

The Diamond Jubilee Footbridge connecting Battersea & Fulham

3rd February 2012

one-world design 

Battersea & Fulham pedestrian and cycle bridge, London

- **need & location**
- **new bridge design**
- **funding opportunities**
- **a way forward**

need and location

riverfront renaissance



Large residential & mixed use developments

Major public destination

Riverside taxi and hotel access

Major transport link

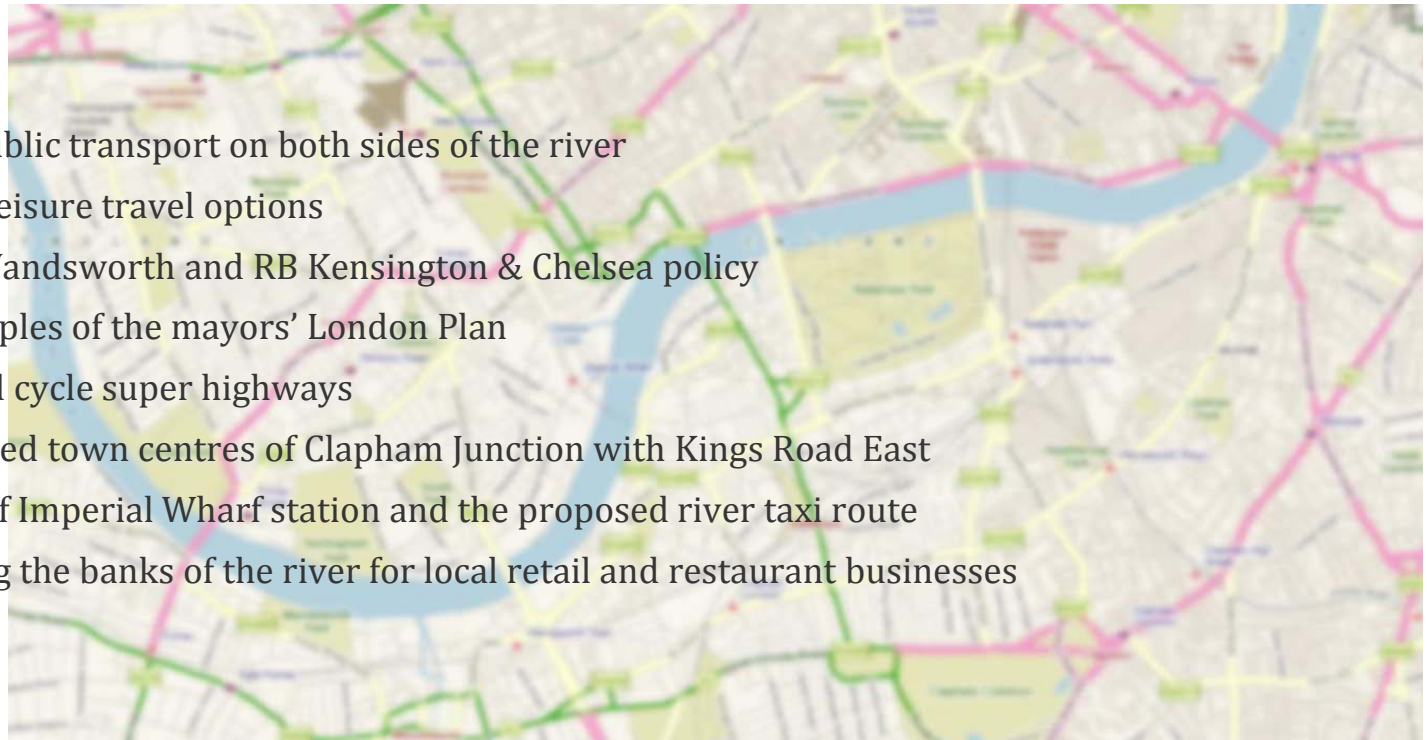
Main pedestrian and cycle routes

Future river taxi location

the need for new connection

A new bridge link will:

- allow people to access public transport on both sides of the river
- improve commuter and leisure travel options
- be in line with both LB Wandsworth and RB Kensington & Chelsea policy
- be in line with the principles of the mayors' London Plan
- link the Thames Path and cycle super highways
- connect London designated town centres of Clapham Junction with Kings Road East
- increase the catchment of Imperial Wharf station and the proposed river taxi route
- increase the footfall along the banks of the river for local retail and restaurant businesses



