

Thames Tideway Tunnel
Thames Water Utilities Limited



Application for Development Consent

Application Reference Number: WWO10001

Design and Access Statement

Doc Ref: **7.04**

Part 2

Cremorne Wharf Depot

APFP Regulations 2009: Regulation **5(2)(a)**

Hard copy available in

Box **69** Folder **B**

January 2013

Thames
Tideway Tunnel 

Creating a cleaner, healthier River Thames

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Section 14

Cremorne Wharf Depot

14.1 Introduction

14.1.1 A worksite is required to connect the Lots Road Pumping Station CSO to the main tunnel. The proposed development site is known as Cremorne Wharf Depot, which is located in the Royal Borough of Kensington and Chelsea.

14.1.2 Due to uncertainties regarding the future use of the site, we have agreed with the Royal Borough of Kensington and Chelsea that some elements of the detailed design proposals would be drawn up at a later stage. The detailed designs would be submitted to the local authority for approval in the form of a DCO requirement. Therefore, the majority of the images and plans in this section are for illustrative purposes only.



Figure 14.1: Aerial photograph of the existing Cremorne Wharf Depot site with LLAU indicated

14.2 Existing site context

14.2.1 The site itself comprises an existing council depot that is currently used for storage and street cleaning, Lots Road Pumping Station, and an area of the River Thames foreshore.

14.2.2 The council depot includes a warehouse building with office and welfare facilities, two weighbridges, associated hardstanding and a jetty in the river. The Lots Road Pumping Station is Grade II listed and owned and operated by Thames Water.

14.2.3 The site falls within the designated Lots Road Employment Zone, which is known for clusters of antiques and art-related firms. The employment zone follows the route of Lots Road from the King's Road to the north and covers commercial properties, auction rooms, the former Lots Road Power Station, Lots Road Pumping Station, Cremorne Wharf Depot, Station House and Chelsea Wharf.

14.2.4 A planning application for a mixed-use development on the site was submitted to the Royal Borough of Kensington and Chelsea in June 2012. We would continue to work with the council to ensure the compatibility of both developments in the event that the application is approved.

14.2.5 The site is bounded to the north-east by Chelsea Wharf, to the south-east by the River Thames, to the south-west by the Lots Road Power Station development site, and to the north-west by Lots Road.

14.2.6 The local area is characterised by Edwardian residential properties laid out approximately in grid formation. The housing stock primarily comprises terraced two and three-storey properties with basement levels and pitched roofs, some of which have been extended with mansard roofs. The 1970s red brick residential towers of the Worlds End Estate lie to the north of the grid of terraced housing.

14.2.7 The Green Flag Award winning Cremorne Gardens lie to the northeast of Chelsea Wharf and contain the original gates to the Victorian pleasure garden that existed from 1845 to 1877 between the river and the King's Road. The gates were previously located on King's Road and were incorporated into the gardens when they were re-landscaped in 1981/2.

