

INTERNAL MEMORANDUM

To: Gareth Davies
From: Matt Davies (Ecologist)
Ext: 5278

Memo number: 4

Date of previous memo: 08/05/2025

Date: 16/06/2025

SUBJECT: P/24/0173 | Discharge of [conditions 4 \(Landscaping Scheme\)](#), [6 \(Landscape Ecological Management Plan\)](#), [7 \(Play Facilities\)](#), [10 \(Lighting Scheme\)](#), [12 \(Material Finishes\)](#), [16 \(Electric Vehicle Charging\)](#), [19 \(Retaining Works\)](#) and [24 \(Drainage Scheme\)](#) of planning permission P/23/0053 | Dragon Parc Abercanaid Merthyr Tydfil

PLANNING CONDITONS

Condition 4

“Prior to the commencement of development of any dwelling, hereby permitted, a detailed scheme of landscaping, in accordance with the approved Landscape, Biodiversity & Amenity Strategy (Catherine Etchell Associates - August 2022) and including a planting scheme (with continuous hedge) along the entire eastern River Taff boundary shall be submitted to and approved in writing by the local planning authority. The scheme shall include indications of all existing trees (including spread and species) and hedgerows on the land, identify those to be retained and set out measures for their protection throughout the course of development.”

Condition 6

“Prior to the commencement of development of any dwelling, a detailed 25 year Landscape and Ecological Management Plan (LEMP), including management responsibilities and maintenance schedules for all landscaped and habitat areas shall be submitted to and approved in writing by the local planning authority. The LEMP must include: - Details for the protection, management and enhancement of all retained, translocated and existing onsite habitat, including, but not limited to habitat along the riparian corridor, marshy grassland and pond habitat. - Maintenance and enhancement of biodiversity needs to be demonstrated in a quantitative way. - Details (including specifications and positions) of 'integrated' bat and bird boxes in the proposed new housing stock. All relevant site plans and elevations will include the positions of the boxes. A range of sizes and types will be installed, for different types of bat roosts (e.g., winter hibernation, summer maternity) and for a range of bird species (e.g., starlings, house sparrows, swifts). - A reptile mitigation strategy for site clearance of suitable habitat will be required to include enhancement measures suitable for reptiles. Reptile enhancement measures will be marked on all relevant site plans. The LEMP shall be carried out as approved.”

Condition 10

“Prior to the occupation of the dwellings, a detailed lighting scheme shall be submitted to and approved in writing by the local planning authority. The details shall include: - Details of the siting and type of all external lighting to be used. - Drawings setting out light spillage in key sensitive areas, in particular the River Taff corridor, all retained vegetation surrounding the site, and the proposed new SUDS pond to the south. The lighting scheme shall be carried out in accordance with the approved details.”

RELEVANT DOCUMENTS

1. Dragon Park, Merthyr Tydfil. Landscape, Biodiversity & Amenity Strategy. Drawing number: 577.01. Date: August 2022. Catherine Etchell Associates.
2. Dragon Park, Merthyr Tydfil. Play, Planting & Management Plan (in x3 parts). Drawing number: 577.02. Date: June 2024. Catherine Etchell Associates. *Revision B March 2025: Species-rich lawn turf specification added.*
3. Dragon Park, Merthyr Tydfil, CF48 1YT. Ecological Management Plan (as part of LEMP). *Dated 10th April 2025.* Alder Ecology Ltd.
4. Street lighting design at Dragon Park, Merthyr Tydfil. Rev B. Dated 14 May 2025. Alan Tulla Lighting.
5. Dragon Park. Merthyr Tydfil. PROJECT No: Design Check (Riverside Path) R2. CALCULATION: Horizontal Illuminance (lux). Dated: 30 April 2023. TRT Lighting.

Document 2 (*Condition 4*)

Amendments are required:

- i. Following dialogue with the commissioned ecologist - if a 75% (native) / 25% (non-native/cultivar/nativar) split can be demonstrated – subject to evidence that the species present within the 25% will present a benefit for and no harm to wildlife – this will be acceptable. The current scheme, looking specifically at the 'planting specification list' in terms of numbers of species (approx. 33% native / 67% non-native) and numbers of specimens (approx. 54% native / 46% non-native) does not meet the 75% (native) / 25% (non-native/cultivar/nativar) split criteria. Amendments are required.

