Thames Tideway Tunnel

– Cabe at the Design Council

Representation on Thames Tideway Tunnel by Cabe at the Design Council

Cabe at the Design Council is an enterprising charity, offering independent advice on design in the built environment, helping create places that improve quality of life for all. We are a Statutory Consultee in the planning process for this Nationally Significant Infrastructure Project. As such, the advice contained in this report is submitted for consideration by Planning Inspectorate in its determination of the Thames Tideway Tunnel project. The application proposals were presented to the Design Review Panel by Thames Tideway Tunnel's Lead Architect, Design Manager (Design for Planning) and engineers responsible for the east, central and west sections of the Tunnel.

Cabe established the Design Review panel for the Thames Tideway Tunnel in April 2011 to advise on the design quality of the above-ground works proposed on each of the 24 sites along the tunnel's route. The principal aim of the design review programme has been to secure improvements to the design of these works. The scope of the reviews has included consideration of the ventilation shafts, kiosks, and the designs for the hard and soft spaces across the urban realm being brought forward as part of the project.

The panel has looked at issues such as aesthetic quality, how the interventions relate to their surroundings, functionality, quality of materials, inclusiveness, sustainability, heritage, accessibility and place-making. Our advice not only concerns the proposals for each of the 24 sites, but also, the vision and strategic objectives of the total project so that the whole is greater than the sum of its parts.

We welcome the overarching design vision promoted, with clear guiding design principles. These will form a vital toolkit for use by contractors and local planning authorities.

We support the decision taken to vary the level of detail submitted for each of the sites, in part, to allow for further consultation with communities and boroughs to inform the specifics of the designs.

We think the right judgment has been made in determining when a design should be celebratory and when a more discreet approach is called for. The proposals rightly adopt a confident relationship with their surroundings. We welcome the common approach to the expression and lighting of street level features, including ventilation columns, which we are pleased to note are submitted for approval.

The strategy could lend the project a strong identity, raise public awareness of the tunnel, and boost civic pride. It could also serve as an exemplar. We recommend extending this approach to cover the kiosks at each of the sites.

Better promotion of the project's benefits will be crucial in bringing communities, local authorities and other stakeholders on board so that they can help shape the detailed designs for the spaces and facilities proposed. Specifically, we advise the following:

01. The applicants should work with the GLA and boroughs to raise awareness of the cultural value of the proposed spaces, which will extend access to, and enjoyment of, the riverside.

02. Works should enhance the setting of heritage assets, including the Thames. They should open up new river views and vistas and preserve existing ones. All heritage assets within tunnel sites should be upgraded.

03. The submission should more enthusiastically promote the use of the Thames for construction and maintenance access.

04. Proposals should address conflicts between vehicles and people. We encourage the development of a common design language for steps, ramps and lifts.

05. Every opportunity should be taken to green the proposed spaces, strengthening local green space networks and wildlife corridors.

06. We welcome the intent to use the buildings and landscape to promote learning and celebrate both Bazalgette's works and this project.

07. Significant efforts are required to address inconvenience caused to communities. Where possible, visual connections with the river should be maintained during construction.

08. The applicant should fund community projects to engage closely with residents so they can help shape the designs.

09. The project could make London more livable, through greening the city, supporting walking and cycling, enhancing public amenity, and encouraging more use of the river.

10. The quality suggested can only be fulfilled if the will, budget, and mechanisms are there to secure it. The procurement process should match the right talent to the jobs involved.

11. Full scale mock-ups and samples of streetscape materials and engineering features should help to ensure they can be built to the desired specification and budget, and be fit for purpose. This will give contractors and local authorities a clear understanding of the standard sought by Thames Tideway Tunnel.

12. Sufficient budget should be set aside to ensure the desired landscape is deliverable. We advise contract growing planting. Hard and soft landscape elements should be delivered by contractors with expertise suited to those areas.

Site-specific comments

Acton Storm Tanks:
We support the principle of locating the works at the northern end of the site and the decision to re-use the adjacent tanks. The design team should satisfy itself and the planning authority that its proposals do not prejudice development of the wider site coming forward in the future.

Hammersmith Pumping Station:
Close dialogue with the developers should ensure that the Fulham Reach development successfully incorporates the proposed works within the detailed design of the public realm to the benefit of both parties. We advise enhancing the profile of the pumping station in this neighbourhood, celebrating its presence.
Barn Elms: We appreciate the challenge to integrate the proposals with this open landscape set back from the Thames. We welcome the modest design for the above ground structure. Planting should require little maintenance, encourage biodiversity and tie in with landscape around the brook.

Putney Embankment Foreshore:
The proposals show a good appreciation of the unique character of this site. The scheme recognises the site's role today as a place of gathering, most notably for the boat race.
We welcome the confident approach to the design, which should promote the public benefit of this intervention and create a positive association with the project.

Dormay Street:
While we understand the permanent works will not be publicly accessible, we applaud the applicant for designing the proposals to accommodate change in the future.

King George's Park:
This project provides an ideal opportunity to broaden the appeal of this well-loved amenity by giving something back of real value to local communities. The proposals could create a new place within the park that draws from the character of this setting, encourage movement through the area and support the needs of its users.

Carnwath Road Riverside:
The proposals present a chance to create a new, green riverside space for communities to enjoy. We support the notion of a detached ventilation column; surrounding landscape should lend it a positive backdrop. Reference could be made in the landscape to the main tunnel shaft below ground. Use of the river for site maintenance should be explored.

Falconbrook Pumping Station:
We support the general intentions for this site. Proposals will need to accommodate plans drawn up by the local authority for York Gardens and respond to future pedestrian movement through the area. The community will need to feel ownership over the space to prevent it from falling victim to vandalism and disuse.

Cremorne Wharf Depot:
The parameters and design principles supporting this proposed scheme appear to respond to its functional context and the evolving character of this part of the riverside. We support the provision for connecting the Thames Path along the river edge. A palette of simple, robust materials for the building and streetscape appropriate to this riverside context should be secured.

Chelsea Embankment Foreshore:
The scheme has the potential to resolve the site's challenges but will require continued dialogue with TfL. Siting the proposals on axis with the Royal Hospital lends strength to the idea of a foreshore structure on the embankment.
The termination of this link with a new space should provide a new appreciation of the view to the hospital.

Kirtling Street:
The proposals appear well considered.
We support the intention to improve signage and plant trees along this part of the Thames Path.
It is critical that an open dialogue with developers and public bodies continues to takes place.
We encourage the coordination of construction activities with other parties, including sharing the use of river transport facilities.

Heathwall Pumping Station:
The new promontory could create a welcoming riverside space. The design recognises the relationship between the promontory and the pumping station. Proposals should adapt to the needs of Middle Wharf while securing public access to the foreshore. The applicant should ensure the construction impact on surrounding residents is minimised.

Albert Embankment Foreshore:
We welcome the way in which the proposals terminate the embankment. However, we feel the public should be free to enjoy use of the proposed circular platform beside the bridge. Consideration should be given to upgrading the adjacent pedestrian tunnel beneath the bridge.

Victoria Embankment Foreshore:
The strong orthogonal plan of this foreshore development is well judged in relation to the linearity of the embankment. The canting of its walls gives a welcome sense of majesty to the structure. The proposals show a good understanding of the relationship between the proposed space and the public realm of Victoria Embankment and Embankment Gardens.

Blackfriars Embankment Foreshore:
The designs appear to resolve a complex set of site conditions and engineering constraints to produce a public realm proposal that is simple, functional and elegant. The astute handling of the level change from the highway down to the platform underpins an assured design solution.

Shad Thames Pumping Station:
The idea of a simple, modest extension to the pumping station that is industrial in character and visibly separate from the main building appears sensible given its tight urban context. The choice of construction method and materiality should reflect the challenges of building in an infill site and the relative timescales required for construction.

Chambers Wharf:
On-going dialogue should take place between the applicants and the housing developer for Chambers Wharf to shape the detailed design of the public realm. The proposals should set a quality benchmark for the housing developer to follow to ensure the creation of an enduring riverside public realm.

Earl Pumping Station:
The scheme reveals an exciting prospect to create a distinctive building that could become a cherished local landmark. We would ask the applicant to consider separating it from the pumping station boundary wall so that it can be seen as an object in its own right. It is critical that sufficient budget is reserved to deliver the level of quality suggested in this submission.

Deptford Church Street:
The case for locating the proposals on this site is a compelling one, not least given the potential to improve the setting of the Grade 1 listed St. Paul's Church and the significant public benefit to be gained through the upgrading and reintegration of an undervalued park space with its wider setting.

Greenwich Pumping Station:
The level of attention paid to the restoration of the listed Beam Engine House is admirable. However, we are concerned that the setting of this building has not been given the same level of attention. We also think that all listed buildings within the compound should benefit from restoration to protect them for future generations.

King Edward Memorial Park Foreshore:
For the plans to succeed, they must be supported by a compelling vision for the future of the whole park, delivered with the involvement and support of local people, to demonstrate that the public gain at the end of the process – both at a London-wide and local level – will be worthwhile.

Bekesborne Street:
We support the proposed scheme. The inclusion of a planted roof for the kiosk is welcomed.

Abbey Mills Pumping Station:
Given the notable design quality of both Bazalgette's and Allies and Morrison's pumping stations in this area, we think the expression of the Thames Tideway Tunnel structures requires the same degree of thought and attention. It will be important to secure permeability around the site at all stages of the works.

Beckton Sewage Works:
Given the critical role of Beckton Sewage Works as one of London's major waste water treatment facilities situated at the termination of both the Thames Tideway and Lee tunnels, we think the opportunity could be taken to increase public awareness of this fact. This might be achieved through the inclusion of a visitor centre or tours of the site.

Overall, we consider that the illustrative and indicative proposals submitted for each of these sites sufficiently demonstrate that, on completion of this vast project, there will be a legacy of valuable new public spaces providing recreational opportunities for local communities and enriched access and views of the Thames.

The Cabe review process

The design review process gives the presenting design team and its client the opportunity to step back and reflect on the brief and the design strategy at key stages in the process and to benefit from the impartial and objective view of an expert panel of built environment professionals. Thames Tideway Tunnel had not previously been exposed to this process but would come to see the inherent value it offered. Following Stage 2 consultation, Phil Stride, Head of London Tideway Tunnels, commented on the importance that the process had on the design development of the project:

“We found the Cabe design review to be a very constructive and open process which added real value to the development of the designs of the proposed Thames Tunnel sites, many of which are in prominent heritage or locally sensitive locations. By undertaking the design reviews at an early stage in the design, we found that we were able to get useful input from the Cabe panel members and early engagement from many of our key stakeholders who attended the reviews. The process has helped us to develop our designs, providing a strong framework on which to seek the views of the public and statutory stakeholders during phase two consultation. It is important that local people have their say on our proposals so that we can then develop and refine these designs in a way that meets the needs of the local communities”.

Head of London Tideway Tunnels, Phil Stride Thames Tunnel

The review panel
The Thames Tideway Tunnel review panel was drawn from Cabe's 250 Built Environment Experts. Panel members were selected for their experience and expertise in the fields of architecture, planning, urban design, engineering, heritage, accessibility, and sustainability. They comprised the following:

Panel	Specialism
Les Sparks (Chair)	Architect; Planner
David Bonnett	Architect; Access consultant
Andrew Cameron	Engineer
Michael Coombs	Engineer
Noel Farrer	Landscape architect
Esther Kurland	Planner; Urban designer
Ian Sharratt	Architect
Martin Stockley	Engineer
Joanna Van Heyningen	Architect

Note: For further background on the panel please see Appendix 1

The site visits
The panel gained a full appreciation of the sites and their contexts from site visits, guided by Thames Tideway Tunnel's lead architect. These were helpful in conveying the range of issues and challenges associated with each of the tunnel sites, from historic foreshore sites in central London to established local parks and spaces in the outer boroughs. Importantly, it ensured that the panel's comments on the proposals were fully informed by the first-hand knowledge of each of the sites subject to development.

The reviews
The design reviews followed Cabe's tried and tested format, which accords with its 10 key principles of design review, outlined in Design Review Principles and Practice (Cabe, RIBA, Landscape Institute and RTPI, 2013). The reviews were timed to coincide with key milestones in the design development of the project, commencing in April 2011 with initial 'Sketch Reviews' of the emerging proposals and culminating in April 2013 with the reviews of the submitted planning application. These meetings are noted in the table below. The applicant's response to Cabe's pre-application advice is referred to in the Design and Access Statemen

Thames Tideway Tunnel's lead architect and colleagues in the engineering teams responsible for the west, central and east sections of the project presented their proposals to the panel. These presentations outlined the broad design vision and objectives for the project, their site analysis and design proposals for each of the locations selected for development.

The presence of the engineering team at the reviews was crucial for the panel's understanding of the rationale behind the siting and design approach presented. With this knowledge, the panel could encourage the design team to identify scope for achieving the most innovative design solutions that satisfied, but were not driven by, the engineering constraints of the project.

Cabe design reviews create a safe arena that fosters an honest and open dialogue between stakeholders on the merits of the proposals. In this case, invited statutory agencies, including the relevant local planning authorities, English Heritage, the GLA, and Transport for London were encouraged to air their views and aspirations for the project. This helped the panel to develop a good grasp of the sometimes divergent ambitions amongst stakeholders for the sites presented and how its comments and advice could help bridge the gaps between them.

From early on in the review process a key point of interest amongst the panel was how the designs for the individual sites would be tied together by a design vision and overarching design principles for the project as a whole. As Cabe's comments below detail, this would come to be regarded as critical in securing a successful legacy for the Thames Tideway Tunnel project.

The reports

Cabe's advice at each of the review stages was issued in the form of written reports to Thames Tideway Tunnel. All London boroughs with sites within their boundaries and statutory agencies in attendance at the reviews were copied into this correspondence. At Stage 2 consultation Cabe was pleased to make its comments on the project public via its website. A map-based search facility was employed to allow visitors to easily locate our comments on those sites of interest to them and to learn about Cabe's views on the project as a whole. These have now been updated to reflect Cabe's current comments on the planning submission. These views, which are based on the Cabe reviews of the planning submission in April 2013, are noted in Sections 3 and 4.

Securing a clear design vision

Change of the magnitude envisaged for London through the t the panel was how the designs for the individual with it immense challenges. However, managed well, such change could leave a positive legacy for the capital on a par with Bazalgette's great Victorian sewage system and embankments. For the panel, the scope of works planned for the Thames and its environs, a historic asset of national importance, underscored the need to put design thinking at the heart of decision-making on the project.

Therefore, we are pleased to note the overarching design vision promoted in this submission, with clear guiding principles for the design of public realm across all sites. This has been underpinned by a consistent approach to site analysis across all projects, from the macro to the micro scales. It reveals a good grasp of the diverse character of the river, reflecting the particular conditions at those points where interventions are proposed. This gives us the confidence that the proposals have been brought forward in an integrated manner and with the benefit of a clear understanding of their collective impact on, and potential contribution to, the heritage and amenity value of the Thames.

Cabe's views on the planning submission

Ensuring consistency yet flexibility
We support the decision taken to vary the level of detail submitted for each of the sites, in part to allow for further consultation with communities and boroughs to inform the specifics of the designs. This will be important in conveying the message to communities and local planning authorities that illustrative designs are just that, not a fait-accompli.
We also understand that flexibility is required for other reasons, which include responding to changed site conditions and other requirements at the time of construction, adapting to ongoing hydraulic and engineering design development and accommodating changes or improvements proposed by the contractor. In light of this we are pleased to note that the submission sets out a comprehensive set of project-wide and sites specific design principles for approval.
These will form a vital toolkit for contractors to interpret the requirements for each site and local planning authorities to employ when assessing the merits of the detailed schemes when submitted.

It is apparent from the submission that while there is a common thread that ties all sites together, they fall into one of two categories: 'Central foreshore/monument' and 'Neighbourhood' interventions. For example, the proposals for Albert Embankment, Blackfriars and Victoria Embankment highlight the importance of considering these central sites as a piece, not least due to the shared sensitivity of their contexts and conspicuousness of the works proposed. The applicant's recognition of this fact has helped it identify the shared challenges and opportunities associated with each of the sites. As a consequence, we think it has made the right judgement in determining when a design should be celebratory and when a more discreet approach is called for.
Crucially, it has understood that in all cases the proposals should adopt a confident, rather than apologetic, relationship with their surroundings.
The benefits of such a categorisation are two-fold. Firstly, it provides those leading the next stage of design development with a clear direction on – and a mutual understanding of – the project's objectives as they relate to their particular site. Secondly, it should help ensure a consistency of approach to detailed design across the Thames Tideway Tunnel development.

The more modest streetscape elements associated with Bazalgette's sewerage system are as much a part of his legacy as the great Thames embankments. We welcome the applicant's decision to echo this by developing a common approach to the expression and lighting of its street level features to ensure a fully integrated design. This includes ventilation columns, which we are pleased to note are submitted for approval, as well as seating and manhole covers.

We believe that such a strategy has four key benefits:

1. It lends the project a strong identity that unifies the above ground works along the length of the tunnel;

2. It raises public awareness of the significance of the project and celebrates Thames Tideway Tunnel's commitment to improving the river and its embankments;

3. It encourages a sense of civic pride amongst communities, particularly if they are involved in developing their appearance through, for example, a local arts programme. The result: a family of common design components tailored to respond to particularities of each site; and

4. It has the potential to serve as an exemplar for major infrastructure projects to follow.

We recommend extending this approach to cover the kiosks proposed for each of the sites. These structures will be an equally visible symbol of the Thames Tideway Tunnel project. While local circumstances should dictate the specifics of their design, all should look to achieve a timeless quality, as exhibited in the proposals for Victoria Embankment.
Their materials and detailing should lend a sense of robustness and permanence to the structures and clearly signal their function, whether for tunnel operations or public use.