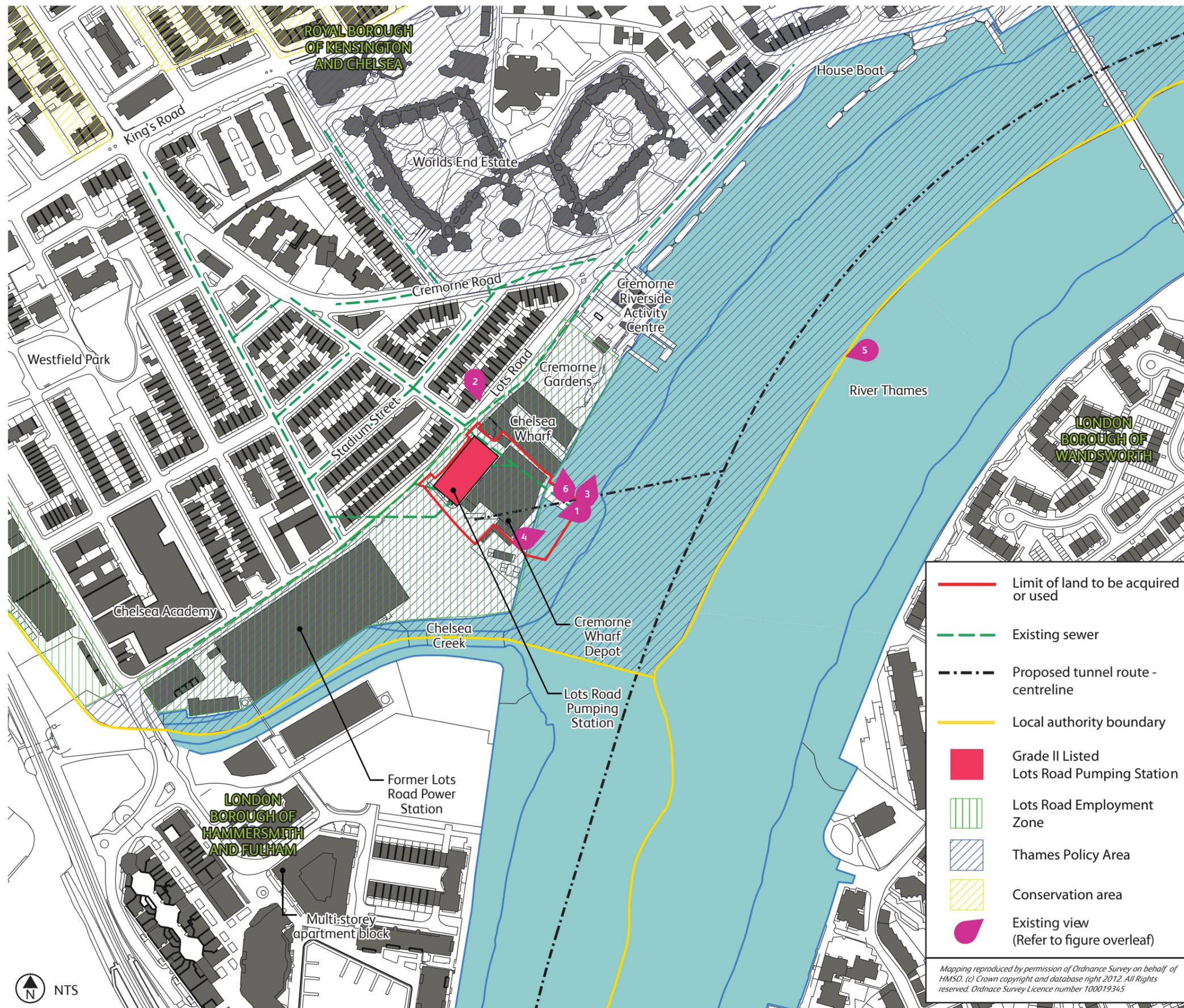


Figure 14.2: Existing site plan



Figure 14.3: Depot building from jetty

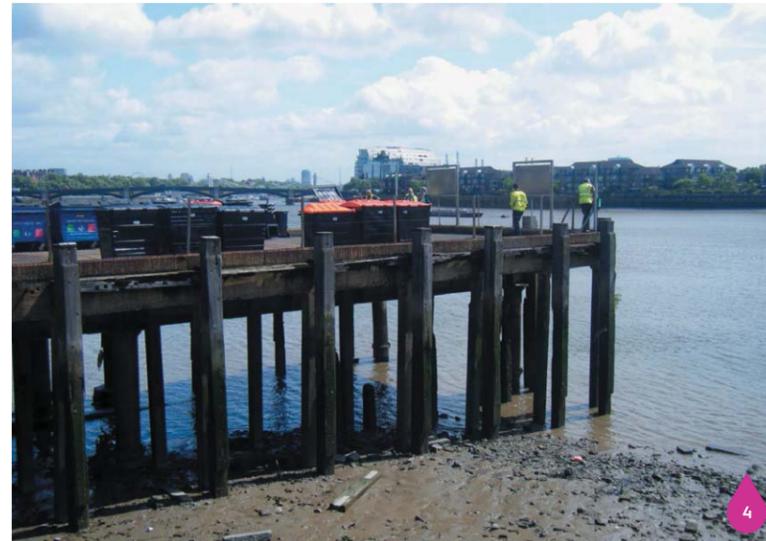


Figure 14.4: Existing jetty



Figure 14.5: Lots Road Pumping Station



Figure 14.6: Lots Road Power Station and Cremorne Depot



Figure 14.7: Jetty towards Cremorne Gardens



Figure 14.8: Chelsea Wharf

14.2.8 Cremorne Riverside Activity Centre and jetty is located next to Cremorne Gardens in an award-winning building that opened in 2008, although the centre was already in place in the gardens. The centre offers canoeing and kayaking for nine to 19 year olds and commercial groups. Beyond the Cremorne Riverside Activity Centre are several residential house boats moored on the River Thames.

14.2.9 Chelsea Wharf on the northeastern boundary of the site was redeveloped in 2007; the original 19th century warehouse building was converted and extended for mixed commercial and residential use. As part of the planning permission, the developer entered into a legal agreement to link a riverside walkway along the front of Chelsea Wharf in the event that Cremorne Wharf is either developed or altered to comply with the Royal Borough of Kensington and Chelsea's *Core Strategy Policy CT1*.

14.2.10 The site is located beside the River Thames, which is designated as the River Thames (including Chelsea Creek) Site of Nature Conservation Importance (of metropolitan importance) and within the Thames Conservation Area.

14.2.11 The area is dominated by the decommissioned Lots Road Power Station on a site directly adjacent to Cremorne Wharf Depot to the southwest of Chelsea Creek, which once supplied electricity to the London Underground. The power station, now partially demolished, is not listed and features a large (50m high) generating building with a pitched roof and two chimneys.

14.2.12 The power station site is due to be developed by Hutchison Whampoa under the extant planning permission for a mixed-use scheme comprising residential, retail, business and community units, restaurants and a doctor's surgery. The scheme would retain the power station's generating hall as a mixed-use development alongside the new buildings on-site, including residential towers up to 30 storeys high, a three to eight-storey commercial and residential building, and a seven-storey residential building along the boundary. The proposals include 420 new dwelling units and two new bridges over Chelsea Creek to enable a riverside walkway along the river frontage. There is a similar mixed-use planning permission within the London Borough of Hammersmith and Fulham on the opposite side of Chelsea Creek, which

proposes 392 residential units (planning permission 2002/03132/FUL). Together these applications were called in by the Secretary of State and approved on 30 January 2006. Although the application was approved nearly seven years ago, it is understood that this development has been validly implemented and applications have been submitted to discharge planning conditions between 2008 and 2012.

14.2.13 The area to the west of the site is characterised by the same Edwardian residential development pattern as to the north of the site. There are other uses within the grid such as Chelsea Academy on Lots Road between Uperne Road and Tetcott Road, which was opened in 2000. The grid is broken by Westfield Park to the north of Tetcott, Uperne and Uverdale roads. The park provides play equipment and green space.

Lots Road Pumping Station

14.2.14 Lots Road Pumping Station was built in 1904 and remains a Thames Water operational pumping station today. The building was constructed in red brick with decorative terracotta detailing. It is single storey with a pitched roof and a deep basement that houses most of the operational equipment. Its façades are predominantly characterised by large arched windows and doors, however the southeastern elevation onto the wharf is mainly blank with a few small openings, some of which are bricked up.

14.2.15 Over the years there have been a number of additions and alterations to the building to maintain its operational use, including the diesel engine flues that protrude through the front façade and a concrete ventilation column on the southeastern corner.

Cremorne Wharf

14.2.16 Cremorne Wharf is safeguarded from redevelopment into non-cargo-handling uses by a ministerial direction, the *London Plan 2011* and other *Core Strategy* policies. Temporary uses of a safeguarded wharf are permitted in some circumstances if the wharf is returned to cargo-handling use. The wharf is also designated as a safeguarded waste management site in the *Core Strategy*.

14.2.17 A depot building to house the waste management use was erected in 1992. It is a partly open-sided, warehouse-type structure, with two weighbridges, a storage area, welfare facilities, various offices and areas of concrete hardstanding. The waste management use of the site has now been relocated. The depot is currently used to store salt, street cleaning equipment and the Holland Park Opera sets. The wharf is not currently used for cargo-handling.

14.2.18 In 2012, the Royal Borough of Kensington and Chelsea (the landowner) submitted a planning application for a residential development on the depot site. This use challenges the site's safeguarded designation and has led to some uncertainty surrounding the future of the site. At the time of writing the application had not been determined. In addition, Thames Water's emerging proposals for the Counter's Creek Flood Alleviation Scheme may also influence the layout of the site.

Existing site access and movement

14.2.19 Vehicle access to the site is via two entrances on Lots Road, one on either side of the Lots Road Pumping Station, which form a one-way system within the site. The access to the north of the pumping station is owned by Thames Water.

Highways

14.2.20 Lots Road is a two-way single carriageway. The speed limit is 30mph and no weight restrictions apply. It links to King's Road (A308) to the north, which is part of the Transport for London Strategic Road Network, and to Cremorne Road (A3220) and Cheyne Walk (A3220) to the east, which form part of the Transport for London Road Network. The junctions of Lots Road with these roads are priority T junctions. To the west of the site, Lots Road links to Chelsea Harbour Drive at a mini roundabout.

