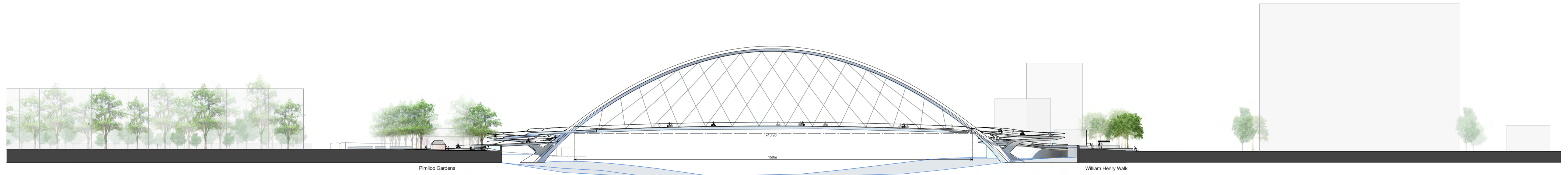


Creating a living piece of city - plan 1:750



An elegant line across the water - elevation 1:750

A crossing point and a place of enjoyment

By reconciling stasis and movement, the bridge re-energises and re-orders the public space both in Westminster and Wandsworth



The two landing points have their own character and relationship to the city and the community



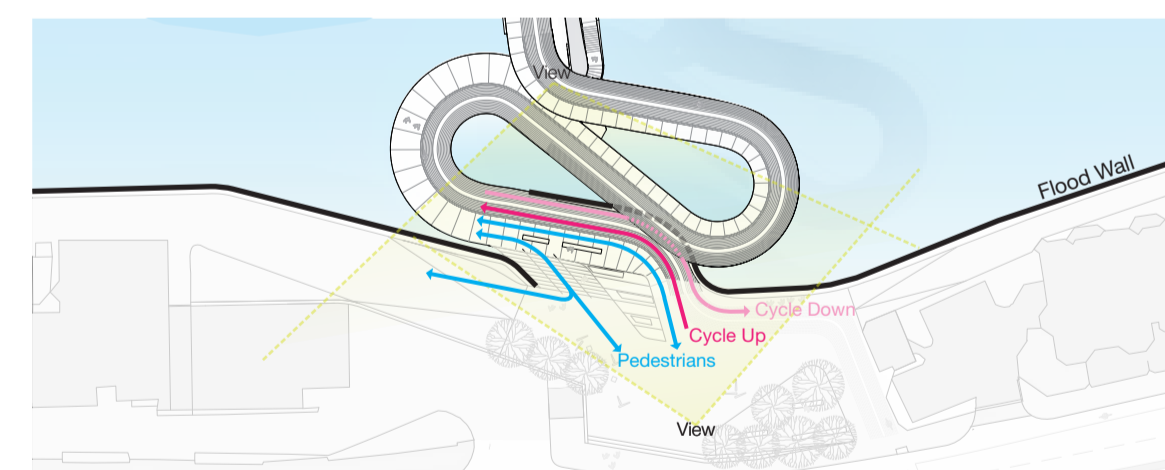
The structure and ramps are contained within the width of the river to preserve the open space. This approach can then be applied to any of the bridge locations under consideration

Sustainability

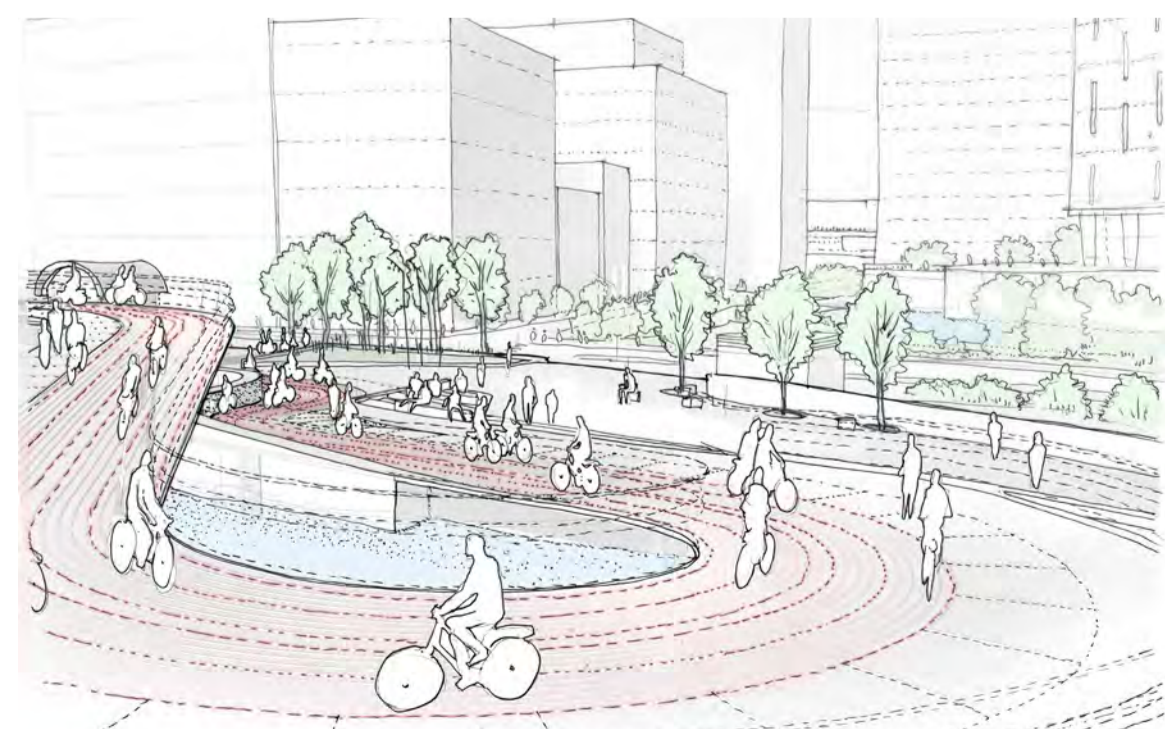
A simple arch structure requires only one set of foundations at each end, significantly reducing the embodied carbon energy of the bridge

