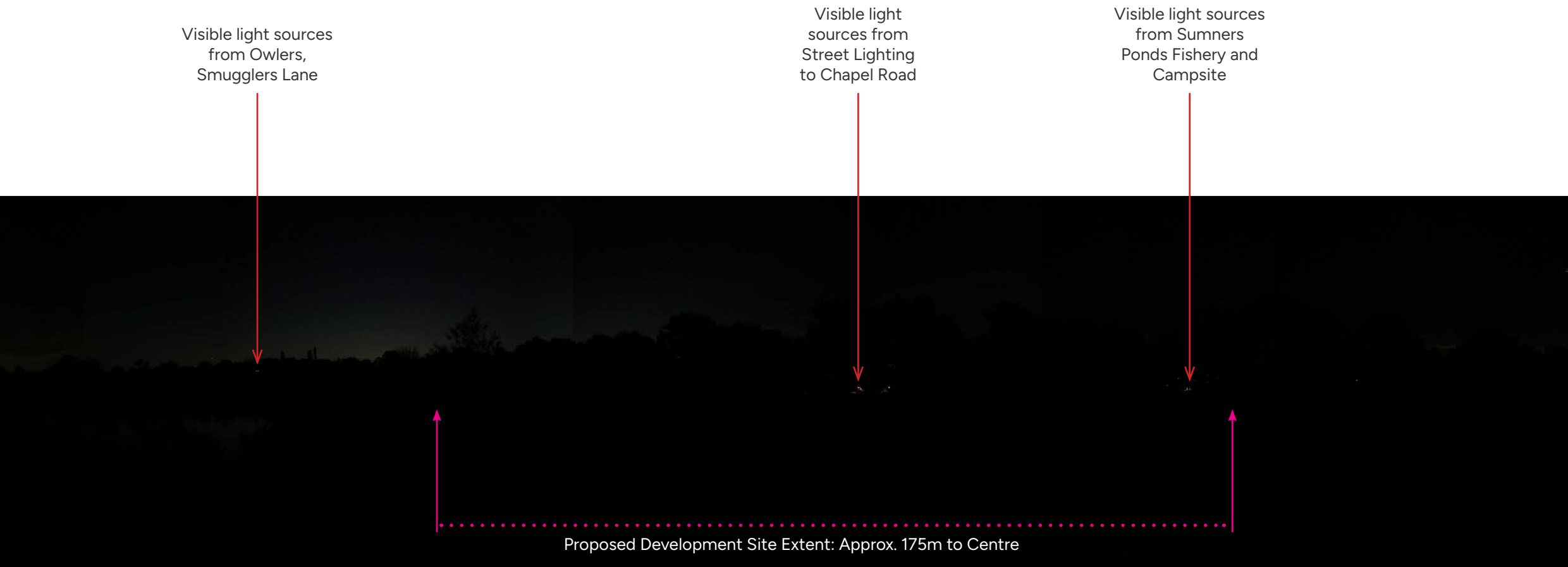
DAYTIME SURVEY

Location	C
Date	23.09.2025
Time	14:02
GPS	51.01528, 0.23592
Compass	90° E
Temp	16°C
Visibility	Good / Partial Cloud



NIGHT SURVEY

Location	C
Date	23.09.2025
Time	22:03
GPS	51.01528, 0.23592
Compass	90° E
Temp	13°C
Visibility	Good / Clear



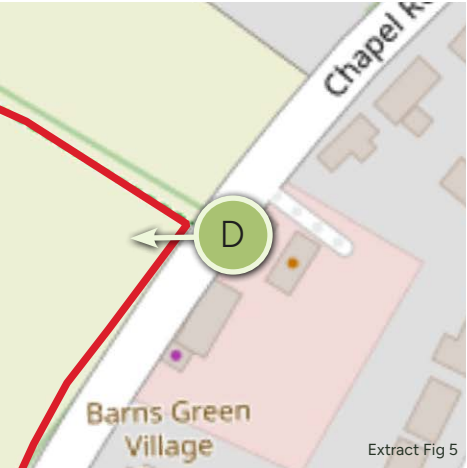
DAYTIME SURVEY

Location	D
Date	23.09.2025
Time	15:00
GPS	51.01539, 0.23434
Compass	270° W
Temp	16°C
Visibility	Good / Partial Cloud



