Brookland Sports Club,

Sale

Technical Note - Lighting Scheme

Assessment Relating to Bats

2024

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Lighting Scheme

Background

Rachel Hacking Ecology Ltd was commissioned in 2024 by Rick Summers (Brooklands Sports Club) to conduct a daytime bat survey at Brooklands Sports Club. The site is looking to receive planning permission for the upgrading of existing floodlights from halide to LED's and the addition of four new posts to increase flood lighting around an additional set of two tennis courts. No direct changes to the environment or habitats other than the installation of four metal posts on the surrounding amenity grassland is proposed. As part of the planning application, an ecological technical note regarding bats with focus to potential surrounding habitat and the effects of lighting was requested.

Proposed Development Site

The proposed development site is comprised of areas of hardstanding, small storage sheds, a sports facility, sports pitches (artificial and amenity grassland), and linear boundary habitats. The boundary habitats comprise species-poor native and ornamental hedgerows and scattered trees of mixed age and size (see Figure 1).

Figure 1 showing the site ownership boundary

Description of Development

Existing floodlighting posts will remain. Existing floodlights on the hockey pitch (yellow circles in Figure 2) are proposed to increase from 350 lux to 500 lux. Existing floodlighting along the artificial tennis courts are changing from 400 lux to 500 lux (blue circles in Figure 2), including the proposed 4 no. new floodlights. All floodlighting is proposed to be LED.

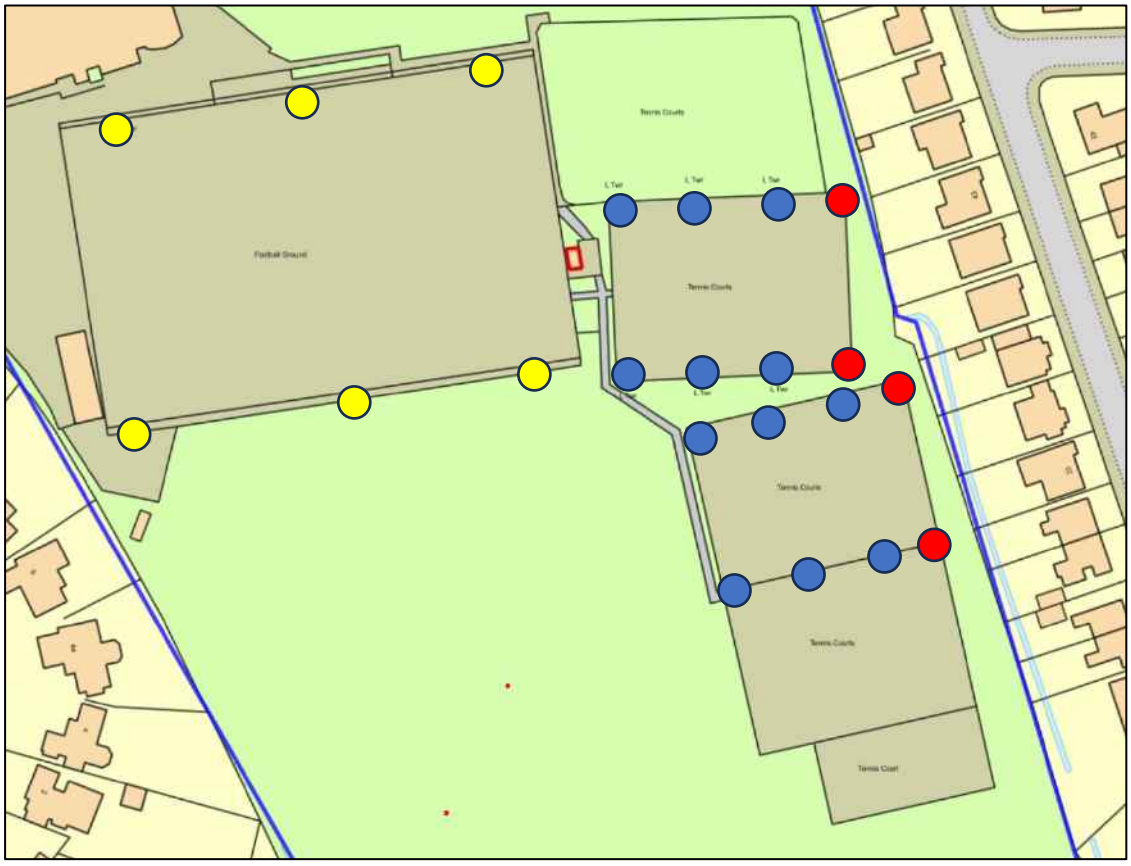


Figure 2. Lighting proposals. Yellow: existing 350 lux lighting to change to 500 lux, blue: existing 400 lux lighting, red = proposed 400 lux floodlights