The arch reduces construction time in the river with minimal disturbance to wildlife habitats

Integrating the flood wall

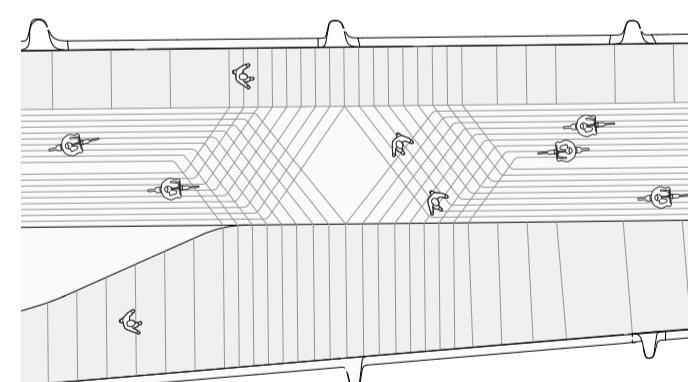


The integration of the flood wall into the bridge negates the need to oversail the wall, creating a sense of openness and high visibility



As a result we are able to provide a 1:21 gradient access and negate the need for lifts, creating safe passage for all

Integration of cycle and pedestrian traffic



min 2m pedestrian path
4m cyclist path
min 2m pedestrian path

The provision of a shared surface allows free movement for pedestrians during non-peak times both on the bridge and the landings. Routes are delineated using a distinct patterned surface created using a composite regularly used on yachts and ocean liners, nonslip and highly durable

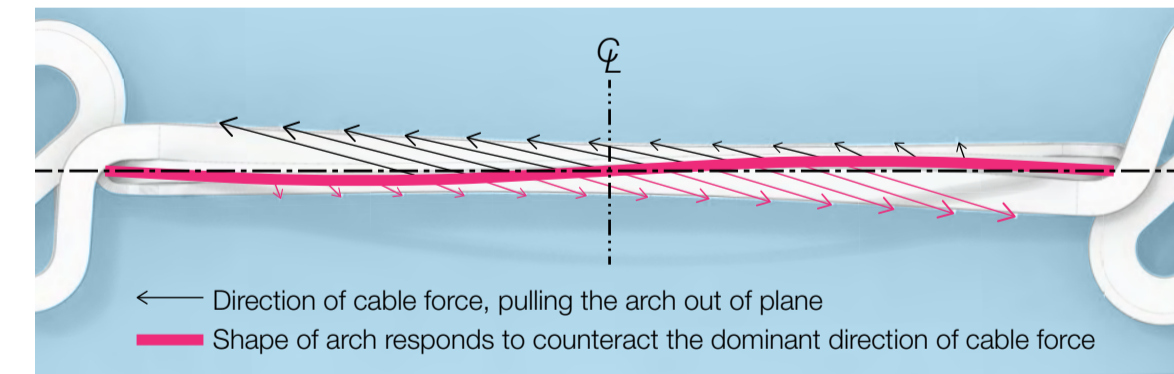
Points where pedestrians and cyclists meet are highlighted by a crossover of the pattern, with a textured surface slowing cyclists and increasing safety



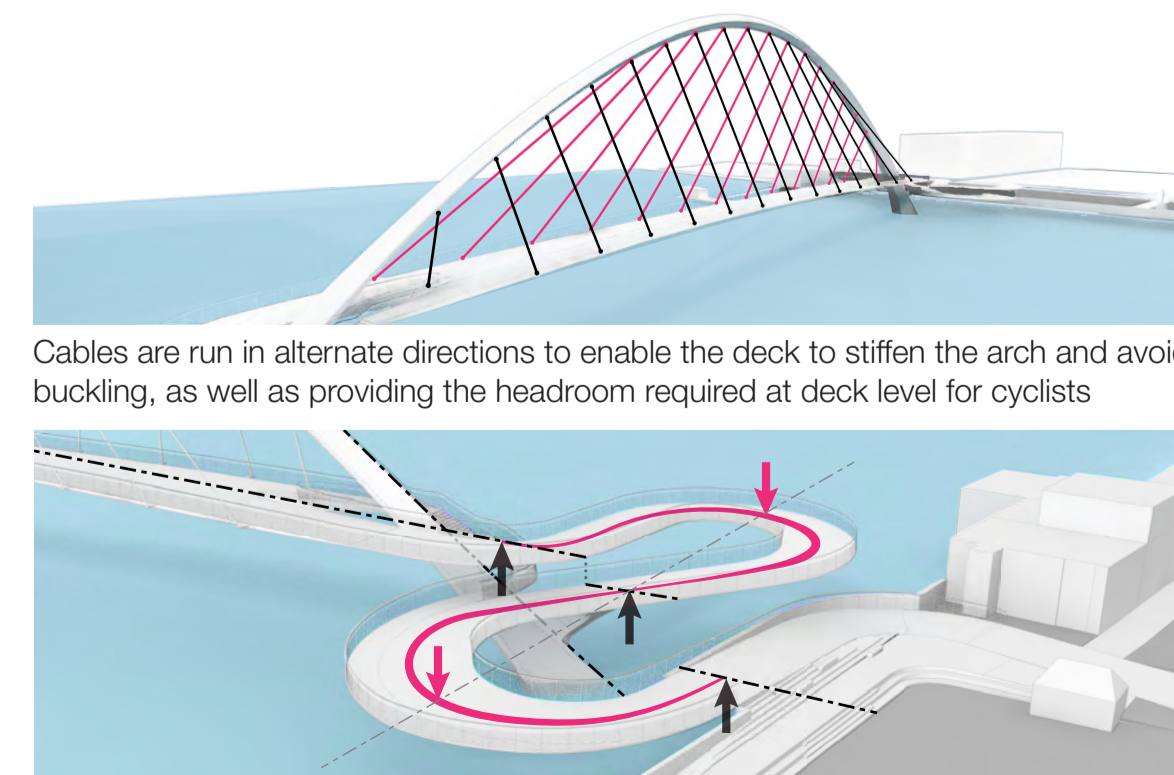
A unified patterned surface, free of kerbs and bollards creates a generous pathway over the Thames that feels safe and segregated during peak times