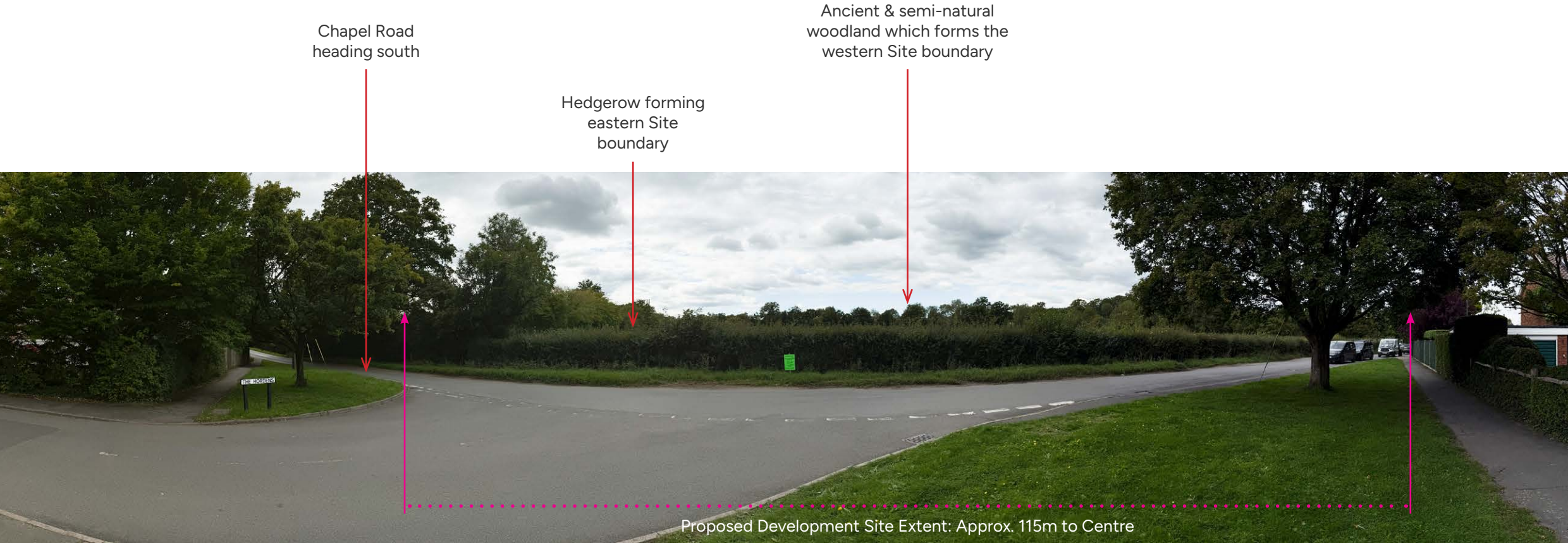
NIGHT SURVEY

Location	D
Date	23.09.2025
Time	23:06
GPS	51.01539, 0.23434
Compass	270° W
Temp	12°C
Visibility	Good / Clear



