London Bridge station has been completely rebuilt, transforming central London’s oldest station into a station fit for the twenty-first century by making it modern, spacious and fully accessible. This has all been achieved while keeping London’s fourth busiest station open for the 50 million passengers that use the station each year and will help the Thameslink Programme deliver a metro style service of 24 trains per hour through central London from 2019.

For GRIP 3 and 4, WSP was appointed as Lead Designer, faced with the challenge of developing an affordable, world-class design which delivered the necessary railway improvements while keeping London Bridge Station operating with minimum disruption.

The scheme involved the design of an 8,000m² concourse at street level, with a live railway running over the top on a viaduct, utilising existing brick arches, and a new deck supported on columns located within the concourse. Several parts of the station were heritage-listed, and we incorporated these original features into the final design, while creating an attractive environment that allowed free passenger movement through the station from street to platform level.

Despite significant changes to scope, our project team completed services to the timescale through a flexible approach to delivery, colocation of staff, and progressive sign off of deliverables. We also introduced almost £40 million of savings to the original project costs through innovative design solutions, and avoidance of costly utilities diversions.

For GRIP 5-8 we functioned as lead designer for the management and preparation of all construction-related design documents. Completion of the design was subject to several significant challenges, including the need to provide permanent works to maintain the integrity of the Victorian arches during demolition.

Over the five-year construction period, the key challenge has been to minimise disruption for passengers. The complex construction strategy involves a phased demolition and reconstruction with over 70 sub-stages, ensuring that the station remains operational throughout the works. Through expert programming and collaborative working, the London Bridge team has met all of the possession dates.