Innovative structural solutions

The innovative structural solution of a tied arch bridge maximises structural efficiency. Built using a phased construction process to minimise disruption, it benefits from off-site fabrication and fast installation of the main span



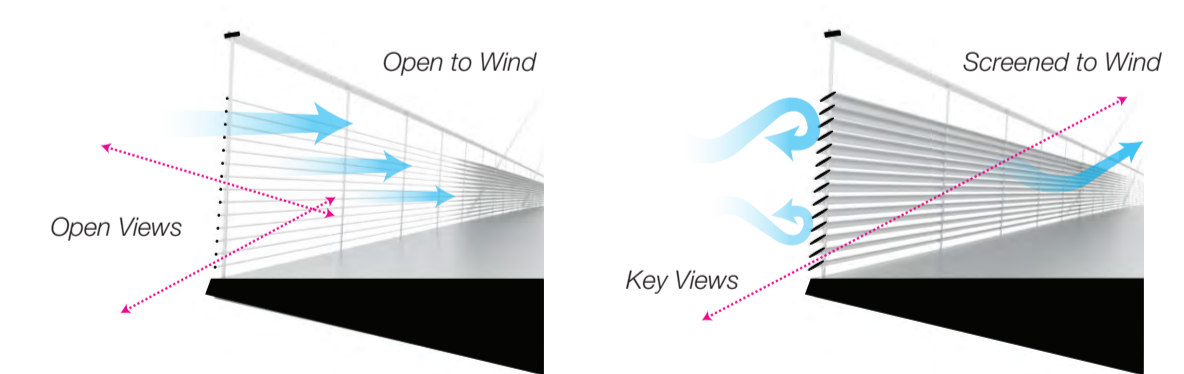
Form finding of the arch has allowed the shape to be optimised under permanent loads, both in plane and out of plane



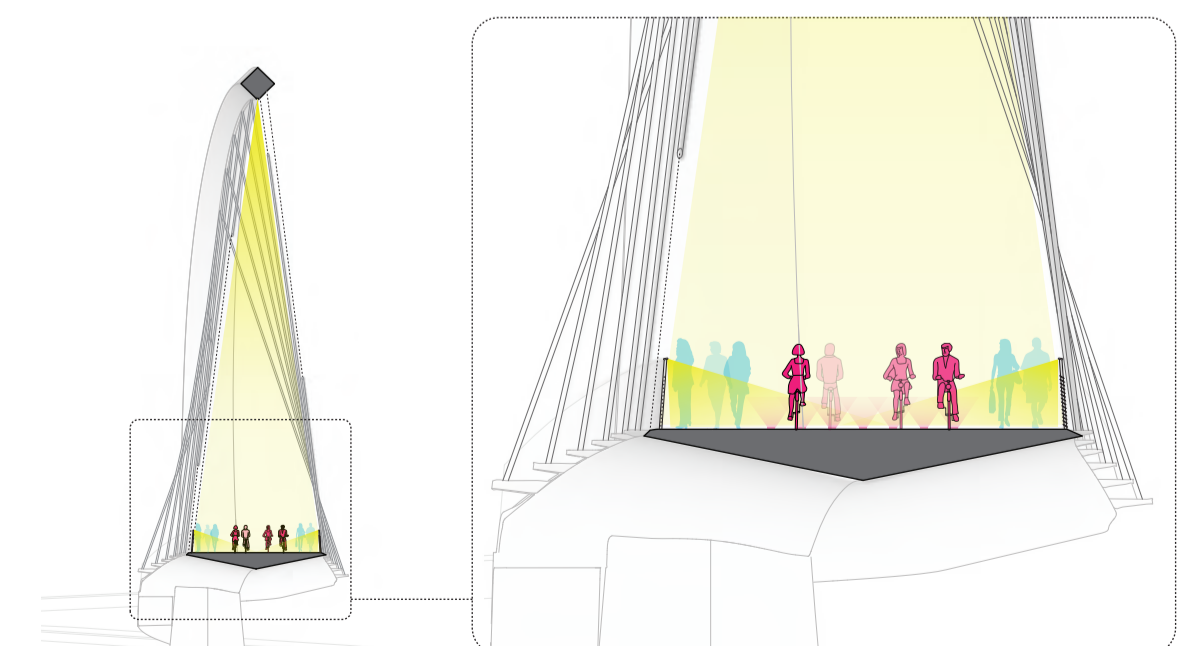
Through the use of a torsion beam, the ramps at either end are carefully proportioned to balance the loads and are simply supported by the central arch pier

Prevailing wind mitigation

A southwesterly prevailing wind may require some form of mitigation in a balustrade providing 50% protection. In these locations, the balustrade would blend into a louvred system at an angle optimised so it appears transparent when viewed from the banks



Lighting



A minimal LED lighting system with a strip that follows the underside of the arch to halo its simple form. The deck is lit via high powered LEDs from under the handrails. The pattern within the deck will glow in the dark using a lining that absorbs light during the day and releases it as it gently glimmers at night avoiding any hazards on the deck.



