



NOTES:
 1. Do not scale from this drawing.
 2. Always work to noted dimensions.
 3. All dimensions are in millimetres unless otherwise stated.
 4. All setting out, levels and dimensions to be agreed on site.
 5. The dimensions of all materials must be checked on site before being laid out.
 6. This drawing must be read with the relevant specification clauses and detail drawings.
 7. Order of construction and setting out to be agreed on site.

KEY

	Planning Application Boundary
	Bins
	Fire Hydrant
	Fire Assembly Point
	Water points
	Existing building - toilet block - Cae Du
	Proposed building - toilet block - Cae Canol
	Overhead cables
	Underground water pipe
	PRF - Potential for roosting bats
	Structural elements remaining free from illumination - Ecology target notes 10 m buffer lighting buffer applied.
	Proposed Lighting columns - Stratton Single Timber LED Bollard- P6 class with an average level of illuminance of 2 lux and a minimum of 0.4 lux
	Proposed mains lighting to buildings - angled downwards with horizontal plane shields PIR motion sensors, colour temp equal to or below 2700K
	Schwegler type 1B 32mm bird box
	Schwegler type 1B 26mm bird box
	Schwegler type 1FF maternity box
	Schwegler open-fronted bird box

Recommendations for site wide bat and bird boxes

- Schwegler type 2F bat box (7no.)
- Schwegler type 1FF maternity box (3no.)

Bat boxes to be installed securely to mature trees at a height between 2-4m preferably with a southern aspect. Where boxes are grouped on a single tree, provide a variation of heights and aspects. Situate away from roads.

- Schwegler type 1B 32mm bird box (2no.)
- Schwegler type 1B 26mm bird box (2no.)
- Schwegler open-fronted bird box (2no.)

Bird boxes to be installed ideally out of direct sunlight to avoid overheating at a height between 2-4m within close proximity to vegetation. Situate away from roads, a minimum of 30m apart.

Lighting Strategy - Zones

The site lighting strategy is compliant with the guidance set out in : Good Practice Guidance: Planning for the Conservation and Enhancement of Dark Skies in Wales, produced collaboratively by Dark Skies working group: NRW, Eryri National Park Authority, Pembrokeshire Coast National Park Authority, Conwy County Borough Council, Ynys Mon National Landscape, Clywdian Range and Dee Valley National Landscape, Welsh Government.

And

Guidance note 08/23 - Bats and Artificial lighting at night, produced by the Bat Conservation Trust and Institute of Lighting professionals.

The River Corridor and riparian woodland is to have no lighting installed, including along the river walk. In addition the following Zones are set out across the site:

Zone A: Key ecological habitat (bats and otters) - mitigation - a 30m buffer from the edge of the riparian habitat along the river corridor - Within this zone there must be a complete absence of artificial illumination.

Zone B: Habitat of lower importance to bats - mitigation - 20 m buffer zone with strict illuminance limits to avoid the direct illumination of ecologically sensitive areas - Use lighting of no more than 2700K and reduce the duration of lighting in the areas adjacent to water bodies.

Zone C: Increased human presence with potential recreationactivities, including toilet blocks and buildings - mitigation - Moderate illuminance limits . Light barriers and light screening features to be fitted to all lighting to include - lights that are angled downwards, and fitted horizontal plane shields, if necessary, to avoid light spill. Ensure light is only on when needed and fitted with PIR motion and Photocell Light sensors. Colour Temperature equal to or below 2700K.

Bat Light Spillage Strategy :

There will be no lighting close to identified PRF'S as identified within the Target notes of thee ecological survey or along any stone structure close to the PRF's (10 metre buffer applied). These are identified on the drawing with numbered orange circles and dashed yellow linear features. Any proposed lighting within the consented caravan area will utilise dark skies compliant luminaires with the Stratton Single Timber LED Bollard (refer to image) providing a low level downlight to pedestrian access paths at pitch locations and road junctions. Any alternate lighting used must comply with the following, taken from the Bat Conservation Trust Guidance note: 08/23 Bats and Artificial Lighting:

- Single sided distribution bollards with back shields
- Bollards with a low upward light output (<1.5%).
- The bollards will have PC Amber 1750K colour temperature
- The output of each bollard is only 180 lumens
- A P6 class with an average level of illuminance of 2 lux and a minimum of 0.4 lux

Recommendations to replace existing lighting in Cae Du and proposed lighting in Cae Canol:

- Lighting bollards along pedestrian access paths at pitch locations and road junctions - see specification in Bat Light Spillage Strategy.
- Mains lighting specification:
 - Luminaires that lack UV elements when manufactured. (Metal halide, compact fluorescent sources should not be used)
 - LED luminaires should be used where possible due to their sharp cut-off, lower intensity, and with good colour rendition and dimming capability
 - A warm white light source (check Kelvin rating is 2700K or less)
 - Only luminaires with a negligible or zero upward Light Ratio, and with good optical control, should be considered
 - Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt mechanism
 - Where appropriate, external security lighting should be set on motion sensors

P01	07/04/25	First Draft	BH	SR
Revision	Date	Description	Drawn	Apprvd.
Client	Roberts Group			
Project	Cae Du and Cae Canol Campsite			
Dwg Title	Lighting Strategy			
Created on	Created by	Approved by		
25/03/25	BH	SR		
Scale	Size	Workstage		
1:1000	A1	Stage 2		
Dwg No.	Suitability	Revision		
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