

Concept

The bridge is seen as a splash of water rising up from The River Thames.

Structure

Starting with a standard grid system of steel girders and by twisting the forms in a double helix we can create a unique and beautiful feature whilst still maintaining the structural integrity required.

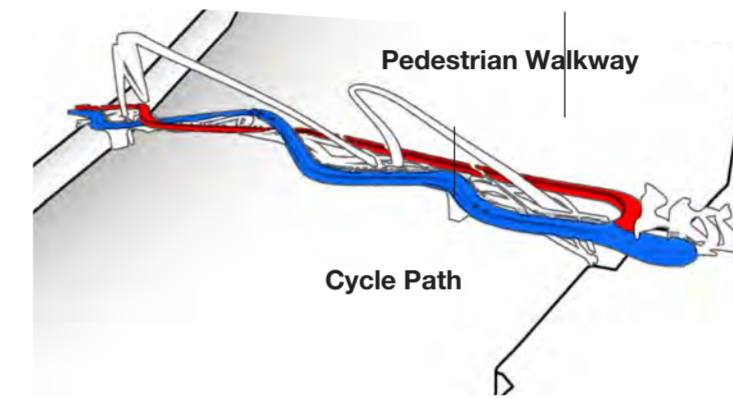
060

Proprietary parapet, handrail and containment system, stainless steel

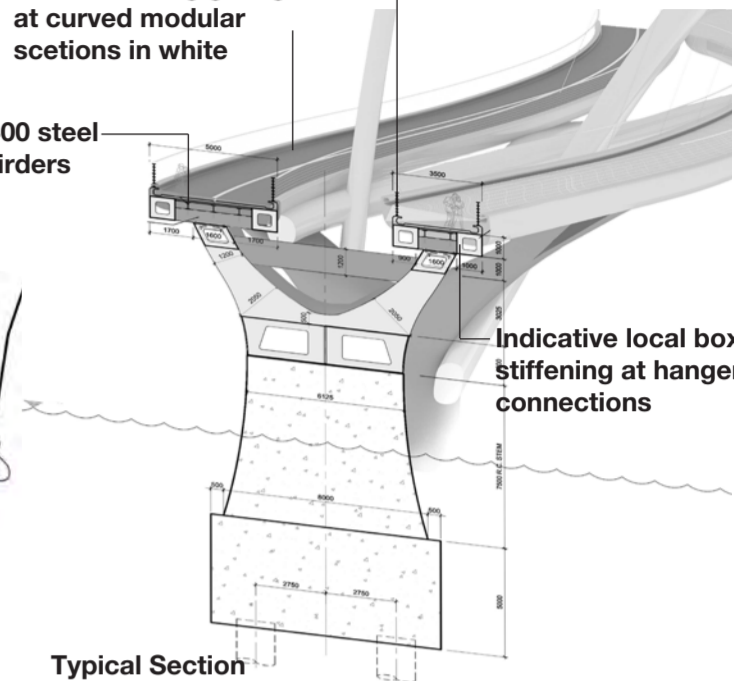
90mm decking grillage cut at curved modular sections in white

600x400 steel box girders

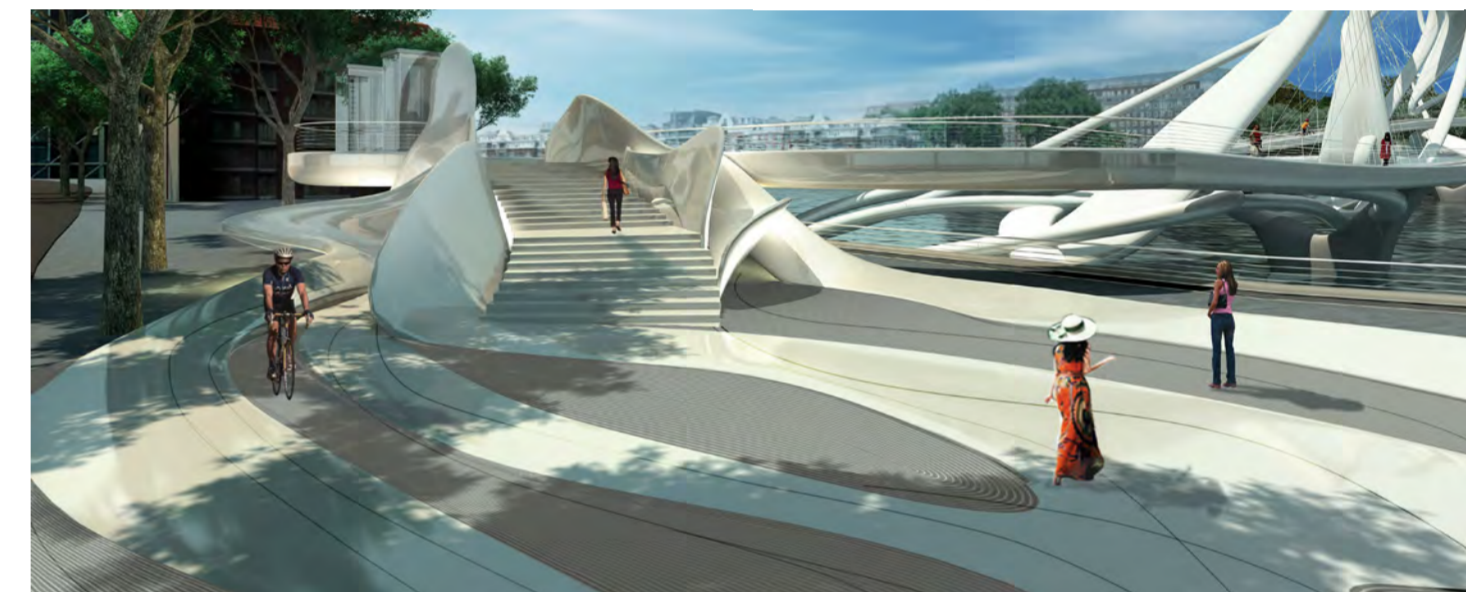
Indicative local box stiffening at hanger connections



Function Diagram



Typical Section



Challenge 1 - Integration of Cycle and Pedestrian Traffic

The bridge design splits the cycle and pedestrian traffic into two separate lanes. By doing this we ensure safe and efficient access across the river and uninterrupted cycle and pedestrian lanes. By creating a meandering series of paths both views of the river can be enjoyed at different intervals.

Challenge 2 - Place making across the bridge and its access points

The North Bank access utilises two new staircases and an accessible ramp for the disabled and bicycles. The South Bank holds 2 new glass lifts for bicycles and the disabled and a new pedestrian staircase. The design of the bridge has been carefully integrated into the landscape on both sides.

Challenge 3 - Height across the river and the inherent access issues

The bridge reaches the required clearance of 10.96m as stipulated in the feasibility study. Spans between columns are at 150m as required. Accessibility at both ends of the bridge are via stairs, lifts and ramps.

Challenge 4 - Approach to construction to minimize impact on the river

Temporary mast and backstays will be built on both banks with temporary piers, ahead of built piers, put in place. The main masts and structure will be made from steel and prefabricated in a factory and brought onsite in sections via barge then craned into position. This is seen as the most efficient and least disruptive method of construction.