Respecting and enhancing the existing character of Pimlico Gardens

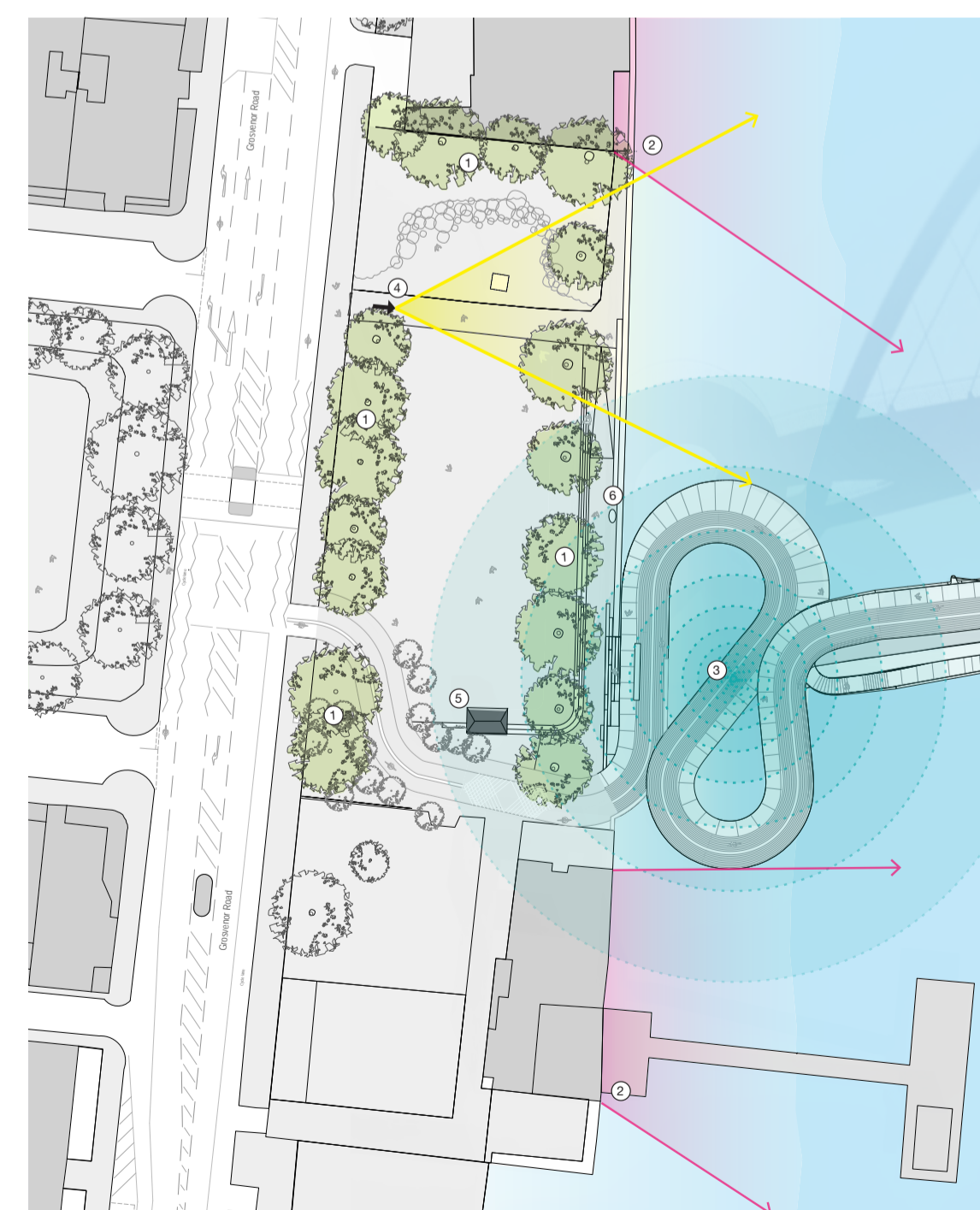
Plan of north landing 1:500

The character of the north landing

- Our design remains true to the original character of Pimlico Gardens as a simple and elegant waterfront garden
- The precious sense of openness and proportional relationship to the breadth of St. George's Square is amplified by extending the green to the edge of the garden, reinforcing the historic precedent of a garden square opening out on to the Thames
- The greenery of Pimlico Gardens is foregrounded and the arch of the bridge becomes an elegant sweep in the background, with gently rising ramps in your peripheral vision to the west
- Its character remains tranquil and open with all trees preserved
- The new landscaping and existing trees frame an axial vista of the water that can be enjoyed from the northern end of the square, and the spire of St. Saviour's Church offers a visual counterpoint to the vertical structures of the bridge
- No part of the structure of the bridge touches the Gardens due to the cantilevered geometry of the ramps, becoming as imperceptible as possible with no vertical columns to impede views
- Cyclist access through the Gardens is discretely kept to the western edge in order to retain the fullest extent of the gardens as a green space for residents
- The bridge is sensitively located to ensure there is no adverse impact on any views from existing and proposed adjoining residential buildings or the Westminster Boating Base — and in so doing, minimises any noise impact

Re-ordering the public space

- The Helmsman, a bronze statue by Andre Wallace (1996) has been repositioned to a more prominent position along the new waterfront — the little boat will playfully peep above the wall
- The existing garden cottage has been relocated and integrated into the new composition in dialogue with the John Gibson's marble statue of 1836 of William Huskisson MP and to increase its visibility as you enter or exit the Gardens



