

zeta

Specialist Lighting

Sydney Buildings, Bath

Sydney Buildings is now benefitting from historic style street lighting with the benefit of modern, energy-efficient LEDs, thanks to Zeta's SmartScape Heritage LED retrofit solution. SmartScape Heritage was the first LED module that fulfilled both the residents' and BANES' requirements for this heritage environment.

The Challenge



Over a six-year period, BANES has modernised the majority (around 15,000) of its residential and highway street lighting network, installing new, energy-efficient LEDs. However, up until this point had been unable to secure an LED solution that delivered the correct colour temperature for lanterns sited within the city centre. The City of Bath is designated a UNESCO World Heritage site and replacing its existing sodium heritage lighting with a suitable LED solution, that met the needs of the heritage bodies, residents and the council, was key. A decision was initially made not to include this historic area in the authority-wide LED upgrade initiative.

The Sydney Buildings Householders' Association applied for funding from the World Heritage Site Enhancement Fund (WHSEF), which combined with a contribution from the residents of Sydney Buildings, would cover the one-off cost of reproducing pattern casting moulds for the circa 1910 Bath Cast Crown Electric Street Lantern.

Although no early cast crown lanterns remain in Bath, the residents were able to source an original from a salvage yard which was suitable for making the new moulds for the recasting. With funding in place, the Householders' Association in partnership with the BANES street lighting team conducted a number of trials utilising LED lighting modules in the street, each of which were deemed unacceptable due to issues around light output, directional capability and reflective light glare.

The Solution

Over a three and a half year period, multiple combinations of heritage lanterns (ten in total) using a wide range of LED modules, were trialled in Sydney Buildings, but not one LED module met all of the desired features for this heritage environment.



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Manchester-based heritage lighting manufacturer, Metcraft Lighting, recommended a fresh trial utilising the replica Bath Cast Crown Lantern, which it had produced, equipped with Zeta SmartScape Heritage, a bespoke solution for retrofitting LED lighting into traditional heritage lanterns.

Two lanterns were fitted with the SmartScape Heritage solution, featuring a warm white (2700 Kelvin) colour temperature, ideal for heritage applications. Zeta's solution is waterproof (IP67 rated) and as such is wholly effective in an unglazed lantern.

For the purposes of this trial, one lantern was unglazed while the other included conventional polycarbonate glazing. The non-glazed option was chosen as the preferred solution over the standard glazed enclosure, as it delivered optimum, even illumination with none of the glare from the reflective surfaces covering the lantern.

Key Benefits

Zeta's SmartScape Heritage, a single point LED light source which delivers optimum lighting levels ideal for residential areas, was the first solution that fulfilled both the residents' and BANES' requirements. The solution was retrofitted into the new Bath Cast Crown Lanterns and installed on the cast iron lamp posts in Sydney Buildings. This heritage residential environment is now benefitting from historic style street lighting with the benefit of modern, energy-efficient LEDs.



Sydney Buildings was the perfect location to fully evaluate Zeta's retrofit system with a view to informing the wider strategy for heritage lighting within the city of Bath. Sydney Buildings' lamp posts are unequally spaced along the road which has both narrow and wide sections, and there is a mix of houses – some directly on the pavement and others which are set back from the road.

Zeta's intelligent design means that the LED gear trays can be engineered to fit into any shape or size lantern, making it a wholly flexible retrofit solution. This was an important factor in the decision to adopt this solution at the optimum colour temperature of 2700 Kelvin for other heritage lighting projects. Zeta's SmartScape Heritage provides BANES with a flexible solution when refurbishing or re-manufacturing other types of heritage lanterns across Bath's historic city centre.

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“Following the success of the initial trial and installation of historic-style lanterns at Sydney Buildings, BANES is now looking to adopt this solution at 2700 Kelvin for its heritage lighting across the city.”

Stephen Burrell, Principal Engineer Street Lighting - Highways



“The Metcraft-produced lantern with the Zeta SmartScape Heritage produces a warm light well suited to our heritage street in Bath. Our residents are particularly pleased with the spread of light both along the pavement and across the road whilst minimising light pollution into the upper level windows of their houses.”

Steve Kerss, Project Manager on behalf of Sydney Buildings Residents, Bath

“Providing this solution to BANES and the residents of Sydney Buildings was very important to Metcraft Lighting. The passion for this project from the residents along with the support from BANES was very evident and trialling the Zeta SmartScape Heritage LED solution was very positive in terms of performance and appearance for this sensitive project.”

Shane Lightfoot, Sales & Operations Manager, Metcraft Lighting

Solution

- Zeta SmartScape Heritage

