NINE ELMS - PIMLICO BRIDGE

007

Our proposal creates a new and unique landmark for London. An inclined mast is supported by two catenary cables from which main stays extend to support the outside edges of a steel bridge deck. The deck comprises a 4m wide central cycle lane, flanked by 2.5m footpaths on either side. Towards the south bank of the river, the deck bifurcates around the mast before reconnecting at high-level alongside Nine Elms Road. The resultant 'halo' hovers above a new civic space with terraced seating and planting, thereby encouraging users to sit, relax and enjoy views of the bridge, the River Thames and the Nine Elms development.

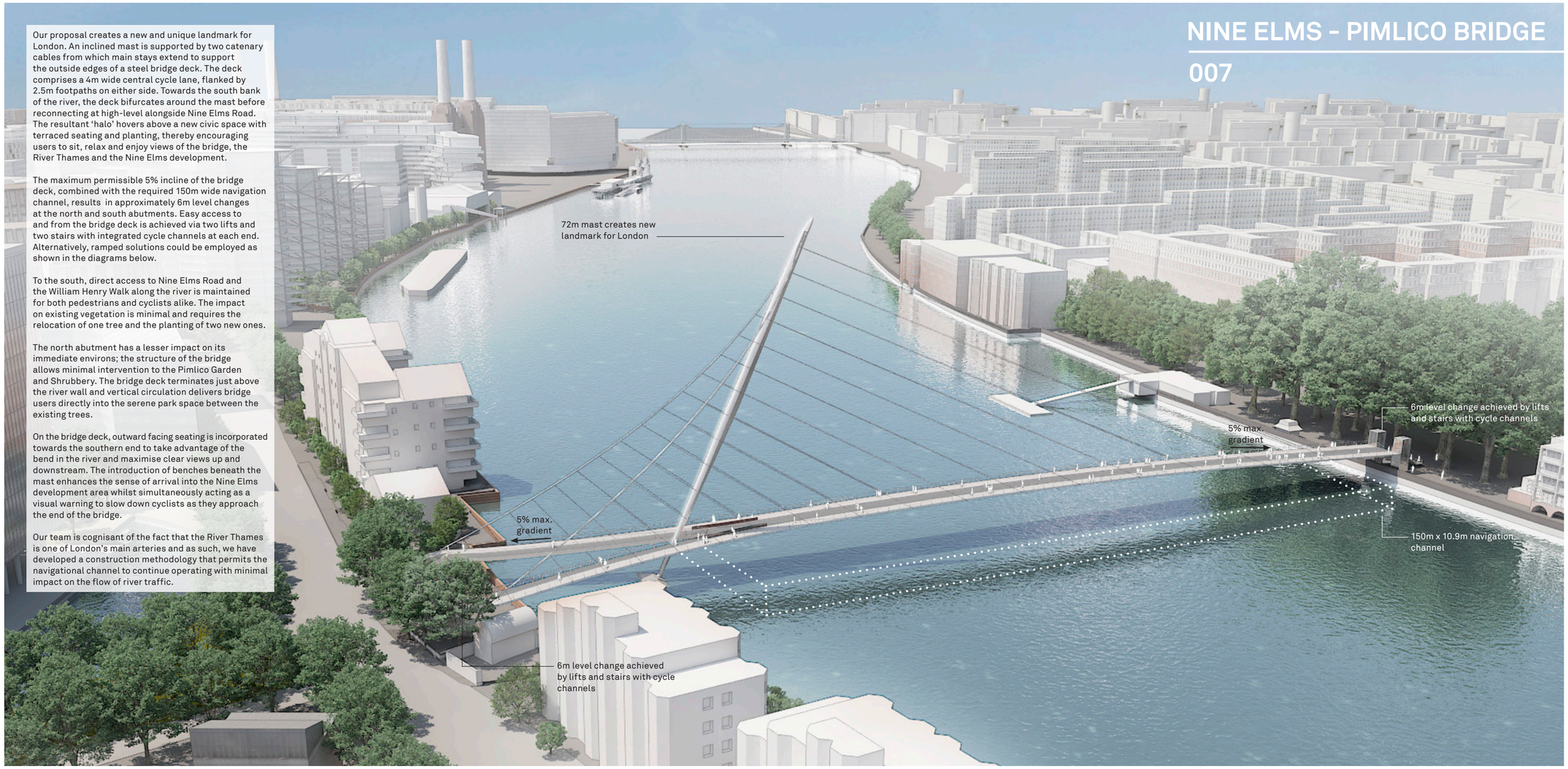
The maximum permissible 5% incline of the bridge deck, combined with the required 150m wide navigation channel, results in approximately 6m level changes at the north and south abutments. Easy access to and from the bridge deck is achieved via two lifts and two stairs with integrated cycle channels at each end. Alternatively, ramped solutions could be employed as shown in the diagrams below.

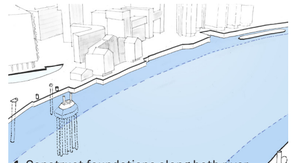
To the south, direct access to Nine Elms Road and the William Henry Walk along the river is maintained for both pedestrians and cyclists alike. The impact on existing vegetation is minimal and requires the relocation of one tree and the planting of two new ones.

The north abutment has a lesser impact on its immediate environs; the structure of the bridge allows minimal intervention to the Pimlico Garden and Shrubbery. The bridge deck terminates just above the river wall and vertical circulation delivers bridge users directly into the serene park space between the existing trees.

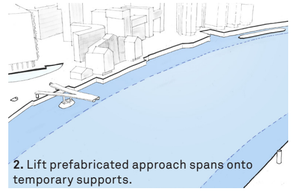
On the bridge deck, outward facing seating is incorporated towards the southern end to take advantage of the bend in the river and maximise clear views up and downstream. The introduction of benches beneath the mast enhances the sense of arrival into the Nine Elms development area whilst simultaneously acting as a visual warning to slow down cyclists as they approach the end of the bridge.