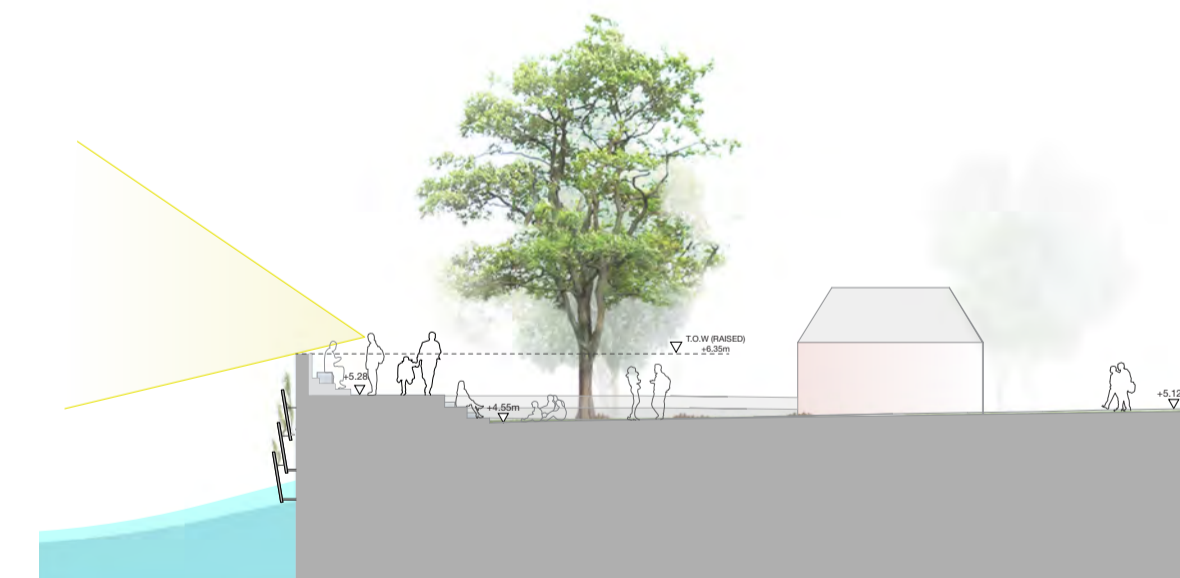
1. Preserving existing trees
2. Minimising impact on residents' views
3. Minimising noise impact
4. Retaining open views
5. Repositioning of garden cottage
6. Repositioning of the Helmsman statue

Re-establishing a visual connection to the Thames

- We compensate for the proposed 400mm increase to the flood wall to re-establish visual connections to the river by creating a raised deck that runs along the wall
- The deck is realised as a lightweight structure that delicately sits above the landscape away from tree roots
- A flight of steps negotiates the river wall and connects the raised walk to the bridge without breaching its capacity as flood defence, feathering out into an inviting bench for residents to stop and look back down the long vista towards St Saviour's Church

Integrating pedestrians and cyclists

- Prioritising one entry and pathway in Pimlico Gardens for pedestrians to the east and one entry for cyclists to the west ensures that the Gardens remain an area of tranquillity, with an expanded central green for the local community
- Two gentle turns slow the cyclists on approaching the Gardens exit and ensures they can safely cross Grosvenor Road without traffic controls on St George's Square
- This exit is purposely located to encourage cyclists to stay on Grosvenor Road and not venture down the quiet residential streets of St George's Square
- A traffic light controlled exit enables cyclists to safely enter the buffer zone, with dropped kerbs and granite set finish helping accentuate a sense of awareness
- A buffer zone across Grosvenor Road allows for the safe movement of cyclists and pedestrians simultaneously while ensuring minimal delays to vehicular traffic
- This careful organisation allows for cyclists travelling along Grosvenor Road in both directions to turn into the Pimlico Gardens whilst the buffer zone is in use, while allowing pedestrians to cross the road as cyclists gather in the buffer zone



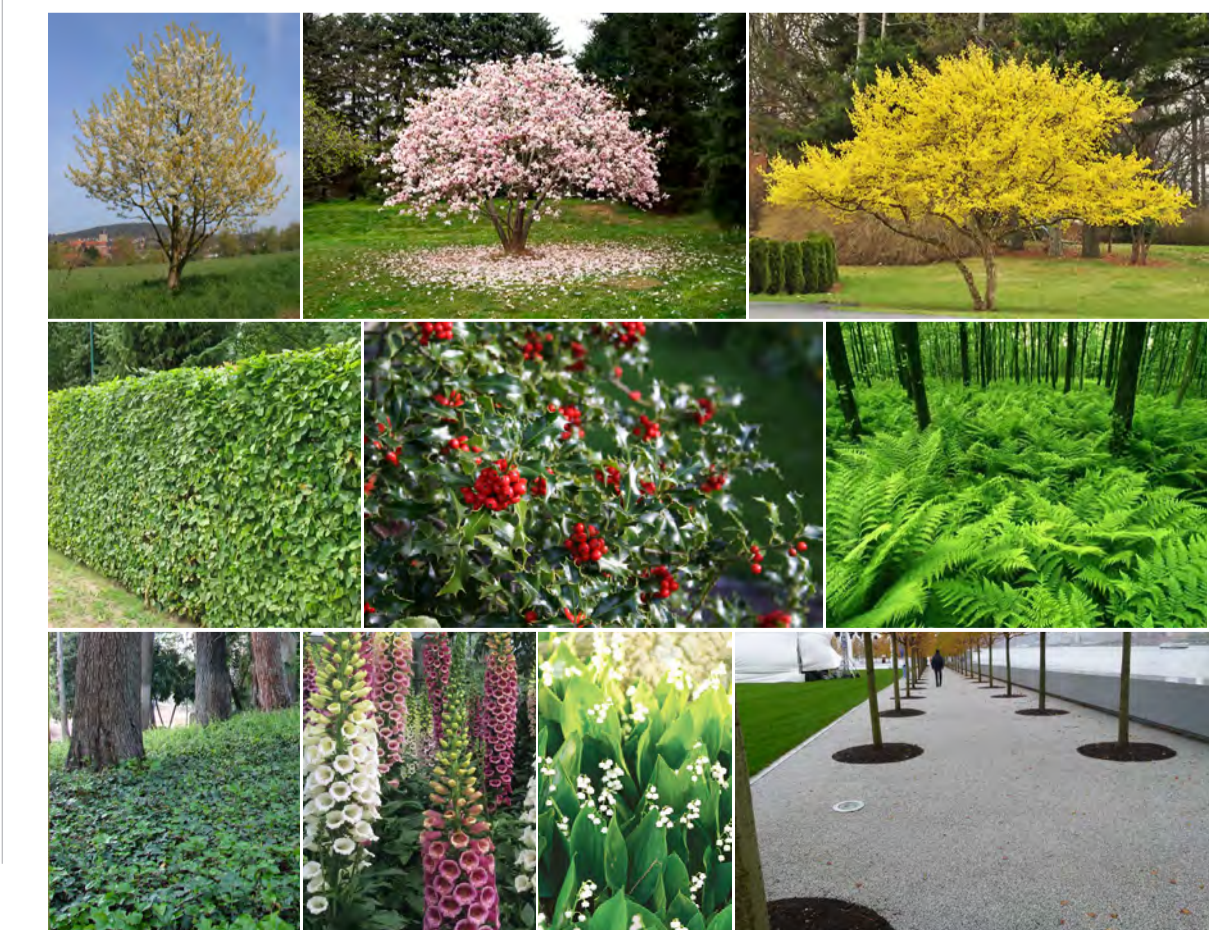
Section of deck re-establishing view above the raised flood wall to Thames



