Twin Sails Bridge, Poole, UK

## LIGHT ARCHITECTURE

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Light to encourage people to engage with the structure after dark, creating a beautiful civic feature both when the bridge is open and when it is closed

CLIENT

Borough of Poole

ARCHITECT
Wilkinson Eyre
Architects

**ELECTRICAL ENGINEER** 

Ramboll

MAIN CONTRACTOR Hochtief (UK) Construction Ltd

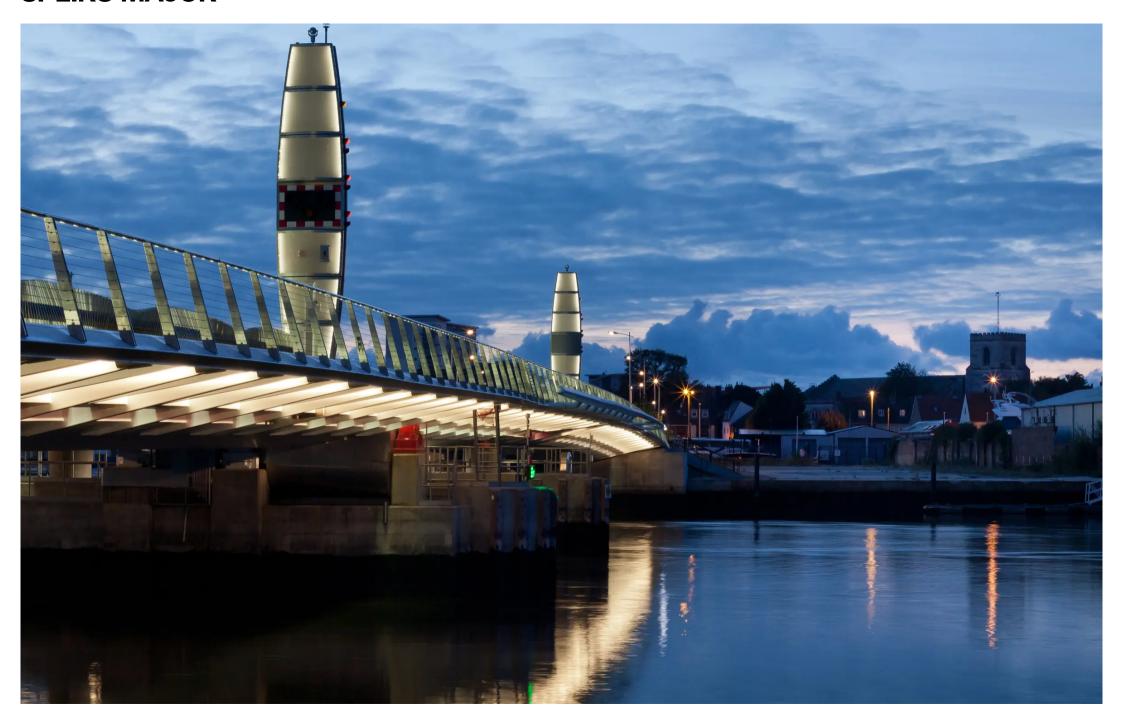
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PHOTOGRAPHER

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PROJECT TEAM
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# SPEIRS MAJOR 30 years in the Making

A project that had been 30 years in the making, Poole's civic leaders believe their new Twin Sails Bridge is the key to the regeneration of the town. The challenge for lighting designers Speirs + Major was to use light to encourage people to engage with the structure after dark, creating a beautiful civic feature both when the bridge is open and when it is closed.

There are many practical considerations involved in lighting a bridge. The lighting technologies and luminaires were carefully chosen for each specific condition in consultation with the Harbour Master, using lenses and focusing to reduce spill and glare. Long life and easy maintenance were high priorities, with luminaires located in accessible positions above deck or below gratings. The under deck structural lights are designed so that they can be rotated up for maintenance and back into their original focused positions. The road lighting in particular is provided by specialist cold temperature fluorescent lamps to ensure no disruption to output during the winter months.









#### View from deck

#### The Bridge Closed:

In its static position the bridge is an exquisitely detailed horizontal form that celebrates the connection of the sea, horizon and sky. Light accentuates the long span by highlighting the structural ribs, in turn creating beautiful reflections in the water. Functional lighting for the road, cycle ways and pedestrian desks is fully integrated into the vehicle crash barriers and handrails. This concealed approach allows the lit effect to take complete precedence. A wave-form art screen made of stainless steel bars separates the pedestrian deck from the roadway on the fixed sections of the bridge. This screen is underlit using red LEDs to lend a soft glow to the pedestrian areas, and adds an extra dimension to the reflections on the water.

#### The Bridge Open:

On opening, the diagonal joint on the bridge deck separates, creating two sail-like triangulated leaves. When darkness falls, the opening sets a dramatic lit transformation in motion. In an animated sequence the white light of the pedestrian walkway begins to turn to red, starting at the top of the 'sail' and appearing to roll down like a living flow of energy, eventually immersing pedestrians in red light. This animation heightens the anticipation of the opening, creating a spectacular event that bridge users can both witness and be a part of. The sails are lit in white, in stark contrast to the darker deck surface. The strong vertical emphasis of the open bridge is enhanced by the carbon fibre mast. which is capped with a glowing section of frosted acrylic containing white LEDs.





