CASE STUDY
RHÔS-ON-SEA MUGA

TRTLIGHTING

○ DARK SKIES ○ ECOLOGY ● APPLICATION IMPROVEMENT ○ NEW INSTALL ○ RETROFIT

RHÔS-ON-SEA MUGA

COMMUNITY SPORTS FLOODLIGHTING UPGRADE

BACKGROUND

The Church Road Recreation Ground Multi-Use Games Area (MUGA) in Rhôs-on-Sea is an important community sports facility serving residents across the Bay of Colwyn area. The site offers a place for informal recreation, youth activities, school use and organised sport, providing a free-to-access space that encourages active lifestyles throughout the year.

However, the existing floodlighting installation had reached the end of its serviceable life. The system comprised eight 1000W metal halide discharge floodlights, but a site survey revealed that only two luminaires remained operational. Several fittings had damaged or shattered lenses, resulting in poor illumination, reliability concerns and increasing maintenance difficulty.

With an approximate connected load of 8kW, the ageing installation had also become expensive to operate in the context of rising energy costs. A modernisation programme was therefore required to restore safe lighting levels while improving the long-term sustainability and efficiency of the facility.

Funding was secured through the UK Shared Prosperity Fund (UKSPF), delivered via Conwy County Borough Council, creating an opportunity to upgrade the lighting and ensure the MUGA remains a safe and accessible space for community sport.

SOLUTION

Specialist Engineering Technical Services Ltd (SETS) was commissioned to provide technical advice and develop a lighting design for the upgrade. Following the assessment of several compliant floodlighting solutions, TRT's Aspect Floodlight range was selected as the most suitable option to meet the project's performance, environmental and value requirements.

The new scheme comprises eight Aspect floodlights (64 LED, 140W) finished in light grey and configured with Flood Optic 3 distributions. Each luminaire operates at 3000K and was supplied pre-wired with DALI control to simplify installation. Rear shields were also specified to further control glare and obtrusive light within the surrounding residential environment.

The lighting design was developed in accordance with Sport England's Artificial Sports Lighting Design Guidance, classifying the facility as Football – Class III. This required an average illuminance of 75 lux with a minimum uniformity ratio of 0.5, appropriate for community-level sports use.

Although higher colour temperatures are often associated with sports lighting, a 3000K solution was deliberately chosen to balance visual performance with environmental sensitivity. All luminaires were installed at 0° tilt to eliminate upward light spill, supporting dark-sky considerations in this residential setting.

In addition to improving lighting quality, the upgrade delivers a substantial reduction in energy demand. The previous installation had a connected load of approximately 8kW, while the new LED system operates at around 1.1kW. This represents an anticipated reduction in energy consumption of approximately 85%, significantly lowering operating costs while reducing the facility's carbon footprint.

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OUTCOME

The new lighting installation restores safe and uniform illumination across the MUGA while significantly improving efficiency and reliability. The scheme supports extended use of the facility during evenings and winter months while dramatically reducing operating costs and environmental impact.

Lighting operation has also been carefully managed to minimise overall light exposure, with the system programmed to operate only between dusk and 21:00 in line with dark-sky considerations for the surrounding residential area.

The MUGA is an important community facility used by people of all ages. Upgrading the lighting ensures it remains a safe, inclusive and accessible space all year round. This project demonstrates how Place Plan priorities are being delivered on the ground. We thank the UK Shared Prosperity Fund, Conwy County Borough Council and the Bay of Colwyn Town Council for enabling us to safeguard and enhance this valued local asset."

Cllr Jo Nuttall Town Mayor

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