Ecological Features

Amenity grassland

A majority of the site is comprised of regularly mown, species-poor amenity grassland (see Photograph 1) which is comprised of Yorkshire Fog *Holcus lanatus*, Annual Meadow Grass *Poa annua*, and White Clover *Trifolium repens*.

Photograph 1 showing the amenity grassland

Three of the four small floodlight poles will be installed over small patches of amenity grassland with the remaining being installed on existing astroturf pitch (see Photograph 2). These areas of amenity grassland are species poor and a negligible impact to this habitat via the proposed works is anticipated due to its small scale.

Photograph 2 showing the amenity grassland

Boundary Habitats – Trees and Hedgerows

The boundary habitats on the site consisted of a mix of ornamental hedgerows (including Garden Privet *Ligustrum ovalifolium*, Cotoneaster, Leyland Cypress *Cupressus x leylandii*) than run along the west/northwest and eastern site boundaries (see Photograph 3).

Photograph 3 showing the ornamental hedgerow

A small stretch of native, species-poor hedgerow comprised of Hawthorn *Crataegus monogyna* runs along an area of the site's southwest boundary (see Photograph 4).

Photograph 4 showing the species-poor native hedgerow

Boundary trees including individual trees such as Oak *Quercus robur*, Birch *Betula pendula*, Beech *Fagus sylvatica*, and Hazel *Corylus avellana*, as well as lines of trees comprised of Oak, Sycamore *Acer pseudoplatanus*, Leyland Cypress, Ash *Fraxinus excelsior*, and Goat Willow *Salix caprea* are present along the site's boundaries (see Photograph 5).

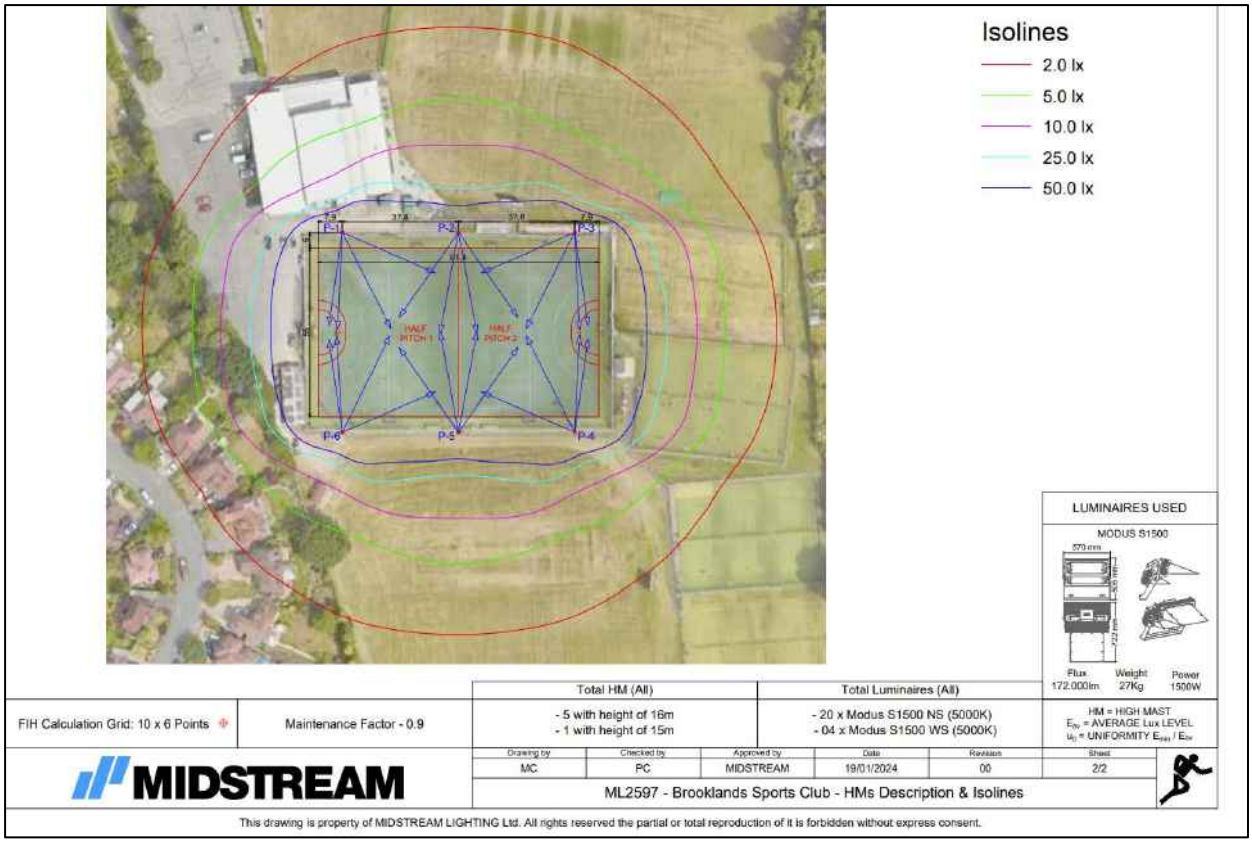
Photograph 5 showing one of the on-site scattered trees

