

HEIGHT ACROSS THE RIVER AND THE INHERENT ISSUES

The cable-stayed, slender steel deck allows the depth of the bridge deck to be kept to a minimum over the required Port of London Authority (PLA) navigation channel. The form of the bridge in plan has been chosen to provide access ramps at each landing point; a 1:12 ramp for cyclists and a stepped ramp for pedestrians. Once lift users join the deck the gradient will then not exceed 1:20 as it rises around the pylon thus allowing the minimum height of +10.96m AOD to be achieved over the 150m width required by the PLA.

INTEGRATING CYCLE AND PEDESTRIAN TRAFFIC

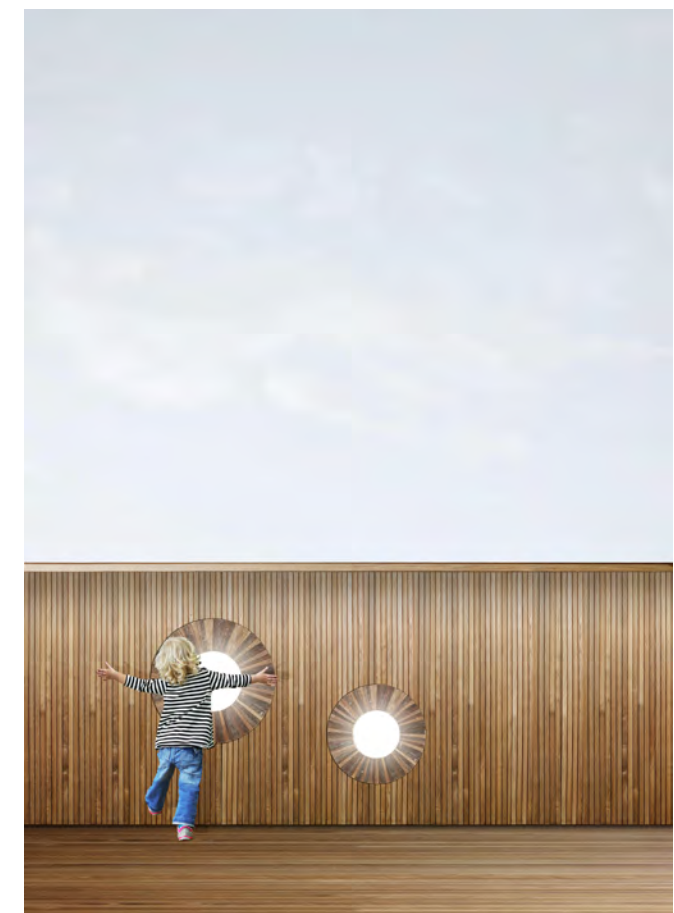
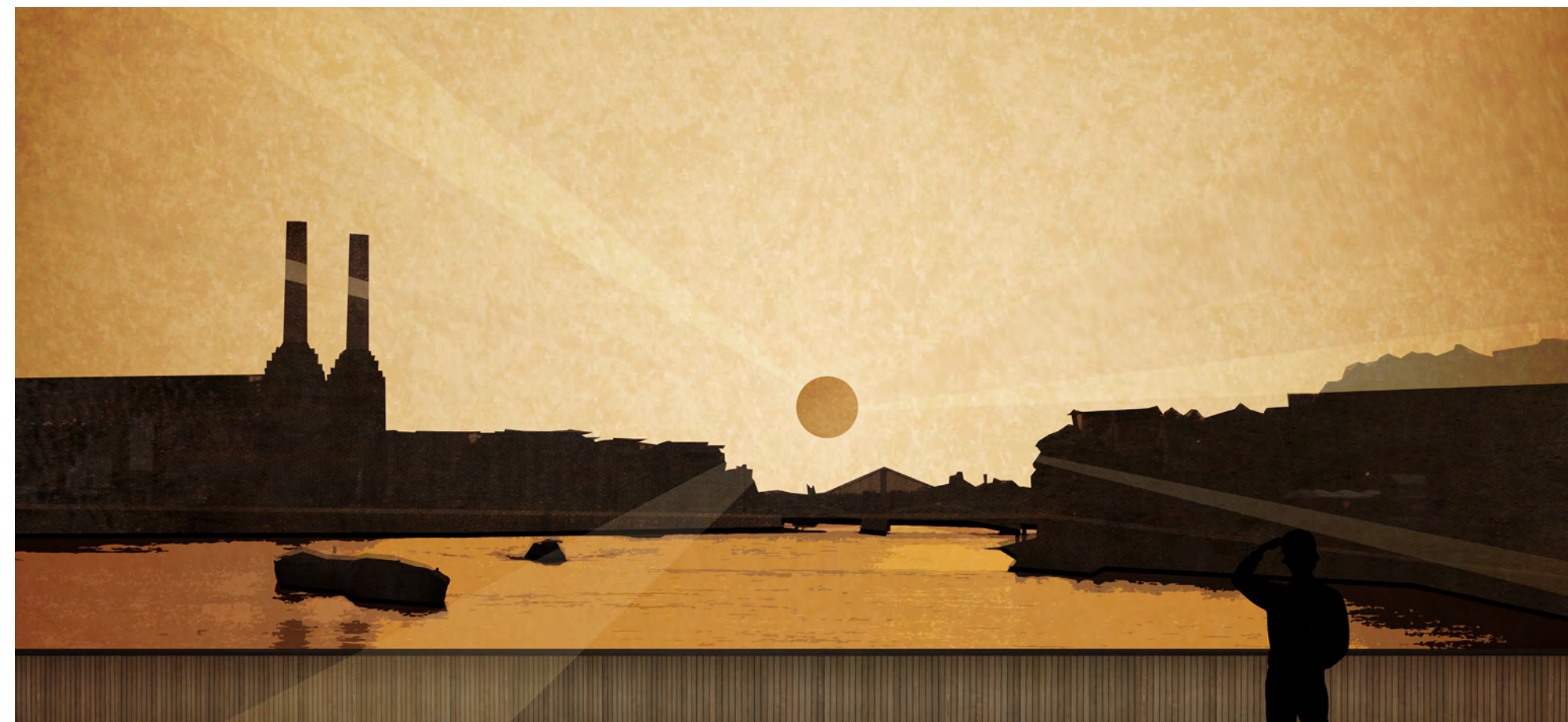
The Nine Elms Bridge is designed to integrate both cycle and pedestrian traffic in a shared space environment, with no physical barrier between two. We believe this provides for the most robust and efficient solution in a holistic understanding of the public space. However to increase safety and awareness we propose to delineate the cycle route in the form of colour, texture and materiality.