Pedestrian view on entering Pimlico Gardens from the east

Landscaping and biodiversity

- The original lay-out and spatial structure of the garden, defined by a central rectilinear lawn enclosed by two rows of majestic London Plane trees, has been maintained
- Proposed additional planting will increase the experience of the seasons e.g. spring blossom, summer flower and autumn colour and increase the Gardens' biodiversity and to become beneficial for wildlife that have a nectar source, seeds and pollen for foraging invertebrates and birds
- New plantings include small multi-stemmed trees, shaded groundcover woodland garden around the Huskisson statue, a new hedgerow between the garden and adjacent Westminster Boating Base, and the inclusion of bulbs scattered in abundance in the central lawn





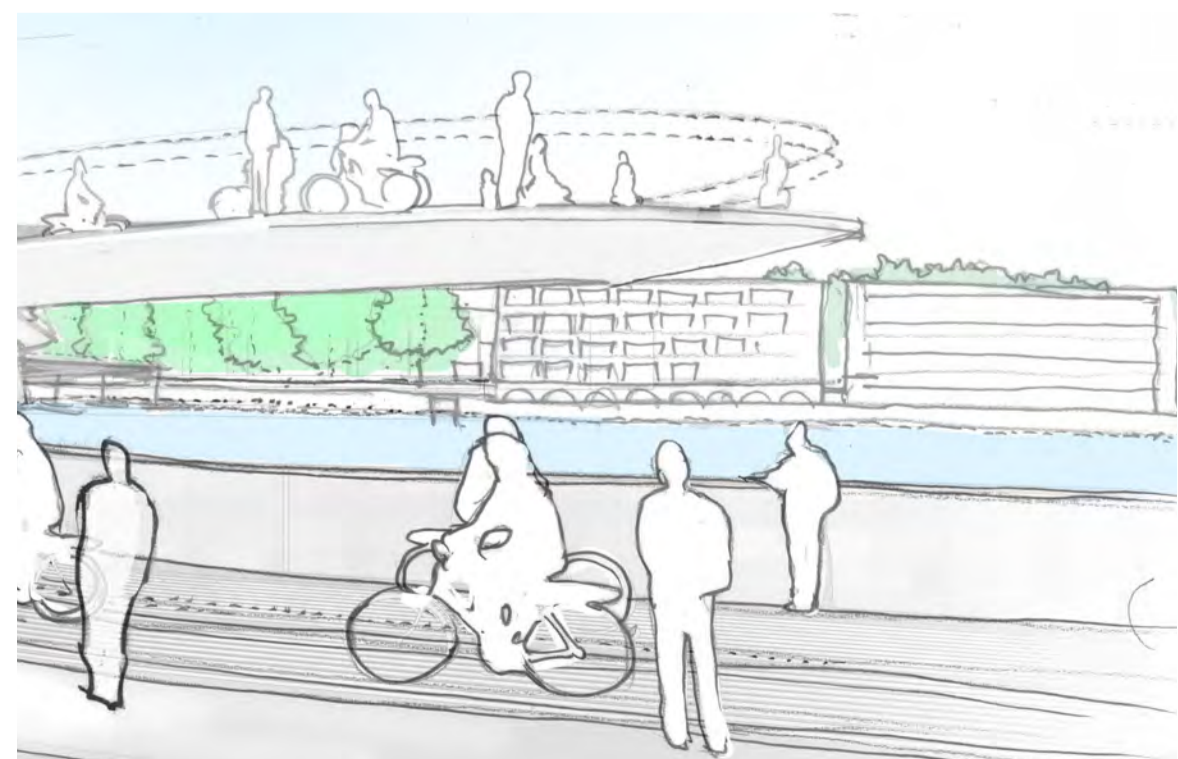
Plan of south landing 1:500



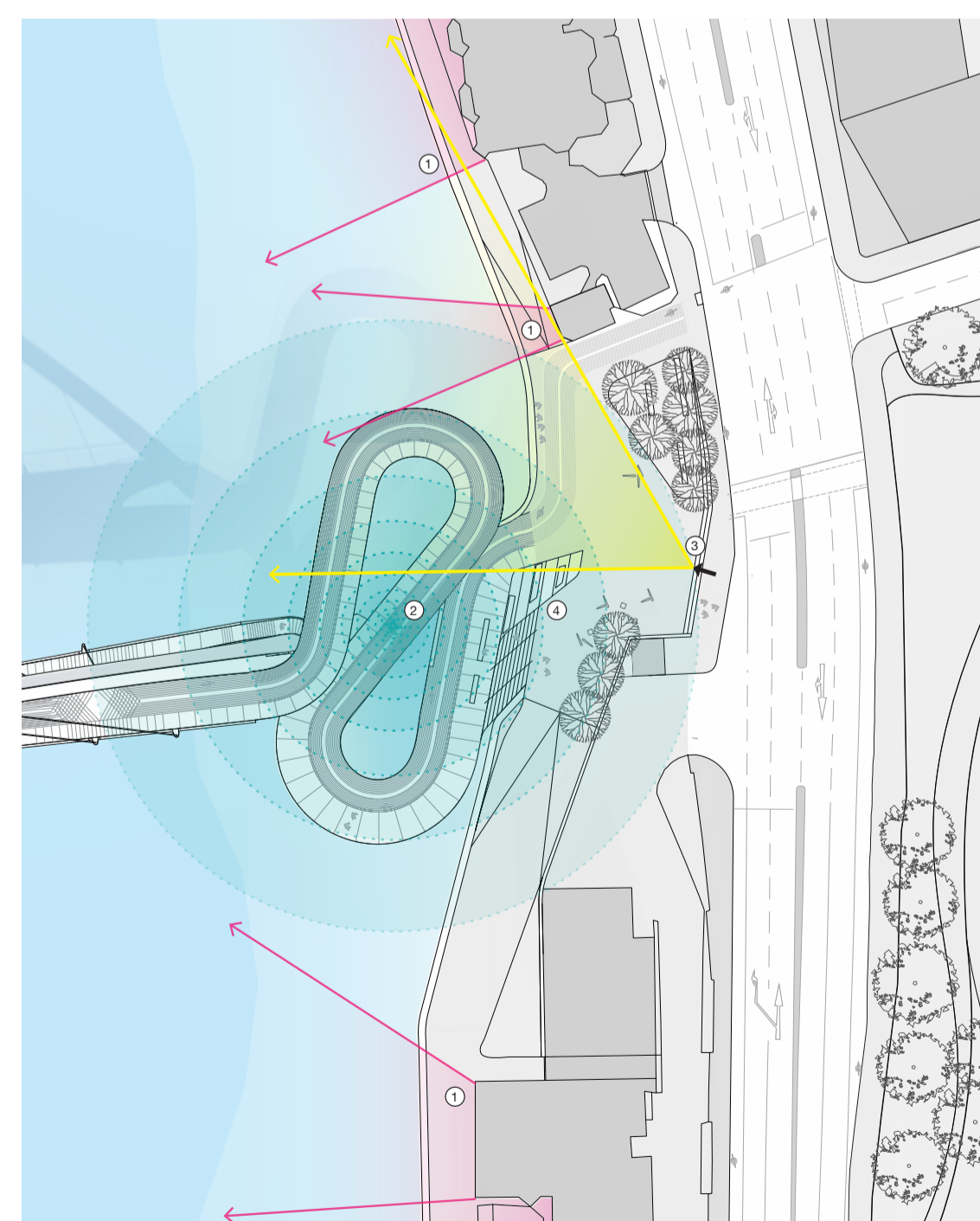
Creating an exceptional public space with nine elm trees

The character of the south landing

- The south bank landing is an active area that needs to respond to its more lively aspect of Nine Elms Lane, the US Embassy and surrounding office buildings
- It is also a place designed to feel like it belongs to the residents and local community, with both groups benefitting from this area of enhanced amenity
- The bridge is brought into the foreground in contrast to the north, although the slenderness of the cantilevered ramps maintains great views across the river to the north
- The sense of public realm is heightened and extends onto the bridge
- Stepped seating acts as a belvedere and extends into the design of the riverfront creating a new urban promenade along the Riverside Walk and a small plaza
- The plaza is a place for residents and the urban commuters to sit in the sun in a relaxed atmosphere and with dramatic views back towards the US Embassy
- The bridge is sensitively situated to ensure views from adjoining neighbours are unaffected and noise impact is minimised