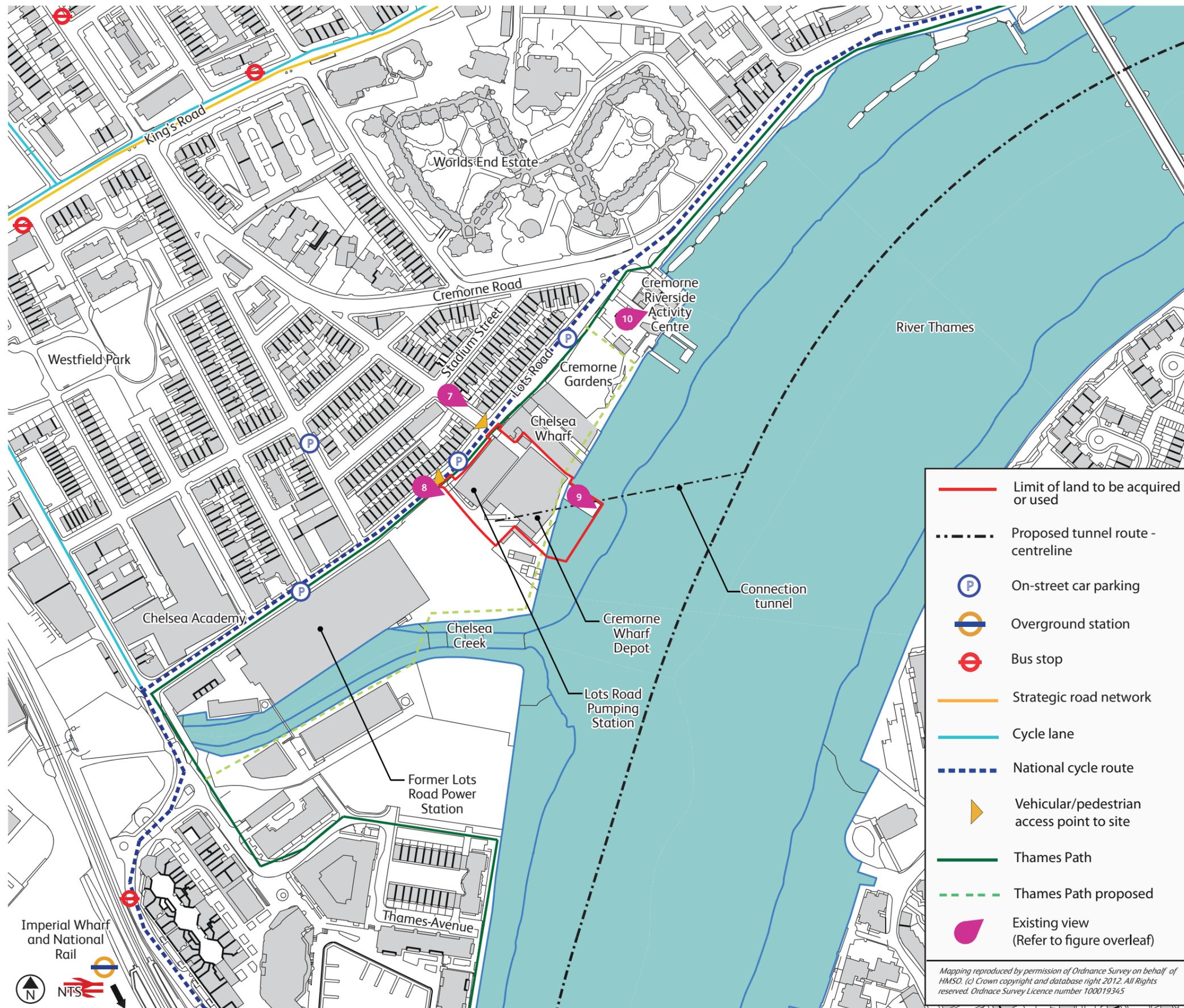


Figure 14.9: Existing site analysis plan

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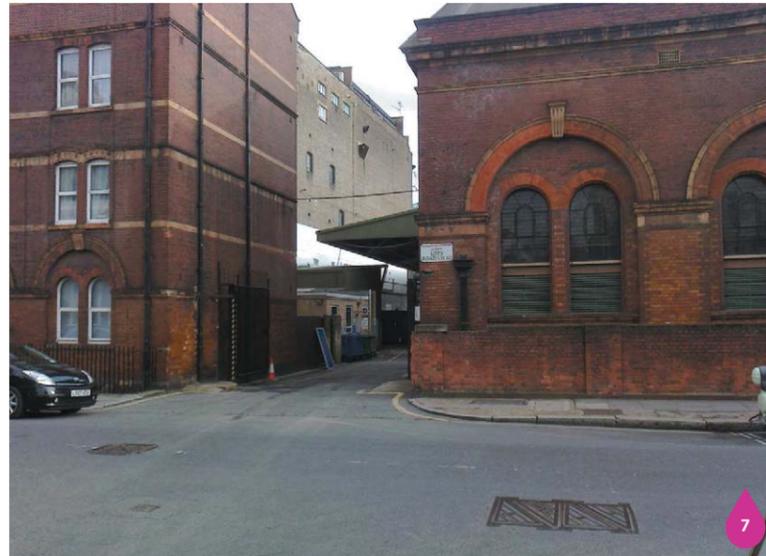


Figure 14.10: Eastern access to pumping station



Figure 14.11: Western access to pumping station



Figure 14.12: Counters Creek outfall from beneath jetty



Figure 14.13: Cremorne Riverside Activity Centre

Car parking

14.2.21 There are car parking bays on both sides of Lots Road. Residents' parking permit and pay and display spaces are available, along with motorcycle parking bays and a disabled parking bay near the junction with Cremorne Road. There are also residents' permit parks and pay and display spaces on the residential roads off Lots Road.

14.2.22 There are some parking spaces for Royal Borough of Kensington and Chelsea and Thames Water staff within the Cremorne Wharf Depot site.

Public transport

14.2.23 A total of eight daytime bus routes and four night bus routes operate within 640m of the site.

14.2.24 Imperial Wharf Station is approximately 640m to the southwest of the site. It is served by the London Overground route to Clapham Junction to the south and Stratford to the east. It is also served by a Southern Railway service from Milton Keynes Central to South Croydon.

14.2.25 The nearest London Underground Station is Fulham Broadway, which is approximately 1.3km to the west and serves the District Line.

Cycle routes

14.2.26 The main cycle route in the area is National Cycle Network Route 4 from London to Fishguard. The route runs traffic-free on the pavement along Cheyne Walk, Chelsea Embankment (A3212) and Cremorne Road. It continues on-road along Lots Road and Chelsea Harbour Drive.

Pedestrian routes

14.2.27 Cremorne Road provides a continuous east to west link for pedestrians along the northern bank of the River Thames. Lots Road continues this link to Chelsea Harbour Drive and Thames Avenue before the route re-joins the northern bank of the River Thames to the south of Chelsea Creek.

14.2.28 The Thames Path National Trail runs to the north of the site, along the southern side of Lots Road. It would be diverted along the riverfront by the Lots Road Power Station developers.

Historical context

14.2.29 The site was riverside marsh and meadowland in the medieval period and remained so into the early 18th century. Greenwood's map of 1827 shows that the site still comprised fields at that time. Cremorne House farm buildings lay to the north and Ashburnham House to the northwest. The farm became a sports club in 1831 and was later converted to pleasure grounds (Cremorne Gardens). By the mid-18th century, map evidence shows a field boundary that indicates the line of the future Lots Road.