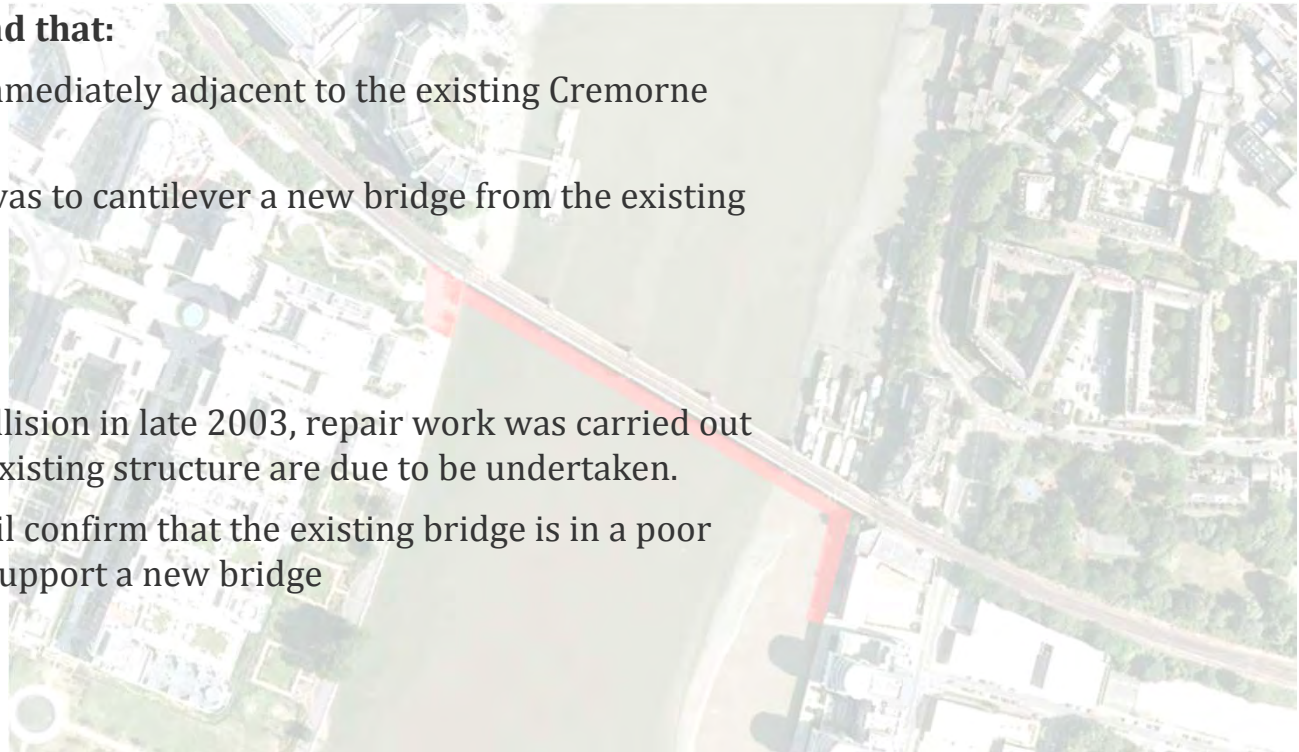
the location

The 2003 feasibility study found that:

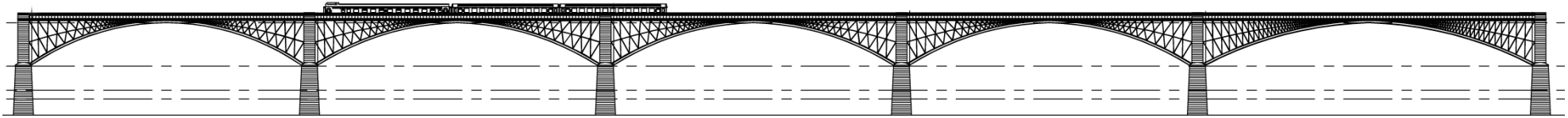
- the preferred location was immediately adjacent to the existing Cremorne railway Bridge
- the preferred design option was to cantilever a new bridge from the existing railway bridge

Since then:

- following the refuse barge collision in late 2003, repair work was carried out and further upgrades of the existing structure are due to be undertaken.
- discussions with Network Rail confirm that the existing bridge is in a poor state of repair and it cannot support a new bridge