NB - some of the species listed (whilst not on Schedule 9 of the WCA) can be invasive. For example, *Miscanthus sinensis*, *Ribes nigrum*, *Mahonia aquifolium*, *Cornus sericea*, *Miscanthus* grasses and possibly *Vinca difformis*. As referred to above, it must be demonstrated the 25% non-native/cultivar/nativar species present a benefit for, and no harm to wildlife.

~~ii. — Amenity turf will be seeded with:~~

- ~~○ <https://wildseed.co.uk/product/mixtures/complete-mixtures/special-habitat-mixtures/flowering-lawn-mixture/>~~
- ~~○ <https://www.johnchamberswildflowers.co.uk/wildflower-seeds-mixes/80-grass-seed-mixes/heritage-flowering-lawn-80-grass-seed-wildflower-mix>~~
- ~~○ <https://wildflowerlawnsandmeadows.com/product/wild-flower-lawn-seed-mix/>~~

~~(or equivalent)~~

~~iii. — A continuous hedge along the entire eastern River Taff boundary must be added.~~

- iv. Appropriate further planting along the western bank of the river to provide shielding of the dark river corridor (taller, faster growing species above) and to prevent access by residents (blackthorn, hawthorn, bramble in the understory). The planting alongside the river must be continuous with no gaps.

*Amendments ii and iii have now been satisfactorily addressed within the revised Document 2 (Play, Planting & Management Plan). **Amendments i and iv are still required.***

Document 3 (*Condition 6*)

Document 3 does not seem to cover *all* habitats/landscaping areas for the whole site. This document needs to include management responsibilities and maintenance schedules for all landscaped and habitat areas and as such, should closely reference the landscaping plan (Document 2) – bearing in mind the changes required for Document 2 (above).

Bat boxes for trees must be made of woodstone or woodcrete (for reasons of longevity). For example:

- <https://www.greenwoodsecohabitats.co.uk/shop> (there are a range of types for different species and types of bat roost)

Bird boxes for trees must also be made of woodstone or woodcrete. For example:

- <https://www.nhbs.com/1b-schwegler-nest-box>

Similarly, the hedgehog boxes must also be made from woodcrete or woodstone. For example:

- <https://www.nhbs.com/hedgehog-dome>

A scheme of this size should be able to accommodate more boxes than specified in Document 3. Further integrated bat (x5) and swift boxes (x5) will be added within the housing stock along the eastern and the northern boundaries. All bat and bird boxes (integrated models for buildings plus models for trees) including the 10 extra boxes must be specified within the document and marked on the most up to date landscaping plan.

All boxes must be clearly marked on architect plans/drawings/elevations.

NB As specified within this document, an Ecological Clerk of Works (ECoW) must be engaged and retained throughout the project to oversee the elements contained within the LEMP.

*The updated document now includes all habitats and landscaping areas, however, **further changes will be required following the required changes to Document 2.***

The report includes reference to a site manager having responsibility for management, maintenance and monitoring.
Gareth - do we know who this will be?

*The changes to the specifications of the range of wildlife boxes are acceptable, however, **the 10 no. extra boxes as required have not been added.***

*As previously stated **all boxes must be clearly marked on architect plans/drawings/elevations.***

References to management responsibilities are included in Document 3 (Ecological Management Plan) and the extra wildlife boxes have been added.

The following is still required:

- *Further changes will be required following the required amendments (i and iv) to Document 2 (as previously referred to in Memos #1, #2 and #3 – see above).*
- *All wildlife boxes are clearly marked on the newly provided Document 6 (Ecology Strategy Plan), however, those bat and bird boxes to be integrated into buildings also need to be shown architect elevations. This is in order to assess positioning of the boxes in relation to windows.*

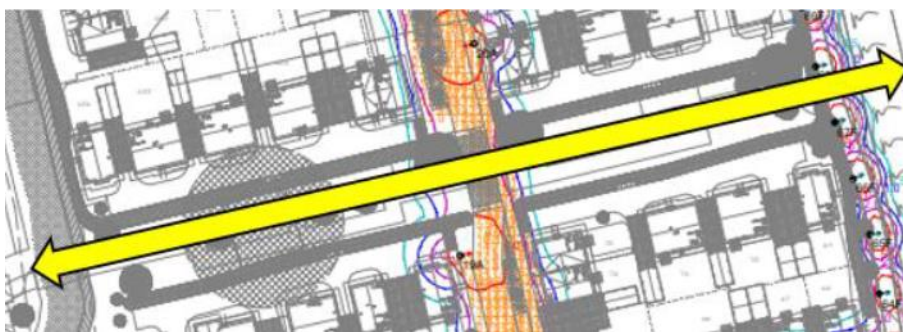
Documents 4 and 5 (*Condition 10*)