The boundary habitats on site offer moderate bat foraging and commutable habitat. None of the boundary habitats are to be removed or altered as of this proposed development. None of the boundary habitats within close proximity to the involved pitches presented any potential roosting features for bats.

Assessment

Existing artificial light in the vicinity includes the aforementioned floodlights. The hocky pitch area with the proposed change from 350 lux to 500 lux lighting is already present. The most westerly lying posts are between 25 – 45 metres from the site's western boundary. This indicates the presence of some existing artificial light spilling onto the western boundary habitats from the current pitch and the parking area. Residential development on the adjacent side of the linear habitats will also contribute to existing light spill on the opposite side of the habitat.

A lighting scheme has provided the expected overspill illumination zones from the main pitch onto the surrounding areas (see Photograph 6).



Photograph 6 showing the expected illumination and lux zones resulting from the proposed development (main pitch)

As artificial light exposure already exists on the western habitats, no significant changes to the lighting are expected as a result of the proposed lighting changes/installations. Most of the expected illumination outside of the pitch falls onto amenity grassland and artificial tennis pitches.

The alteration of existing lighting and the production of four new 500lux lighting posts is not considered to present a risk to bat foraging or commuting activity due to existing light presence and the lack of habitat supporting bat foraging and commuting in this vicinity of the site's eastern boundary (see Photograph 7).

Photograph 7 showing the expected illumination and lux zones resulting from the proposed development (tennis courts)

Most of the habitat currently affected by indirect light exposure includes amenity grassland, introduced shrub and some scattered individual trees (see Photograph 8 - 11).

Photographs 8 - 11. Eastern boundary habitats adjacent current tennis pitches and lighting

Planning permission for a similar application on the site involving the upgrade to 500lux lighting on the main hockey pitch was accepted by Trafford Council in October 2015 (**reference number**: 85978/FUL/15), with no ecological concerns noted.

Summary

Overall, all the existing boundary habitats relating to this development have existing artificial light spill present from numerous sources (pitch lights, car park, residential housing). No significant impacts to bats or their activities are expected as a result of this upgraded lighting due to the existing lighting.

It is recommended that all lighting mentioned in this report is to focus and point directly onto the pitches to reduce light spill onto close by boundary habitats.

Current lighting times for the pitches is set between 09:00 – 22:00 Monday to Friday, and 09:00 – 18:30 Saturday, 09:00 – 18:00 Sunday. It is recommended that on days lighting is required in the evenings, that it is used for the most minimum time possible to reduce the potential impacts on surrounding wildlife.