New Barn School- Horsham
New Secondary School Building 23rd May 2024

Proposed car Park Lighting and external lighting

Part of the new secondary school project is a small extension of the existing car park and to provide lighting to the car park.

The proposed lighting is set out on the electrical services external services drawing NSE D1028 E501 C1 and further detailed with simulated lux levels and iso line drawing NSE D1028 E502 C1.
A further drawing NSE D1028 E503 C1 shows the simulated lux levels of lighting produced from the wall mounted external lights on the new building.

Generally the external lighting design has been carried out with the environmental impact in mind. Colour temperature of the light source being 3000K to suit the possibility of the presence of bats and keeping the overspill of light to a minimum.

Luminaires
All external light fittings use an LED light source.
The colour temperature of the light source is 3000K
The 9No car park post top luminaires are manufactured by Whitecroft lighting and are mounted on 4mt high columns.
The 21No wall mounted light fittings are manufactured by Edge lighting and will be mounted at 2.5mts above.

Lighting Calculations
Lighting design calculations have been carried out for the car park and the wall mounted fittings on the new building, using Relux lighting design software in order to calculate the amount of light produced and the direction the light will be directed. Details of the luminaires being used are shown within the booklets, but are as follows:

The car park post top luminaires – 67 watt 8,684 lumen 3000k with 0% Upward light 100% downward light

Wall mounted luminaires – 30W 4,138 Lumens 3000k with 0% Upward light 100% downward light

These calculations show that the car park will be illuminated to an average of 8.94 lux and the perimeter of the new building to an average of 2.58 Lux.
The building mounted luminaires also contain batteries to provide emergency lighting.