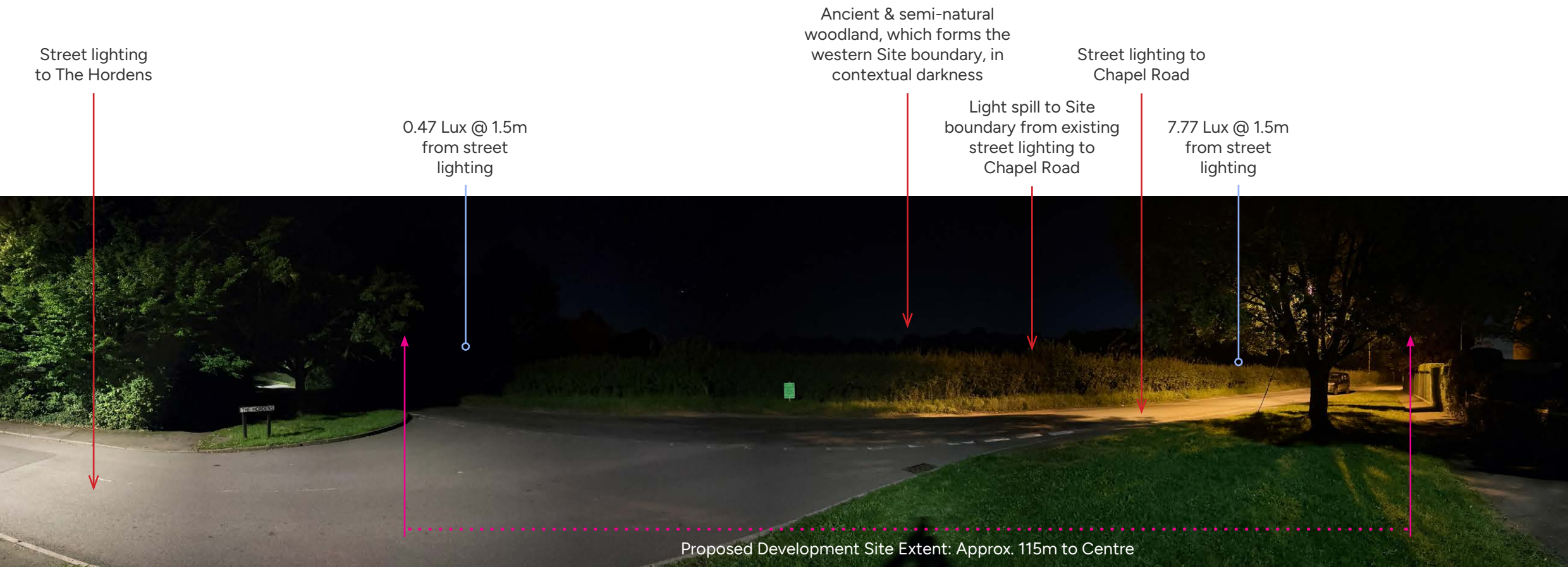
DAYTIME SURVEY

Location	E
Date	23.09.2025
Time	15:12
GPS	51.01514, 0.23458
Compass	300° NW
Temp	16°C
Visibility	Good / Blanket Cloud



NIGHT SURVEY

Location	E
Date	23.09.2025
Time	23:23
GPS	51.01514, 0.23458
Compass	300° NW
Temp	12°C
Visibility	Good / Clear



DAYTIME SURVEY

Location	F
Date	23.09.2025
Time	15:24
GPS	51.01488, 0.23544
Compass	30° NE
Temp	16°C
Visibility	Good / Blanket Cloud



NIGHT SURVEY

Location	F
Date	23.09.2025
Time	23:46
GPS	51.01488, 0.23544
Compass	30° NE
Temp	12°C
Visibility	Good / Clear



Viewpoint Lux Level Survey

7 - Methodology

- 7-1 The map in **Figure 6** displays the measurement points' locations.
- 7-2 Existing lighting conditions were measured in lux to a precision of two decimal places using a professional calibrated light meter at 1.5 metres above ground for vertical measurements and at ground level for horizontal measurements in line with guidance set out in ILP PLG:04 (2013) Guidance on Undertaking Environmental Lighting Impact Assessments.
- 7-3 Measurements shown in **Table 3 - Viewpoint Lux Level Survey** were taken at each location with three sequential measurements recorded to check the results for accuracy. Prevailing atmospheric conditions will inevitably affect the measurements due to the variation of ambient illumination from moonlight or sky glow. Therefore the results record the level of 'contextual darkness' at the time of observation.
- 7-4 On the night of the 23.09.2025 the moon was 2.9% illuminated and was below the horizon during the survey (rising at 09:50).

Table 3 - Viewpoint Lux Level Survey

Location	Time	Horizontal Max Lux (Ground Level)	Towards Max Lux (Vertical 1.5m)	Away Max Lux (Vertical 1.5m)
1	22:23	0.04	0.04	0.03
2	22:43	0.08	0.12	0.05
OFF-SITE				
A	21:24	0.06	0.17	0.1
B	21:49	0.03	0.05	0.04
C	22:03	0.05	0.05	0.04
D	23:06	0.54	0.05	0.05
E	23:23	3.56	0.57	2.36
F	23:46	0.23	0.11	0.25



7-5 During the survey it was observed that The Queens Head Pub (Viewpoint D) has security and amenity floodlighting, activated by presence detection. The lux level survey results, recorded above, are with the floodlighting off.