Celebrating the legacy of the Thames Tideway Tunnel

The Thames Tideway Tunnel, like Crossrail and High Speed 2, will come to be regarded as one of the defining engineering projects of early 21st Century Britain. Rarely do opportunities to improve the quality of life for so many Londoners present themselves on the scale envisaged. For its part, we think there is a responsibility on the part of the applicant to better sell the wider benefits the Thames Tideway Tunnel could bring to communities, local authorities and other stakeholders touched by the development.

The promotion of these benefits will be crucial in bringing these groups on board so that they can help shape the detailed designs for the spaces and facilities proposed. Moreover, increasing national and international awareness of the project's achievements should reinforce the message that British engineers and designers are global leaders in their fields, vital to increasing competitiveness and economic growth. To this end, we recommend that the applicant further explore the following aspects of the project:

Use of the Thames:
The Thames Tideway Tunnel project presents a once in a generation opportunity to bring about a step change in the way we engage with the Thames. It should build on recent interventions and events, such the Jubilee River Pageant, which have reminded Londoners of the invaluable amenity it provides and its role as a capital's most historic transport artery.
The proposals highlight the chance to promote its special character and encourage more access and enjoyment of the riverside.
The creative, site-specific solutions proposed have the potential to achieve this, generating an enduring legacy for the capital that goes beyond a cleaner river. We recommend that the applicants open a dialogue with the Mayor of London's office to develop a strategy that raises public awareness of this fact. This should consider how the project's proposed public spaces can support the GLA's Cultural Strategy, helping to strengthen cultural life in London.
Further, with two thirds of tunnel sites found on riverside locations, we think the planning submission should more enthusiastically promote the use of the Thames for construction and maintenance access.

Heritage and conservation:
The proposals highlight the opportunity to bring beneficial use to redundant listed buildings and promote a fuller appreciation of the Thames by opening up new views and vistas and preserving those that already exist. It is critical that the works enhance the setting of these heritage assets. Where sites include a number of listed buildings it is important that funds are made available to upgrade these alongside those serving a functional role for Thames Water.

Accessibility:
It will be important to ensure that the proposed works help to address conflicts between road traffic and people, focussing on priorities for movement. This will require on-going dialogue with the boroughs and relevant stakeholders like Transport for London. This should also facilitate integration with other public realm and transport initiatives, such as the extension to the Mayor's cycle superhighway. We also recommend that the applicants pursue the development of an 'access language' of steps, ramps and lifts for the project. This will signal to visitors that they are entering a space associated with the Thames Tideway Tunnel.

Opposite: Joseph Bazalgette set the bar high for ambitious, long-lasting and well-designed infrastructure.


FLVM'IN'·VINCVLA·POSVIT
SIR JOSEPH BAZALGETTE CB
ENGINEER OF THE LONDON MAIN DRAINAGE SYSTEM
AND OF THIS EMBANKMENT

Biodiversity:
We welcome the applicant's recognition of the chance to improve wildlife habitats in and around the 24 sites proposed though the use of features like intertidal terraces and even kiosks for habitat creation. Every opportunity should be taken to green the public spaces proposed in order to strengthen green space networks and extend local wildlife corridors. Where feasible, sites should be made accessible to school parties for learning.

Education:
We welcome the intent to use the buildings and landscape to promote learning and celebrate both Bazalgette's works and the modern achievement of the Thames Tideway Tunnel. This should generate a broader appreciation of the works carried out, past and present, and assist in the interpretation of the works above and below ground. This could inspire a new generation of engineers and reawaken in the profession at large the passion and values that drove Bazelgette and his contemporaries.
A new legacy of infrastructure could follow that rekindles civic pride amongst communities more used to contesting major developments of this kind.

Consideration of the temporary:
With some sites requiring construction compounds to be in place for up to seven years, we welcome the applicant's investigation of measures to mitigate the impact of construction on the use of local spaces, including existing parks. Significant efforts will be required to address the inconvenience caused to communities. Wherever possible, visual connections with the river should be maintained during the works. Alternatives to hoardings should be explored to secure this. Where they are required, the involvement of local schools in their design should be investigated. The design team should also consider opportunities for temporary use of sites by the community so as not to blight the neighbourhoods affected. It will also be important for the design of temporary amenity kiosks to be given the same level of attention as the permanent elements. Proposals should show inventiveness. Local authorities should endeavour to secure a high standard of design for such facilities when applications come forward.

Local amenity:
The proposals offer the chance recompense local communities, for example, in the form of pocket parks and play space integrated with the works brought forward. Assistance should be sought from the boroughs and the GLA in advertising this and the chance for communities to be involved in their design. Giving the community a say in shaping them will increase buy-in and its sense of ownership over them. In those cases where interventions affect existing parks and spaces, Thames Tideway Tunnel's Section 106 contribution should be significantly higher than the cost of physical works on these sites. This should reflect genuine local need and might involve funding community projects and specialist consultants to engage closely with residents most affected by the proposals to build trust between all parties.

Sustainability:
A project of this scale and significance for London presents an excellent opportunity to promote healthier, more sustainable lifestyles. It has the potential to make London more liveable, through the greening of the city, making walking and cycling easier though improvements to the Thames Path, enhancing the amenity offer of public parks and spaces, and encouraging more use of the river for travel. Use of the sites to promote awareness of the function and need for the tunnel should also help visitors – young and old – more readily grasp their personal impact on the environment, potentially changing habits as a result.

Procurement

Ultimately, the public's day-to-day experience of the Thames Tideway Tunnel will be through the above ground spaces and features proposed as part of the scheme. Therefore, while much of the focus of procurement may be on delivering the works below ground, the process will need to devote considerable thought and commitment to ensuring these visible elements of the project receive the attention they deserve. We have been impressed with the level of thought behind the designs for each of the sites earmarked for development. However, the promise suggested in this planning submission can only be fulfilled if there is the budget, the mechanisms and the will to deliver something above and beyond a cleaner Thames. Involvement in the delivery of this immense engineering project for London would be a fillip to any contractor and is likely to attract significant interest. However, Thames Tideway Tunnel will need to run a procurement process that matches the right talent to the jobs involved. Fundamental to this is ensuring a common understanding amongst bidding contractors of the quality of spaces, kiosks, ventilation columns and streetscape features sought by Thames Tideway Tunnel. This is vital to guarantee the delivery of consistently high quality buildings and spaces in the most cost efficient manner possible, whether in central London locations like Blackfriars or more outlying sites like King Edward Memorial Park.

We highly recommend that Thames Tideway Tunnel build in the following systems into its procurement process to facilitate this.

Benchmarking

As critical as the design and access statement and design principles are for setting a quality aspiration, words and images alone cannot convey the visual and tactile quality of streetscape materials and engineering features in quite the same way as full scale mock-ups and samples. The production of these items would have three key advantages:

1. It would provide Thames Tideway Tunnel with the assurance that the features can be built to the desired specification and budget, and that they will be fit for purpose. Crucially, this would mean its quantity surveyors could accurately cost all items pre-tender to give an accurate picture of the sums involved;

2. On approval, the samples and mock-ups could be showcased to bidders as the standard against which their submissions will be measured at interview. As a result, contractors would gain a common understanding of the quality Thames Tideway Tunnel is seeking; and

3. Should the intended quality of finish from a bidder's sub-contractor fall short in comparison, they could exchange them for producers with the right expertise and track record.

In our view, if a contractor cannot demonstrate that they will be able to meet the design standards set out by Thames Tideway Tunnel, they should not be allowed to progress to the next stage of interviews.

In light of the timescales and number of parties involved in the delivery of this project, and the challenge this poses for securing design quality, we think that design review should continue to play a part in the assessment of the individual schemes as they develop. This should help to build trust and buy-in from local authorities and communities, particularly where misgivings about the proposals have been more pronounced. This will be especially crucial for sites where illustrative schemes have been submitted, which may benefit from more informal design workshops of the kind that Cabe now offer. Design reviews could then form the culmination of a meaningful community engagement process.

Landscape

As with the hard landscape components, building in sufficient budget for the delivery of suitable soft landscape will be critical. This should allow for the testing of plant and tree species to ensure, for example, that they have the necessary resilience for their intended location. One way to ensure quality and consistency of landscape is to contract grow all planting, a common approach amongst local authorities and developers. This cost effective solution also allows planting to be easily substituted when required. It is likely that hard and soft landscape elements will need to be delivered by different contractors with the necessary experience and expertise in those areas.

Cabe's views on the individual sites

01

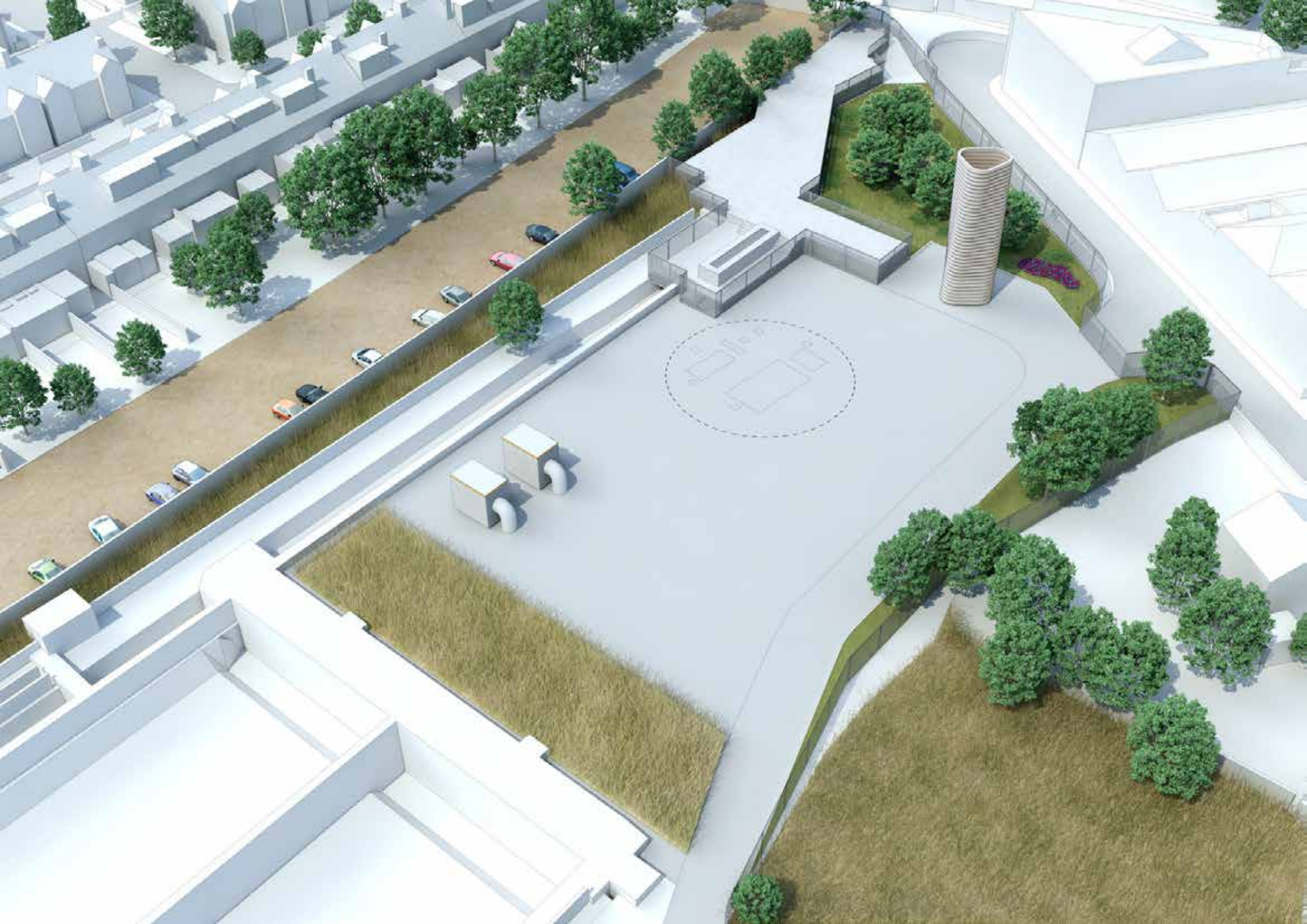
Acton Storm Tanks

We support the principle of locating the works at the northern end of the site and the decision to re-use the adjacent tanks. However we think there would be value in exploring the following points:

– Given that the redundant storm tanks are likely to become available for redevelopment in the long-term, the design team should satisfy itself and the planning authority that its proposals do not prejudice development of the wider site coming forward in the future. We are pleased to note that the two ventilation structures containing the fans could be relocated to make way for future development.

– We think that, in time, the area around the ventilation shaft could become accessible to the public. While fenced off in the immediate term, the boundary fence might be removed in future so that the shaft can become a point of discovery for local people. Landscape could provide a subtle backdrop to this feature, which could be playable. We would advise advance planting to allow the landscape to establish itself.

– We think the opportunity should be taken by Thames Water to improve the quality of its boundary treatment to the Acton Storms Tanks site to improve the experience for pedestrians using the surrounding streets.



02

Hammersmith Pumping Station

We understand that the works carried out here will need to respect the approved Fulham Reach development to be constructed on this site. However, close dialogue with the developers should ensure that this phased development successfully incorporates these works within the detailed design of the public realm to the benefit of both parties.

We would also advise enhancing the profile of the pumping station in this neighbourhood, celebrating its presence. This will increase the community's appreciation of its function and help to signpost the Thames Tideway Tunnel project. The opportunity could be taken to incorporate messages about the project on the walls of the building. We think that the gates to the complex could be upgraded at the same time.

03

Barn Elms

We are supportive of the submitted proposals. Our detailed comments are as follows:

– We appreciate the challenge to integrate the proposals with this open landscape set back from the Thames. Therefore, we welcome the modest design for the above ground structure proposed for the south east corner of the site. We would ask the design team to consider relocating the openings to the kiosk to point away from playing fields.

– The case for a habitat wall for the kiosk, set behind a decorative panel, with an exposed green roof, is well made. This should help the structure to become part of the informal, wooded landscape which surrounds the playing fields.

– Careful consideration should be given to the design of the construction hoarding. Buffer planting could be established early along its length to serve as an added security/safety function.

– Planting should require little maintenance, encourage biodiversity and tie in with landscape around the brook;

– We think an early win could be achieved by extending the chain link fence round to the river path, using a sensitive planting scheme to complement that already established; we think convolvulus planting would be worth considering in this context.

04

Putney Embankment Foreshore

The proposals show a good appreciation of the unique character of this site, including the listed bridge, arches and cobbled slipway that provides access down to the foreshore. As well as acknowledging the site's past, the scheme recognises its role today as a place of gathering; most notably when it hosts the start of the annual University Boat Race. It is important that the proposals enhance both these aspects. We welcome the confident approach to the design, which should promote the public benefit of this intervention and create a positive association with the project. Our detailed comments are as follows:

– We support the simple, orthogonal geometry of the promontory. We also support its positioning, which creates separation between the new structure and the slipway, an important feature within the heritage setting that includes the listed bridge and arches.

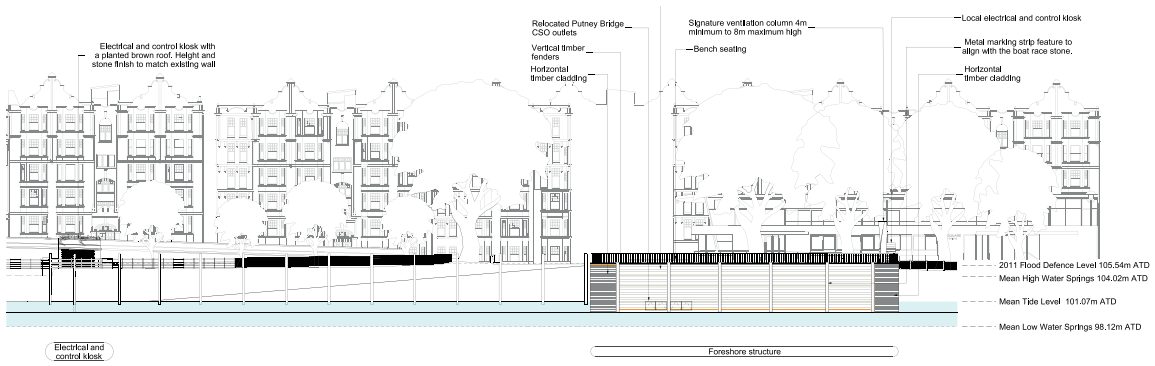
– The promontory has the potential to serve as a welcome extension of the public realm in this area. We note the provision of a generous access onto the promontory to integrate the proposed space with the public realm of Lower Richmond Road.

– The design of the public realm and streetscape materials should be carefully considered to create an inclusive environment. The quality of materials will be critical to the success of the scheme.