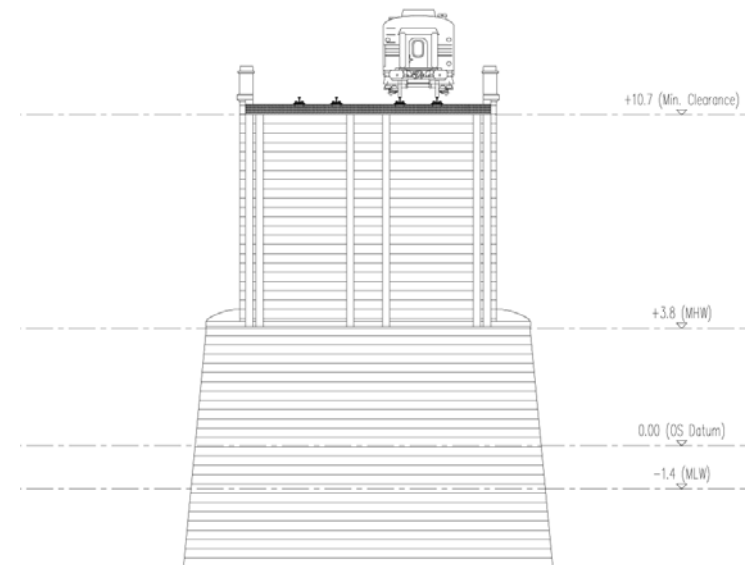


the existing bridge



Existing railway bridge elevation

- the Grade II* listed structure called the Cremorne Bridge, built 1861, consists of five 154ft (47m) lattice girder arches set on stone piers
- technically a viaduct it is also known as the Battersea Railway Bridge, Chelsea River Bridge and Engineers Line Reference WLL Bridge No. 9.
- trains crossing the bridge are subject to speed restrictions, locomotive-hauled traffic is restricted to 20mph, all other traffic is limited to 30mph which means that vibration and noise are limited
- owned and maintained by Network Rail



Existing railway bridge section



considerations

statutory

- Special possessions from Network Rail for construction access.
- temporary Span closure arrangements with the Port of London Authority
- effects on any sensitive environment areas such as Chelsea Creek and the foreshores of the River
- Restrictive covenants, new developments along the riverbank may restrict alignments.
- Grade II* listed structure
- Highways Agency BA 41/98 (The design and appearance of bridges) BD 29/04 (Design criteria for footbridges)

physical

- minimum clearance of +10.7mAOD
- access, the establishment of landing points and connection to the local transport network.
- must allow clear navigation through spans 1 to 4 of the railway bridge (the PLA may consider restrictions near the river banks).
- maintain flood protection
- future Environment access for repair work to the river walls.
- **The proposed structure can not depend upon support from the existing bridge**

new bridge design

concept

'the bridge is a thing of its own kind; for it gathers the fourfold in such a way that it allows a site for it. But only something that is itself a location can make space for a site. The location is not already there before the bridge is..'

'Thus the bridge does not first come to a location to stand in it; rather, a location comes into existence only by virtue of the bridge.'