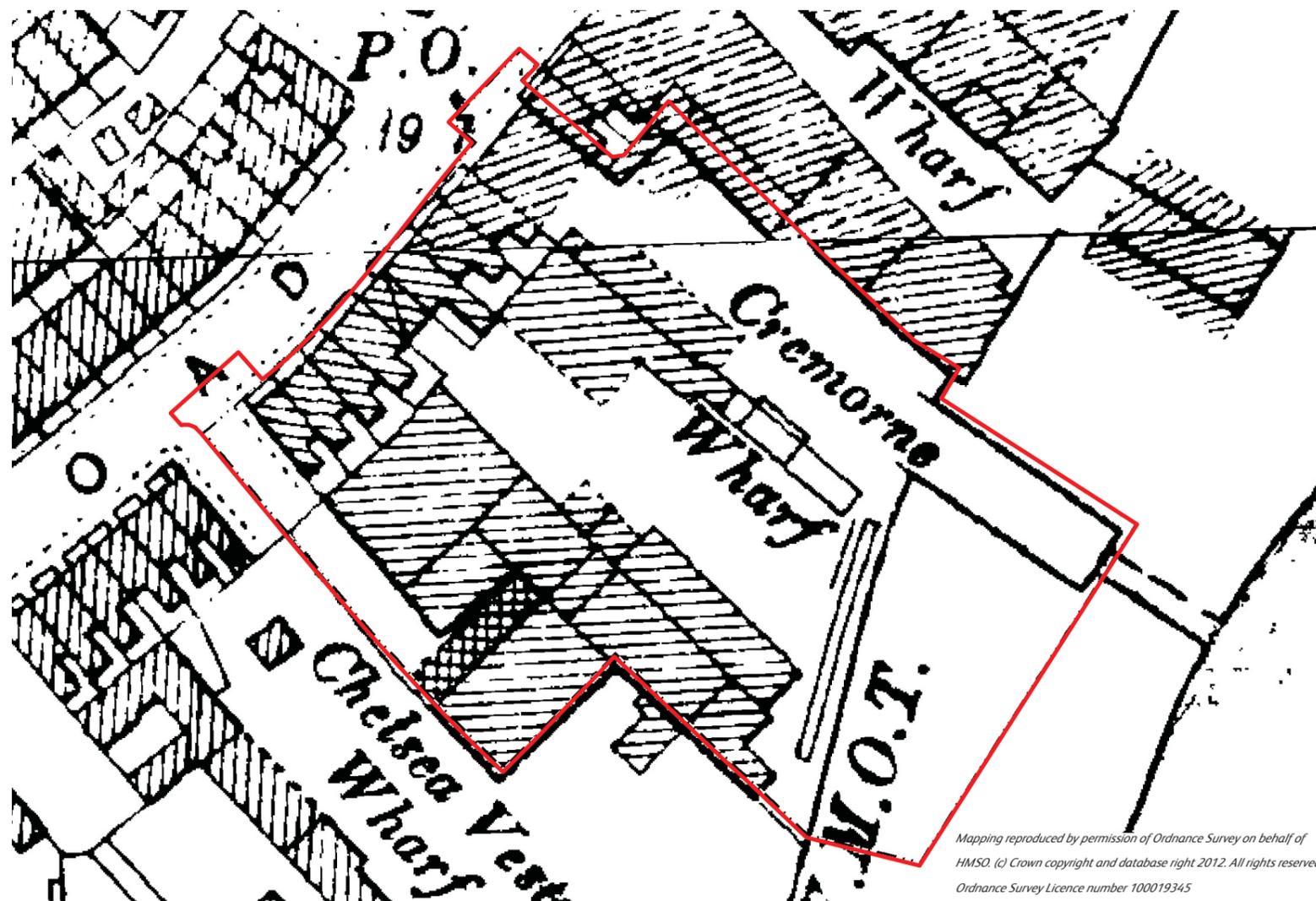
14.2.30 In the mid-19th century the river wall remained set back from the present alignment and Cremorne Pier, which is downstream from the site, had been built. There was a terrace of housing on the southern side of Lots Road on the northern edge of the site and a saw mill sat on the site itself.

14.2.31 Between 1862 and the end of the 19th century, industrial development intensified between the terraced housing and the river. The 1894/6 Ordnance Survey map shows that the river wall had been brought forward to the present alignment. Cremorne Wharf, the now radically altered pier and the wharfs to the northeast had also been built and a dock lay to the southwest of the site. The surrounding streets had also been developed.

14.2.32 The late 19th and early 20th century saw considerable changes on the site. The warehousing on Chelsea Wharf, which now frames the eastern edge of the site, was built in 1894. The terrace of housing on the southern side of Lots Road was replaced by Lots Road Pumping Station in 1904. There was a substantial brick tunnel associated with the pumping station that discharged beneath Cremorne Wharf Pier. The pumping station was altered in the 1930s and again in the late 1950s to 1960s.

14.2.33 Lots Road Power Station, then the largest power station ever built, was constructed at the same time as the pumping station to power what is now the District Line. It soon powered much of the underground railway and tram systems, and still dominates the western end of the site.

14.2.34 Minor reconfigurations were undertaken at Cremorne Wharf in the 20th century and, more recently, a large steel shed was built on the space to the south of the pumping station.



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Figure 14.14: Historic map of site from 1896-1898 (not to scale)



Figure 14.15: Decorative roundel drawing from pumping station

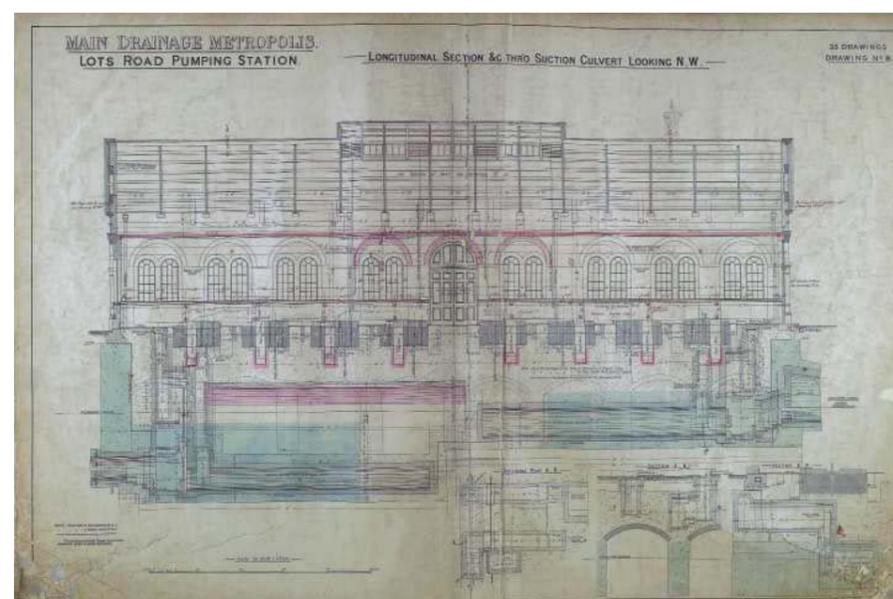


Figure 14.16: Original drawings of pumping station (not to scale)



Figure 14.17: Historic photo of Lots Road power station © Royal Borough of Kensington and Chelsea

Site analysis: Opportunities and constraints

The site-specific design opportunities included:

- Use an available brownfield site.
- Improve the relationship between the site and its historic surroundings.
- Extend the Thames Path to create a continuous route along the riverside.
- Make use of the listed pumping station in accordance with its historic use.