Figure 6 - Viewpoint Map

Viewpoint Lux Level Survey Locations. Scale 1:2500 @ A3 - The licence for ESRI World Imagery: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Vertical Lux Level Survey

8 - Existing Site Condition

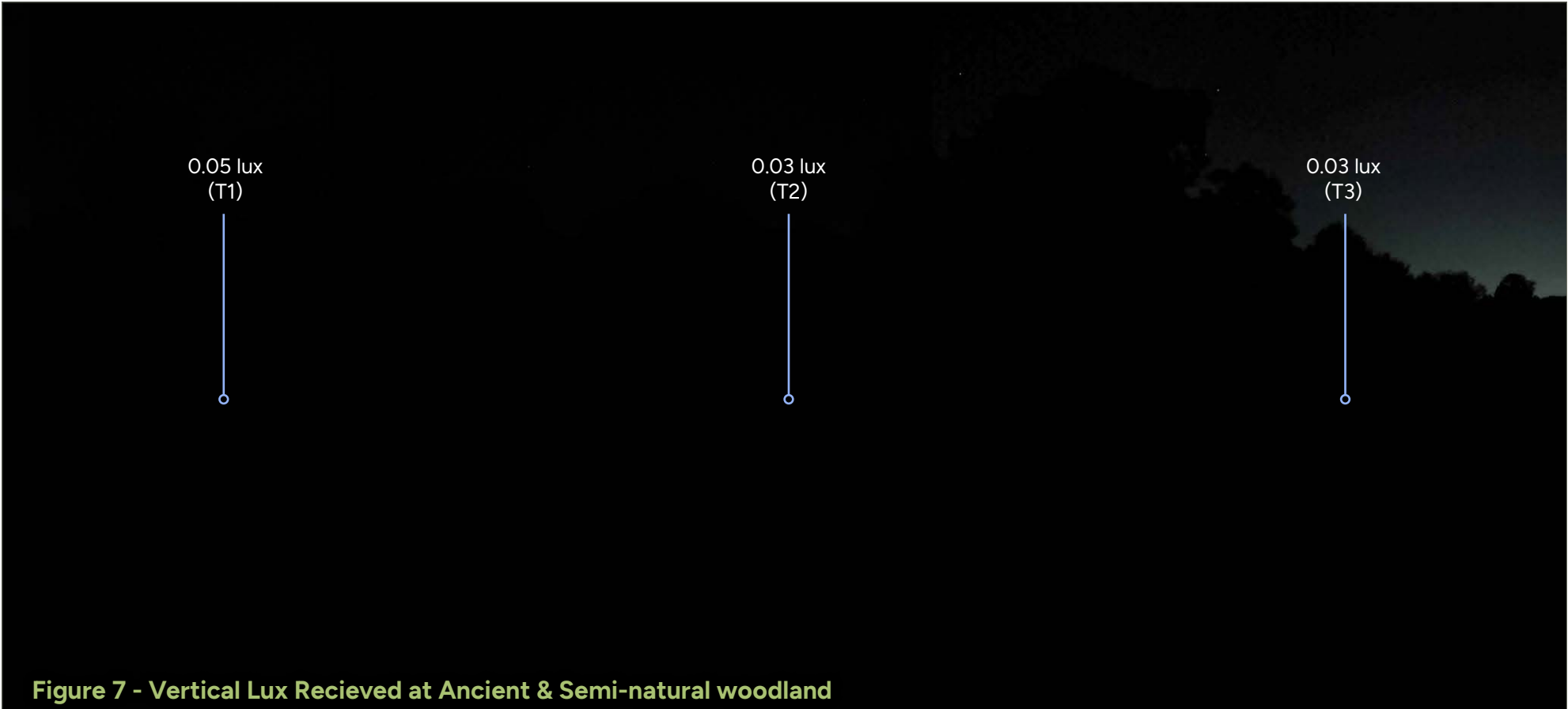
- 8-1 SLR conducted a Baseline Lighting Survey during the day and night of 23.09.2025 to assess the existing condition at the boundary and habitat features throughout the Proposed Development Site.
- 8-2 The map in **Figure 9** Vertical Lux Survey Map on **Page 19** displays the measurement points' locations.

9 - Methodology

- 9-1 Existing lighting conditions were measured in lux to a precision of two decimal places using a professional calibrated light meter at 1.5 metres above ground for vertical measurements.
- 9-2 Vertical measurements were taken at each location representing the face of the vertical feature, or as close to it as practical, with three sequential measurements recorded to check the results for accuracy. Prevailing atmospheric conditions will inevitably affect the measurements due to the variation of ambient illumination from moonlight or sky glow. Therefore the results record the level of contextual darkness at the time of observation.
- 9-3 On the night of 23.09.2025 the moon was 2.9% illuminated and was below the horizon during the survey (rising at 09:50).
- 9-4 The intention of the Lux Level Survey was to capture a baseline for the key features that may require preservation in contextual darkness for the benefit of ecology as part of the Lighting Design.