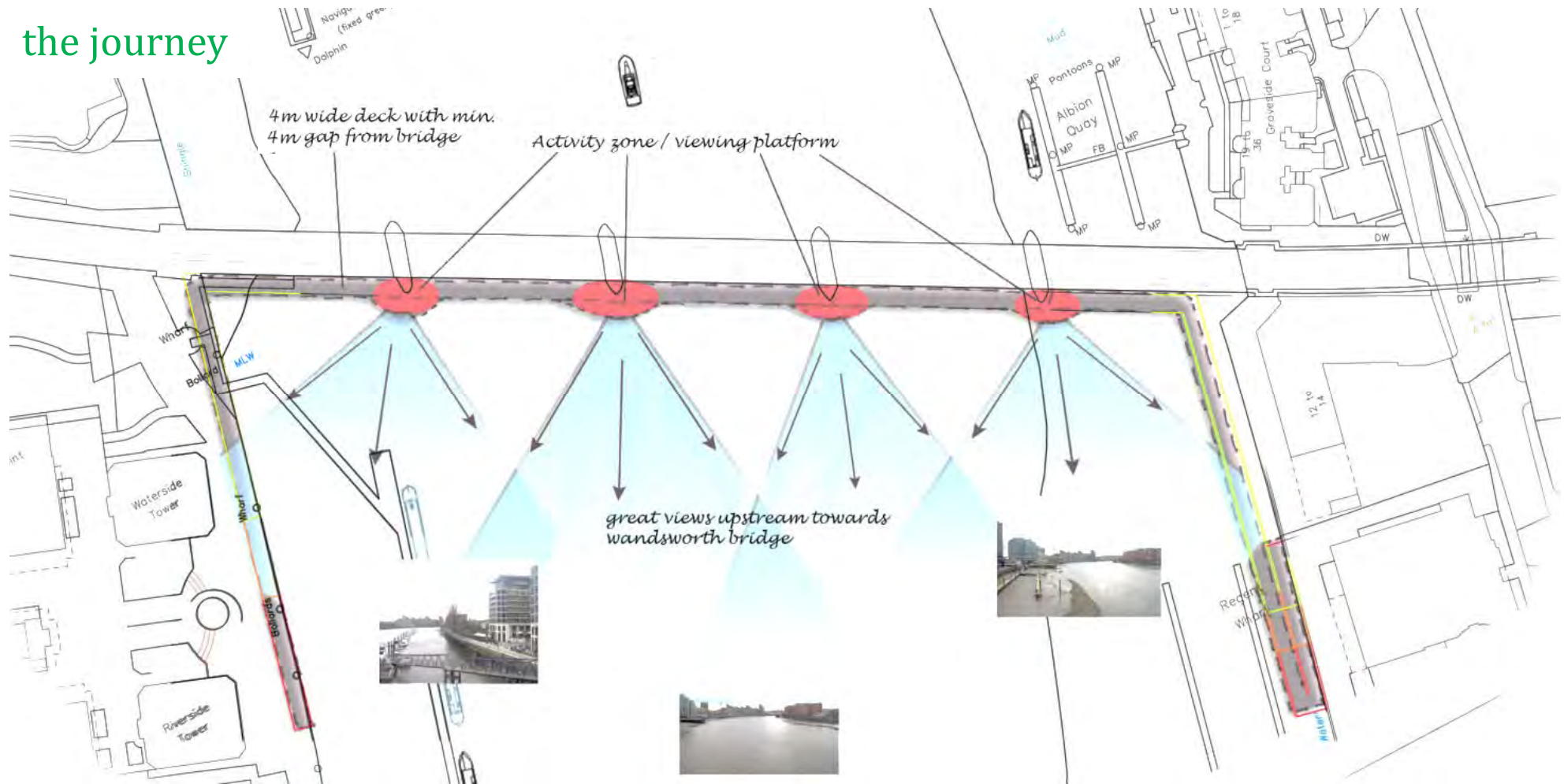
Building Dwelling Thinking, Martin Heidegger, 1971

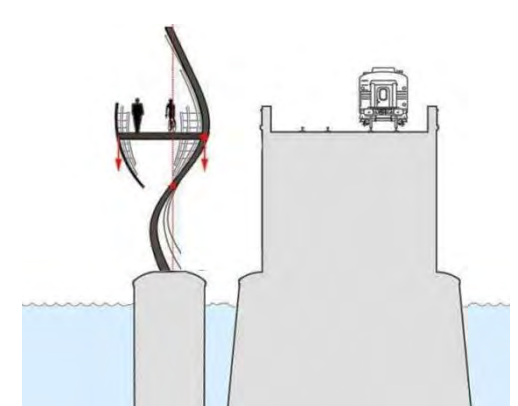
