

From: [Chris Stanworth](#)
To: [Margaret Telfer](#)
Subject: FW: 17NP0029 - The Sill: Discharge of Planning Condition 21 of 15NP0087
Date: 09 May 2017 16:52:23

From: Brooksbank, Matt [REDACTED]
Sent: 30 March 2017 11:22
To: Chris Stanworth
Subject: 17NP0029 - The Sill: Discharge of Planning Condition 21 of 15NP0087

Hello Chris,

I write with regards to condition 21 only and in response to your comments of March 9th. Answers to your queries can be seen below. Please see below responses to your queries— I trust these are fine to be sent via email, if this needs to be via an amendment on the planning portal please let me know.

Kind Regards
Matt

Condition 21 (lighting)

The approval of details application would need to be amended to just include the details for condition 21.

As the proposal is for external lighting for a major development at a sensitive location within an internationally designated Dark Sky Park, it is crucial for a statement to be provided to support the application, explaining the rationale for the lighting proposals, and an overview of why the proposed units and locations have been chosen. This should have input from a lighting engineer and/or a person with a working knowledge of the Dark Sky Park, as technical information should be included.

As well as an explanation of the proposals, clarification is needed in respect of the following points:

- *Why these units have been chosen (and if other alternatives have been considered);*

Luminaires have been selected as are dark sky compliant. Other luminaires were reviewed however were found to have some upward light in the distribution hence were not suitable.

- *Clarification/explanation of the difference between quoted lumen level and the lumen level provided as the luminous flux of the luminaire within the product specifications (for example the 33929.000 Erco Floor washlight give a lumen level of 3300lm and a luminous flux of 701lm);*

The Castor Bollard uses an internal projection lens to ensure that no light is emitted above the horizontal line as required to conform with dark sky principles. The chip and the primary projection lens are based in the body of the product and the secondary projection lens (responsible for the dark sky compliant light distribution) is in the head of the product. In order to achieve maximum visual comfort whilst simultaneously projecting

light over a 10m spacing, more power is required to project light in to the secondary lens in order for it to have an effective and usable light distribution. The result is an extremely efficient Bollard due to reduced quantities required, from a unit that emits from a light source that is barely visible to human eye above the counter plane height. Essentially the luminaire uses a 3300lm light engine but the luminous flux (light omission from the luminaire) will only be 700lm due to the internal reflection and light distribution.

- *Explanation of why the lumen levels are considered suitable and dark sky park compliant – these appear on the face of things to be quite high (3300 lm is quoted on the floor washlight) – our good practice guide suggests that this should be below 600 lumens;*

The effective light on the target surface is much lower than the initial 3300lm suggested by the products data sheet due to the nature of the projection of light from the product as stated above.

- *Explanation of why the light sources that have been chosen are being proposed – these are up to 24W LED lights (good practice guidance suggests LED lights of under 10W) – explanation of the choice of the colour of the light and the Kelvin scale is also helpful.*

A 10W Bollard using the dark sky technology achieved by the Castor would not provide sufficient light in the area with the spacings we are achieving.

As well as the specifications and locations that have been provided, additional information is needed:

- *Details of any proposed measures such as motion sensors and/or timers that will be used on lighting units (as specified in condition 21);*

All external lighting is controlled via timeclock and photocell operation through the BMS system.

- *Details of the lux levels across the site (as specified in condition 21);*

Luminaires have been provided at locations selected by the client, lux levels across the site will be minimal due to the spread of the luminaires, local lux levels to luminaires i.e. the surrounding area below the luminaire will be in the region of 5 lux

- *Height above ground of the axis lights on the roof (as this does not appear to be shown on the plans)*

Luminaire located on the roof will be mounted within the planters and will be approximately 150mm above floor level.

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