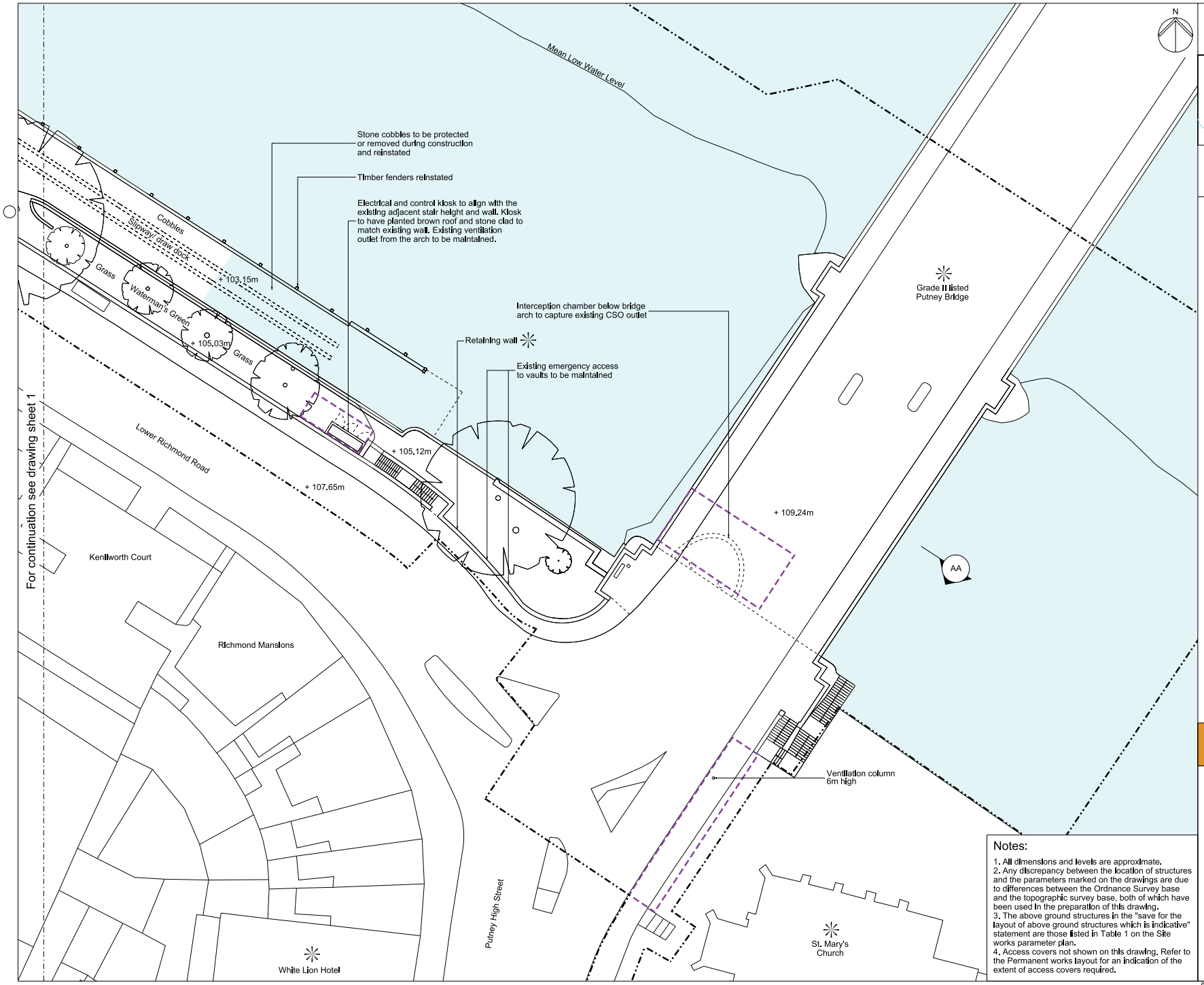
– We applaud the consideration given to the location of the boat race start line in relation to the promontory and the introduction of a metal marking strip to align with the boat race stone. This idea could be taken further by providing an indication to the public of what this feature signifies. As a feature of the public realm, the ventilation column should also be used to signpost and promote the Thames Tideway Tunnel project to visitors.

– We support the low key design solution and materials proposed for the interception chamber under the bridge, which we note has been kept as low as possible so as not to impede the clear reading of the springing point of the bridge.

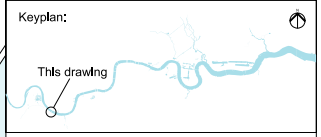
– We are pleased to note the provision for mooring boats on the new structure, which should allow for site maintenance to be carried out from the river. Opportunities should continue to be explored to allow those with impaired mobility to access moored boats, for example via hydraulic steps/ramps.



Proposed River elevation



Keyplan:

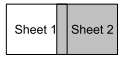


Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Zone within which permanent above ground structures would be located
- + 105.40m — Existing levels (shown in metres above tunnel datum)
- Listed buildings/structures
- Existing trees within surveyed area (trunk sizes vary)

Sheet layout



10m 0 10m

Scale 1:200 at A1
1:400 if reproduced at A3

INDICATIVE
Save for layout of above ground structures which is illustrative

Location
Putney Embankment Foreshore
London Borough of Wandsworth

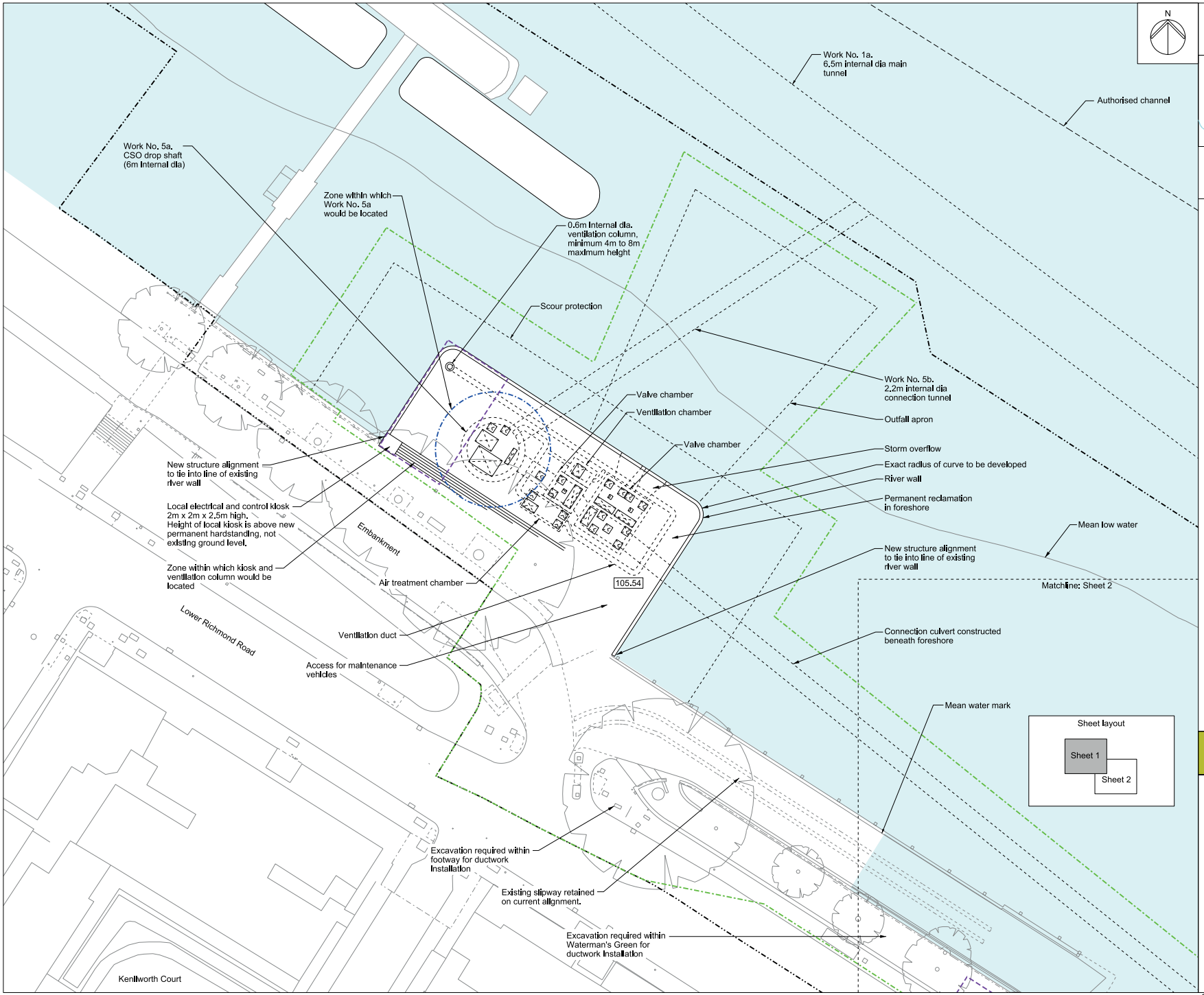
Document Information
Application for Development Consent
Proposed
Landscape plan sheet 2 of 2
Book of plans - section 8
DCO-PP-05X-PUTEF-080014
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and the topographic survey base, both of which have been used in the preparation of this drawing.
3. The above ground structures in the "save for the layout of above ground structures which is indicative" statement are those listed in Table 1 on the Site works parameter plan.
4. Access covers not shown on this drawing. Refer to the Permanent works layout for an indication of the extent of access covers required.



Keyplan:

Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Proposed access cover
- 104.50 — Proposed level (shown in metres above tunnel datum)
- Zone within which all permanent site structures would be located
- Zone within which the shaft would be located
- Zone within which permanent above ground structures would be located

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and topographical survey base, both of which have been used in the preparation of this drawing.
3. This drawing shows permanent site structures only. Landscaping hard works and soft works are shown on the Proposed landscape plan and/or Proposed site features plan.
4. Two electrical and control kiosks are required. One local kiosk situated upon the new permanent hardstanding area and one situated upon Waterman's Green against the listed retaining wall.

10m 0 10m

Scale 1:200 at A1
1:400 if reproduced at A3

ILLUSTRATIVE

Location

Putney Embankment Foreshore
London Borough of Wandsworth

Document Information

Application for Development Consent

Permanent works layout
Sheet 1 of 2
Book of plans - section 8

DCO-PP-05X-PUTEF-080010
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water

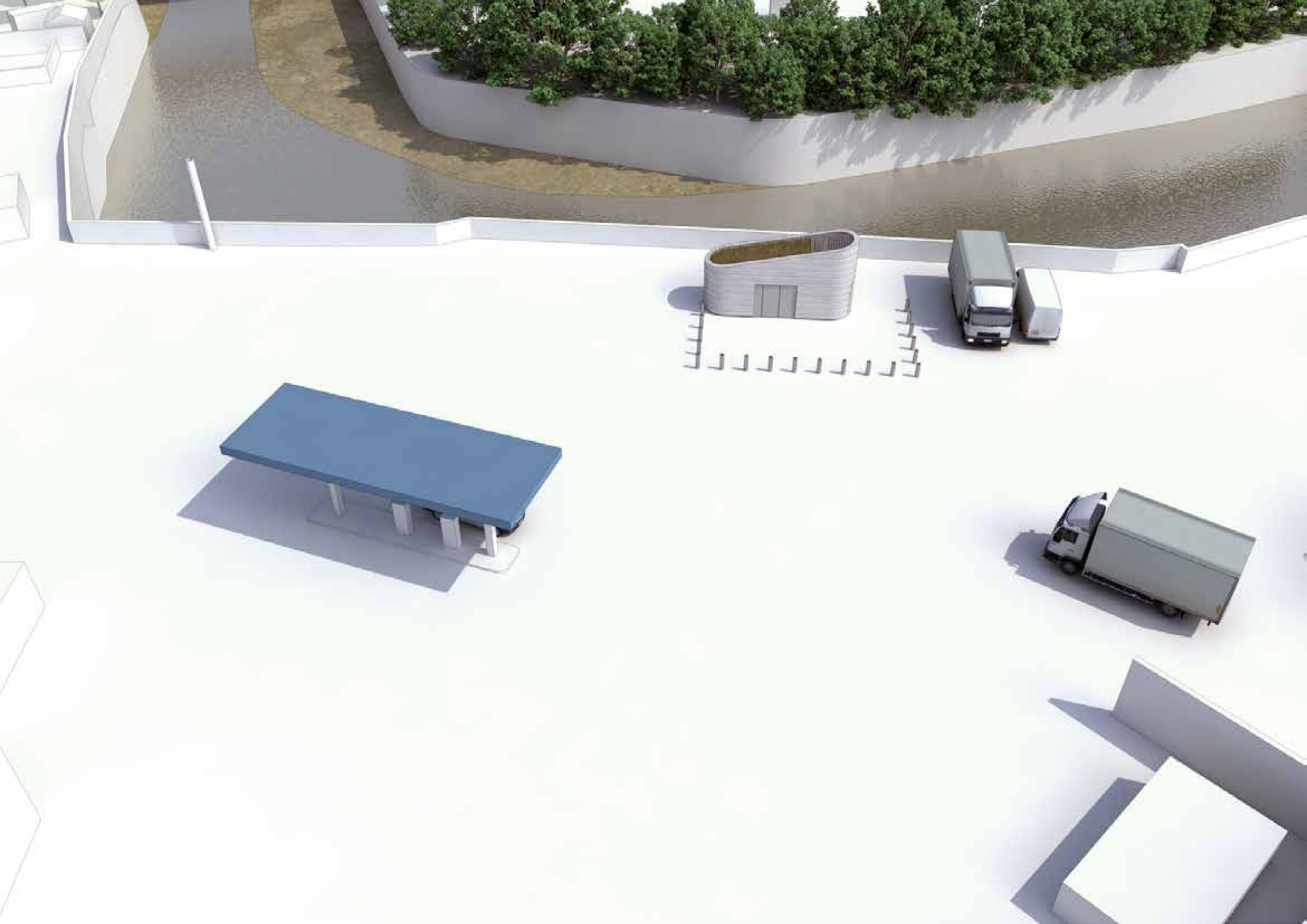
05

Dormay Street

While we understand the permanent works will not be publicly accessible, we applaud Thames Tideway Tunnel for designing the proposals to accommodate change in the future. Our detailed advice is as follows:

– We commend the applicants for designing its scheme in such a way as to allow the provision of a 4 metre wide public footpath in the future to extend the riverside walk. We urge the local authority to make a commitment to connect to this footpath to make the most of this goodwill gesture from Thames Tideway Tunnel. If there is benefit to be gained from retaining the proposed bridge post construction for public use this should be encouraged.

– We understand that some trees will need to be removed to use the northern part of the site on Causeway Island for construction. It will be important to ensure that suitable alternatives are planted in their place.



06

King George's Park

We think this project provides an ideal opportunity to broaden the appeal of this well-loved amenity by giving something back of real value to local communities. We have a good sense of how a new place within the park could be created that draws from the character of this setting, supports movement through the area and meets the needs of its users. Our detailed comments are as follows:

– We welcome the decision to create a new main entrance linking to the Cockpen House and Business development and securing a new route from the park to the High Street. It will be crucial to ensure good connectivity between this scheme and the surrounding area, as well as with the rest of the park. In support of this, it will be important to agree a realistic S.106 contribution that fixes the terms of the applicant's contribution early on.

– The idea of a sloping platform that is adaptable in use, accommodating informal activities as well as local events, could become a valued addition to the park's facilities. We also welcome the inclusion of an access ramp in the design, although details like handrails should be shown on the images to ensure they are not treated as an afterthought.

– The proposals show an appreciation for the special landscape qualities and integrity of the former registered park, including those mature trees in this part of the park. We are also pleased to note the additional planting proposed. It will be important to achieve a seamless interface between the proposed space and the rest of the park, carefully considering how areas of hard and soft landscape will meet.

– Ultimately, a successful scheme will rely on a good management and maintenance strategy. Given that the local authority will ultimately be responsible for this, we recommend that all materials are selected for their longevity so that maintenance costs are manageable and a suitably civic character is preserved.
For example, it may be more sensible to use a material such as granite for the benches rather than timber. The same principle should apply to the the kiosk, where the cladding materials should reinforce a message of restricted access rather than confusingly suggesting the presence of a public convenience.

– We welcome the proposal to provide services to support a mobile café. It will be important for the design of such structures to be given the same level of attention as the permanent elements, taking the opportunity to show inventiveness to help create a memorable place. Therefore, the local authority should endeavour to secure a high standard of design for this facility when proposals come forward.

07

Carnwath Road Riverside

The proposals respond in a considered way to the challenges of this site, presenting an opportunity for Thames Tideway Tunnel to create a new, green riverside space for future communities to enjoy. We also welcome the efforts to show how the proposals would not preclude the wider site from being regenerated in the future. Our detailed comments are as follows:

– This proposal offers the prospect of a genuine public asset on the riverside to be enjoyed by local residents and users of the Thames Path alike; a welcome place of relief on an otherwise private riverside. This space could become a memorable 'event' on the riverside.

– We support the decision to locate a modestly scaled ventilation building on the site's north eastern corner, integrated into the new boundary wall between Whiffin and Hurlingham wharfs. We also welcome the intention to create a well-articulated building envelope with a robust material finish.

– We support the notion of a detached ventilation column that will be visible from the river. However, the changing context may, in time, lead to this feature being overshadowed. Therefore, we would strongly recommend that Thames Tideway Tunnel designs the surrounding landscape in such a way as to create a positive backdrop to this feature. The column design shows promise, although we think further illustrative information on this feature would be helpful to better convey its character, including more mid-distance views from both the front and side, which would help to confirm the best orientation. A high quality design will also help to distinguish it from its surroundings as a special beacon on the riverside.

– We feel the landscape design for this space could be stronger. We think reference could be made to the engineering feat below ground; for example, a transparent element set into the paving to allow views down into the main tunnel shaft. Alternatively, the scale of the shaft could be expressed in the paving design or through the landscape. For example, a temporary hazel or willow coppice could be introduced to mark its perimeter. We think the landscape could also be playable, manipulating levels to create further interest in the space.

– We would encourage exploration of the use for the river to access the site for maintenance.

08

Falconbrook Pumping Station

We support the general intentions presented for this site. The proposals will need to accommodate plans drawn up by the local authority for York Gardens and respond to future pedestrian movement through the area. It is important that the local community feels ownership over the space to prevent it falling victim to vandalism and disuse. We would also advise the following:

– We support the commissioning of a masterplan by the London Borough of Wandsworth for York Gardens, which should rationalise the relationship between the buildings, landscape and routes to maximise the benefits brought about Thames Tideway Tunnel's works here.

– Assurances should be sought that the proposals reflect local pedestrian desire lines, which are set to change with new development in the area.

– While we support the decision to pave the site with stone setts, we would recommend that a path of flat cut setts with flush pointing is provided to ensure a comfortable route across the space for all users, particularly those with impaired mobility.