The site-specific design constraints included:

- The adjacent Grade II listed Lots Road Pumping Station must continue to operate.
- The site incorporates existing Thames Water infrastructure.
- The site is enclosed by buildings, fences, the river wall and the River Thames and access is limited.
- It is designated as a waste management site and a safeguarded wharf and it needs to be possible to reinstate it to similar uses following construction.
- There is uncertainty regarding the future use of the site.
- The site is in close proximity to sensitive receptors including residents, businesses, a secondary school (Chelsea Academy) and the Cremorne Riverside Activity Centre.
- Environment Agency policy seeks to minimise encroachment into the river.
- Various planning policies seek a continuous riverside Thames Path.

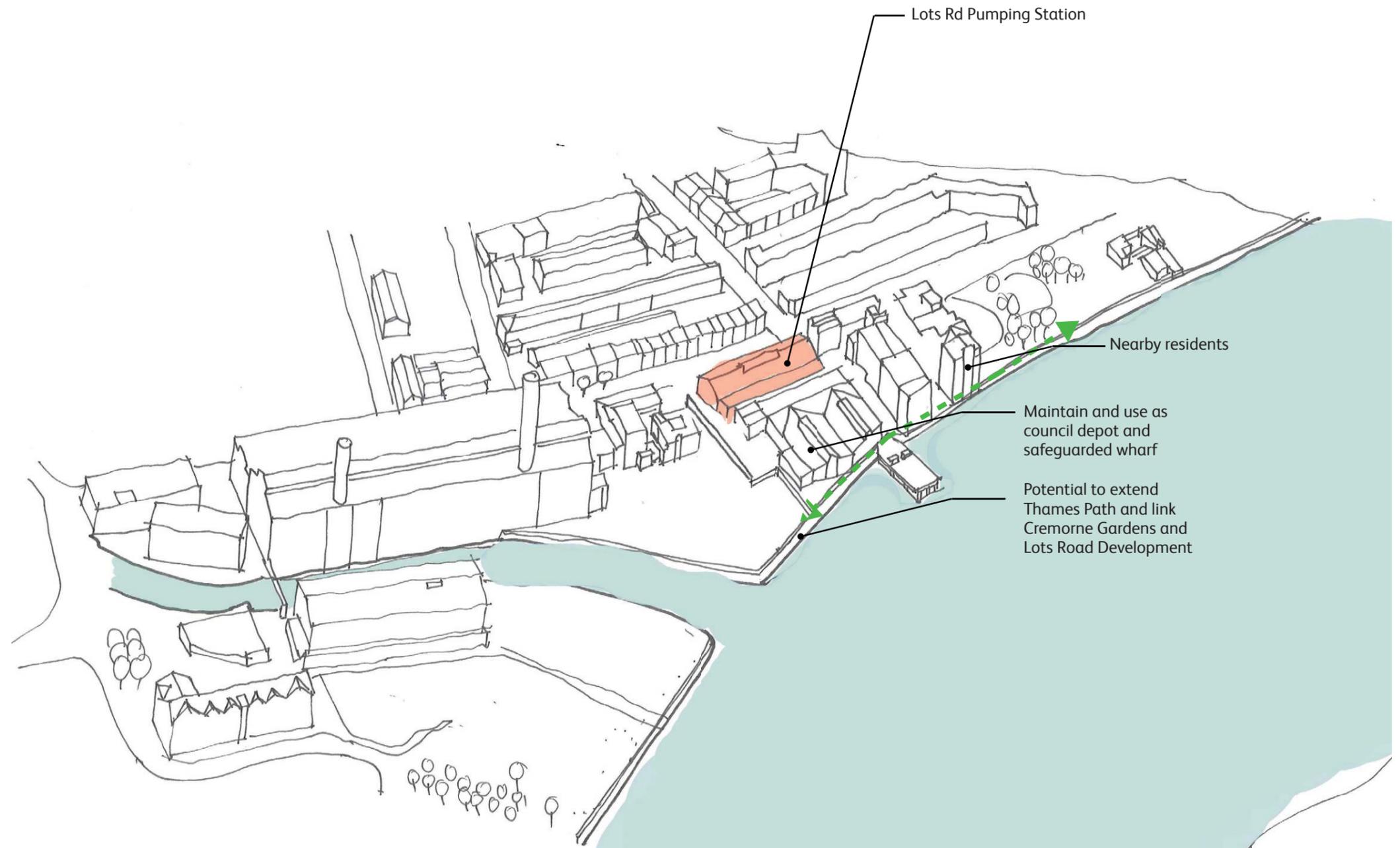


Figure 14.18: Existing site opportunities and constraints sketch

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14.3 Design evolution and alternatives

14.3.1 As the majority of the infrastructure for the project would be below ground, the key design objective for the permanent above-ground works was to integrate the functional components into the surroundings. The site-specific design objective at Cremorne Wharf Depot was to successfully integrate the project works with the existing Thames Water below-ground infrastructure, the adjacent listed pumping station and possible future uses of the site, in order to reflect the objectives of Policy CL3 of the *Core Strategy*.

14.3.2 The design of our proposals at Cremorne Wharf Depot was also significantly influenced by an extensive process of stakeholder engagement and design review. In order to ensure design quality, we undertook a review hosted by the Design Council CABE. We also held various pre-application meetings with the Royal Borough of Kensington and Chelsea and other strategic stakeholders. More information on our public consultation process is provided in the *Consultation Report* (which accompanies the application).