10 - Summary of Observations

- 10-1 The vertical measurements at key vertical features such as the hedgerows and tree lines demonstrate that the Proposed Development Site is in contextual darkness with no significant sources of illumination within the boundary.
- 10-2 No significant light pollution to the vertical features within the boundary was observed from sources of light from the immediate surrounding area at the time of observation.
- 10-3 Generally the site remained in contextual darkness with lux levels below 0.5 lux which is in line with typical ambient baseline conditions under moon light and not considered as adverse for light sensitive ecology such as bats.
- 10-4 A significant level of light was observed to be entering the field from column mounted street lighting on Chapel Road and light spill was observed to the existing boundary hedgerow (Group H).
- 10-5 Vertical measurements along the facade of Heron's Reach and the Barns Green Post Office demonstrate that the properties currently receive a significant amount of light from the column mounted street lights on Chapel Road (Group R).



Vertical Lux Level Survey

Table 4 - Lux Survey

Location	Max Lux (Vertical @ 1.5m)
----------	------------------------------

Group T
Light currently received at boundary hedgerows and tree lines.

T1	0.05
T2	0.03
T3	0.03
T4	0.03
T5	0.04
T6	0.18
T7	0.08
T8	0.08
T9	0.05
T10	0.08
T11	0.04
T12	0.02

Group H
Light currently received from column mounted street lighting at the hedgerow adjacent to Chapel Road.

H1	0.47
H2	7.77
H3	5.57
H4	0.25

Group R
Light currently received at façades of Heron’s Reach and Barns Green Post Office, to the east of Chapel Road from column mounted street lighting.

R1	0.09
R2	0.11
R3	0.36
R4	4.32



Horizontal Lux Level Survey

11 - Existing Site Condition

- 11-1 SLR conducted a Baseline Lighting Survey during the day and night of the 23.09.2025 to assess the existing condition of internal and external roadways around the Proposed Development Site.
- 11-2 The photographs in **Figure 10** to **Figure 13** show the existing condition and the location plans in **Figure 14 on page 21** display the measurement points' locations.

12 - Methodology

- 12-1 Existing lighting conditions were measured in lux to a precision of two decimal places using a professional calibrated light meter at ground level for horizontal measurements.
- 12-2 The capturing of data is intended to demonstrate a representative sample and provides reference in terms of existing lux levels in specific task areas. The surveys are not intended to assess compliance of the existing lighting installations against specific standards or guidance.
- 12-3 Locations of measurement points and groups are shown in **Figure 14 - on page 21**.

13 - Summary of Observations

- 13-1 Chapel Road (Group S) is subject to illumination from ad-hoc column mounted street lighting. Horizontal lux level readings taken along the roadway, adjacent to the Proposed Development Site, indicate that the road has not been lit to any specific standard.
- 13-2 The column mounted luminaries used on Chapel road are oriented towards the Proposed Development Site, because of this the two columns that are located opposite to the eastern boundary of the Site on Chapel Road also partially illuminate the field area. Horizontal lux level readings were taken in the Proposed Development Site (Groups F & G) where the column mounted street lighting was observed to result in light spill inside the Proposed Development Site.
- 13-3 The Hordens (Group C) is subject to illumination from column mounted street lighting. Horizontal lux level readings taken along the roadway indicate that the road has most likely been designed and lit to a P4 roadway lighting class (5 lux average, 1 lux minimum) the results recorded during the survey were 4.91 lux average with a minimum of 1.24 lux.
- 13-4 The footpath in-between tree lines of the ancient and semi-natural woodland, at the western boundary, is observed to be in contextual darkness with lux levels below 0.2 lux which is considered 'complete darkness'.