– The scale, placement and species of trees should be considered carefully, reflecting the character of York Road.

09

Cremorne Wharf Depot

The parameters and design principles supporting this proposal scheme appear to respond well to its functional context and the evolving character of this part of the riverside, which is set to change dramatically with the development of the adjacent site to include two residential tall buildings. We also note:

– Our support for provision for connecting the Thames Path along the river edge in this location. This should benefit this riverside community, promoting recreational uses like Cremorne Riverside Canoeing Club and visitors to Cremorne Park.

– A palette of simple, robust materials for both the building and the streetscape appropriate to this riverside context should be secured.

10

Chelsea Embankment Foreshore

The sensitivity of the site's historic setting, the defined character of the embankment, and the lack of connection to the Royal Hospital and Ranelagh Gardens caused by the A3212 create a unique set of challenges for the proposals to address. We think the scheme has the potential to resolve these but will require continued dialogue with Transport for London if they are to succeed. Our detailed comments are as follows:

– In our view, siting the proposals on axis with the Royal Hospital lends strength to the idea of a foreshore structure on the embankment. The termination of this important link with a new space on the embankment should provide a new appreciation of the view to the hospital.

– We welcome the proposed floral paving pattern of light and dark grey granite setts to visually unify the Bull Ring, strengthening the sense of place. If it is not possible to introduce a raised table for the section of the A3212 that physically divides it, alternatives such as a Grano-type treatment should be explored. The sound produced when driving over it would signal the special nature of this space and could help reduce traffic speeds. The plans should also anticipate how the proposals will work with future changes to the embankment, such as the extended cycle superhighway.

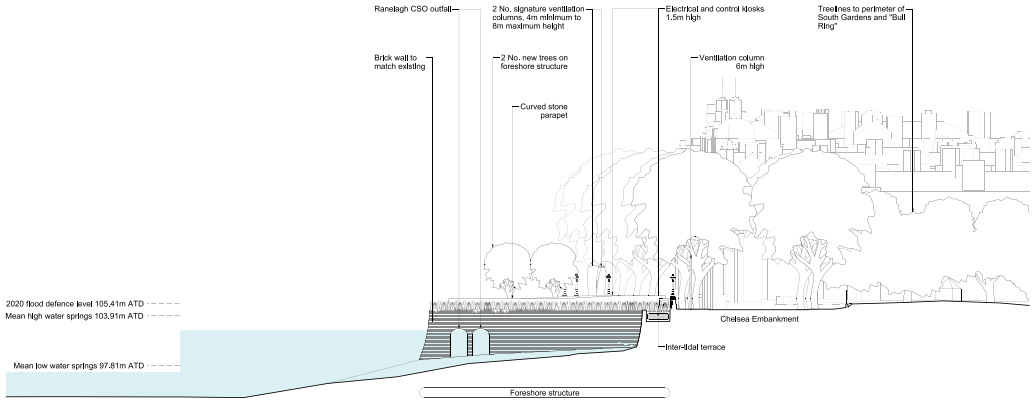
– While we support the intent to introduce grooves in the paving to mark the historic axis with the hospital, we do not see the value in setting these within areas of raised paving.

– We understand the desire to create a clutter free space to strengthen the visual connection between the river and the park. However, we think a case could be made to introduce an element of formal horticulture to the Bull Ring in recognition of this gateway to the park, home to the celebrated Chelsea Flower Show. This could, for example, employ a colonnade of pleached trees to create points of intimacy below the London Planes.

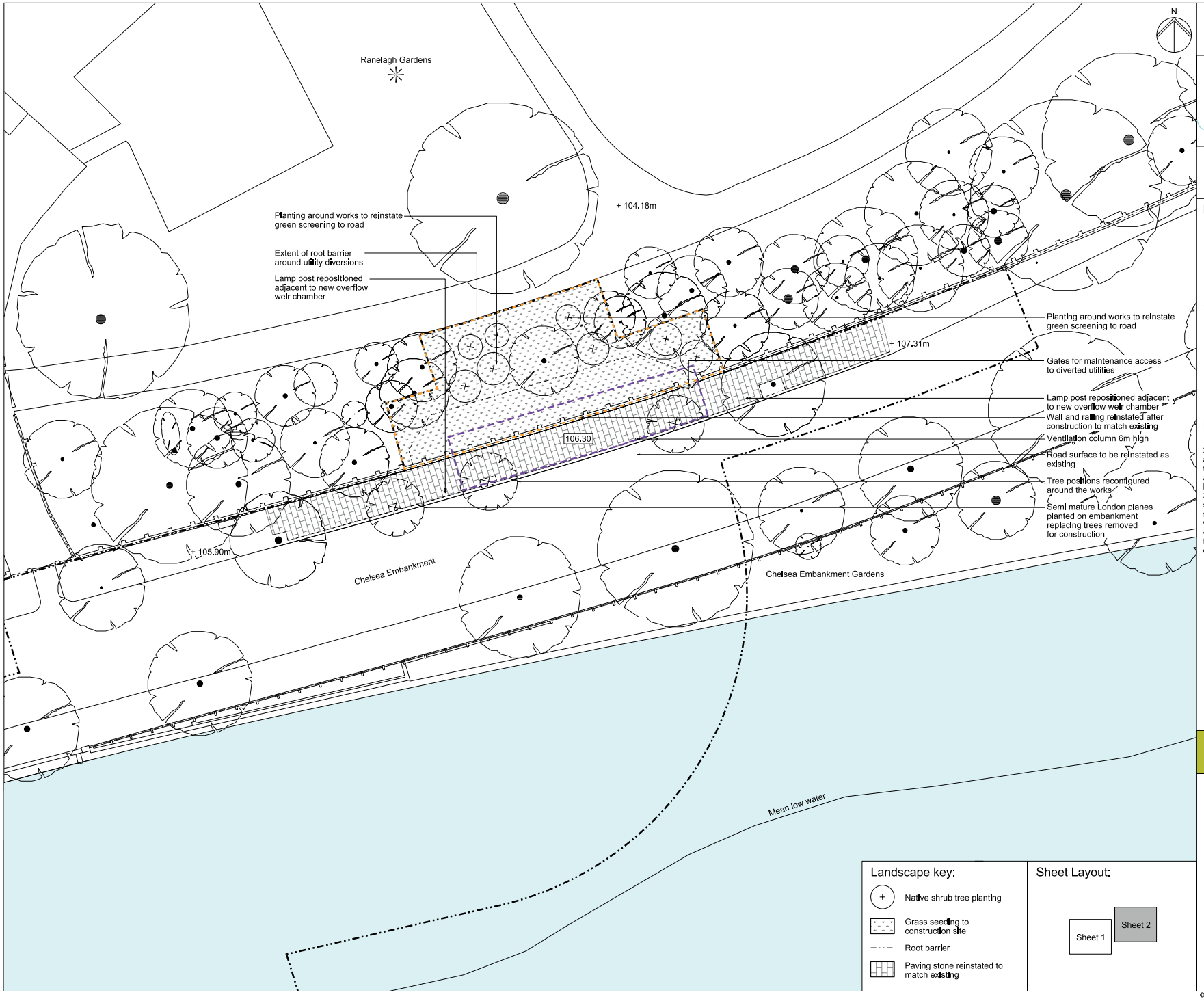
– While we welcome the proposal for planted intertidal terraces, we recommend investigating how these could be used more creatively. Species like perennial Rubeckias would create a colourful landscape on the riverside that would speak more about the Chelsea Flower Show than the wilder reed beds proposed. The terraces might even offer the chance for competition entrants to showcase their designs.

– We welcome the consideration of lighting to the foreshore structure, in addition to the reinstatement of highway column lighting along the embankment.

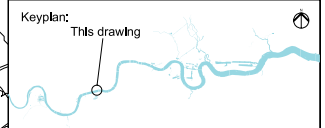
– The potential for moorings for boats should be considered. This would provide the opportunity to use the structure to welcome special guests to the flower show from the river. It would also allow for the site to be maintained from the Thames.



East elevation



Keyplan:



Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Zone within which permanent above ground structures would be located
- Zone within which required landscaping would be located
- + 105.40m — Existing levels (shown in metres above tunnel datum)
- 105.40 — Proposed levels (shown in metres above tunnel datum)
- Listed buildings/structures
- Existing trees within surveyed area (trunk sizes vary)
- Proposed trees

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and the topographic survey base, both of which have been used in the preparation of this drawing.
3. The above ground structures in the "Save for the scale of above ground structures which is indicative" statement are those listed in table 1 on the Site works parameter plan.
4. Access covers not shown on this drawing. Refer to the Permanent works layout for an indication of the extent of access covers required.

10m 0 10m

Scale 1:200 at A1
1:400 if reproduced at A3

ILLUSTRATIVE
Save for the scale of above ground structures which is indicative

Location
Chelsea Embankment Foreshore
Royal Borough of Kensington & Chelsea

Document Information
Application for Development Consent

Proposed
Landscape plan sheet 2 of 2
Book of plans - section 14

DCO-PP-12X-CHEEF-140011
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

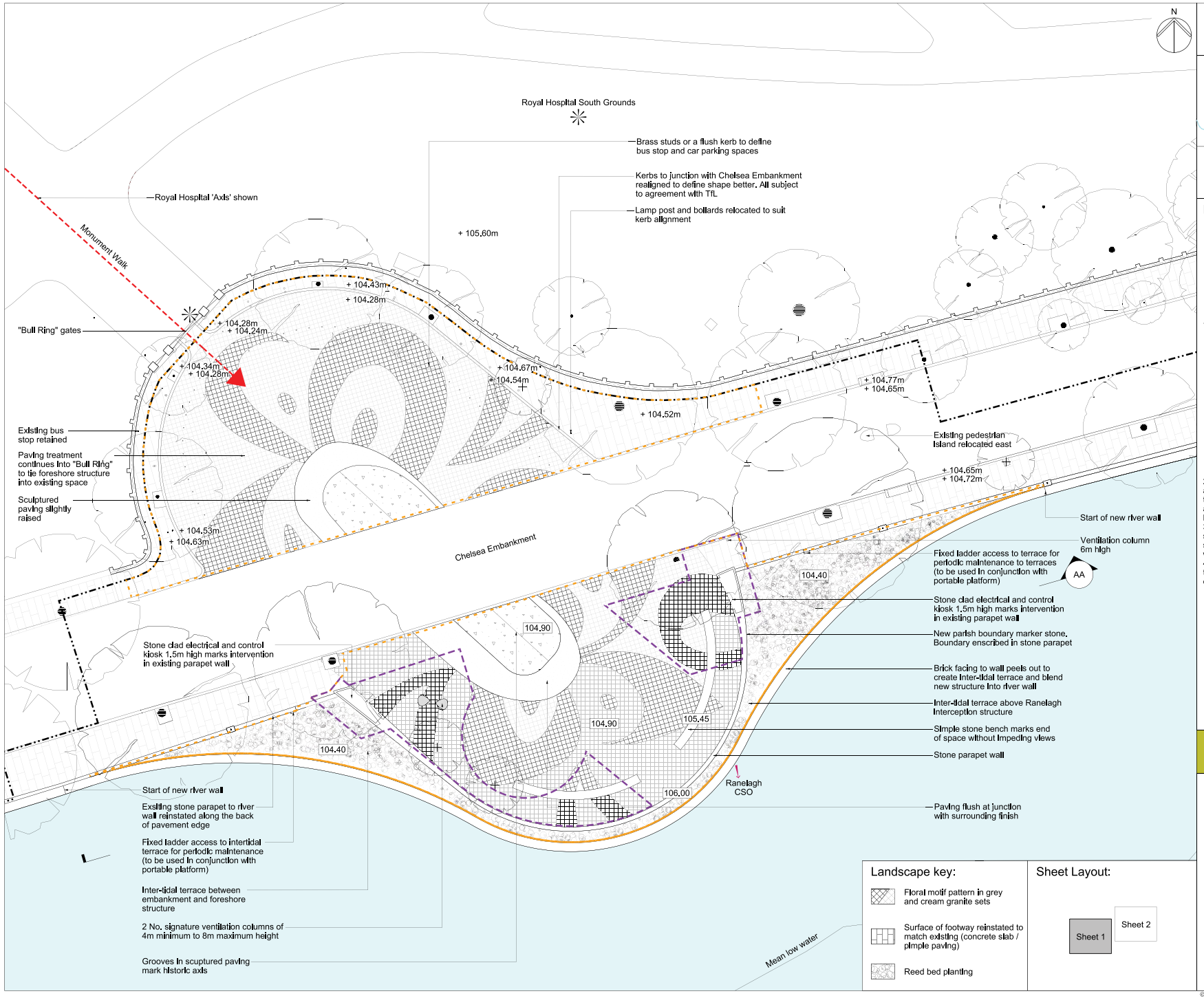
Thames Water

Landscape key:

- Native shrub tree planting
- Grass seeding to construction site
- Root barrier
- Paving stone reinstated to match existing

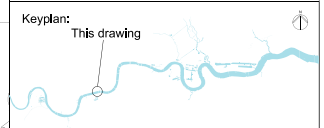
Sheet Layout:

Sheet 1 | Sheet 2



Mapping reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and Database right 2012. All rights reserved. Ordance Survey licence number 100019345

Keyplan:



Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Zone within which permanent above ground structures would be located
- Zone within which required landscaping would be located
- Maximum extent of foreshore structure
- + 105.40m — Existing levels (shown in metres above tunnel datum)
- 105.40 — Proposed levels (shown in metres above tunnel datum)
- Listed buildings/structures
- Approximate position of CSO outlet
- Existing trees within surveyed area (trunk sizes vary)
- Proposed trees

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and the topographic survey base, both of which have been used in the preparation of this drawing.
3. The above ground structures in the "Save for the scale of above ground structures which is indicative" statement are those listed in table 1 on the Site works parameter plan.
4. Access covers not shown on this drawing. Refer to the Permanent works layout for an indication of the extent of access covers required.

10m 0 10m

Scale 1:200 at A1
1:400 if reproduced at A3

ILLUSTRATIVE
Save for the scale of above ground structures which is indicative

Location
Chelsea Embankment Foreshore
Royal Borough of Kensington & Chelsea

Document Information
Application for Development Consent
Proposed
Landscape plan sheet 1 of 2
Book of plans - section 14
DCO-PP-12X-CHEEF-140010
January 2013

Landscape key:

- Floral motif pattern in grey and cream granite sets
- Surface of footway reinstated to match existing (concrete slab / pimple paving)
- Reed bed planting

Sheet Layout:

Sheet 1 | Sheet 2

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

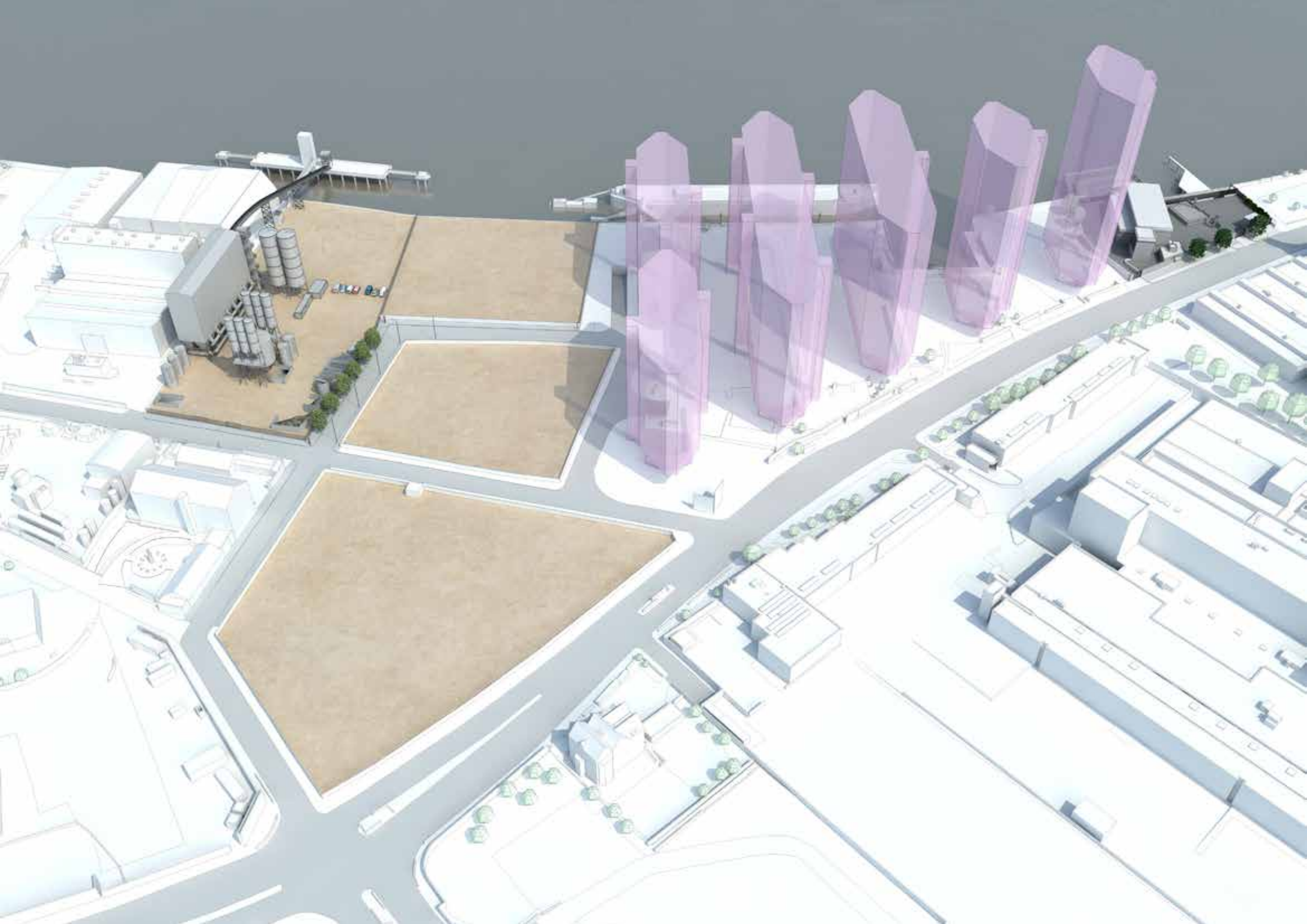
Thames Water

11

Kirtling Street

The proposals for Kirtling Street appear well considered. We support the intention to improve signage and plant trees along this part of the Thames Path. In the long-term, the quality of this route will ultimately be determined by the nature of built development fronting it.