PLACE MAKING ACROSS THE BRIDGE AND ITS LANDING POINTS

The Nine Elms Bridge is more than a simple North South crossing of the river it is celebration of the passage over the great river and the views both upstream and downstream that are so quintessential to the London experience.

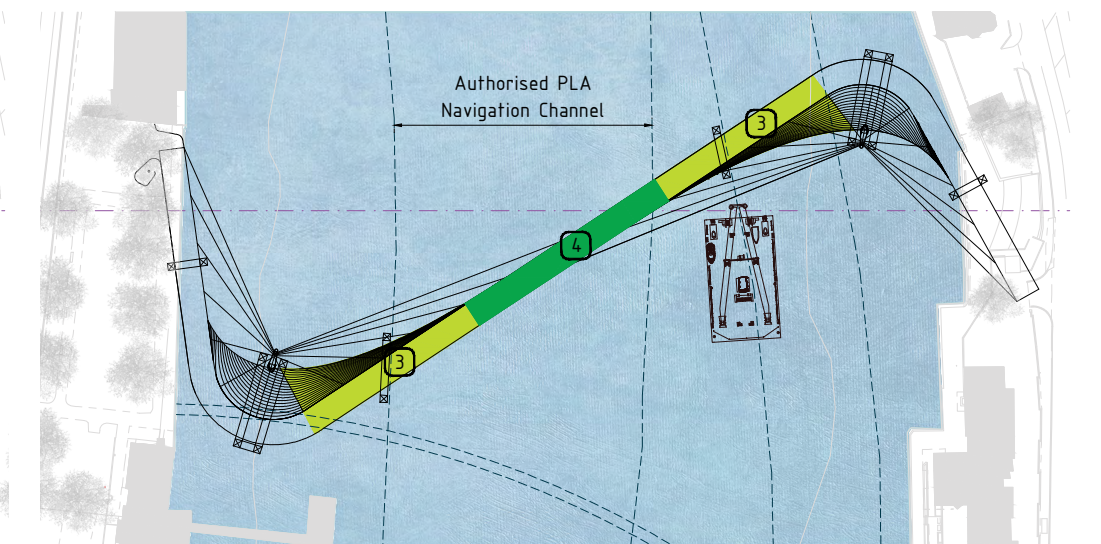
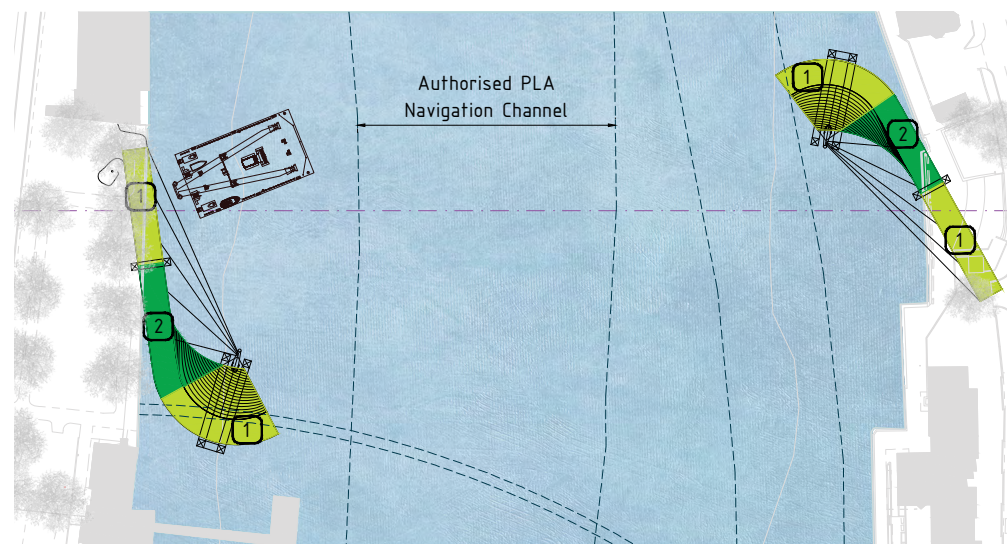
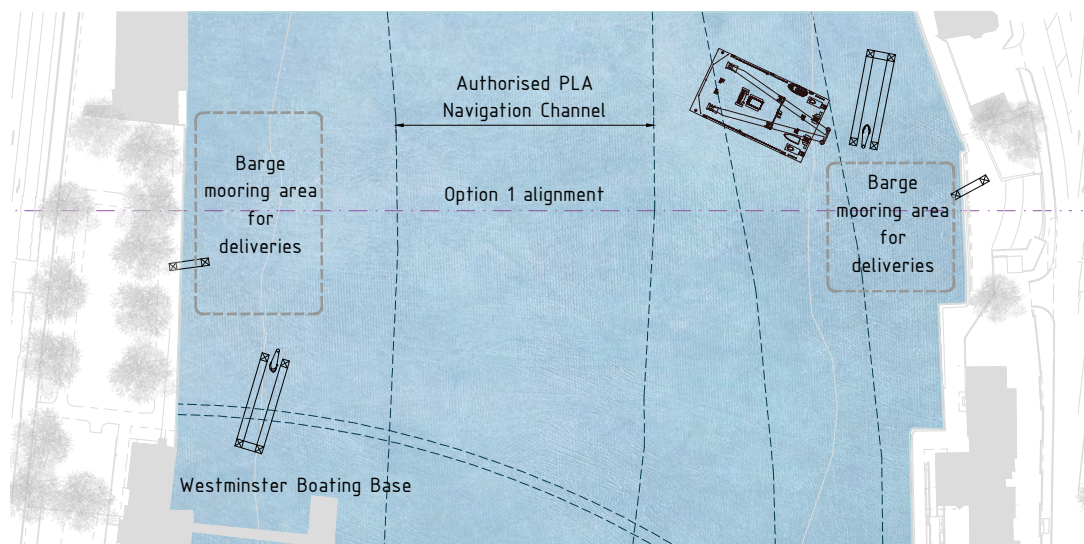
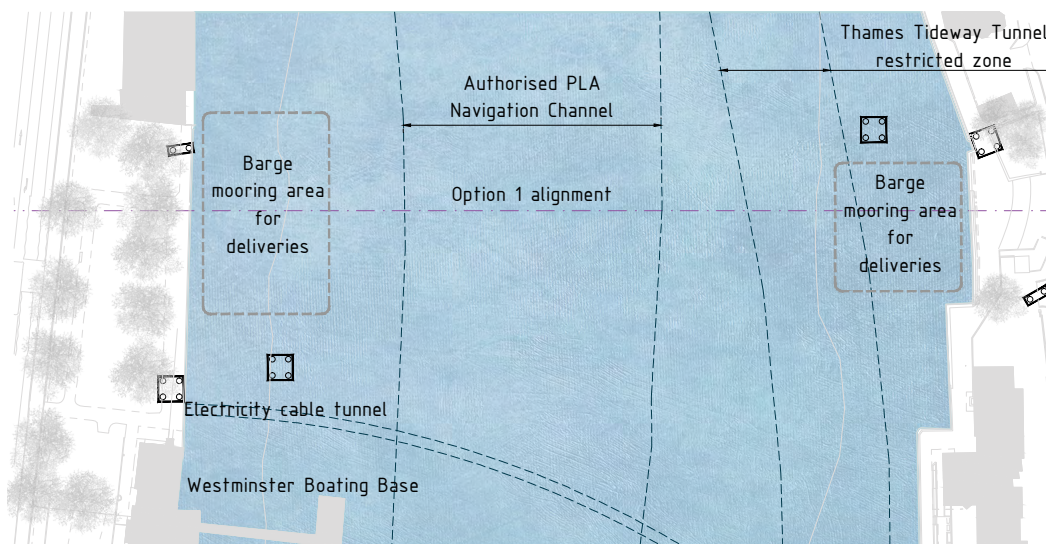
By its very geometry the bridge creates important public space out in the river itself. The two turns of direction focus the attention on first the upstream vista, westwards towards the Battersea Power Station and then East downstream to the skyline of the city itself. At each of these two focal points the edge of the bridge is terraced up in a series of timber steps to form a raised vantage point to enjoy the Pimlico sun setting over the Power Station or the Vauxhall sun rising from the City beyond.