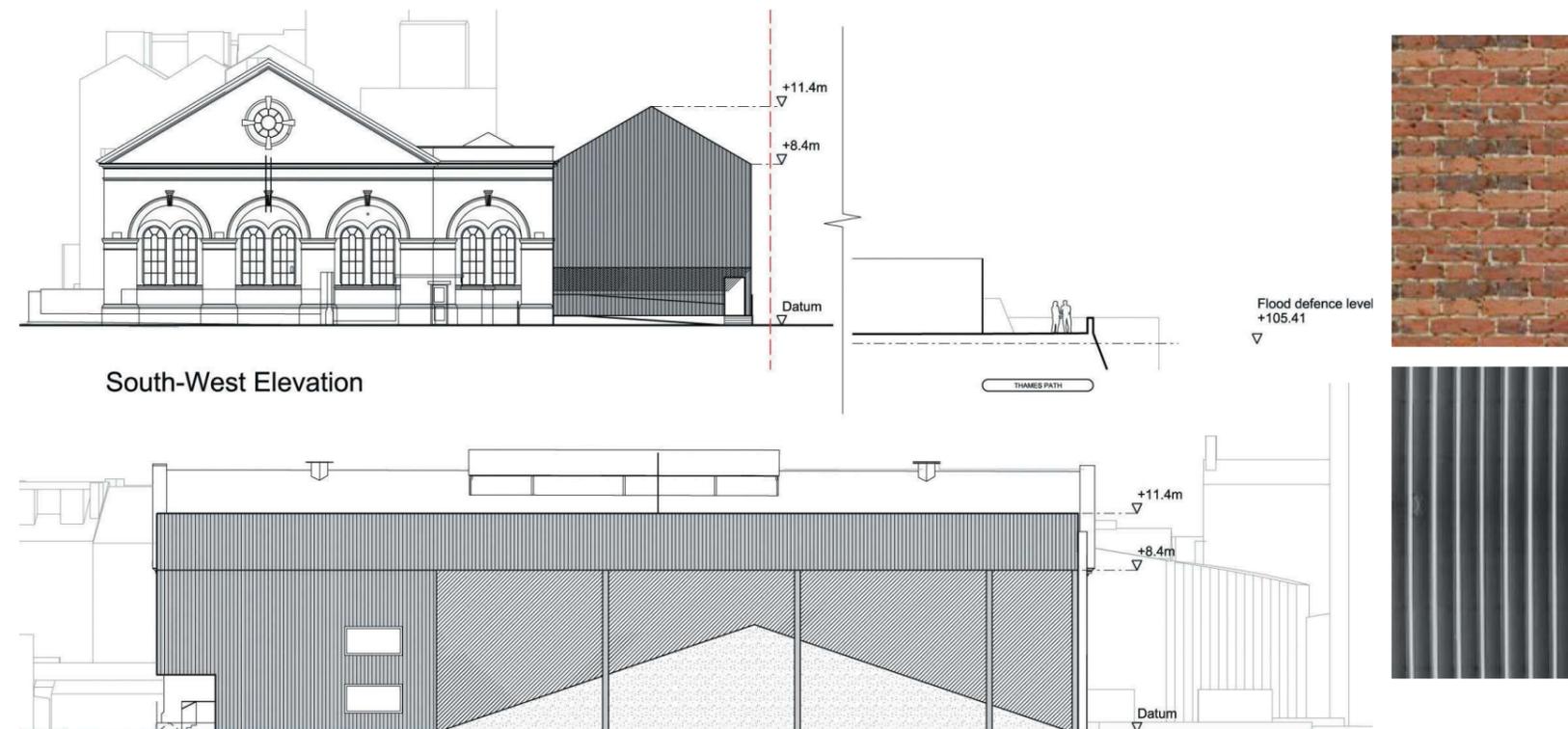


Figure 14.19: Design development sketches and material samples

October 2010

Phase one consultation

14.3.3 We did not present the Cremorne Wharf Depot site at phase one consultation because at the time we understood that it was in use as a council waste management depot and therefore not available.

14.3.4 At phase one consultation, our preferred site to intercept the Lots Road Pumping Station CSO was the foreshore at Cremorne Wharf in front of the depot due to the lack of available land-based sites. This site required a temporary access route along the western edge of Cremorne Gardens.

14.3.5 Following feedback at phase one consultation and further technical work, we undertook a site selection back-check (see the *Final Report on Site Selection Process* (which accompanies the application), Volume 11, for details). At this point, the Royal Borough of Kensington and Chelsea indicated that the council depot at Cremorne Wharf could be made available to the project, subject to satisfactory interim arrangements.



Figure 14.20: Proposed view from phase one consultation

Design development

14.3.6 We therefore explored the following design considerations:

- the effect on the safeguarded Cremorne Wharf and its use as a waste transfer station
- the effect on the setting of the Grade II listed Lots Road Pumping Station
- the effect on the Thames Path
- the revised project-wide air management strategy
- access requirements to the worksite during construction.

14.3.7 In response to the phase one consultation feedback, we also proposed the following changes to the design:

- We re-located the CSO drop shaft from the foreshore to an area within the depot site.
- We changed the drop shaft from an online shaft (ie, where the main tunnel runs directly through the bottom of the shaft) to an offline shaft (ie, where a short connection tunnel is required to connect to the main tunnel) in order to reduce the internal diameter of the shaft from 20m to 8m.
- We incorporated the electrical and control equipment into the listed pumping station.
- We omitted the ventilation building shown at phase one consultation in response to the revised air management strategy.

May 2011

Design Council CABE sketch review & interim engagement

14.3.8 We held a sketch review based on our initial site assessment and sketched ideas for the site with the Design Council CABE in April 2011. The concept sketches set out the proposed use of the depot site and the layout of the proposed below-ground infrastructure, vehicular access and egress, and the Thames Path. The sketches included proposals for a replacement depot building and potential materials and considered the relationship with the neighbouring listed pumping station.

14.3.9 The Design Council CABE panel stated that the proposals responded to the functional context and evolving character of this part of the Thames riverside, which is set to change dramatically with the mixed-use development at Lots Road Power Station.

14.3.10 The panel supported the proposal to connect the Thames Path along the riverfront, which would support the riverside community and recreational uses such as the Cremorne Riverside Activity Centre and Cremorne Gardens.

14.3.11 The panel recommended defining a palette of simple, robust materials for the proposed structures and the streetscape to suit the riverside context.

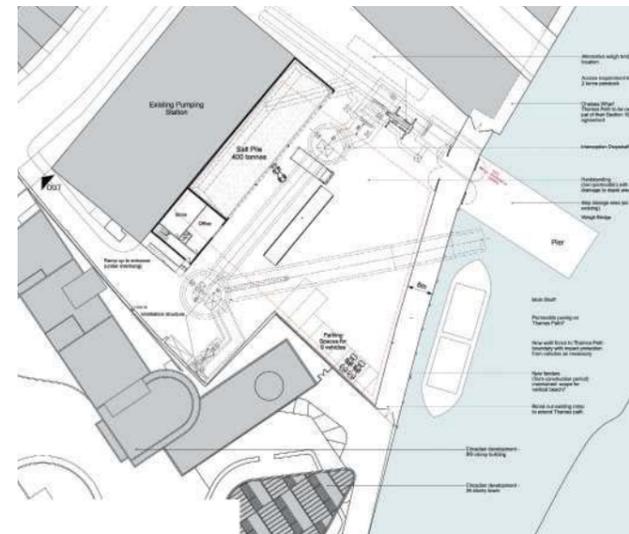


Figure 14.21: Proposed plan from Design Council CABE sketch review (not to scale)

14.3.12 We held a community liaison meeting at the Chelsea Academy on 7 July 2011 to inform the local community of the potential use of the site. We also gathered views on local issues that we needed to take account of in developing our proposals.

November 2011

Phase two consultation

14.3.13 At phase two consultation, Cremorne Wharf Depot was presented as our preferred site and our revised proposals included a larger replacement depot building.

14.3.14 The key issues raised in relation to the permanent design at the site included:

- a. The ventilation column should be moved closer to the River Thames.
- b. There should be provision for the Thames Path to be opened up to the public.