It is critical that an open dialogue with developers and public bodies like Transport for London continues to takes place. Subject to phasing, this could allow for the coordination of construction activities over the coming decades, including the possibility of sharing the use of river transport facilities. Thames Tideway Tunnel should also consider ways to inform the community about the construction process as part of the process of engaging people in the project as a whole.



12

Heathwall Pumping Station

The Battersea Nine Elms area is set to change beyond recognition over the coming decades. We applaud the main moves presented, which reveal a clear recognition of this fact. Thames Tideway Tunnel will need to work closely with stakeholders, including those parties bringing forward development on Battersea Power Station and the area around the US Embassy, to ensure that its operations, both during the long construction period and once opened, minimise the impact on surrounding residents.
Our detailed comments are as follows:

– The idea of a new promontory beside Heathwall Pumping Station provides the chance to create a riverside space for the public to enjoy new vistas of the Thames and escape from the noise and pollution of Nine Elms Lane. We think more could be made of this opportunity by including movable planters or seating to soften this landscape and food kiosks in anticipation of it becoming a local destination.

– We support the paving design, which we note employs the project-wide motif of flowing bands that reference the geological strata and bending currents of the river. We also support the intention to give the promontory wall a robust foreshore character employing vertical timber fenders.

– We welcome the plan to link the space to the Thames Path, although we understand that operational needs will require it to close from time to time. The design team should consider a continuous grading to the ramp with level intervals to one side that allow for people to pause along its length.

– The design recognises the relationship between the promontory and the pumping station, a building that will become more conspicuous as neighbouring sites are redeveloped. The bespoke steel fencing solution proposed should create a suitably robust setting for the building, while providing interest to those using the Thames Path. In our view, it is important that this facility maintains its honest expression as a working part of the river alongside Middle Wharf, celebrating its presence as an industrial interlude on an otherwise residential-focussed riverside.

– Works to the pumping station and public realm should also address the relationship to Nine Elms Lane, helping to improve access to the Thames Path from the highway. Footway treatments should be robust and carry on through vehicular crossings. The proposals should acknowledge and work with the local authority's emerging design principles for Nine Elms Lane.

– The proposals should anticipate all potential operational formats for Middle Wharf, including the requirement for conveyors and silos, by engaging with the GLA and others to help ensure the proposals can adapt to the needs of this safeguarded facility, without undermining efforts to secure public access to the foreshore.

Keyplan:

Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Above ground structures to be removed
- Below ground structures to be removed or infilled
- Structure to be removed and relocated or reinstated
- Trees to be pruned

Notes:

1. Existing ventilation columns to be replaced.
2. Minor items to be removed (e.g. barriers, bollards etc.) are not shown.
3. General activities of site clearance such as removal of hardstanding and foundations, stripping of topsoil and clearance of minor vegetation not shown.

10m 0 10m

Scale 1:200 at A1
1:400 if reproduced at A3

FOR APPROVAL

Location

Heathwall Pumping Station
London Borough of Wandsworth

Document Information

Application for Development Consent

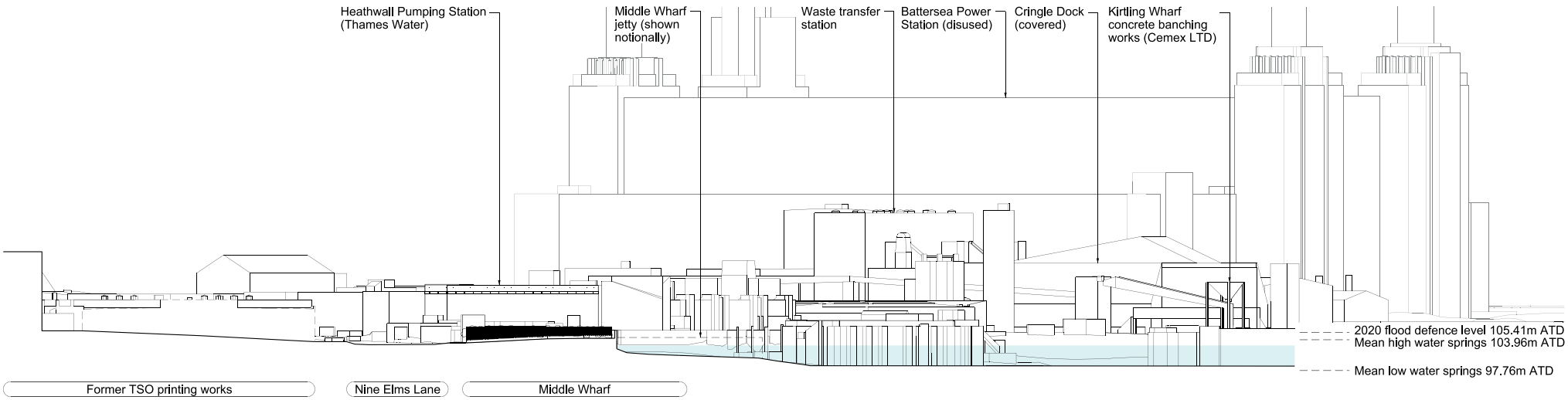
Demolition and site clearance

Book of plans - section 16

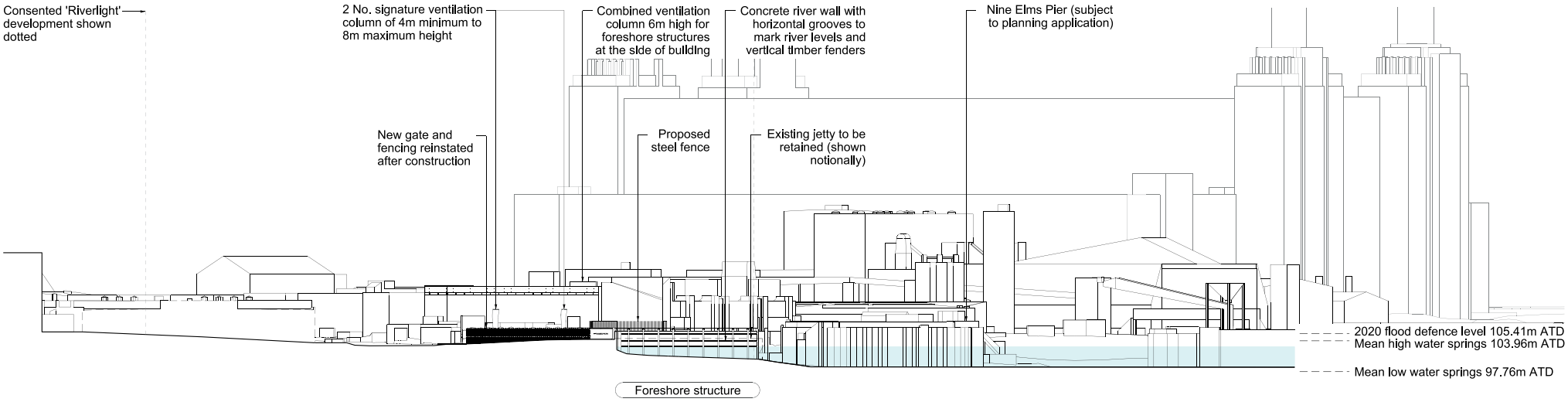
DCO-PP-14X-HEAPS-160004
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water



As existing East elevation



Proposed East elevation

13

Albert Embankment Foreshore

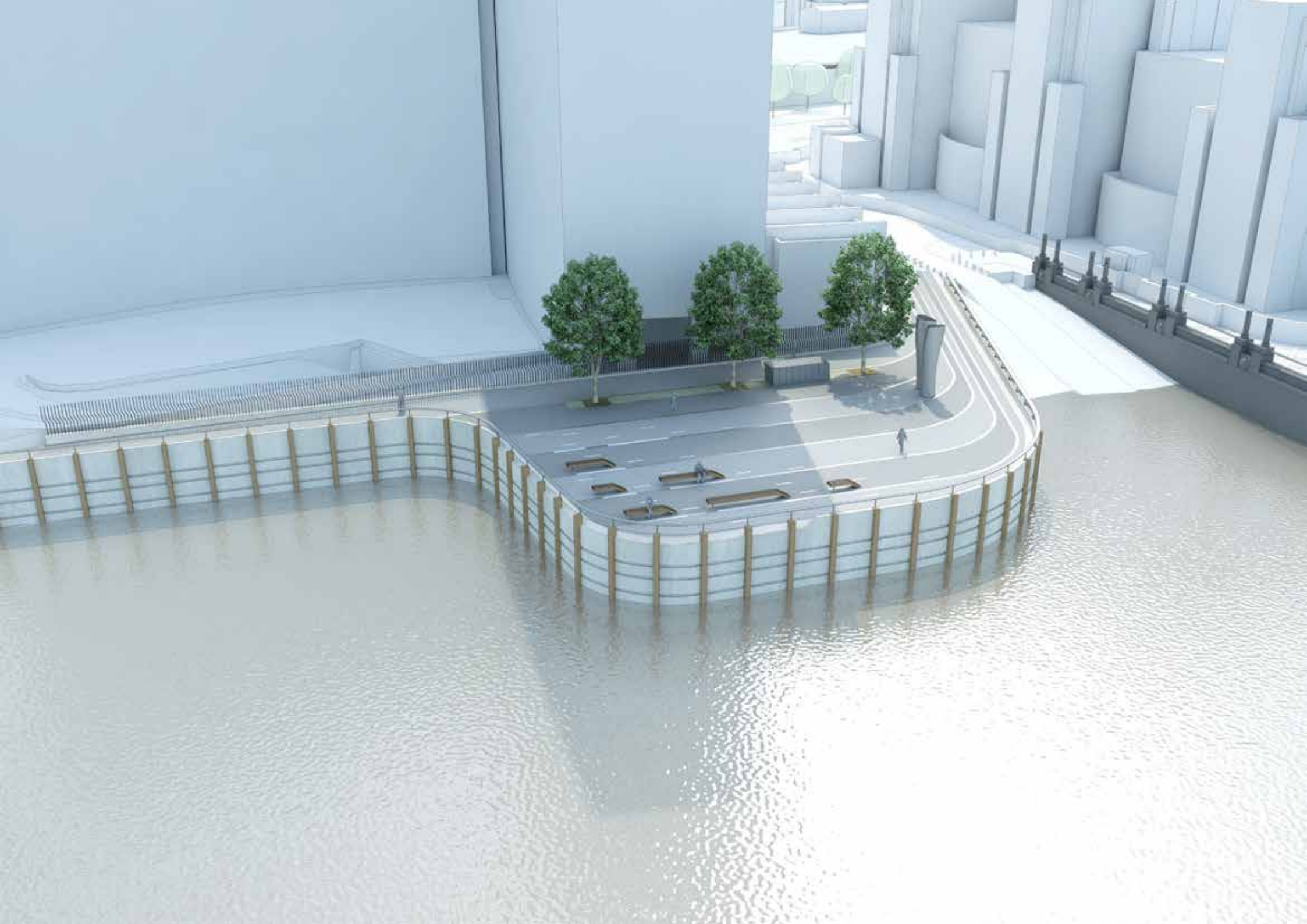
As one of the most important sites of the Thames Tideway Tunnel project, it is critical that the proposals both respect and enhance this sensitive riverside setting. We welcome the way in which they terminate the embankment.
We also feel the public should be free to enjoy use of the proposed circular platform.
Our detailed observations are as follows:

– We welcome the decision to mark the termination of the Albert Embankment with an extended river wall and area of hardstanding that is accessible to the public. We also support the proposed paving design, which we note employs the project-wide motif of flowing bands that reference the geological strata and bending currents of the river. The addition of movable seating and planters, and possibly food kiosks would also help make this a place where people want to dwell.

– The notion of a foreshore structure that contrasts with the listed bridge is welcomed. We think a circular form could work well in this context. In our view, it is crucial that this space is open to the public to serve as a destination and extension of the public realm on the embankment, rather than as a gated Thames Water facility. Therefore, we think it would be worthwhile including features such as movable seating to promote social use of the space and discourage anti-social behaviour.

– We support the idea of conveying the changing water levels through the architecture of the structure, specifically the way the intertidal terraces will trap water with the changing tide. The ecological benefits of a tiered structure are also recognised.

– In order to maximise the appeal of this space, we think that consideration should be given to upgrading the adjacent pedestrian tunnel beneath the bridge, potentially including an art or lighting project; Thames Tideway Tunnel could make a financial contribution towards this.



14

Victoria Embankment Foreshore

We find the proposals for Victoria Embankment Foreshore compelling and welcome the strong civic statement they make. Our detailed comments are as follows:

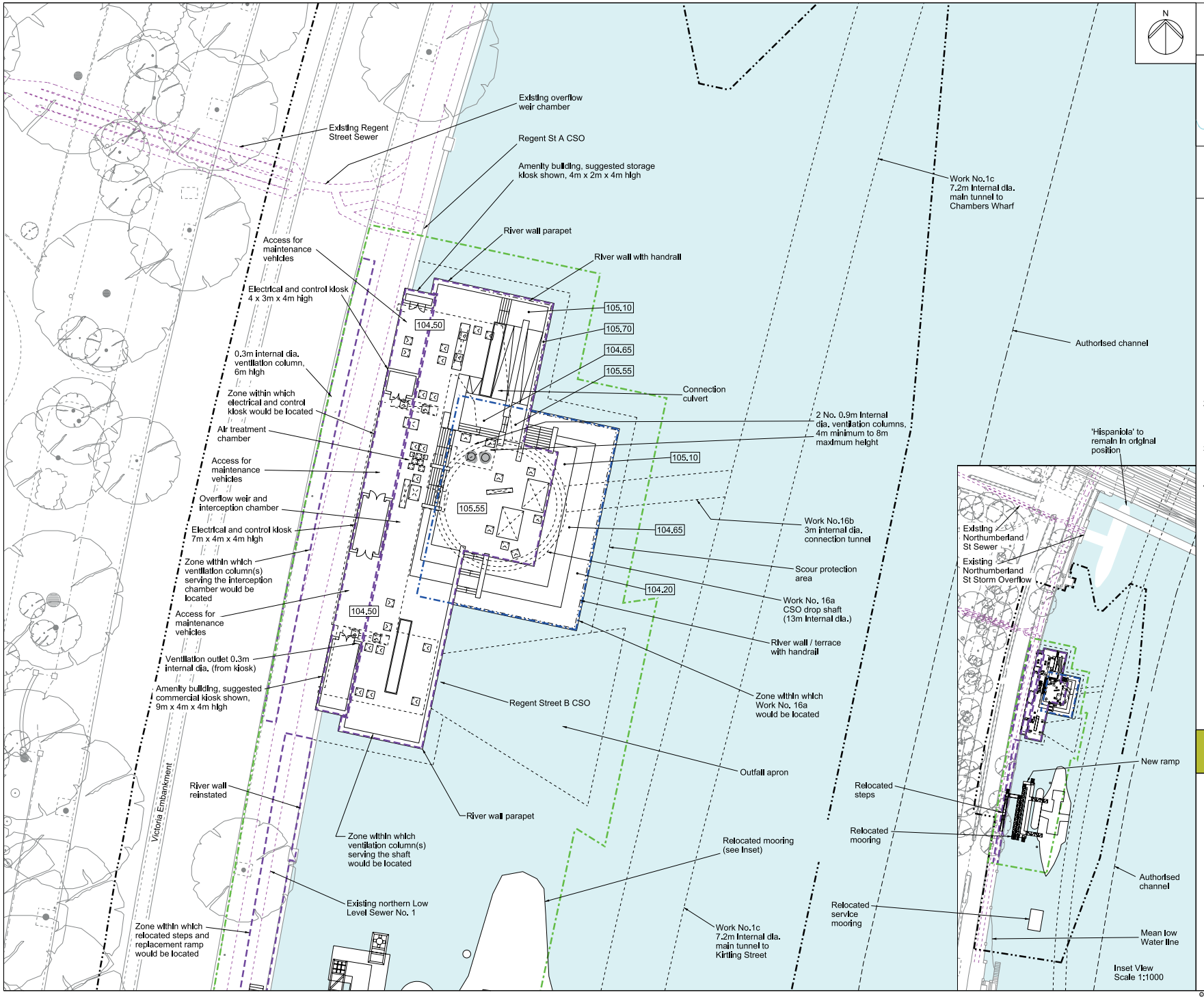
– We think the strong orthogonal plan of this foreshore development is well judged in relation to the linearity of the Victoria Embankment. The canting of its walls gives a welcome sense of strength and majesty to the structure in this riverine context.

– The relationship between the proposed new public space on the river and the existing wider public realm of Victoria Embankment and Embankment Gardens is very important. The use of the kiosks to help define the threshold into the space is particularly well conceived; the use of one of these as a café or information kiosk is welcomed. We support the sculptural expression and materiality of these structures, which lends them a timeless quality. Features such as the bronze plated doors are well chosen, signalling that these structures are not for public use without being off-putting.

– We welcome the planted canopy structure connecting the kiosks. Good soil depths should be provided to allow the plants to be well irrigated to survive in hot summers.