Horizontal Lux Level Survey

Table 5 - Lux Survey

Location	Max Lux (Horizontal @ Ground Level)
Group S Light recorded at the surface of the roadway on Chapel Road from column mounted street lighting.	
S1	23.23
S2	9.59
S3	6.85
S4	5.29
S5	1.95
S6	2.73
S7	4.37
S8	12.63
Average	8.33
Uniformity	0.23
Group F Light spill from column mounted street lighting recorded at ground level in the Proposed Development Site.	
F1	0.04
F2	0.72
F3	0.51
F4	0.35
F5	0.18
Group G Light spill from column mounted street lighting recorded at ground level in the Proposed Development Site.	
G1	0.03
G2	0.44
G3	0.17
G4	0.12
G5	0.12

Table 6 - Lux Survey

Location	Max Lux (Horizontal @ Ground Level)
Group C Light recorded at the surface of the roadway on The Hordens from column mounted street lighting.	
C1	6.84
C2	4.22
C3	1.29
C4	1.24
C5	4.32
C6	11.54
Average	4.91
Uniformity	0.25
Group P Light recorded at the surface of footpath between tree lines of ancient & semi-natural woodland.	
P1	0.01
P2	0.03
P3	0.01

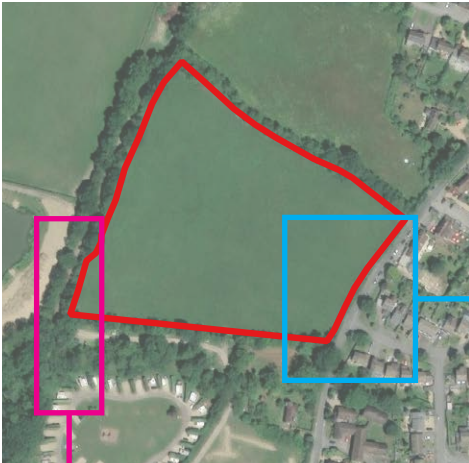


Figure 14 - Horizontal Lux Survey Location Plan

Horizontal Lux Level Survey Locations. Scale 1:500 @ A3 - The licence for ESRI World Imagery: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



14 - Receptor 1

Heron's Reach, Chapel Road

- 14-1 Heron's Reach is located on Chapel Road approximately 15m from the Site boundary to the east.
- 14-2 The property has overlooking views towards the Proposed Development Site across Chapel Road with minimal screening from the hedgerow in the intervening landscape.
- 14-3 This receptor currently receives significant façade illuminance from existing street lighting and exterior lighting associated with The Queens Head Pub.
- 14-4 This receptor will need to be considered in terms of any impact or obtrusive light from the addition of new lighting within the Proposed Development.



15 - Receptor 2

Properties on The Hordens

- 15-1 Properties on The Hordens are located opposite the eastern boundary of the Proposed Development Site.
- 15-2 The properties have no significant views towards the Site as the primary facades are oriented at 90° to the Proposed Development Site.
- 15-3 These receptors are unlikely to be adversely affected in terms of any impact from the addition of new lighting because of their facade orientation and the influence of existing street lighting in use on The Hordens.



16 - Receptor 3

Little Slaughterford

- 16-1 Little Slaughterford is located on Chapel Road and approximately 50m to the south of the Site boundary.
- 16-2 The property has no significant views towards the Site with dense screening from existing mature hedgerows and tree lines in the intervening landscape.
- 16-3 This receptor is unlikely to be subject to any adverse affects from new lighting within the Proposed Development Site due to distance and screening.





17 - Receptor 4

Northern Boundary

- 17-1 A mature tree line and dense hedgerow forms the northern Site boundary with the open grazing land beyond to the north.
- 17-2 This area is observed to be in 'contextual darkness' and should be retained as a dark habitat for the benefit of light sensitive ecology.
- 17-3 The receptor will need to be considered in terms of any impact from the addition of new lighting as a result of the Proposed Development.



18 - Receptor 5

Woodland & Tree Belt

- 18-1 Ancient and semi-natural woodland forms the western boundary of the Site.
- 18-2 This tree line is observed to be in 'contextual darkness', and should be retained as a dark habitat as part of a wider network of foraging and commuting routes for light sensitive ecology.
- 18-3 This retained hedgerow and tree line along with the western boundary of the Site needs to be considered in terms of any impact from the addition of new lighting within the Site.
- 18-4 Strict illuminance limits may be defined by a suitably qualified ecologist to determine appropriate protections for identified light sensitive habitat.