Both of the embankments are restricted in size, therefore the bridge is designed to span out from its river supports to touch down lightly on to the landing points. Thus relieved of the need for bulky supporting structures the landing points can be developed to become urban public spaces with the bridge ramps as natural components. This is particularly important on the Northern landing where the existing trees are considered to be invaluable components in the green heritage of Pimlico, not to be disturbed by any means.



APPROACH TO CONSTRUCTION TO MINIMISE IMPACT ON RIVER TRAFFIC

- River transport will be used as much as possible for bringing materials to site due to limited space at landing areas.
- Temporary supports are shown in the river outside of the existing PLA authorised channel to minimise impact on river traffic. Work adjacent to the north bank will take place from the downstream side to avoid interference with the Westminster Boating Base's operations.
- Temporary and permanent foundations are placed to avoid both the Thames Tideway Tunnel restricted zone and underground electricity cable tunnel.
- Crane lifting capacity will be determined by headroom at downstream bridges but it is proposed to bring large sections to site ready fabricated to minimise on site welding and operations within the river. Deck sections will be lifted by crawler crane mounted on a jack-up barge or other suitable barge crane



1. Substructure work to take place at both landing areas and within the river. For piers in the river temporary cofferdams will be required. Once concrete piers, and any required scour protection are complete to above MFL level the cofferdams are removed.

2. Temporary supports installed for north and south approach ramps and adjacent to pylons with tubular steel piled foundations to river bed. Pylons transported to site via the river and erected using a barge mounted crane.

3. Back span deck sections transported to site via the river and erected on temporary supports using a barge mounted crane. Cables installed.

4. Temporary supports installed either side of PLA authorised channel with tubular steel piled foundations to river bed. Back span deck sections transported to site via the river and erected on temporary supports using a barge mounted crane. Cables installed and all temporary supports.



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