– We enjoy the playable nature of the space and welcome the fact that, even in high tide, the terraces should be safe for children to use thanks to the inclusion of balustrades to mark the their perimeter. This could be an exemplar for such spaces in the city.

– We welcome the creation of moorings on the new structure to allow for maintenance access. Design solutions should be investigated to allow those with impaired mobility to access moored boats, for example via hydraulic steps/ramps.



Keyplan:
This drawing

Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Existing sewers
- Proposed access cover
- 104.50 — Proposed level (shown in metres above tunnel datum)
- Zone within which all permanent site structures would be located
- Zone within which the shaft would be located
- Zone within which permanent above ground structures would be located

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and topographical survey base, both of which have been used in the preparation of this drawing.
3. This drawing shows permanent site structures only. Landscaping hard works and soft works are shown on the Proposed landscape plan and/or Proposed site features plan.
4. Access for external inspection of tidal flap gates in foreshore to be by boat.

10m 0 10m

Scale 1:200 at A1
1:400 if reproduced at A3

ILLUSTRATIVE

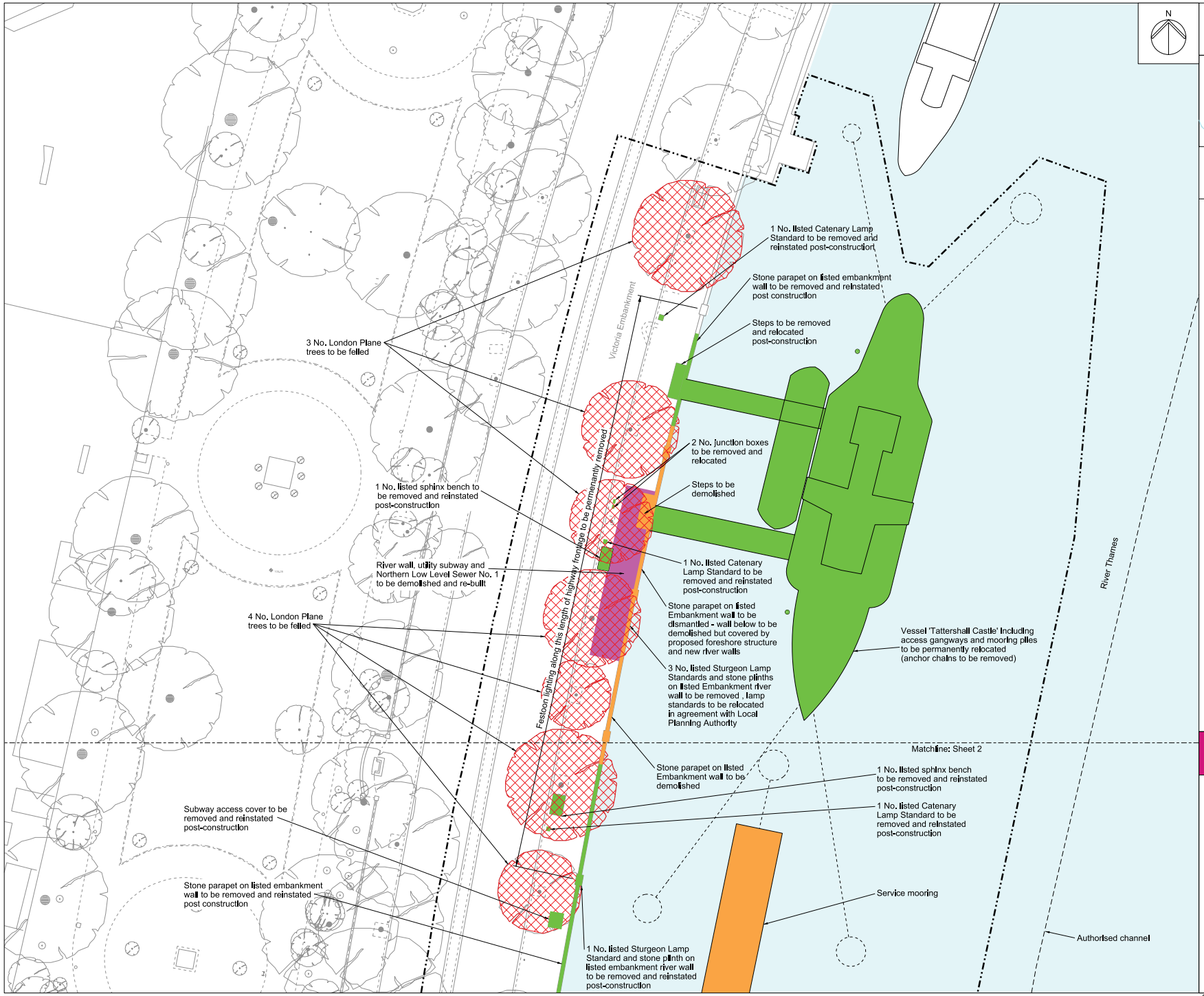
Location
Victoria Embankment Foreshore
City of Westminster

Document Information
Application for Development Consent
Permanent works layout

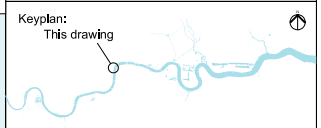
Book of plans - section 18
DCO-PP-16X-VCTEF-180010
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water



Keyplan:
This drawing



Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

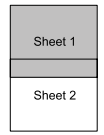
Key:

- Limits of land to be acquired or used (LLAU)
- Trees to be removed
- Above ground structures to be removed
- Below ground structures to be removed or infilled
- Structure to be removed and relocated or reinstated

Notes:

1. General activities of site clearance such as removal of hardstanding and foundations, stripping of topsoil and clearance of minor vegetation not shown.
2. Minor items to be removed (e.g. barriers, bollards etc,) are not shown.
3. All lamp standards, parapet sections and benches to be carefully removed and stored securely off site until reinstatement.

Sheet Layout:



10m 0 10m

Scale 1:250 at A1
1:500 if reproduced at A3

FOR APPROVAL

Location
Victoria Embankment Foreshore
City of Westminster

Document Information
Application for Development Consent
Demolition and site clearance
Sheet 1 of 2
Book of plans - section 18
DCO-PP-16X-VCTEF-180006
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water

15

Blackfriars Embankment Foreshore

The designs appear to resolve a complex set of site conditions and engineering constraints to produce a public realm proposal that is simple, functional and elegant. The astute handling of the level change from the highway down to the platform underpins an assured design solution. Our specific comments are as follows:

– There is an opportunity for this scheme to begin to address the complexity of levels and movement patterns on this site by unpicking and stitching this streetscape back together. We think the proposals represent a commendable response to this challenge.

– This space is set to become a major place of gathering, drawing visitors looking to enjoy views of the Thames and see organised and spontaneous events there. It also offers the opportunity to showcase the Thames Tideway Tunnel itself, which we think the submission is not yet fully exploiting. The incorporation of a diagrammatic plan of the Thames within the paving design provides a good sense of the potential educational value of the space. There is also scope to use the café to house a permanent exhibition on the tunnel.

– We welcome the provision of planting across the upper levels of the space. Given the generous scale of the lower level platform, we think it would benefit from further articulation. This might, for example, take the form of a colonnade of pleached trees to reinforce its linearity, frame vistas of the river, and provide a sense of shelter from the road. Alternatively, the team might consider incorporating glass into the paving to reveal the drop shaft below, which itself could help to tell the story of the tunnel.

– While the use of feathered steps may be justified, they can raise issues of safety and so require careful detailing. We welcome the provision of appropriately spaced landings to the side of these steps, to allow users to pause.

– We applaud the playability of the space, incorporating elements such as dancing fountains. The use of sound, scent, and horticulture should all come together to produce a delightful place of relief along the highly trafficked embankment. We think the vertical timber fenders might even be spaced to produce their own unique sounds that add to the visitor experience.

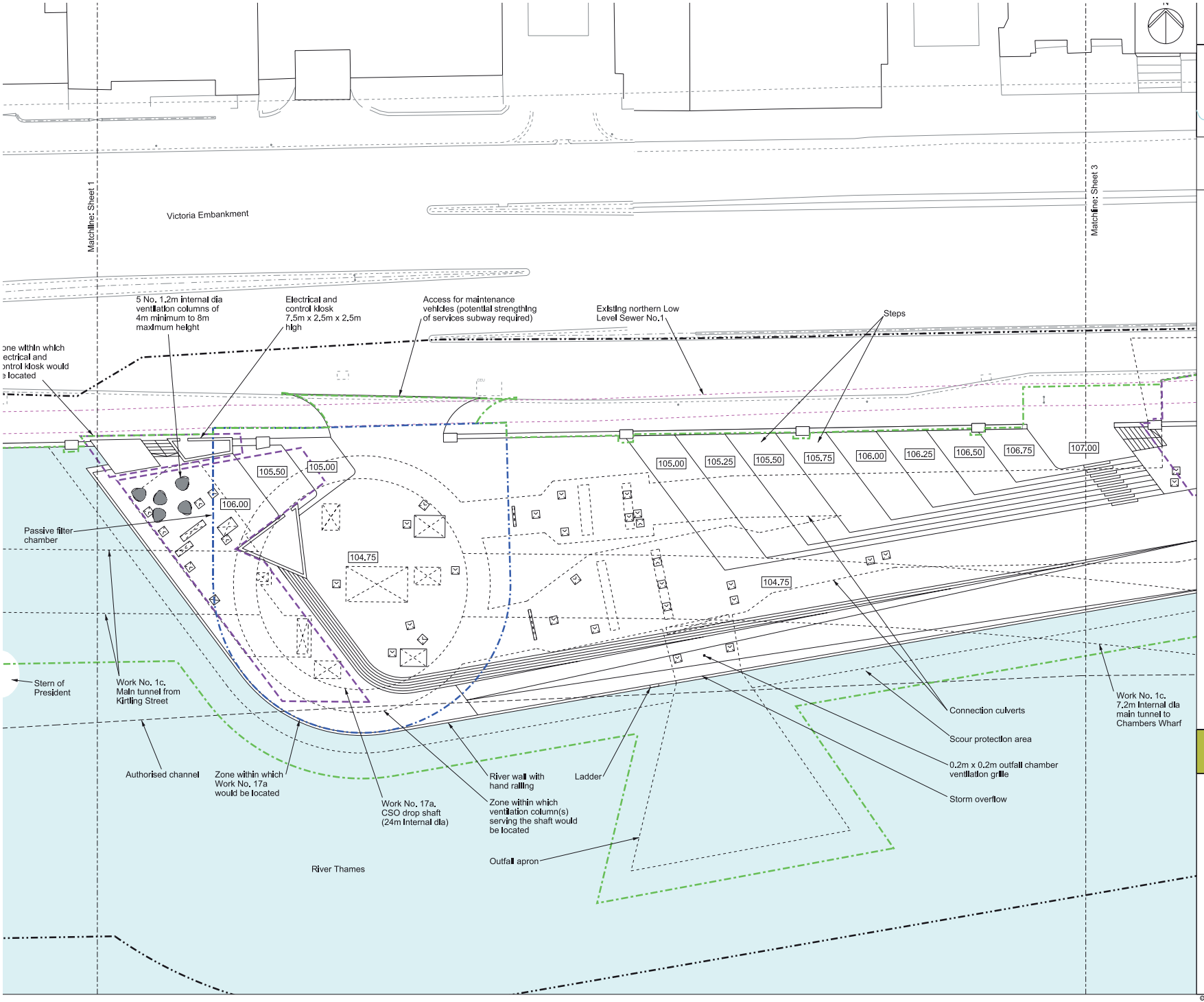
– We welcome the use of horizontal banding to mark tide levels, an approach which we note is being echoed on other foreshore sites.

– We support the provision of railings along the edge of the platform, which will give visitors something to rest against while enjoying views of the river.

– We welcome the provision made for others to re-use the area under and beside the bridge for retail uses and are pleased to note that existing public conveniences are included in the designs.

– The proposed lift and replacement stairs to the east and west of Blackfriars Bridge would mark a considerable improvement on the current situation and are an important component of the proposals for this site. These should be more fully promoted during this phase of consultation.

– We recommend the creation of moorings on the new structure to allow for maintenance access from the river.



Keyplan:

Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Existing sewers
- Zone within which all permanent site structures would be located
- Zone within which permanent above ground structures would be located

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and topographical survey base, both of which have been used in the preparation of this drawing.
3. This drawing shows permanent site structures only. Landscaping hard works and soft works are shown on the Proposed landscape plan and/or Proposed site features plan.

Sheet Layout

Sheet 1	Sheet 2	Sheet 3	Sheet 4	Sheet 5

10m 0 10m

Scale 1:200 at A1
1:400 if reproduced at A3

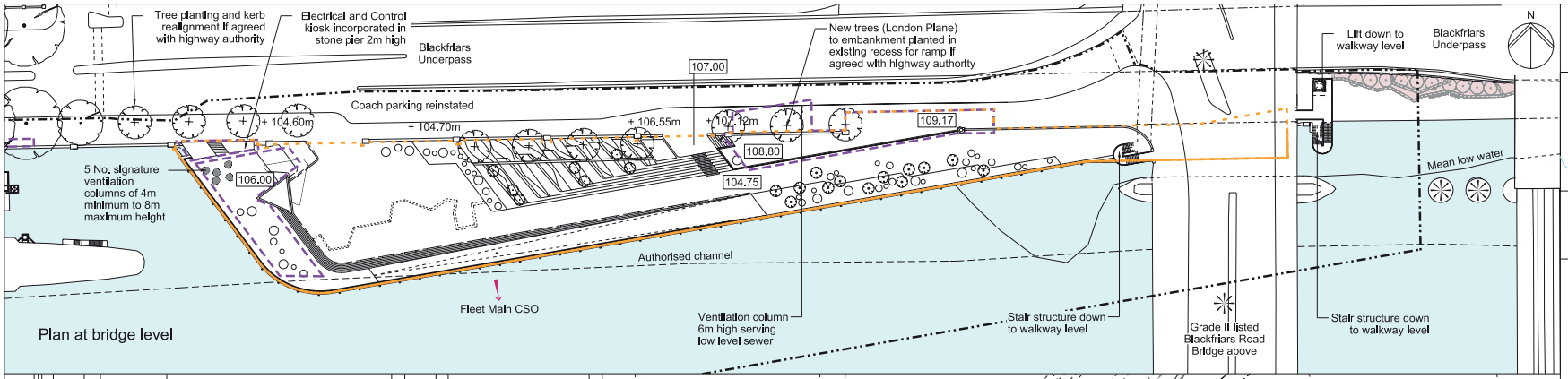
ILLUSTRATIVE

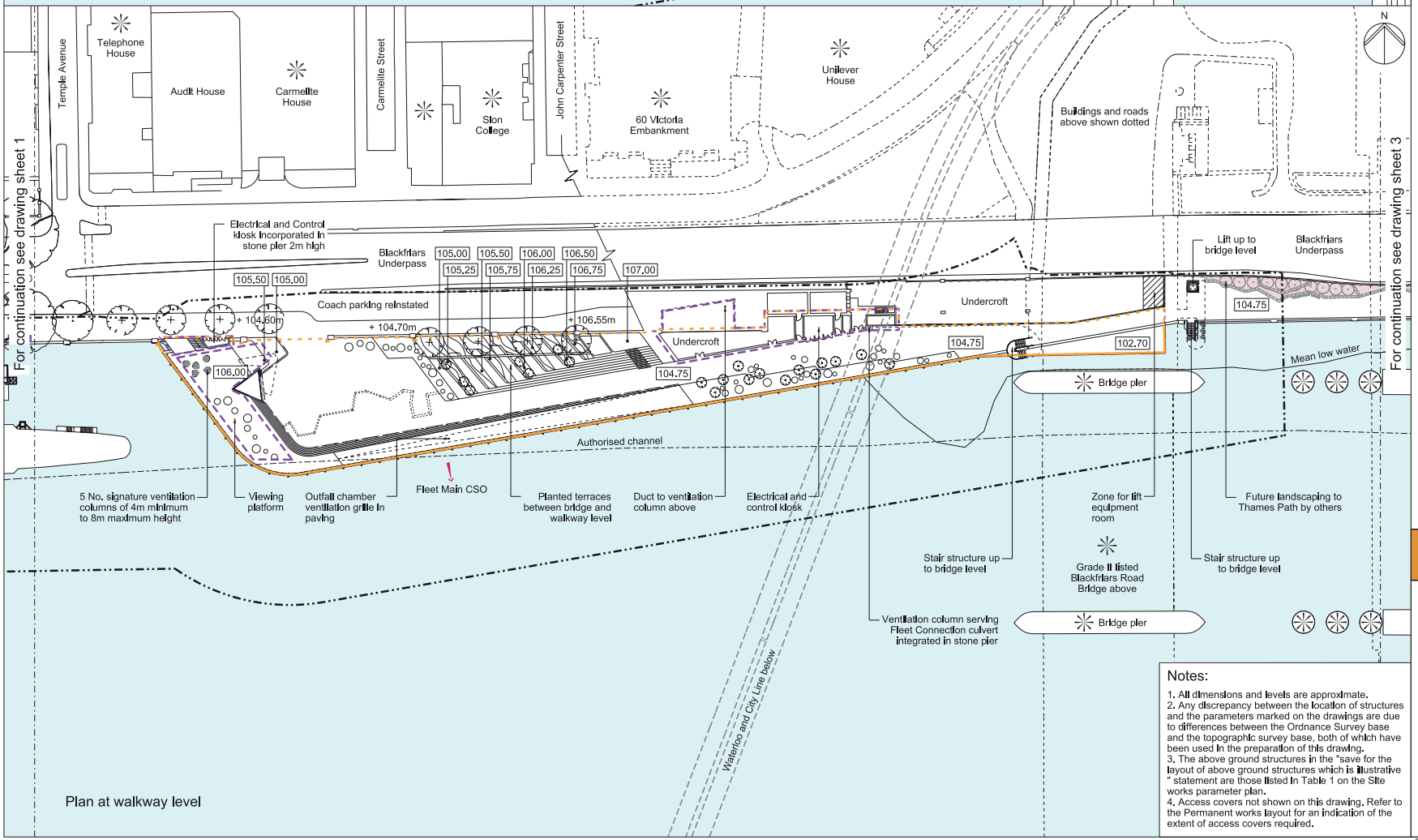
Location
Blackfriars Bridge Foreshore
City of London

Document Information
Application for Development Consent
Permanent works layout
Sheet 2 of 5
Book of plans - section 19
DCO-PP-17X-BLABF-190013
January 2020

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water





Keyplan:

Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Zone within which permanent above ground structures would be located
- Zone within which required landscaping would be located
- Maximum extent of foreshore structure
- Authorised channel
- + 105.40m — Existing levels (shown in metres above tunnel datum)
- 105.40 — Proposed levels (shown in metres above tunnel datum)
- Consented development footprint (by others)
- Listed buildings/structures
- Approximate position of CSO outlet
- Existing trees within surveyed area (trunk sizes vary)
- Proposed trees (London Plane)

Sheet Layout:

10m 0 40m

Scale 1:500 at A1
1:1000 if reproduced at A3

INDICATIVE
Save for layout of above ground structures which is illustrative

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and the topographic survey base, both of which have been used in the preparation of this drawing.
3. The above ground structures in the "save for the layout of above ground structures which is illustrative " statement are those listed in Table 1 on the Site works parameter plan.
4. Access covers not shown on this drawing. Refer to the Permanent works layout for an indication of the extent of access covers required.