19 - Receptor 6

Southern Tree Line

- 19-1 A mature hedgerow and tree line forms the southern boundary of the Proposed Development Site.
- 19-2 This area is observed to be in 'contextual darkness' and should be retained as a dark habitat for the benefit of light sensitive ecology.
- 19-3 This retained hedgerow and tree line along with the western boundary of the Site needs to be considered in terms of any impact from the addition of new lighting within the Site and considered as part of a wider network of interconnected foraging and commuting routes for bats.



20 - Summary of Observations

- 20-1 Generally, the Site is observed to be in 'contextual darkness' meaning it is subject to illumination from natural sources of night time light such as the moon or ambient illumination from sky glow reflected from clouds.
- 20-2 Contextual darkness is subject to atmospheric conditions such as cloud cover so is therefore subject to some variation. Some specific areas are observed to be in 'natural darkness' due to the screening of natural light by dense tree lines for example.
- 20-3 Lux levels measured within the Proposed Development Site boundary during the survey were generally below **0.5 lux** which is in line with typical ambient baseline conditions under moon light and not considered as adverse for light sensitive ecology such as bats.
- 20-4 The vertical measurements at key vertical features such as the boundary, hedgerows, woodland parcels and tree lines demonstrate that the Proposed Development Site is in contextual darkness with no significant sources of illumination within the boundary.
- 20-5 No significant light pollution to the vertical features within the boundary was observed from sources of light from the immediate surrounding area at the time of observation.
- 20-6 During parts of the survey, amenity floodlighting associated with The Queens Head Pub was activated by presence detection which was a notable source of outward light spill and glare towards the Proposed Development Site. It was observed that this lighting was only activated on presence detection in the immediate vicinity of the pub and only after the pub was closed. The duration of security lighting activation was observed to be short and whilst the resulting light emissions could be considered adverse, the material impact is observed to be minimal.

21 - Receptors

- 21-1 There are identified residential receptors located to the east and to the south of the Proposed Development Site, some of which have partial screening in the form of existing tree lines and hedgerows at the boundary.
- 21-2 Some have significant outward views across the Proposed Development area and as such will need to be considered in terms of obtrusive light. It is unlikely for these receptors to be adversely affected by the introduction of sensitively designed new lighting within the Proposed Development Site.
- 21-3 There are a number of existing tree lines, mature trees and hedgerows forming the boundary of the Proposed Development Site, and beyond the boundary, that all combine to provide a network of interconnected habitats. These potential habitats are currently observed to be in 'contextual darkness' and therefore provide good potential foraging or commuting routes for light sensitive ecology.
- 21-4 Care should be taken to preserve where possible 'contextual darkness' for the benefit of light sensitive ecology, adjacent residential receptors and the wider landscape when considering the addition of new lighting within the Proposed Development Site.



Night Sky over Betty's Lake- by SLR

CERTIFICATE OF CALIBRATION

Issued By: PASS Ltd - www.calibrate.co.uk Certificate Number: STD268275
Date of Issue: 30 Jun 2025

Page 1 of 2 Pages



PASS Ltd - www.calibrate.co.uk
1 Wilson Street
Thornaby
Teesside. TS17 7AR
TEL 01642 626144
calibrate@pass.co.uk

Signatory

Paul Beswick

Customer:	SLR Consulting Ltd 3rd Floor, Brew House Jacob Street Tower Hill, Bristol BS2 0EQ			
Date Received:	30 Jun 2025			
Instrument:	System ID :	ID465232	Job Number :	J367829-1
	Description :	Light Meter	Ref. Number :	
	Manufacturer :	Extech		
	Model Number :	LT300		
	Serial Number :	2502076329		
	Procedure :	985 : 1.00.14		
Environmental Conditions:				
	Temperature :	20 °C ± 3 °C	Mains Voltage :	240 V ± 10 V
	Relative Humidity :	50 %rh ± 20 %rh	Mains Frequency :	50 Hz ± 1 Hz
Comments:	Specification reference: Extech LT300-en-GB_V2.4 2/16 Manual. Instrument was placed in lab and allowed to stabilise before calibration.			

Traceability Information				
Instrument Description	Serial Number	Certificate Number	Cal. Date	Cal. Period
ORM400 & DH400VL Photometer & Luminance	34985/1 &	149481/ACU	12/01/2024	104
Sensor	35150/5			
DH400VL Illuminance Sensor	35150/1	149481/ABU	12/01/2024	104

Calibrated By: C.Daniels Date of Calibration: 30 Jun 2025

This certificate provides traceability of measurement to recognised National Standards, and to the units of measurements realised at the National Physical Laboratory or other recognised National Standards laboratories. Copyright of this certificate is owned by the issuing laboratory and may not be reproduced except with the prior written approval of the issuing laboratory.
This certificate complies with the requirements of BS EN ISO 10012:2003.

