

Ecological Advice Note: Lighting Strategy Review – Embassy Village, Manchester

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Introduction

- 1.1 The Environment Partnership (TEP) were commissioned, by Embassy Village in December 2025, to provide an Ecological Advice Note reviewing the lighting layout to discharge condition 11 b) of a planning application to Manchester City Council (Planning ref: 137608/JO/2023) for the development of 40 new high quality modular homes for homeless men and associated infrastructure at Embassy Village, Bridgewater Canal, Hulme Lock Branch Canal And Egerton Street, Manchester, M15 4JS (central grid ref: SJ 82719 97479).
- 1.2 The majority of the site will include 40 new high quality modular homes for homeless men and associated infrastructure. A small area of amenity grassland and trees will be planted on the north boundary, adjacent to the River Medlock and southwest boundary, adjacent to the Bridgewater Canal. Two small areas of green housing and planting beds are within the southwest of the site.
- 1.3 Condition 11 states:
 - a) *Any external lighting scheme shall be designed and installed in accordance with a scheme submitted to and approved in writing by the City Council as local planning authority so as to:*
 - i. *control glare and overspill onto nearby residential properties; and to*
 - ii. *control and avoid light spill on to potential bat roost features, their exit/entry routes and adjacent watercourses (foraging/commuting corridors).*
 - b) *Prior to occupation of the development a verification report shall be submitted to and approved in writing by the City Council as local planning authority to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved light consultant's report under part a) above. The report shall also undertake post completion testing to confirm that acceptable criteria have been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the criteria and those measures shall be implemented in full before first occupation of the development.*

Purpose of this Report

- 1.4 This Ecological Advice Note has been produced to confirm that the as built lighting installation functions to control and avoid light spill onto potential bat roost features and foraging/commuting corridors in accordance with Condition 11a) ii.
- 1.5 Artificial lighting can disturb crepuscular and nocturnal fauna, in particular bats. Where artificial lighting is excessive it can prevent bats from using commuting routes, foraging habitats and using roosts due to disturbance and can also cause congregation of prey under lighting therefore reducing availability for more light sensitive species.
- 1.6 Bat roost features identified within the site comprise the retained archways. Bat foraging and commuting corridors identified comprise the adjacent watercourses to the north and south of the site, namely the River Medlock and the Bridgewater Canal.
- 1.7 This report has been informed by the lighting layout for the proposed development as illustrated on the following drawings and information:
 - 23902 Embassy Village Lighting Report; and
 - Drawing: 2596-PLA-XX-XX-DR-L-0001 Landscape General Arrangement; and
 - Drawing: L1527-ABA-SI-00-DR-E-63001 P04 External Lighting Layout.

Site Lighting Review

- 1.8 Installed lighting throughout the site is generally positioned on buildings on site in accordance with L1527-ABA-SI-00-DR-E-63001 P04 External Lighting Layout. Bollard lighting is positioned within an area of amenity on the northern boundary of the site. Installed lighting includes Tam-lite 8W City WP Exterior Wall Light G/W Emergency Facility Ref: CWP80NWBM3, Tam-lite 10W City Path CPH Bollard Fitting Ref: CPH100T5WWB, Tam-lite 96W Frontier Floodlight Ref: FRN1500T4NWG, Tam-lite 30W City WLA Exterior Wall Light C/W Emergency Facility Ref: CWLA380T4WWBM3, Tam-lite 11W City WLA Exterior Wall Light C/W Emergency Facility Ref: CWLA160T4WWBM3 and Tam-lite 7W City WLA Exterior Wall Light C/W Emergency Facility Ref: CWLA90T4WWBM3.
- 1.9 Use of LED lights will ensure sharp cut-off, lower intensity, good colour rendition and dimming capabilities of lighting within the site. Whilst use of LED lights prevents emission of ultra-violet light, LEDs can have strong emissions in the blue region of the light spectrum, which can cause invertebrate prey displacement for bats. LEDs used should therefore have a warm white light source (2700 Kelvin or lower) to reduce the blue light component. The lights installed are predominantly 3000 Kelvin, only marginally higher than recommended.
- 1.10 Lights within archways have been installed at a height of 2.1-2.2 m (e.g., Figures 1 and 2). The lighting types installed in these locations all comprise lights which are directional in design with solid covers which prevent light spill above the position of the light, as shown in the data

sheets submitted with the application to discharge condition 11a). This ensures that bat roost features positioned above this height will not be significantly impacted by light.

