



# **Construction Lighting Scheme Plot 9&10**

Plots 9 & 10,  
Cwm Woods Grove,  
Heolgerrig,  
Merthyr Tydfil,  
CF48 1DP

**Rev 2 04/01/2025**

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**Construction Lighting Scheme Plots 9 & 10**

**Location:** Plots 9 & 10, Cwm Woods Grove, Heolgerrig, Merthyr Tydfil, CF48 1DP  
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## Construction Lighting Scheme for Plots 9 and 10

### Introduction

Lighting and clear visibility are essential when working on site within the construction industry for safety, quality of work and wellbeing.

In the interest of, safety, ecology, cost and workflow efficiency it is not our intention to work externally after dark. This will obviously reduce the external working hours during the winter months. Should circumstances require external working after sensible working light has faded, then the methods contained within this document and the recommended mitigating solutions would be employed.

### Objective

To provide safe and effective lighting during the construction phase while minimizing ecological disruption, in compliance with PPW12 and the ecological requirements outlined in the LEMP.

### 1. General Principles

#### a) Ecological Consideration:

- Minimize light spill into surrounding habitats, particularly hedgerows, rain gardens, and potential bat roost areas.
- Use low-intensity, directional lighting to avoid disturbance to nocturnal wildlife.

#### b) Cost Efficiency:

- Employ energy-efficient and low-cost lighting solutions (e.g., LED lights).
- Use temporary, movable lighting structures to minimize installation costs.

#### c) Compliance and Safety:

- Ensure adequate illumination for safe operations without over-lighting.
- Follow site health and safety regulations.



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## 2. Internal Lighting

- a) **Specifications:**
    - Use LED work lights with a lumen range of 500–1000 for indoor tasks.
    - Install temporary, portable lights on stands or clamps to avoid permanent fixtures.
  - b) **Operational Hours:**
    - Restrict lighting to operational hours only (e.g., 7:30 AM to 5:30 PM).
    - Use motion sensors or manual switches to reduce unnecessary lighting.
  - c) **Placement:**
    - Position lights away from windows or openings to prevent spill into external environments.
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## 3. External Lighting

- a) **Specifications:**
  - Use downward-facing LED floodlights (max 2700 Kelvin color temperature) on temporary poles.
  - Shield fixtures to direct light only where needed.
- b) **Operational Hours:**
  - Restrict lighting to the hours of active work (dusk lighting only if operational hours overlap).
  - Use timers or motion detectors to switch lights off automatically when not in use.
- c) **Placement:**
  - Place lights on the interior edges of the construction site, avoiding boundary hedgerows and areas designated for ecological protection.
  - Maintain a minimum 10m buffer from hedgerows and rain gardens to protect wildlife.
- d) **Security Lighting:**
  - Use motion-activated lights with a short illumination period (e.g., 1-2 minutes).
  - Avoid continuous lighting to reduce impact on nocturnal species.

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#### 4. Mitigation Measures

a) **Adjustments for Wildlife:**

- Avoid illuminating bat boxes, bird nesting features, and hedgerow corridors.
  - Use red or amber filters for lights in proximity to sensitive ecological areas, as these wavelengths are less disruptive to wildlife.
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#### 5. Maintenance and Monitoring

a) **Regular Checks:**

- Inspect lighting for functionality and alignment weekly.
- Ensure that shields and barriers are intact and effective.

b) **Adherence to Timings:**

- Monitor adherence to operational hour restrictions and adjust lighting schedules as needed.

c) **Ecologist Oversight:**

- Involve an ecological consultant during the installation phase to ensure lighting placement minimizes habitat disruption.
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By implementing this lighting scheme, the construction phase will ensure minimal ecological disruption, meet PPW12 guidelines, and support cost-effective, sustainable practices.



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