Abbey Primary School

Planning Support Statement for upgrading External Lighting

Site address and brief description of the project
New build extensions, internal remodeling, internal and external refurbishment works and external works alterations at:-
Abbey Primary School (formerly known as Mereway Lower School)
Winchester Road
Northampton
Headteacher: Mrs Renuka Popat

Background
This is a retrospective application to supplement the Main Works Planning Application reference: NO/04/1557 dated 28 October 2004, as the design of the external lighting was due to be carried out by the electrical subcontractor after the PFI contract was let in late December 2005, and the main application already submitted and approved.

It was not realised that the external lighting might require approval if it exceeded the parameters set out in the provisions of the Town and Country Planning (General Permitted Development) order 1995. Where these permitted limits have been exceeded retrospective permission is now sought.

The requirement for the external lighting has been generated by the needs of the school for heightened security, given the nature of the local environment.

The security of the school needed to address the following issues and external lighting has been provided to enable these issues to be addressed during hours of low light or darkness:

1. The need to control and restrict pedestrian access to critical parts of the buildings during and after curriculum hours.

2. The need to prevent access into the buildings after core hours and onto the premises at all other times.

3. The need to monitor the external perimeter of the buildings during core hours and after school hours.

4. The need to provide limited / restricted access into certain areas of the premises.

The Client, acknowledging these requirements, requested, as set out below, that an external lighting system be provided and maintained.
Northamptonshire County Council PFI Contractual Authority's Requirements

"The Contractor shall provide and maintain external lighting systems in accordance with DfES Building Bulletin 90, covering car parks, walkways and roads, entrances, particular building features, security requirements. The Contractor shall identify lighting levels as for internal spaces.

- The Contractor must provide external lighting that achieves safe environments for people, traffic and the building. Light pollution must be minimised and kept within the limits as required by BS 5489 and nuisance to the adjacent neighbourhood shall be avoided.

- The Contractor shall provide appropriate flood lighting to all the all weather pitch areas, subject to obtaining planning approval.  "  [this latter paragraph is not relevant for this school]"

Site Context and impact of proposals
Refer to the as existing and the as proposed external lighting site plans included with the submission.
The school was built in 1965. Gently sloping site bounded by rear gardens to the north and east and with views over playing fields to the south and west. Most of the site perimeter has mature hedges. Site area is inadequate and the school have the use of the Mereway Community College playing fields.
The main pedestrian access / school car park is from Winchester Road.

Existing and proposed site access
The existing vehicular entrance to the site off Winchester Road has been retained and the access road within the school site widened to allow safer access. The existing pedestrian entrance on Winchester Road is retained unaltered.

Parking for cars
There was existing parking for 12 spaces on the hard play area at the front of the school now increased to enlarge the capacity to 30 spaces including 4 disabled spaces.

New external lighting
The school building has been substantially extended, remodeled and refurbished and the vehicle and pedestrian site access, car parking and external circulation have been significantly improved.

The original external lighting was minimal and new external lighting is proposed to improve safety and security around the school building.

The external lighting proposals are shown on the enclosed N G Bailey drawing no. 60681 AP E 1003

The design has been carried out in accordance with the following design statement -
External lighting scheme for Abbey Primary School by N. G. Bailey

Description of design criteria

Overview
To provide external lighting that achieves a safe environment for people, traffic and the building. Light pollution would be minimized and kept within the limits of BS 5489 and from causing a nuisance to the adjacent neighbourhood. As the schools are potential areas for vandalism or theft, it is proven that by lighting the area well to the levels stated below that a reduction in antisocial behavior is achievable.

External Lighting
The existing external lighting installation has been retained and extended to meet illumination levels stated below. Illumination to external areas including roadways, car parking areas, pedestrian walkways, building entrances/exits, courtyards etc will be provided together with lighting of the perimeter of the building. Due regard will be given to using energy efficient lighting conservation. Design service will be as follows:-

- Car Park lighting: 20 lux at floor level
- Vehicle Roads: 10 lux at road level
- Security lighting: 20 lux at the building elevation
- Pedestrian Areas: 10 lux at floor level
- Courtyards: 10 lux at floor level
- Building Entrance/Exits: 20 lux at floor level

The above lighting will be met using building mounted luminaries and supplemented where necessary by additional luminaries mounted on self-finish locations.

<table>
<thead>
<tr>
<th>Item selected</th>
<th>Details</th>
<th>Reason for selection</th>
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<tbody>
<tr>
<td>Luminaire</td>
<td>Cooper Strada</td>
<td>Optimum height for luminaires for even distribution of light onto carpark level, and to suit the width of the car park to give a good uniformity of illuminance</td>
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<td></td>
<td>C/W Black top</td>
<td>A high performing, energy efficient, industry standard lighting solution for car parking and amenity lighting giving excellent performance and is dark sky compliant. The luminaire is selected on the basis that a good colour rendering and uniformity of illuminance can be achieved with maximum spacing between columns.</td>
</tr>
<tr>
<td>Lighting Shield</td>
<td>180 deg black</td>
<td>A black steel insert that stops the emission of light from half of the luminaire. To be used in situation as indicated on the layout drawings to prevent viewing of the light source from and light spilling into adjoining properties. The shielded luminaire then reflects a proportion of the light output into the desired area. Introducing this shielded baffle into the fitting reduces/eliminates the glare effect into neighbouring housing estates. Unfortunately whichever fitting is selected if the lamp itself is visible from any of the neighbouring areas, then a glare effect will be inevitable, this will be evident in the majority of external amenity luminaires available.</td>
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<tr>
<td></td>
<td>out shield</td>
<td></td>
</tr>
<tr>
<td>Controls / Switching</td>
<td>Time clock / Photo Cell</td>
<td>To prevent luminaires remaining switched on when not required a 7 day programmable time clock is installed, which is fully programmable to suit the schools required needs, and should be set to meet the operational hours of the school, thus reducing the length of time that the luminaires will be on, which increases lamp life cycle and reduces light spill into neighbouring areas. To prevent the lighting remaining on in day light conditions the lighting is over ridden by a photo cell unit mounted for each individual circuit externally to the building.</td>
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