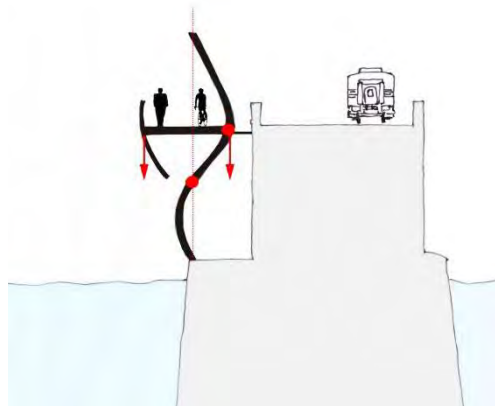
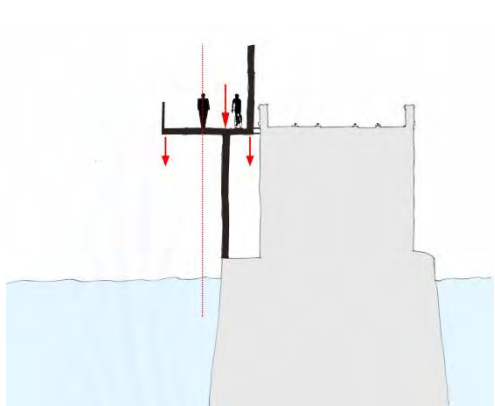
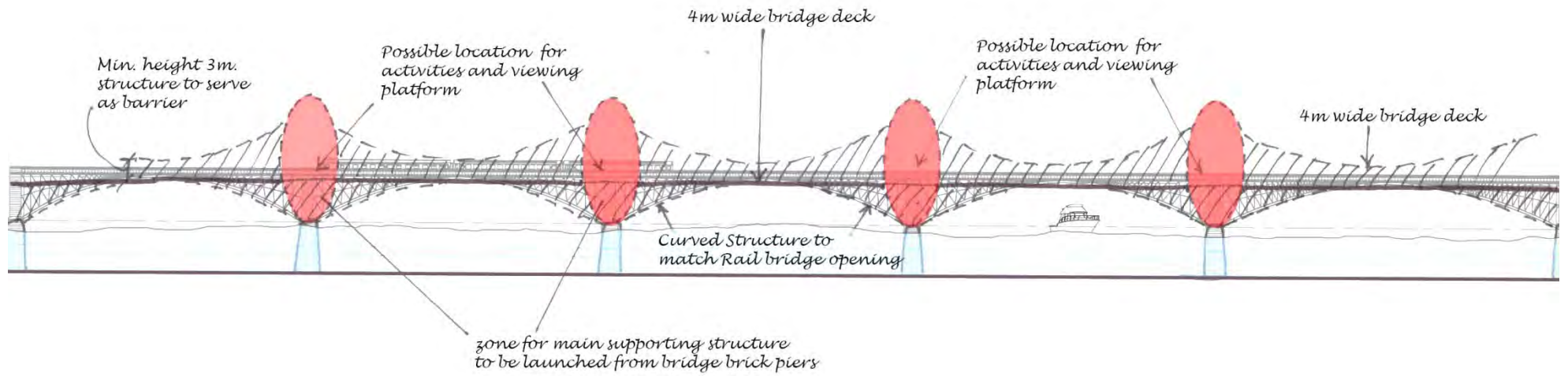


