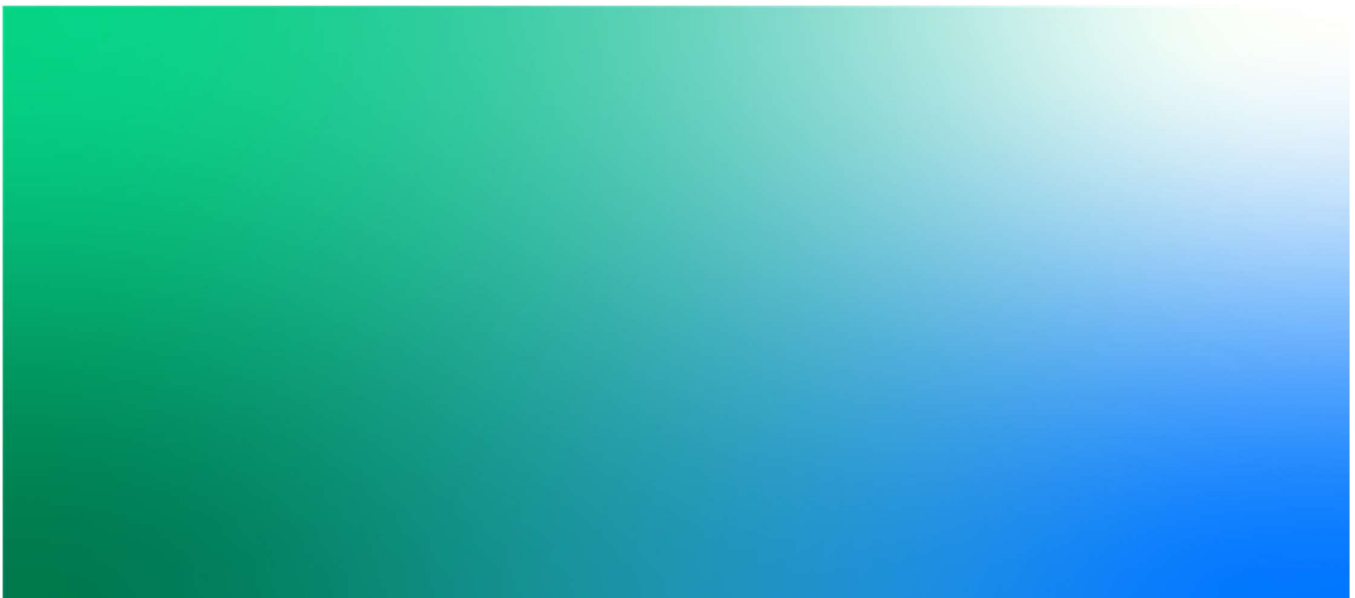




A465 Section 5 and 6
Pant Road Playground Lighting Proposal Report

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Author: Mohammed Noman
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Jacobs U.K. Limited

Churchill House
Churchill Way
Cardiff, CF10 2HH
United Kingdom
T +44 (0)29 2035 3200
F +44 (0)29 2035 3222
www.jacobs.com

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1. Introduction

This Lighting Proposal Report is provided in support of a planning application to seek the temporary change of use of Pant Road Playground, 'the Site' to provide temporary operational space for the business known as Merthyr Motor Auctions (MMA). This is required to mitigate the impact of the A465 Heads of the Valleys Dualling Section 5 and 6, 'the Scheme', on the business.

The works required to widen the A465 means that an area of operational land, in the vicinity of the existing A465 Pant Road Viaduct, will be unavailable to MMA during construction. This area of the MMA site is currently used as a combination of sales space, car parking, vehicle storage and onload/offload to vehicle transporters.

MMA is located opposite the Site and in order to reduce the impact on MMA's business during construction, it is proposed to temporarily remove the playground to create a hardened secure area for car parking, vehicle storage and onload/offload of vehicle transporters.

The period of occupation by construction activities is likely to be of the order of 3 years, but could be longer, and once completed the playground facility will be reinstated with a modern play facility in a reconfigured space that is aligned with the modern approach to imaginative play.

The purpose of this report is to confirm the requirements for lighting within the Site in support of the planning application.

2. Lighting Class Assessment

In order to accommodate the planning application on the Site, lighting assessment is undertaken to determine the lighting levels for the site extent shown in Figure 01.



Figure 01: Site Extent

Lighting requirements for outdoor car parks is covered under the guidance of British Standards BS EN 12464 and BS 5489: 2013. Exterior car parks have three levels of lighting depending on usage, and range from Low, Medium and High. The lighting levels at the proposed carpark will be based on the recommendation of BS 5489-1:2013 Table 5 "Maintained lighting levels for outdoor car parks". The Table 5 from BS 5489 is shown in Figure 02.

Type of area and usage	$\bar{E}$ lx	U_o
Light traffic, e.g. parking areas of shops, terraced and apartment houses; cycle parks	5	0.25
Medium traffic, e.g. parking areas of department stores, office buildings, plants, sports and multipurpose building complexes	10	0.25
Heavy traffic, e.g. parking areas of schools, churches, major sports and multipurpose sports and building complexes	20	0.25

Figure 02: Maintained lighting levels from outdoor car parks

A review of existing MMA operations resulted in the usage levels of the Site being categorised as low. The recommendations from the table's suggest lighting levels to be with an average Illuminance of 5lux with a uniformity of 25%.

The lighting proposal for the Site is set out in the Lighting Proposal Layout Plan contained in Appendix A.

3. Assumptions

In order to aid the lighting design, assumptions were made which are as follow:

1. The design ensures that the luminaires have 0-degree tilt and no upward light or any light pollution following the guidance from BS EN 12464 and BS 5489:2013. This will also minimise disruption any possible bat corridors in the area.
2. The type of power supply in the vicinity of the Site is assumed to be DNO based on the stats provided. As this would be a temporary installation the supply will be privately fed from a feeder pillar. The cabling will either be catenary or temporary direct buried, this will be finalised in the detail design stage.
3. Based on the stats information provided the overhead line currently located at the proposed entrance to the carpark will be diverted before construction.
4. It is assumed that the proposed lighting design will be controlled in accordance with current protocols in place by MMA.

4. Future Proofing

The Site is to provide temporary operational space to mitigate the impact of constructing the A465. Once the works are completed it is proposed to reinstate the playground facility. As the existing playground is unlit, it isn't proposed to light the reinstated facility.

In order to accommodate easy removal of the columns, NAL or similarly approved temporary foundations would be proposed for installing the columns. A typical picture of temporary foundation could be seen in Figure 03.

With this arrangement in place, the contractor can easily connect and disconnect power to the columns. The columns could also be easily removed after the works are completed.

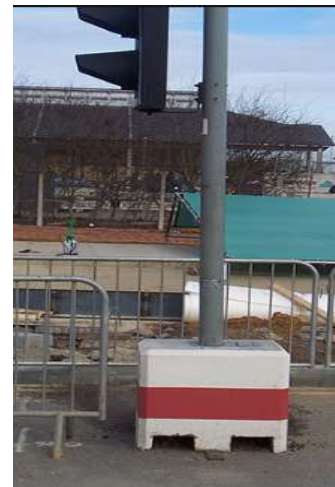


Figure 03: Temporary Foundation

Appendix A. Lighting Proposal Layout Plan