14.3.15 The Royal Borough of Kensington and Chelsea made a number of specific comments, which are summarised below:

- a. The current proposals are a welcome change from the earlier foreshore scheme and the design has been re-scaled and re-positioned, which significantly reduces the amount of infrastructure required, and the works would be on-shore and below ground wherever possible.
- b. We support the low-key approach and the double-apex replacement depot structure improves its mass in relation to the existing depot facility.
- c. The depot building's western elevation challenges the setting of the adjacent listed pumping station. Thought should be given to setting the line of the replacement



Figure 14.22: Proposed photomontage from phase two consultation

building back from that of the pumping station, which would allow the elevation and building to be viewed and appreciated.

- d. A Corten steel finish would offer more visual distinction and visual interest than a galvanised metal finish. Window openings on the riverside elevation could add visual interest.
- e. We support the introduction of the green roof, which would further soften the appearance of the replacement depot and add visual interest.

f. Overall, subject to amending the replacement building's footprint, material choice, and elevational details and setting it back by 5m to allow room for the Thames Path extension, the current proposals for the replacement depot would not disrupt the setting of the adjacent listed building. They are of sufficient architectural quality to make a positive improvement to the character and appearance of the riverside and the Thames Conservation Area.

g. The potential future use of the site should not be blighted by any of the permanent accessible structures.

h. We strongly support the notion of the columns as the project's 'signature' structure. If a high quality bespoke design is achieved, we would have little objection to locating the columns in a more visually prominent position towards the river, adjacent to or within the land set aside for the future riverside walk. As at other project sites, the structures could feature along the river as part of the Thames-side experience.



Figure 14.23: Proposed view from phase two consultation

Design development

14.3.16 Following phase two consultation, we continued to liaise with representatives of the Royal Borough of Kensington and Chelsea to develop the design and design principles for the site to accommodate their aspirations for the area.

14.3.17 Due to the uncertainty regarding the future use of the site and the proposed reinstatement of the depot building, we agreed with the Royal Borough of Kensington and Chelsea to develop an illustrative proposal for the replacement depot building. The parameters for the replacement building are based on the phase two consultation proposals.

14.3.18 In response to phase two consultation feedback from the Royal Borough of Kensington and Chelsea and with regard to *Core Strategy* Policy CL4, which seeks to enhance the setting of listed buildings, we moved the footprint of the replacement depot building back from the northwestern elevation of the pumping station by approximately 2m.

July 2012

Section 48 publicity

14.3.19 The Royal Borough of Kensington and Chelsea provided design related comments in response to Section 48 publicity, which are summarised as follows:

- a. The council welcomes the fact that the ventilation column has been relocated closer to the river.
- b. The council supports the minimal, low-key design approach to the new infrastructure.
- c. The council supports the location of the electrical and control equipment within the listed pumping station.
- d. The opportunity should be taken to upgrade the existing jetty, particularly if it is damaged during construction work.
- e. The council welcomes the fact that the project has sought to minimise the visual impact of the infrastructure in terms of the location and visual quality of the above-ground infrastructure.
- f. The revised footprint and similar height of the replacement depot would maintain the setting of the adjacent listed building. The set-back to allow for a new riverside walk is especially welcome.
- g. The council welcomes the improvements that the green roof would provide and suggests fitting further biodiversity enhancements to the river wall along Chelsea Wharf (from Chelsea Creek to the Chelsea Yacht and Boat Club).

14.3.20 These comments and others received at Section 48 publicity did not result in any significant changes to the design of this site.



Figure 14.24: Proposed view from Section 48 publicity

14.4 Proposed design

12.4.1 This section describes the amount, layout and scale of the proposed development and how the functional components would be integrated into the existing site. Details of the proposed landscaping and appearance of the site are also embedded in the description where relevant.

Fixed principles

14.4.2 The site works parameter plan defines the zones in which the proposed works would take place. The plan indicates the general location of the CSO drop shaft, ventilation columns, local control pillar and the replacement depot building. It also indicates the maximum and minimum height of the proposed structures (where applicable) and the maximum footprint and height for the replacement depot building.

14.4.3 The site-specific design principles are included in the *Design Principles* document which accompanies this application. These principles establish the parameters for the above ground structures and landscaping on the site and have, where possible, been developed in consultation with the local authority. The site-specific principles should be read in conjunction with the project-wide design principles.

Above ground permanent structure	Maximum height above finished ground level (Minimum heights are in brackets where applicable)
Ventilation column(s) serving the shaft	8.0m (4.0m)
Reinstated depot building	13.85m to apex of roof