symmetry, balance - celebrating the journey



the journey





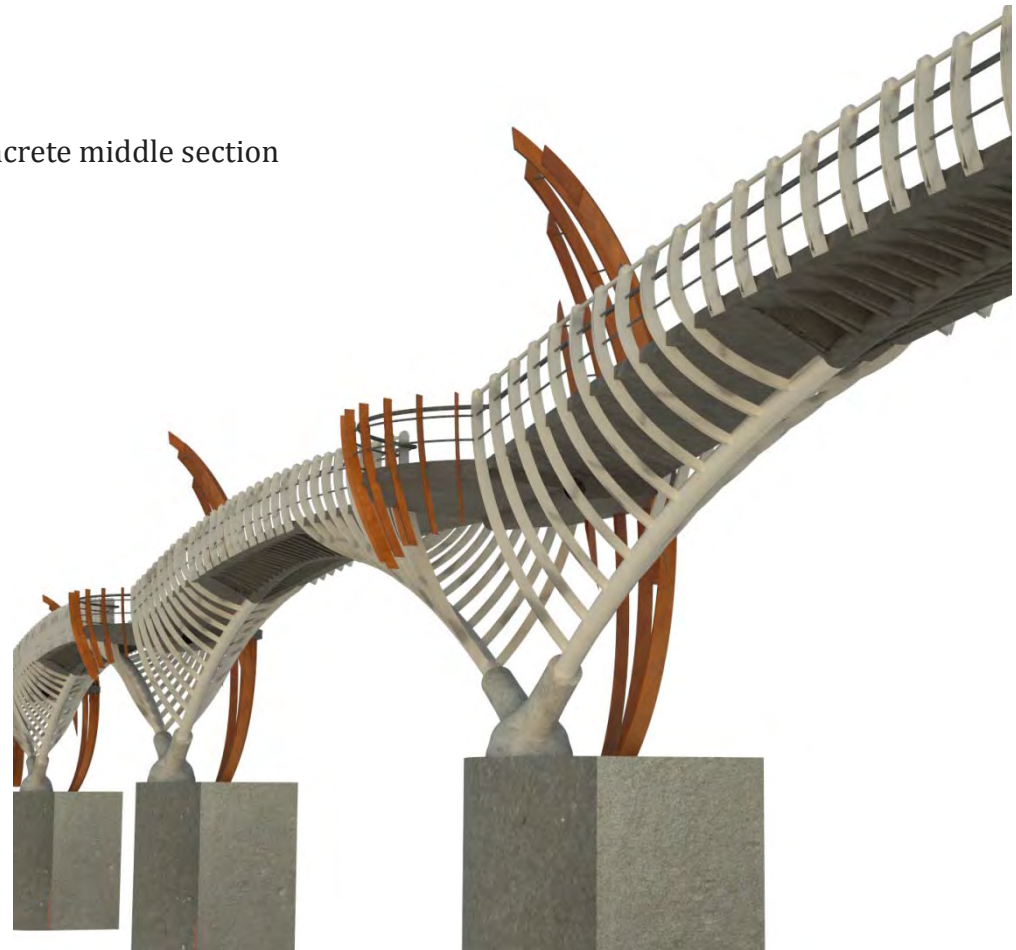
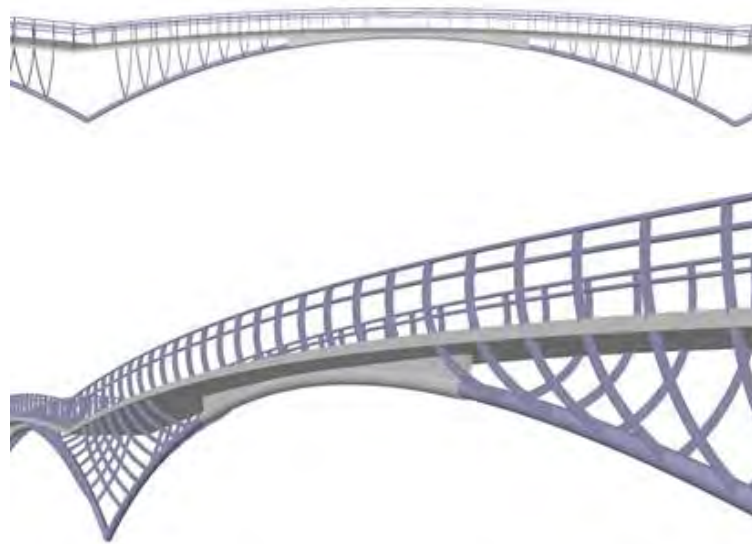