Our team is cognisant of the fact that the River Thames is one of London's main arteries and as such, we have developed a construction methodology that permits the navigational channel to continue operating with minimal impact on the flow of river traffic.

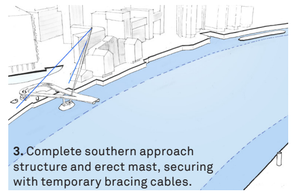




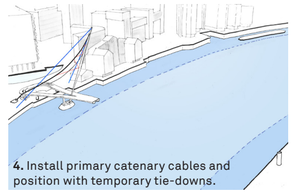
1. Construct foundations along both river banks as well as a single river support.



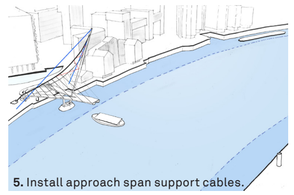
2. Lift prefabricated approach spans onto temporary supports.



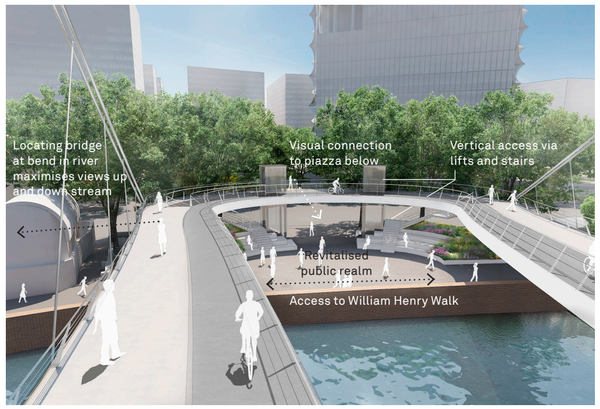
3. Complete southern approach structure and erect mast, securing with temporary bracing cables.

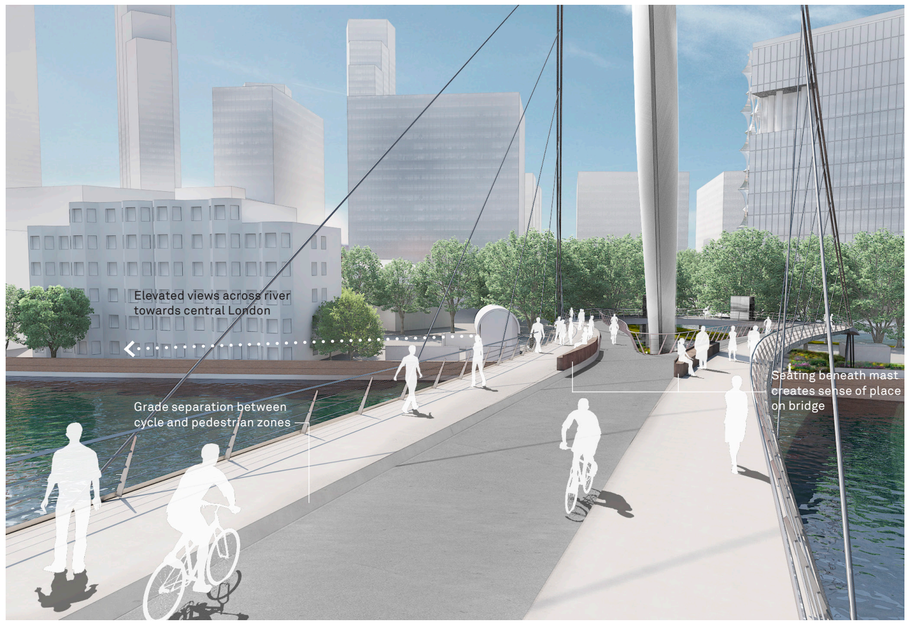


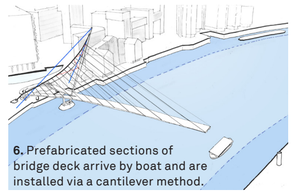
4. Install primary catenary cables and position with temporary tie-downs.



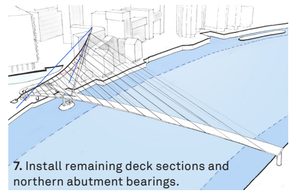
5. Install approach span support cables.



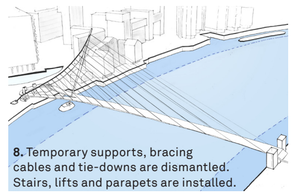




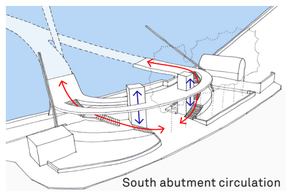
6. Prefabricated sections of bridge deck arrive by boat and are installed via a cantilever method.



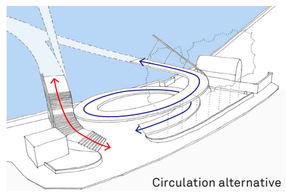
7. Install remaining deck sections and northern abutment bearings.



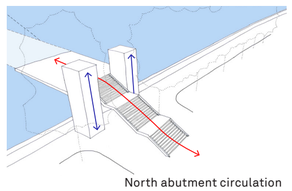
8. Temporary supports, bracing cables and tie-downs are dismantled. Stairs, lifts and parapets are installed.



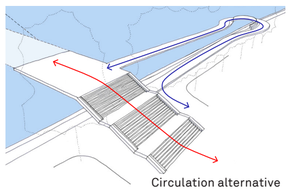
South abutment circulation



Circulation alternative



North abutment circulation



Circulation alternative