



# LONDON BRIDGE BEST PRACTICE

LONDON BRIDGE STATION  
RED FLOPPERS PROJECT

## Canopy prefabrication

### Overview

Early involvement of a specialist subcontractor in the procurement and design process has resulted in a LEAN solution to the design and construction of the new platform canopies. This has led to London Bridge's new platform canopies being prefabricated offsite for a more sustainable build on site. The canopies which will cover all platforms from end to end have been typically divided up into 3m sections called cassettes. These will be delivered to site and installed directly onto the previously erected structural steel frame.

### The Prototype

To ensure the cassettes were a success, installation began in October when Network Rail commissioned a full scale prototype to be constructed. This enabled the construction team to understand the build ahead of its arrival on site.

Sixteen fully clad cassette units and 48 precast concrete platform units formed a 52m long section of platforms 11 & 12. These platform units were fabricated and erected at an airfield belonging to Severfield Watson in Thirsk, North Yorkshire.

To replicate the site conditions at London Bridge as best as possible, the construction team restricted their working room and used the same plant they would be using at London Bridge. This enabled them to understand and mitigate the constraints they would face on site.



Once erected the prototype was dismantled back into its component parts and reassembled for a second time to verify the programme and to increase learning ahead of starting on site.

Each cassette is delivered to site fully clad with roof and soffit panels, complete with lighting, CCTV cameras and PA speakers pre-installed and cables connected to the cable trunking. Once installed on site, the trucking will be joined between cassettes and the main cables pulled through. The roof and soffit infill panels will then close the joints between cassettes, creating a continuous platform canopy in line with a with the challenging platform programme.



### Benefits:

- Reduces interface with other trades
- Improved quality associated with the working environment
- Reduction in number of defects, re-work and revisits
- Reduction in labour
- Factory assembly allows the roof, soffit and cable containment to be installed at ground level, reducing the need to work at height
- Fewer deliveries to site, reduction in crane lifts, logistics and traffic management, reducing the impact on the local community
- Improved materials management and waste minimisation
- Ability to mock-up, test, inspect and amend the product prior to delivery
- Significant programme saving during construction

### Objectives and Targets:

- London Bridge Sustainability Delivery Statement – waste & communities
- CEEQUAL – material use & effects on neighbours