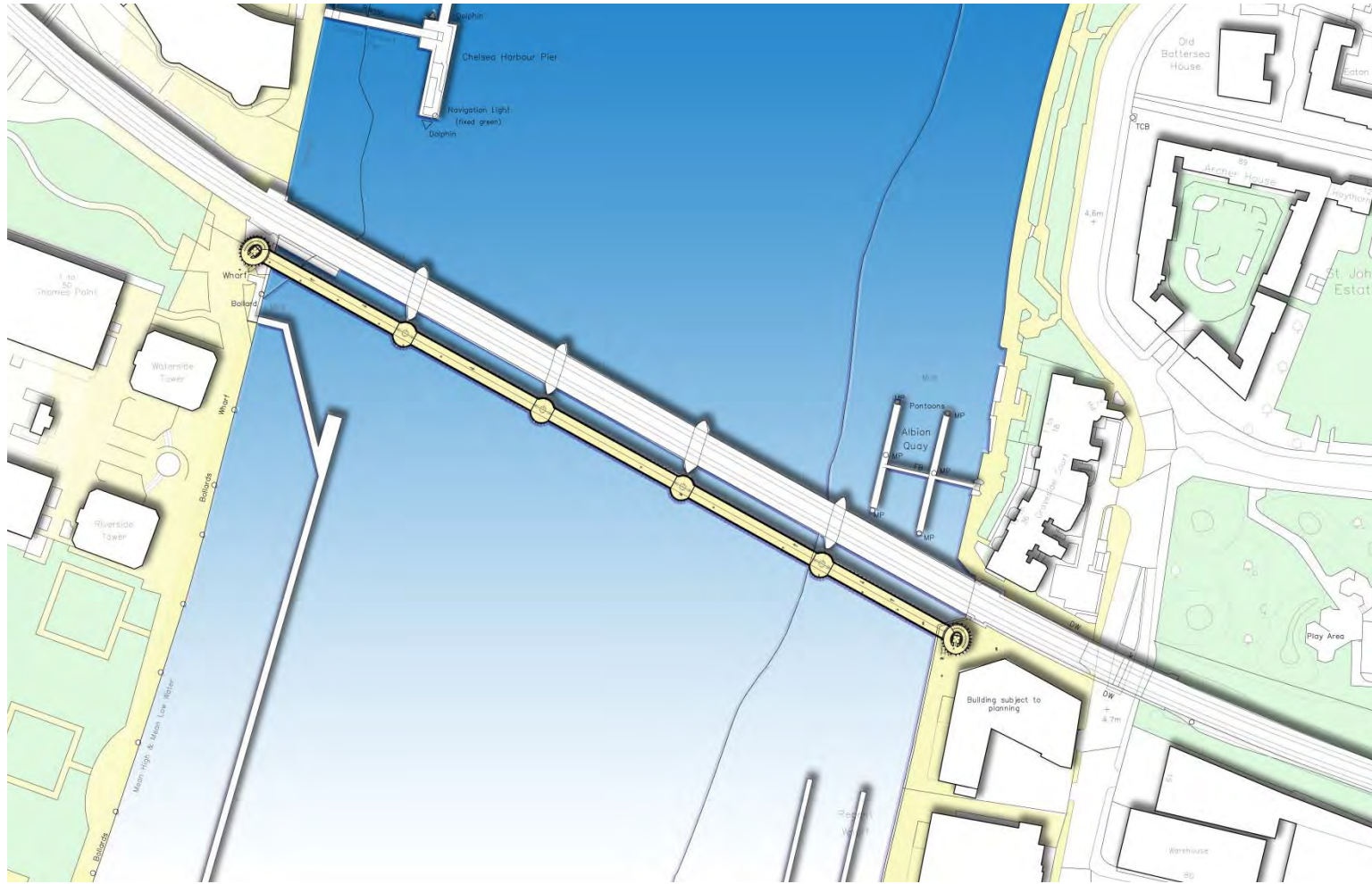




the structure

- 5no. 47m arched spans with 500mm steel arch and concrete middle section
- 120mm diameter V props
- 150mm concrete deck
- Global torsion resolved by connections at dwell points
- foundations independent of railway structure

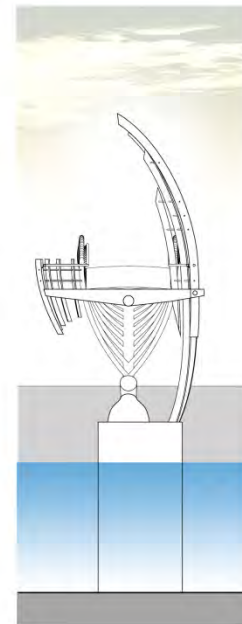
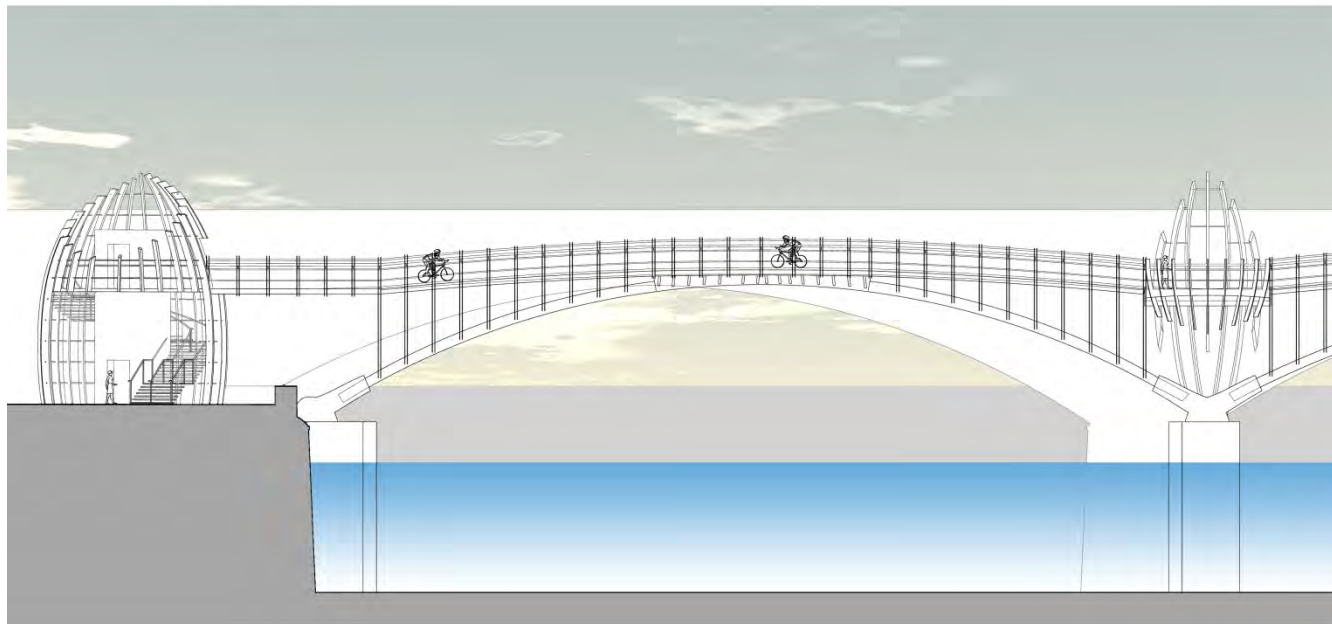