The lighting document refers to the previous version of the ILP/BCT guidance from 2018. This guidance was updated in 2023 and therefore **the new version must be cited.**

Page 38 (of the ILP/BCT guidance), 4.54 - “... where ‘complete darkness’ on a feature or buffer is required, it may be appropriate to consider this to be where illuminance is at or below 0.2 lux on the horizontal plane, and at or below 0.4 lux on the vertical plane.”

Therefore, rather than 0.5 lux, light levels for dark corridors and sensitive ecological areas (... “in particular **the River Taff corridor, all retained vegetation surrounding the site, and the proposed new SuDS pond to the south**”) must not exceed 0.2 lux on the horizontal plane and 0.4 on the vertical plane. *NB the surrounding vegetation and SuDS pond area still has lux levels that are too high.*

In addition, the dark (west-east) corridor running through the centre of the site has an illuminated barrier running north – south (both centrally and along the path to the east – see lux contours on the plan below). **The lighting must be modified in this area to produce a dark route** through the centre of the site (as depicted by the yellow arrow below).



The horizontal illuminance plan (Document 5) now shows contours down to 0.2lux. The illuminance plans must demonstrate those areas to be kept dark.

Page 29-30 (of the ILP/BCT guidance), 4.49 –

“ ...

- *All luminaires should 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, good colour rendition and dimming capability*

- *A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component Guidance Note 08/23: Bats and Artificial Lighting At Night 30 Institution of Lighting Professionals*
- *Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)*
- *Internal luminaires can be recessed (as opposed to using a pendant fitting - See Figure 5) where installed in proximity to windows to reduce glare and light spill*
- *Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges (see Case Study 1)*
- *Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards*
- *Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01*
- *Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt*
- *Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate*
- *Use of a Central Management System (CMS) with additional web-enabled devices to light on demand*
- *Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS*
- ***The use of bollard or low-level downward-directional luminaires is strongly discouraged.*** *This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.*
- *Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.”*

The majority of these criteria are relevant to this site. The lighting must fully conform to the guidelines. For example, **the luminaires must have a colour temperature of 2700 Kelvin or lower** (many onsite luminaires are proposed to be 3000 Kelvin) and a peak wavelength of >550nm. The **bollard lighting along the river is strongly discouraged**. Ideally there would be no lighting along the path near the river, however, if **lighting cannot be avoided** then **waymarking inground markers must be used** and the lux levels along this boundary should not exceed the values as outlined above. A **CMS should be used to produce light only when and where needed**. There must also be a **plan for internal lighting to limit light spill through windows** (in line with the guidelines – for example the use of recessed lighting in preference to pendant fittings, strategic positioning of balconies to intercept light spill.). Where windows are positioned on elevations opposite areas to be kept dark, for example, at boundaries - **glazing treatments or baffles** will be used to reduce light spill. In addition, there should be **restrictive covenants** preventing external security lighting on these elevations.

How does the lighting relate to any proposed bat and bird boxes for the scheme? See Document 3, Appendix 1 (Bird, bat & hedgehog boxes). Please bear in mind that further bat and bird boxes have been requested within the housing stock along the eastern and northern boundaries, and so the Appendix will need to be updated before it can fully inform the lighting scheme. **The bat and bird must not be illuminated and there must be dark access routes** to commuting routes and foraging sites in the wider environment (e.g., woodland to the west of the site and the river corridor to the east of the site).

Proposed dark areas must also remain dark ‘during’ construction.

The comments above are still relevant. NB good practice guidelines regarding lighting and planning have been further strengthened through the publication of the following:

- *Good Practice Guidance: Planning for the Conservation and Enhancement of Dark Skies in Wales.*

<https://www.gov.wales/sites/default/files/publications/2025-02/dark-skies-guidance.pdf>

Changes to the lighting plan are still required to discharge Condition 10. It is advised that the lighting professionals liaise/collaborate with the commissioned ecologists regarding the requirements of the lighting scheme.