

Location: London

Client: Corporation of London

Frame Contractor: N/A

Main Contractor: Mowlem

Post-tensioning Design: CCL

Post-tensioning Installation: CCL

Year of Completion: 1972



The new London Bridge was completed in 1973 and replaced John Rennie's granite bridge, which had become too narrow to cope with the volume of traffic.

Comprising three spans of prestressed concrete box girders, a total of 283 m long, the bridge was built to be functional and long lived and, as such, is noticeably less ornate than other Thames bridges. Concrete was the chosen material because of its durability and because it was considered visually sympathetic with its surroundings.

The current bridge was built in the same location as the previous bridge, which remained in use while the first two girders were constructed upstream and downstream. Traffic was then transferred onto the two new girders and the previous bridge demolished, allowing the final two central girders to be added.

Construction was complicated by the necessity of maintaining access for vehicles, pedestrians and river traffic, and by the restrictions created by the proximity of neighbouring buildings. CCL's construction process played a major part in ensuring this objective was met.

External prestressing was used throughout the bridge construction, with the tendons located in the corners of the box section. CCL's Multiforce Post-tensioning system was used to ensure that the required spans could be achieved whilst the low profile of the bridge was maintained.

In 2009, CCL's part in the construction of the bridge was acknowledged and the company was awarded the Concrete Society Award for Mature Structures, which recognises excellence in the use of concrete and specifically in structures over 25 years of age.