Proposed Elevation

A1 Scale 1:500











funding opportunities

economic benefits & funding

- 2004 Faber Maunsell Business Case estimated the value of the savings in journey time over 30 years to be worth an estimated £48m
- bridge's construction cost estimated at £19.8m (including future maintenance) giving a benefit/cost ratio of 2.43
- significant non-quantifiable benefits to local workers, and residents and businesses were noted
- since 2004, 3 new hotels and around a dozen bars and restaurants have opened in the immediate vicinity
- an evening economy, serving local residents, workers and tourist is developing
- In 2004, the predicted 1,500 trips per day were not sufficient to justify TfL meeting the full construction and on-going maintenance costs.
- TfL made it clear to the relevant boroughs that support would be required from other parties if the bridge was to be progressed - a package of funding would be needed
- the Faber Maunsell report needs to be updated in line with the increased population, new and planned developments since 2004

2012 potential sources of funding

- capital grant from Transport for London
- Section 106 Agreements/Community Infrastructure Levy
- Lottery funding/EU grants
- Corporate Sponsorship/Advertising revenue (i.e. BP pedestrian bridge in Chicago)
- a combination of all funding streams -Local Authority adopt and maintain bridge



MAYOR OF LONDON



S106 contributions, pending & future developments



corporate sponsorship



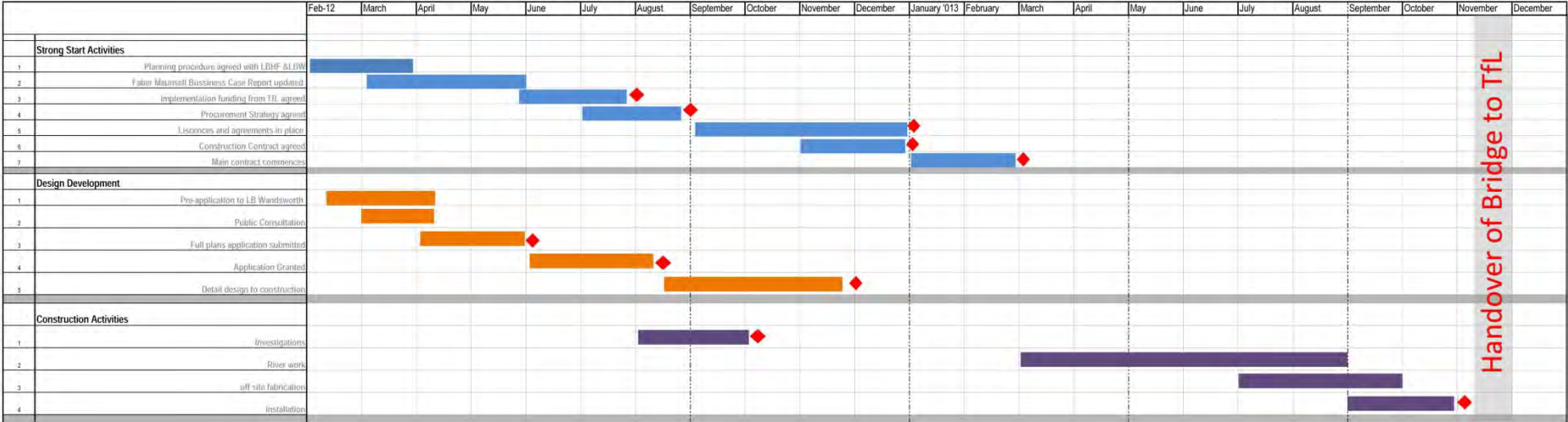
a way forward

priorities

- Update 2004 Faber Maunsell Business Case
- Protect bridge access principles in planning policy
- Secure 'in principle' capital grant from Transport for London
- Grant full planning consent
- Gain corporate sponsorship/ complete funding package
- Design development to construction
- Open bridge by 2014



draft programme



Handover of Bridge to TfL

one-world design ○