

Our Ref: EVO20029520-SL-001-A

Your Ref: DP230/CD/ENV

Samuel Doswell
Director
Doswell Projects
Unit 14-15
Monks Brook Industrial Park
Chandlers Ford
Hampshire
SO53 4RA

11/11/2024

Dear Samuel Doswell,

Lighting Assessment - Nightingale Avenue, Eastleigh

Thank you for your scheme enquiry regarding Nightingale Avenue, Eastleigh

We have undertaken an assessment, including calculating the existing situation and reviewing the proposed changes shown on *1290-KSA-XX-XX-DR-A-101-D-Site Setting Out Plan.pdf* against the relevant regulations, Standards and HCC technical guides.

It is our recommendation that no changes are made, and the area remains unlit for the following reasons:

- Bats known to be present and streetlighting could be detrimental.
- Service road has been unlit for decades and used for vehicular access for all this time without significant issue.
- Proposed development is small and will attract very low vehicle movements.
- No suitable locations to install columns in line with TG13 and industry standards.
- Lighting would likely attract complaints from adjacent residents who are used to the area being dark.

However, this evaluation only evaluates the lighting against its specific standards and requirements.

Following the completed design work if there are changes to the road layouts which require design revisions these may incur further charges.

Yours sincerely,



James Duffin BA (Hons) IEng MILP
Senior Lighting Designer
Enerveo

E-mail: james.duffin@enerveo.com or lightingdesign@enerveo.com



Lighting Assessment - Nightingale Avenue, Eastleigh

1. Introduction

- 1.1. Enerveo has been commissioned by Doswell Projects to develop a detailed lighting assessment to establish whether or not lighting would be required as part of the redevelopment of a small parcel of land on a service road behind Nightingale Avenue.
- 1.2. The purpose of this document is to provide commentary on the lighting assessment methodology adopted for the proposed development at Nightingale Avenue, Eastleigh.

2. Standards

- 2.1. The proposed lighting design has been carried out using the following non-exhaustive list of standards and documents:
 - BS 5489-1:2020, *Code of practice for the design of road lighting - Part 1: Lighting of roads and public amenity areas.*
 - BS EN 13201-2:2015, *Road lighting — Part 2: Performance requirements*
 - ILP Guidance Note, GN01/21, *Guidance Notes for the Reduction of Obtrusive Light.*
 - ILP Guidance Note, GN08/23, *Bats and Artificial Lighting at Night.*
 - HCC Technical Guidance Note TG13 – Street Lighting, v4, 2023
 - HCC Street Lighting Maintenance Management Plan (SLMMP) v1.6, 2023

3. General Layout

- 3.1. The location of the proposed works is a service road between Nightingale Avenue and Falcon Square (Figure 1).



Figure 1: Site location (red line)

- 3.2. The site of 0.05ha consisting of a former garage, hardstanding and scrub vegetation of varying heights
- 3.3. The proposed works consist of clearing the site to allow for the construction of 4 flats, along with associated parking and landscaping.
- 3.4. The service road is adopted highway land (Figure 2).



Figure 2: Adoptable highway markup shown by grey hatch, site by red line and green dots existing highway lighting.

4. Existing Lighting

- 4.1. There is no lighting in the service road the nearest lighting being column 8A (Figure 3) which is outside the Behives Hair Studio at 6 Nightingale Avenue.



Figure 3: Location of the nearest column and unlit entrance to the unlit service road

- 4.2. Column 8A is there to light the footpath and parking areas outside the shops on Nightingale Avenue.
 4.3. The service road on which the proposed development is located is currently unlit.
 4.4. Figure 2 in section 3 above illustrates the locations of existing highway lighting, these are shown as green dots. All are on the roads and none on the service road.

5. Ecology Assessment

- 5.1. An Ecological Enhancement Plan (21-041-EEP Ecological Enhancement Plan - 2023.pdf) has been provided to support this assessment.
 5.2. This identifies that bats are present in the area and recommends the following:

2.17 Lighting can have notable negative impacts on commuting bats, that are known to be present locally. There is potential for lighting during and post-development to cause indirect disturbance in these areas. All external lighting should consist of downlighters and low-level lighting with the number of lights kept to the minimum necessary, and preferably on motion sensors to reduce lighting time.

- 5.3. The preference for motion sensors to control any lighting would not be compatible with HCC PFI compliant lighting which is controlled via the Mayflower CMS system and uses unmetered supplies.
- 5.4. Unmetered connections cannot be made when the load or operating hours is unpredictable. Any operating hours via a motion sensor would be unpredictable and unsuitable for an unmetered supply.
- 5.5. Additionally, a single bat box is to be provided at the site, this is positioned away from the service road (Figure 4) however as there are no street lighting works proposed this location will not be impacted by street lighting.



Figure 4: Locations of proposed ecological enhancements (source AEWC Ltd)

6. General Lighting Assessment

- 6.1. The service road has been unlit for many decades, and already attracts vehicular movements as a number of existing properties that back onto the service road. These properties have garages and driveways onto the service road. These all use the unlit service road without significant issue. Had there been issues at night then HCC would have already installed lighting on this service road.
- 6.2. The proposed development is small and will attract very low vehicle movements. As such the usage of the service road will not increase significantly. Given there is not an issue with the existing usage it's not expected that the small increase in usage would warrant lighting changes.
- 6.3. Hampshire Street Lighting Department has a very comprehensive specification document for adoptable street lighting, TG13, which is currently at revision 4. This sets out all the limitations and requirements for adoptable street lighting.
- 6.4. HCC sets out within TG13 clause 3.19.1b that columns must have a minimum clearance from carriage way for all roads with a speed ≤ 30 mph that columns should have a horizontal clearance from the carriage way of at least 0.8 metres. This requirement is stated as being derived BS5489-1:2013, 4.3.3.3 – Table 2, which is now superseded by BS5498-1:2020 6.1.3 – Table 1 and has the same restrictions.

Table 2: Horizontal Clearances

Speed Limit (mph) ¹	Minimum horizontal clearance ²
20	0.8m
30	0.8m
40	1.0m
50	1.0m
60	1.5m
70	1.5m
1 - Table derived from BS5489-1:2013, 4.3.3.3 – Table 2 (please note that this TG13 table refers to “speed limit” not “design speed”)	
2 - Clearance is subject to other factors, e.g. passive safety risk assessment	

Figure 5: Horizontal Clearances from TG13 Revision 4

Table 1 — Recommended minimum clearances from edge of carriageway to face of lighting column

Speed limit mph	Horizontal clearance m
≤ 30	0.8
40 to 50	1.0
60 to 70	1.5

Figure 6: Horizontal clearances from BS5489-1:2020

- 6.5. HCC sets out within TG13 clause 3.19.1g that columns cannot be adopted within shared surfaces. Whilst the service road is not specified as a shared surface, it can be considered a shared surface as there are no separate verges or footways.
- 6.6. Additionally, the residents in the area are used to having no lighting in this service roads and the installation of lighting may result in complaints to the council about light trespass onto their property.
- 6.7. Upon visiting site, our surveyor was approached by a resident who expressed a keen desire not to see lighting installed on the service road, stating that he had lived there for over 20 years had no issues navigating the area without street lighting.

7. Site Photo Location Map



8. Site Photos

8.1. Photo 1



8.2. Photo 2



8.3. Photo 3



8.4. Photo 4