Location
Blackfriars Bridge Foreshore
City of London

Document Information
Application for Development Consent

Proposed site features plan
Sheet 2 of 3
Book of plans - section 19

DCO-PP-17X-BLABF-190018
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water

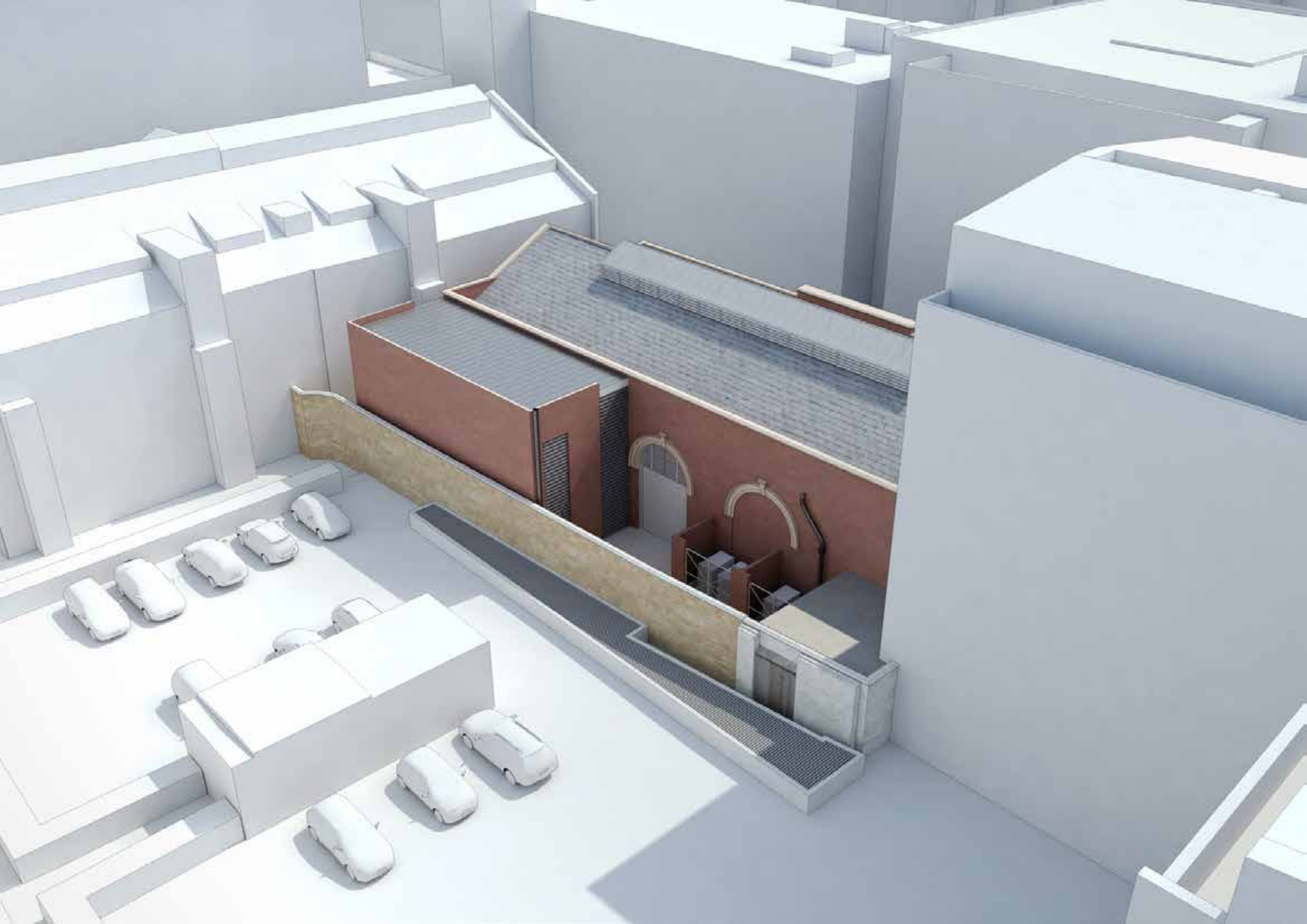
16

Shad Thames Pumping Station

The proposals presented for this site appear well considered. The idea of a simple, modest extension to the pumping station that is industrial in character and visibly separate from the main building appears sensible given its tight urban context. We also note that:

– The quality of the new door onto Maguire Street will need to be of the highest quality to matches that of the existing central door.

– The choice of construction method and materiality should reflect the challenges of building in an infill site and the relative timescales required for construction.



17

Chambers Wharf

We understand that the proposed works need to be accommodated within the approved housing development at Chambers Wharf. However, Thames Tideway Tunnel has an important role to play in this space. We see this as an opportunity to benefit both parties. Specifically, we advise:

– On-going dialogue take place with the housing developer and design team to shape the detailed design of their public realm. Thames Tideway Tunnel's proposals should set a quality benchmark for this scheme to follow to ensure the creation of an enduring riverside public realm.

– A bolder stance is taken by Thames Tideway Tunnel on hard and soft landscape and street furniture, setting the tone for the adjacent development.

– The development of a more playful character to the space, lending it a greater sense of invitation, perhaps allowing for a stepping of the public realm up towards the water's edge.

– We recommend the creation of moorings on the new structure to allow for maintenance access from the river.

18

Earl Pumping Station

We understand that this neighbourhood is set to undergo regeneration in the coming years and we welcome the design team's acknowledgment of this fact in the proposals. The scheme reveals an exciting prospect to create a distinctive building that could become a cherished local landmark. Our specific comments are as follows:

– We think a building of the form and expression proposed could be captivating, helping it become a curiosity of local note. However, while it is expressed as a free-standing form, its connection to the pumping station boundary wall denies the opportunity to explore the building in the round. We would ask Thames Tideway Tunnel to consider separating it from the wall so that it can be seen as an object in its own right.

– The suggestion for how a masonry building could be designed to create a playful expression by incorporating extruded brickwork and a graduation of solid to void across its façade is appealing. However, we would encourage further exploration of its materiality to ensure it achieves an appropriate contrast with its neighbour. The design team could investigate alternative finishes, including glazed brick, to create a more individual statement, while still subtly referencing the colour and texture of the pumping station.

– Given the experimental nature of this project the design team should work closely with brick manufacturers. The proposed approach could work well to discourage vandalism. The suggestion of how a narrative about the Thames Tideway Tunnel and its importance for London could be incorporated in the façade is also welcomed.

– Thames Tideway Tunnel should consider how the building's immediate setting will be able to become greener and more playable in character in the future.

– It is critical that sufficient budget is reserved to deliver the level of quality suggested in this submission.

19

Deptford Church Street

The design team's case for locating the proposals on this site is a compelling one, not least given the potential to improve the setting of the Grade 1 listed St. Paul's Church and the significant public benefit to be gained through the upgrading and reintegration of an undervalued park space with its wider setting. Our detailed comments are as follows:

– While the temporary loss of this green space is regrettable, we believe that the strategy proposed represents a genuine attempt to redress its current shortcomings so that it can subsequently make a more valuable contribution to the community it serves.
– We applaud the opening up of the site to the surrounding neighbourhood, offering stronger links to the Laban Centre, the Sue Godfrey Nature Reserve, St. Paul's Church, and St. Joseph's Primary School and the High Street. The emerging wider green space network offers substantial public benefit.

– We support the idea of a multi-function civic space for this site with a focus on horticulture. It will be important to achieve a landscape that is playable, including around the ventilation columns. This could be achieved through the landscape, for example, using level changes, as opposed to more formal play equipment. The columns will serve as the focal point of this landscape and a helpful signal to the tunnel below people's feet.

– We are pleased to note that the illustrative drawings set a quality benchmark for the scheme. The aspirations for the landscape and streetscape features such as benches, seats, and lighting, should be coordinated with future plans for the Church landscape. We support the idea of a shared surface on Coffey Street with a flush connection between St. Paul's Church and the informal open space.

– We think that there should be an integrated approach to the positioning and design of access panels. They should be recognisable as part of a family of streetscape features associated with the Thames Tideway Tunnel, albeit tailored to reflect their local context.

– We welcome the community being offered a key role in developing the designs for the space. This would help secure a sense of local ownership over the entire space. In our view, early engagement would promote the chances of a successful outcome. This should form the basis of a constructive dialogue between Thames Tideway Tunnel, London Borough of Lewisham and the local community. The process could, in turn, inform a local authority planning brief for the space that has buy-in from all parties.

– We are pleased to note that the scheme will be priced at tender, to include streetscape elements.

20

Greenwich Pumping Station

There is a lot to commend in the proposals submitted. The level of attention paid to the restoration of the listed Beam Engine House is admirable. However, we are concerned that the setting of this building has not been given the same level of attention. Our detailed comments are as follows:

– The design team make a good case for the re-use of the listed Beam Engine House to house the Thames Water equipment. However, we think it important that all listed buildings within the compound benefit from restoration to protect them for future generations.

– We think the opportunity to juxtapose fine examples of Victorian engineering with their modern day equivalents should not be overlooked. As proposed, we think there is a contradiction between the level of thought paid to the Beam Engine House and the structure and kit capping the CSO drop shaft. In our view, the approach to the latter diminishes the value of the new elements within this notable complex of buildings. They also risk detracting from the setting of the Beam Engine House. Therefore, we think the circular form of the CSO drop shaft could be more deliberately expressed. This might be achieved by exchanging its unappealing perimeter railings with a brick enclosure to lend it a more disciplined form and to better screen the plant within.

– We think the location of the internal security fences should be reconsidered to further enhance the setting of the listed building. While we recognise that the site is not accessible to the public, it will be seen by those using the nearby footpath and passing in trains overhead. The opportunity to enhance the landscape setting and biodiversity offer across the site should be taken.

21

King Edward Memorial Park Foreshore

We understand that ideas for this site are still evolving. For the plans to succeed, they must be supported by a compelling vision for the future of the whole park, delivered with the involvement and support of local people, to demonstrate that the public gain at the end of the process – both at a London-wide and local level – will be worthwhile. Our advice on the proposal submitted is as follows:

– Thames Tideway Tunnel need to create the conditions where those communities with an interest in the future of this park can express their hopes and fears about the proposals. We think there would be benefit in Thames Tideway Tunnel funding a specialist consultant to lead on this exercise. The process should be a structured, multi-faceted commitment around education, skills, and language. It should help to build a vision for the park as a whole that is shared by local people, the local authority, and Thames Tideway Tunnel. This should yield a scheme that works for all parties. Such a framework should be agreed early so that a base scheme can be costed.

– Establishing a compelling narrative that has buy-in from all is more likely to produce a design that has integrity and improves significantly on the park's current facilities.

– Thames Tideway Tunnel will need to provide the assurance to local communities that the level of ambition that is evident in the approach to the central foreshore sites will be matched at King Edward Memorial Park.

– Significant efforts will be required to help mitigate the impact of construction on the park and address the inconvenience to residents. We appreciate the initial thoughts presented by the design team in this area. We think that, where possible, visual connections with the river should be maintained during the works; alternatives to hoardings should be explored to secure this.

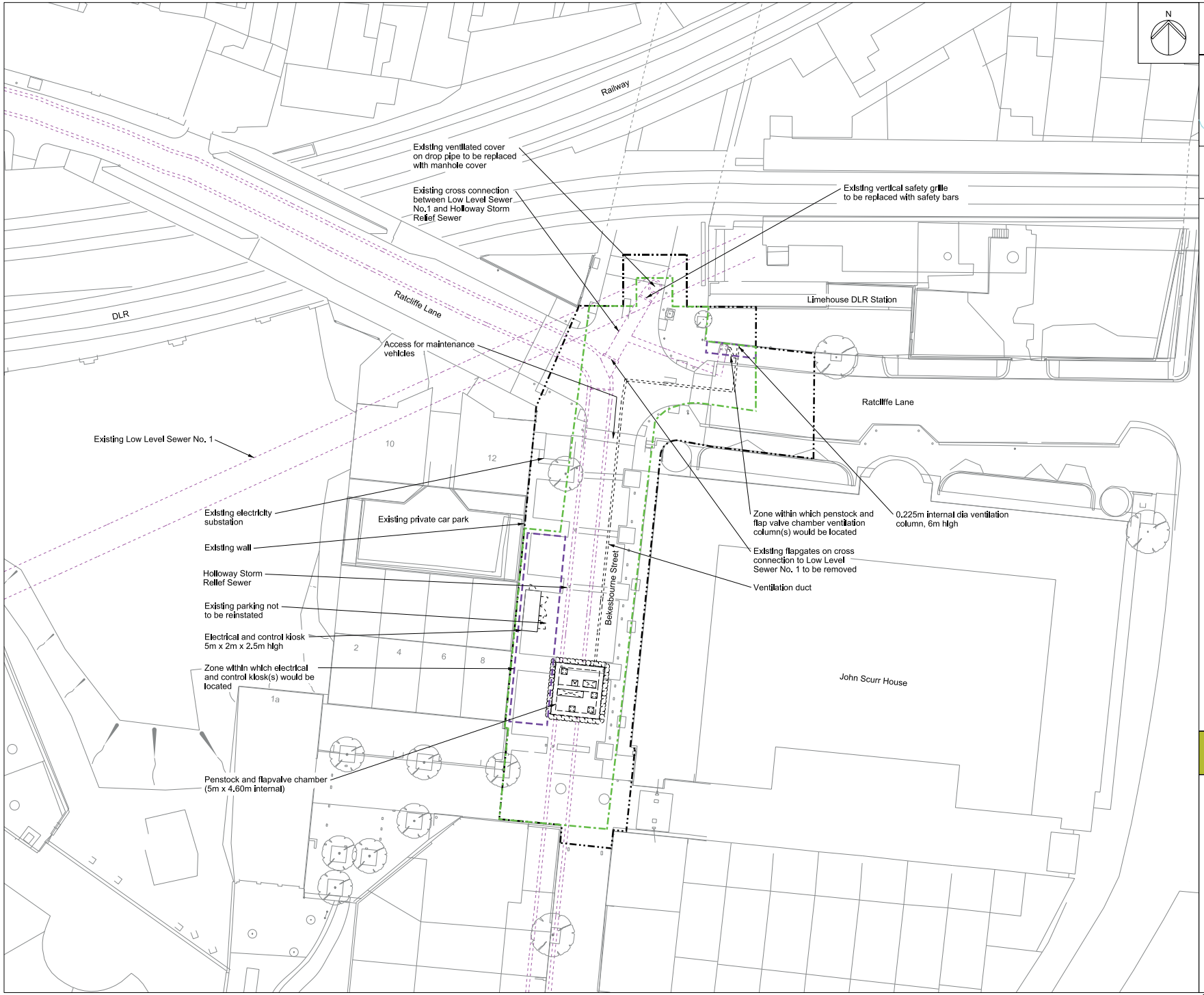
– Quality of materials will be fundamental to creating a place that has longevity and that the community can feel proud of. We are encouraged by the suggestion of high quality streetscape materials for elements such as balustrades in the material shown.

– We recommend the creation of moorings on the new structure to allow for maintenance access from the river.

22

Bekesborne Street

We support the proposed scheme. The inclusion of a planted roof for the kiosk is welcomed. We recommend a minimum soil depth of seven inches to adequately support biodiversity.



Keyplan:

Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Existing sewers
- Proposed access cover
- Zone within which all permanent site structures would be located
- Zone within which permanent above ground structures would be located

Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and topographical survey base, both of which have been used in the preparation of this drawing.
3. This drawing shows permanent site structures only. Landscaping hard works and soft works are shown on the Proposed landscape plan and/or Proposed site features plan.