CERTIFICATE OF CALIBRATION

Issued By: PASS Ltd - www.calibrate.co.uk
Date of Issue: 30 Jun 2025
AS FOUND RESULTS

Certificate Number
STD268275

Page 2 of 2 Pages

Test Title	Tolerance	Applied Value	Reading	Pass/Fail
General Operation				
Display & Controls	---	---	Pass	Pass
Lux Ranges				
400 Lux Range	6.8 Lux	95.70 Lux	91.7 Lux	Pass
4000 Lux Range	67.3 Lux	941 Lux	890 Lux	Pass
40 k Lux Range	715 Lux	10.20 kLux	9.77 kLux	Pass

**** END OF RESULTS ****

Uncertainties

Light 20 to 1000 Lux 20 to 200 Lux ±4.6 % 1.2 Lux ; 200 to 1000 Lux ±4.3 % 1.2 Lux ±1 LSD
Light 1K to 20kLux 1 k to 2 kLux ±4.6 % 1.2 Lux ; 2 k to 20 kLux ±9 % 1.2 Lux ±1 LSD

CERTIFICATE OF CALIBRATION

Issued By: PASS Ltd - www.calibrate.co.uk

Certificate Number: STD268833

Date of Issue: 04 Jul 2025

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Signatory



Paul Beswick

Customer:	SLR Consulting Ltd 3rd Floor, Brew House Jacob Street Tower Hill, Bristol BS2 0EQ			
Date Received:	04 Jul 2025			
Instrument:	System ID :	ID413555	Job Number :	J368625-1
	Description :	Light Meter	Ref. Number :	
	Manufacturer :	Amprobe		
	Model Number :	LM-120		
	Serial Number :	23110598		
	Procedure :	1243 : 1.00.18		
Environmental Conditions:				
	Temperature :	20 °C ± 3 °C	Mains Voltage :	240 V ± 10 V
	Relative Humidity :	50 %rh ± 20 %rh	Mains Frequency :	50 Hz ± 1 Hz
Comments:	Specification reference: Amprobe LM-100/120 (LM100_Rev003) Manual. Instrument was placed in lab and allowed to stabilise before calibration.			

Traceability Information				
Instrument Description	Serial Number	Certificate Number	Cal. Date	Cal. Period
ORM400 & DH400VL Photometer & Luminance	34985/1 &	149481/ACU	12/01/2024	104
Sensor	35150/5			
DH400VL Illuminance Sensor	35150/1	149481/ABU	12/01/2024	104

Calibrated By: C.Daniels

Date of Calibration: 04 Jul 2025

This certificate provides traceability of measurement to recognised National Standards, and to the units of measurements realised at the National Physical Laboratory or other recognised National Standards laboratories. Copyright of this certificate is owned by the issuing laboratory and may not be reproduced except with the prior written approval of the issuing laboratory.

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Issued By: PASS Ltd - www.calibrate.co.uk

Date of Issue: 04 Jul 2025

AS FOUND RESULTS

Certificate Number

STD268833

Page 2 of 2 Pages

Test Title	Tolerance	Applied Value	Reading	Pass/Fail
General Operation Tests				
Display & Controls	---	---	Pass	Pass
Lux Measurement				
200 Lux	4.6 Lux	92.95 Lux	94.6 Lux	Pass
2000 Lux	44.6 Lux	891 Lux	918 Lux	Pass
20000 Lux	501 Lux	10.02 kLux	10.34 kLux	Pass
**** END OF RESULTS ****				

Uncertainties
Light 20 to 1000 Lux 20 to 200 Lux ±4.6 % 1.2 Lux ; 200 to 1000 Lux ±4.3 % 1.2 Lux ±1 LSD
Light 1K to 20kLux 1 k to 2 kLux ±4.6 % 1.2 Lux ; 2 k to 20 kLux ±9 % 1.2 Lux ±1 LSD



Land South of Smugglers Lane [Ref: 433.000146.00001]
Lighting Assessment: Part 1 - Baseline Lighting Survey Report - Rev01 - 10th October 2025

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