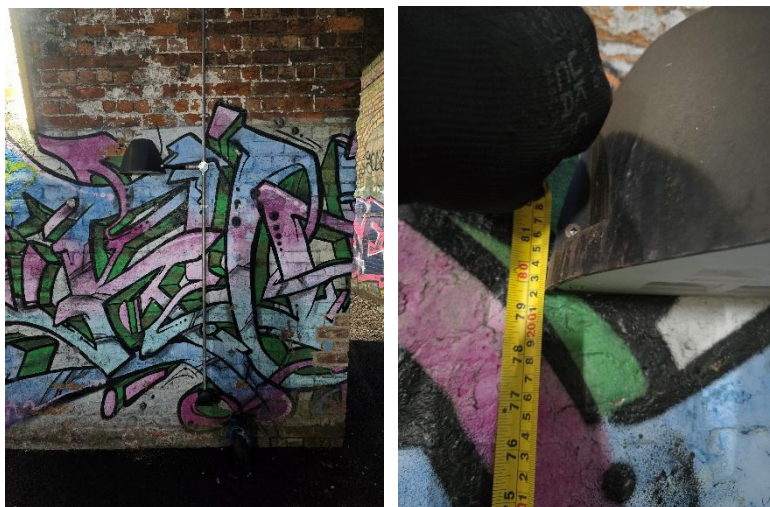


Figure 1: Installed light within archway (left), Height to installed light in archway from ground (right)

- 1.11 Installed site lighting will create light spill of 0 lux to 7.5 lux horizontal illuminance at ground level over areas used by bats for foraging and commuting such as the northern boundary adjacent to the River Medlock and the southern boundary adjacent to the Bridgewater Canal. Most of the site south and north boundaries will have a light spill no greater than 2 lux for only a limited distance beyond the development footprint. A small area in the northeast of the site has a light spill of 7.5 lux, however, this area is adjacent to the A57, the main ring road through central Manchester which is affected by existing street.
- 1.12 Bat species will be active during dusk and through the night with typical moonlight/ starlight/ cloudy sky lux levels range from 0.0001-0.1 lux and can be active on clear nights with a full moon when lux levels may typically range from <1.0-2.5. However, more light sensitive species e.g., *Myotis* species may alter their foraging habitats to reduce light effects e.g., closer to edge habitat canopy cover.
- 1.13 It is therefore anticipated that the light spill from the site will not result in a significant impact to commuting and foraging bats utilising the river or canal corridors adjacent to the north and south of the site given that lighting levels where spill occurs is at a very low level unlikely to impact less light-phobic common species, and the extent of light spill is such that a dark corridor remains along the watercourses to allow for avoidance by more light sensitive species without severing commuting routes or significantly reducing foraging habitat.

Conclusions

- 1.14 The types of lights installed within and around potential roost features associated with the archways are a type that prevent vertical spread of the lighting above the installation height of 2.1-2.2 m, above which bats are more likely to roost.

- 1.15 Light disturbance impacts on crepuscular and nocturnal fauna associated with the site lighting layout are largely 2 lux and below. A small area in the northeast of the site has a light spill of 7.5 lux although, the area is already subject to existing light spill from surrounding commercial development and lighting associated with the A57 that is adjacent to the northeast boundary of the site.
- 1.16 It is therefore concluded that the lighting installed within the site functions as per the design submitted to control and avoid light spill on to potential bat roost features, their exit/entry routes and adjacent watercourses (foraging/commuting corridors), in accordance with Condition 11a) ii.