10m 0 10m

Scale 1:200 at A1
1:400 If reproduced at A3

ILLUSTRATIVE

Location
Bekesbourne Street
London Borough of Tower Hamlets

Document Information
Application for Development Consent
Permanent works layout

Book of plans - section 26
DCO-PP-25X-BEKST-260005
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

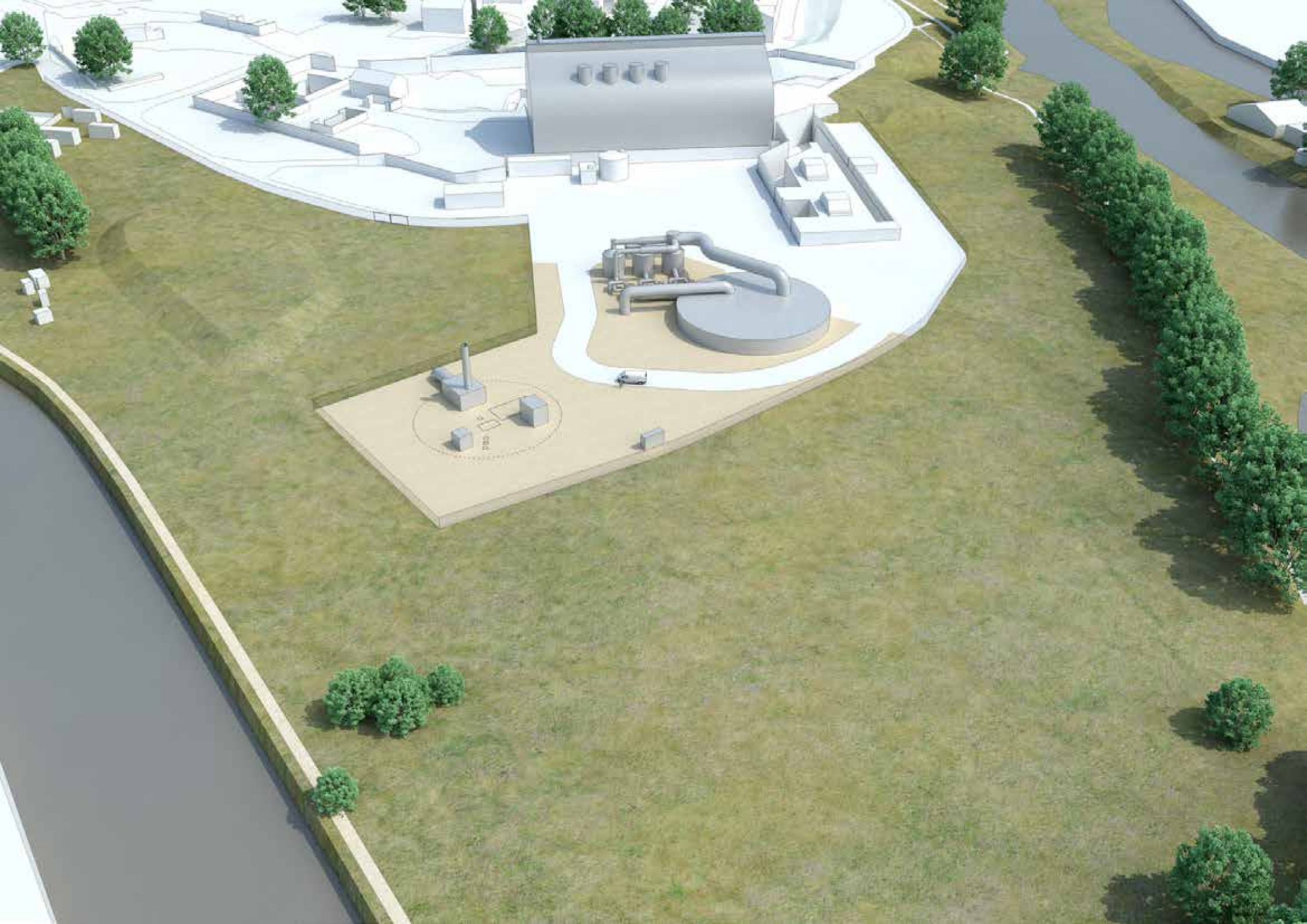
Thames Water

23

Abbey Mills Pumping Station

Given the notable design quality of both Bazalgette's and Allies and Morrison's pumping stations in this area, we think the expression of the Thames Tideway Tunnel structures requires the same degree of thought and attention. The design of the ventilation column should also be considered in conjunction with the Lee Tunnel structures being brought forward nearby.

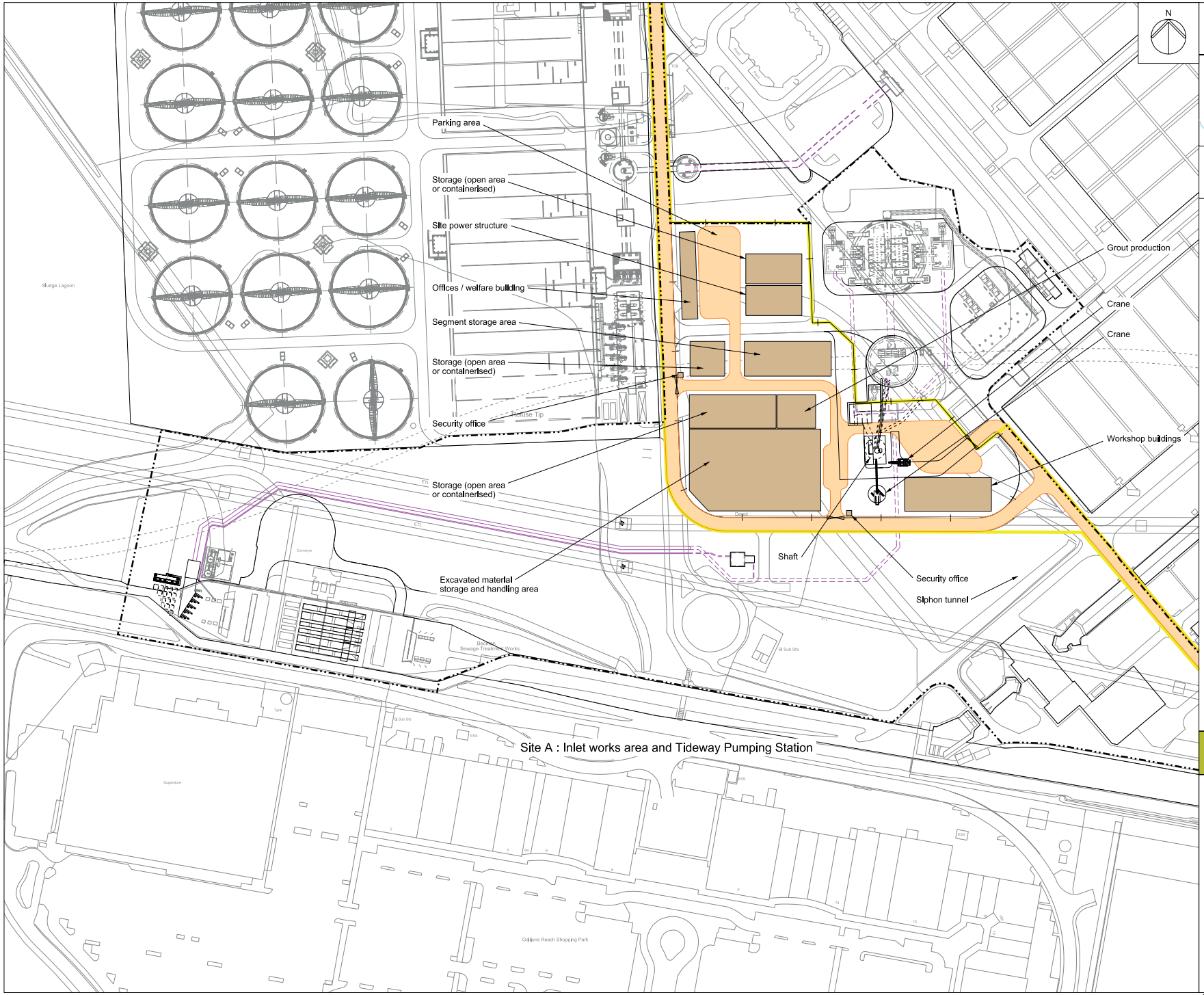
It will be important to secure permeability around the site. Legible and safe alternative routes should be explored and understood at all stages of the works so the vibrancy of the urban fabric can continue to be supported. Consideration should also be given to how biodiversity on this site can be encouraged to thrive in the longer term. Advance planting on the site's perimeter may assist in this regard.



24

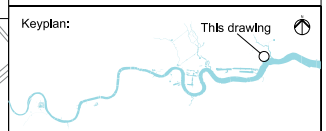
Beckton Sewage Works

Given the critical role of Beckton Sewage Works as one of London's major waste water treatment facilities situated at the termination of both the Thames Tideway and Lee tunnels, we think the opportunity could be taken to increase public awareness of this fact. This might be achieved through the inclusion of a visitor centre or tours of the site.



N

Keyplan:



Coordinates are to be Ordance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

Key:

- Limits of land to be acquired or used (LLAU)
- Hoarding
- Maximum extent of working area
- Site access
- Access / haul route
- Existing sewers

Notes :

1. These construction phasing plans have been prepared to illustrate possible site layouts for the principle construction phases. Contractors may choose to lay sites out differently during construction depending on their preferred construction methods subject to any controls on layout imposed through the planning submission and approval process.
2. Traffic management plans for construction phases of the work would be submitted to the appropriate authority for approval. Where appropriate, outline traffic management arrangements are shown.
3. Utility supplies for the construction of the works would be agreed with the relevant utility company.
4. Additional noise mitigation including noise barriers may be required but is not shown on this drawing.

10m 0 100m

Scale 1:1000 at A1
1:2000 if reproduced at A3

ILLUSTRATIVE

Location

Beckton STW
London Borough of Newham

Document Information

Application for Development Consent

Construction phases - phase 1 - site A
Setup, shaft construction & siphon tunnelling
Book of plans - section 28

DCO-PP-27X-BESTW-280009
January 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

Thames Water

Appendix 1: Chair and panel member biographies

Les Sparks (Chair)
Les Sparks completed professional training as an architect and town planner (MRTPI and RIBA). He has worked in the private sector for a planning consultancy and for a national house builder and in the public sectors in local government and a new town development corporation. Key posts include Principle planning officer LB Lambeth 1968–73, Severn Gorge Projects Manager, Telford DC 1975–80, Director of Environment Bath City Council 1980–91. He was director of Architecture and Planning at Birmingham City Council 1991-99 and Planning Inspector 1999-2002. Les was a CABE Commissioner 1999-2006 and English Heritage Commissioner 2001-08.

David Bonnett
Dr David Bonnett RIBA FRSA Ph.D BA B.Arch David Bonnett is a consultant architect with a background in both local authority and private practice. In 1994 David completed his Research Degree (Ph.D) on 'Design Effectiveness for People with Severe Disabilities'. This, as well as his personal knowledge of disability, has made David a leading figure on the subject. David Bonnett Architects was established in 1994 in response to the demand for his particular experience and skills as Architect-Access Consultant. Following expansion, the practice was reformed as David Bonnett Associates (DBA) in 2001. DBA is now one of the leading access consultancy practices in the UK, working on significant projects and with many of the major architectural practices in the UK and Europe.

Andrew Cameron
Andrew is an engineer with a background in transportation, architectural engineering and urban design. He is experienced in how we can plan for movement whilst at the same time creating great streets and enjoyable places and has been involved in many regeneration and masterplanning projects for villages, towns and cities in the UK and around the world.

He has acted as an advisor to Government with The Urban Task Force and for The House of Commons Select Committees on Housing and Sustainable Communities. He is co-author of national and local design guidance, including Places, Streets and Movement, The Urban Design Compendium, Designing Streets (for the Scottish Government) and Manual for Streets 1 and 2.

He has acted as a CABE Space Enabler, CABE National Design Review Panel Member and as a member of Design Review Panels for MADE and English Partnerships in the south west. He is Director of Urban Design at WSP Group.

Michael Coombs
Michael Coombs is Senior partner, engineering at Alan Baxters. Michael has extensive experience of new buildings, reuse of existing buildings, bridges, roads and infrastructure. He started his career in contracting, before becoming a design consultant, first on bridges and subsequently on buildings. Michael contributes significantly to the overall direction of the practice, it's quality management and training. He remains hands-on as a designers, involved in all the firms engineering projects.

Noel Farrer
Noel Farrer is the founding Director of Farrer Huxley Associates (1995), Chair of Policy Committee and Board member for the Landscape Institute and CABE national design review panel member. Noel's passion is in the creation of sustainable communities recognising the pivotal and activating role that public space plays. Noel has designed and delivered award winning schemes in education, housing, and public open space. He is an accomplished masterplanner and strategist, able to unlock complex problems with simple high quality solution

Esther Kurland
Esther is a planner by background, having worked in local authorities for a decade before moving to the GLA to lead on built environment issues for the first London Plan. Tall buildings and views were one of the big policy issues at the time. She later moved to CABE to focus on planning issues before establishing and managing Urban Design London a network, training and support organisation for London built environment professionals, councillors and others with an interest in the subject. UDL runs around 80 events a year on planning, housing, streets and public realm issues.

Ian Sharratt
Born in Cheshire in 1948 he studied Environmental Design at Manchester College of Art & Design before gaining a Master's degree in Environmental Design at The Royal College of Art in 1976. He joined Michael Hopkins Architects in 1976 and was a partner in the practice from 1981 until 1996 when together with John Pringle and Penny Richards he founded the London practice Pringle Richards Sharratt Architects. The practice currently has 25 staff.

He was an Hon Treasurer of the RIBA Building Industry Trust and has been a validator for The Open University on courses at the Architectural Association. For nine years he was a Governor and Chair of the Grounds and Building Committee at King Alfred's School, Golders Green. He has taught and lectured widely including at The Royal College of Art, The Architectural Association, Kingston University and with other members of the practice was a visiting tutor to the Graduate School of the University of Pennsylvania. He was a member of the CABE Design Review Panel for Crossrail and joined the Cabe London Design Review panel in April 2012. In 2003 he was awarded an honorary doctorate by Sheffield Hallam University. He aims to tease out the appropriate and the inspirational from cultural, public and commercial projects on the basis that its not so much what you put in but what you draw out that is often the key to a successful design.

Martin Stockley
Martin Stockley has been involved in Engineering since 1971. He was a draughtsman for the GLC and inspected sewers for Thames Water. He has a BSc Civil Engineering from University of London King's College and was initially designer of major civil engineering, sewage treatment works, steel rolling mills etc in the UK, West Indies and Libya. He was partner at Alan Baxter and Associates (1984–1996) with much work on historic buildings and other building structures. Stockley was founded in 1997 in Manchester and London.

In 1992, Martin began working on public realm and master planning with Paddington in London and Great Northern Warehouse in Manchester. He led the engineering design of the successful master plan for Manchester post-1996 bomb. Since then, he has worked on a series of award -winning building structures and has led on the development of an approach to public realm based on civility (now embodied in Manual for Streets).

Martin is currently Chair of Places Matter! and is a MADE Panel member, Bath and North East Somerset Transport Commission and Urban Regeneration Panel member. He was previously a member of the English Heritage Urban Panel, a Cabe Space Enabler, chaired the CABE Schools Panel, and sat on CABE's Crossrail Panel.

Joanna van Heyningen
Joanna van Heyningen founded her practice in 1977 and formed van Heyningen and Haward Architects with Birkin Haward in 1982. She stepped down as a Partner this year. Joanna has always sought to contribute to the wider built environment by giving her time. In the past she has been a member of: CABE Design Review panel; CABE Crossrail panel; MLA's Leading Museums Group and external examiner for Cambridge University Architecture School. And she is currently: RIBA Awards and Manser Medal assessor; Trustee of the Building Centre Trust; Brick Development Association Awards assessor; NLA Sounding Board member and Surrey Canal Quality team member. Joanna has been involved on all van Heyningen and Haward's buildings projects including the following award-winning buildings: Platform Young People's Performance Space, Hornsey; New North London Synagogue; No.1 Smithery, Chatham Historic Dockyard; Lerner Court, Clare College, Cambridge; Corfield Court, St John's College, Cambridge; Michael Croft Theatre at Alleyn's School, Dulwich; Latymer Upper School, Performing Arts Centre; Centre for Classical and Byzantine Studies, Oxford University; Kaleidoscope, Children and Young People's Centre, Lewisham; Sutton Hoo Visitor Centre (National Trust); RSPB Environment and Education Centre; West Ham Station, Jubillee Line Extension; Newnham College Library Rare Books Room.

Review process

Review stage	Review date	Scheme reviewed	Status of comments
Initial Sketch Review (First stage consultation period)	April/May 2011	All sites (except Bekesbourne Street + Beckton Sewage Treatment Works).	Confidential
Follow-up Sketch review (First stage consultation period)	June 2011	Acton Storm Tanks, King George's Park, Carnwath Road Riverside, Kirtling Street, Barn Elms, Putney Bridge Foreshore, Heathwall Pumping Station, King Edward Memorial Park Foreshore, Deptford Church Street, Earl Pumping Station, Albert Embankment Foreshore, Chelsea Embankment Foreshore, Victoria Embankment Foreshore, Blackfriars Embankment Foreshore	Confidential
Second stage consultation	October 2011	Acton Storm Tanks, Cremorne Wharf Foreshore, King George's Park, Falconbrook Pumping Station, Greenwich Pumping Station, Carnwath Road Riverside, Kirtling Street, Heathwall Pumping Station, King Edward Memorial Park Foreshore, Deptford Church Street, Albert Embankment Foreshore, Chelsea Embankment Foreshore, Victoria Embankment Foreshore, Blackfriars Embankment Foreshore	Public
Targeted consultation	June 2012	Putney Bridge Foreshore Victoria Embankment	Public
Planning application submission	April 2013	All sites	Public

The Design Council enables people to use design to transform communities, business and the environment for the better.

As an enterprising charity, our work creates value by stimulating innovation in business and public services, improving our built environment and tackling complex social issues.

We inspire new design thinking, encourage public debate and inform Government policy to improve everyday life and help meet tomorrow's challenges today.

Design Council,
Angel Building, 407 St John Street,
London EC1V 4AB United Kingdom

Tel +44(0)20 7420 5200
Fax +44(0)20 7420 5300

info@designcouncil.org.uk
www.designcouncil.org.uk

Registered charity number 272099