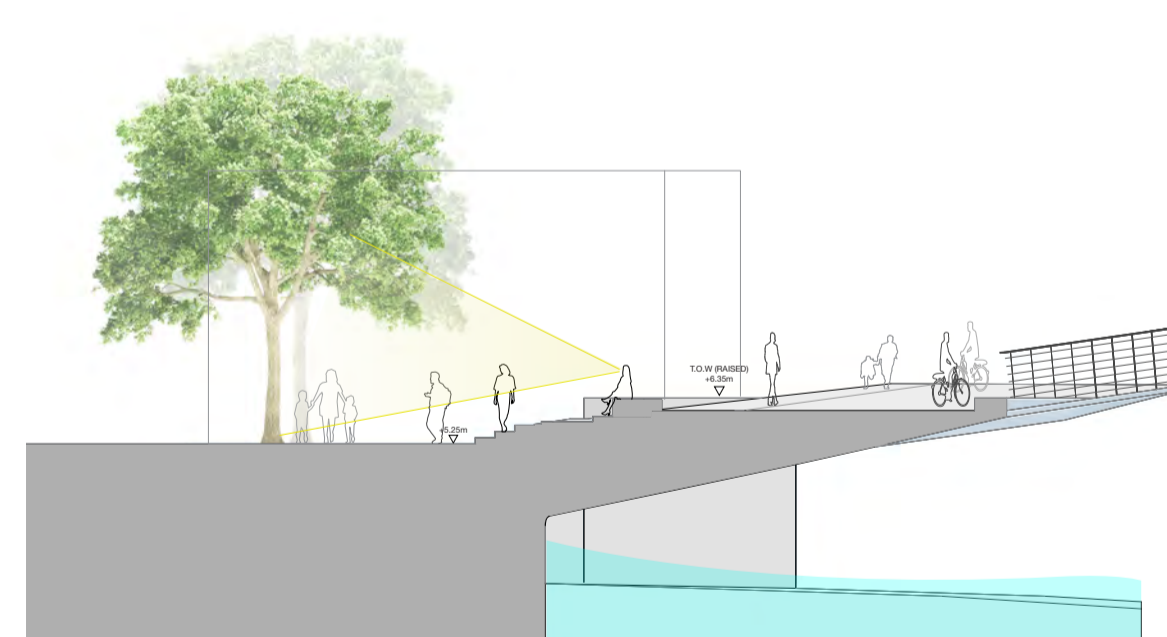
View of the north bank



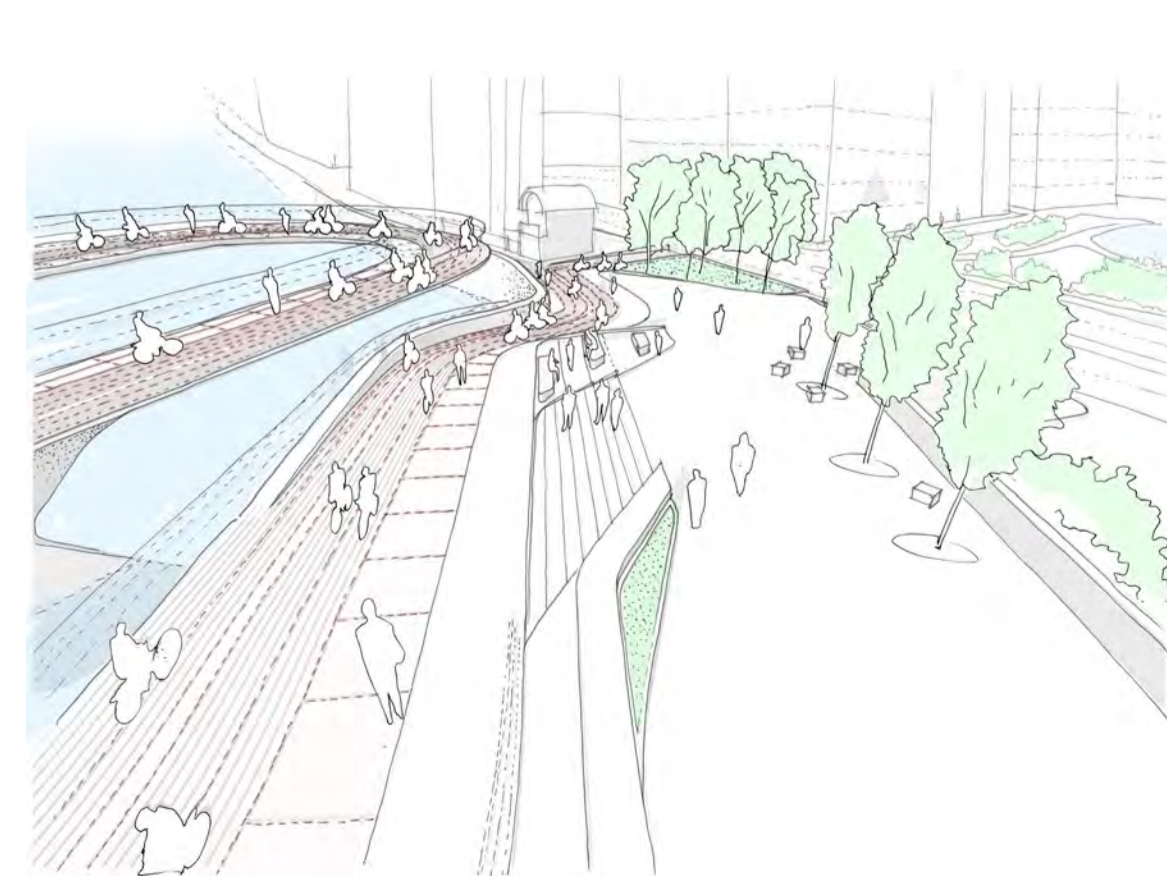
1. Minimising impact on residents' views
2. Minimising noise impact
3. Retaining open views
4. Creating a seating area

Integration of pedestrians and cyclists

- The design mediates between the local and the increased traffic, not only across the bridge but along the riverside walk, resulting in an intuitive integration of pedestrians and cyclists
- Circulation responds to the new urban promenade along William Henry Walk and understands the needs to simplify multiple circulation patterns to minimise crossing points while creating routes
- The western entrance of the William Henry Walk is widely used by cyclists even though it is designated as a no cycling zone — this is prohibition is reinforced by ensuring a safe cycle route is provided to encourage cyclists to continue along Nine Elms Lane till they reach the designated turn off to access the bridge
- Pedestrian access is provided to the west of the landing, creating a bike-free zone and providing unencumbered access from those walking along the Riverside Walk and those crossing Nine Elms Lane
- The pedestrian area leads into the riverwalk, which is not simply maintained but rather enhanced to become a new urban promenade
- The seating steps integrated into the bridge purposely expand into the promenade to not only extend the public space onto the bridge but also to push pedestrians away from the bridge's cycle exit and towards a designated crossing point
- Thus a single safe and highly visible crossing point where pedestrians and cyclists intersect is created
- A similar buffer zone to the north is created allowing for safe movement for cyclists and pedestrians simultaneously, while ensuring minimal delays to vehicular traffic on Nine Elms Lane



Section of belvedere that leads to a new urban promenade



View of open plaza for appropriation by the public

Landscape and biodiversity

- The landscape is predominantly hard, softened with new moments of green strung along the riverfront
- Nine elm trees are planted as a reference to the original row of elm trees dating as far back as 1645 when Nine Elm Lane was named
- The paving is composed of basalt stone; the surface of the bridge extends through this paving creating a dynamic alignment facilitating orientation and direction of movement between pedestrians and cyclists
- Wooded slatted terraces attached to the river wall, at varied levels to the tidal range, will provide a range of a wetland habitats of varied character on both sides of the river along with improved biodiversity on the two banks.