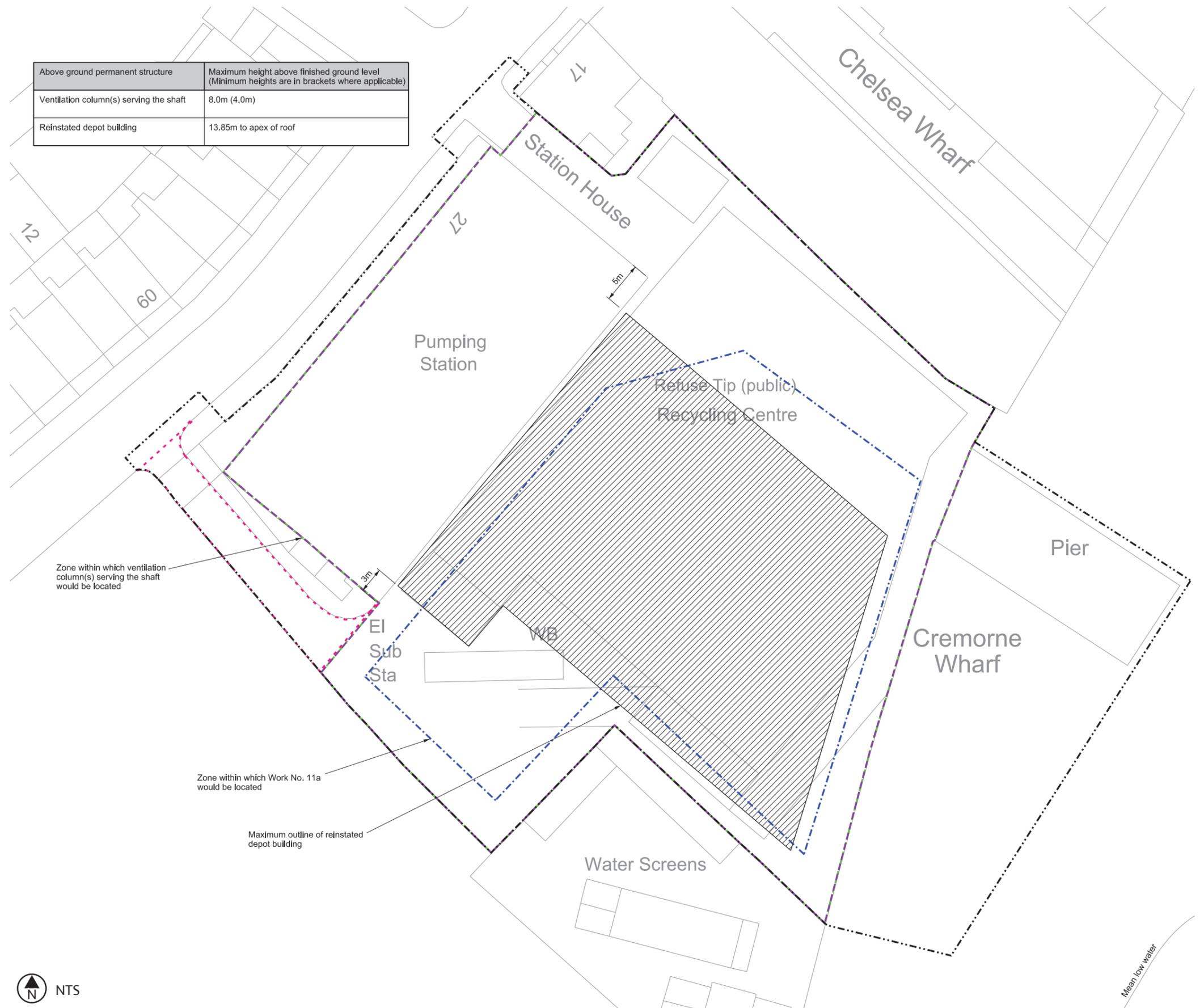


Figure 14.25: Site works parameter plan - refer to Site works parameter plan in the *Book of Plans*

Design objectives

14.4.4 There is uncertainty surrounding the future use of Cremorne Wharf Depot once the project is complete therefore this section focuses on how we would integrate the functional components into the site in order to achieve our design objectives.

14.4.5 Our main design objectives at this site included:

- a. retaining the flexibility to arrange the functional components on the site while avoiding compromising the potential use of the site as a safeguarded wharf/council depot
- b. enabling the provision of a riverside walkway across the site in the future (by others)
- c. respecting the historic character and fabric of the listed pumping station building.

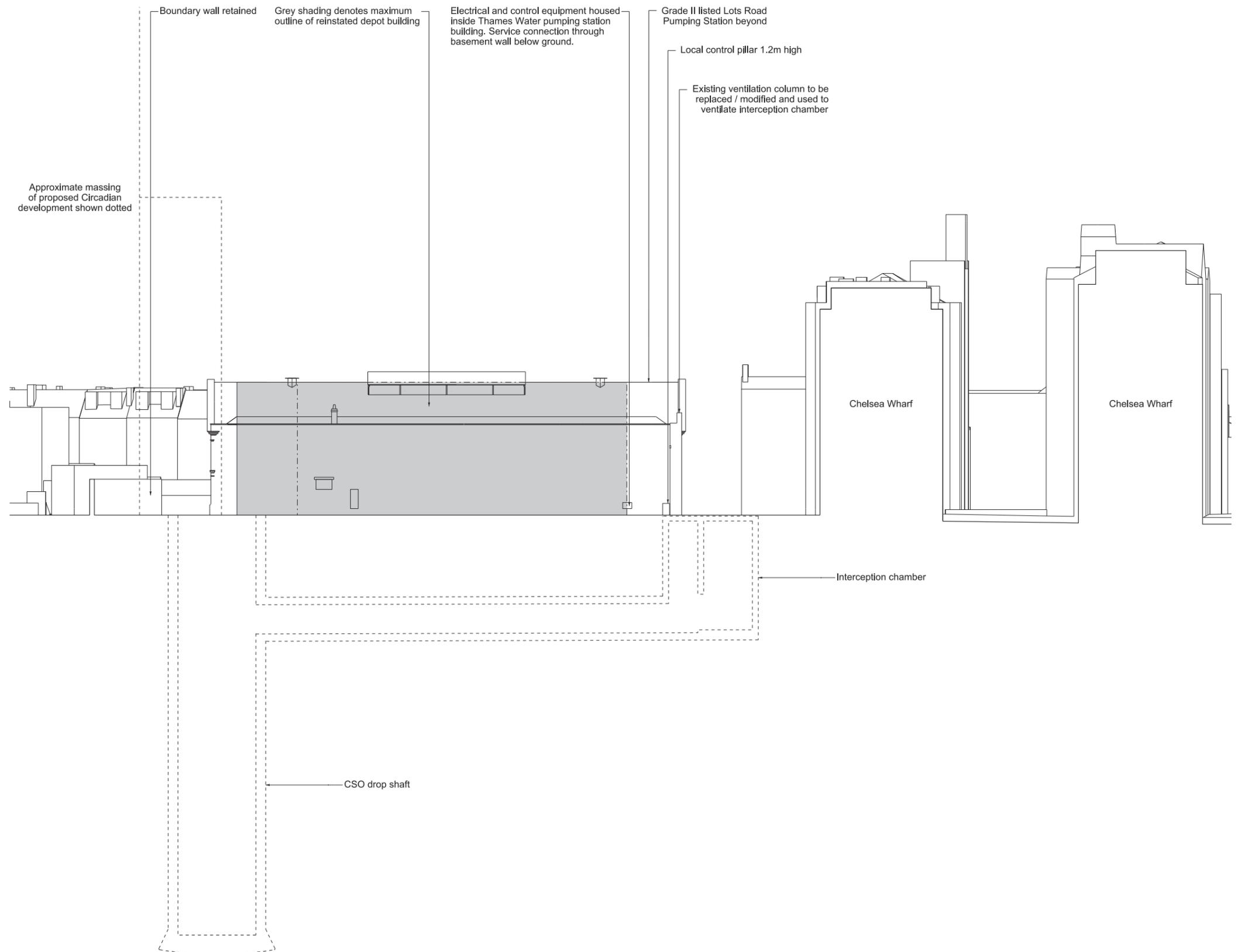


Figure 14.26: Proposed section through Cremorne Wharf depot building (not to scale) - refer to Section AA in the *Book of Plans*

Integration of the functional components

14.4.6 The majority of the proposed works are below-ground structures, including:

- a CSO drop shaft
- a connection tunnel
- a CSO interception chamber
- a valve chamber
- a connection culvert
- an air treatment chamber
- associated hydraulic structures, culverts, pipes and ducts.

14.4.7 Post construction, the following structures would be visible on the site:

- two signature ventilation columns to serve the CSO drop shaft
- modification or replacement of an existing ventilation column attached to the southeastern corner of the listed pumping station
- a local control pillar
- a replacement depot building (subject to agreement with the landowner).

CSO drop shaft

14.4.8 The CSO drop shaft would be approximately 8m in internal diameter. The shaft and the associated CSO interception chambers and connection culverts to intercept the discharge from the pumping station and connect the CSO to the drop shaft would be laid out in accordance with the engineering requirements.

Ventilation columns

14.4.9 The number and size of the ventilation columns are determined by the air management requirements for the site. At Cremorne Wharf Depot, we propose to include two ventilation columns to serve the CSO drop shaft and one smaller diameter column to serve the interception chamber.

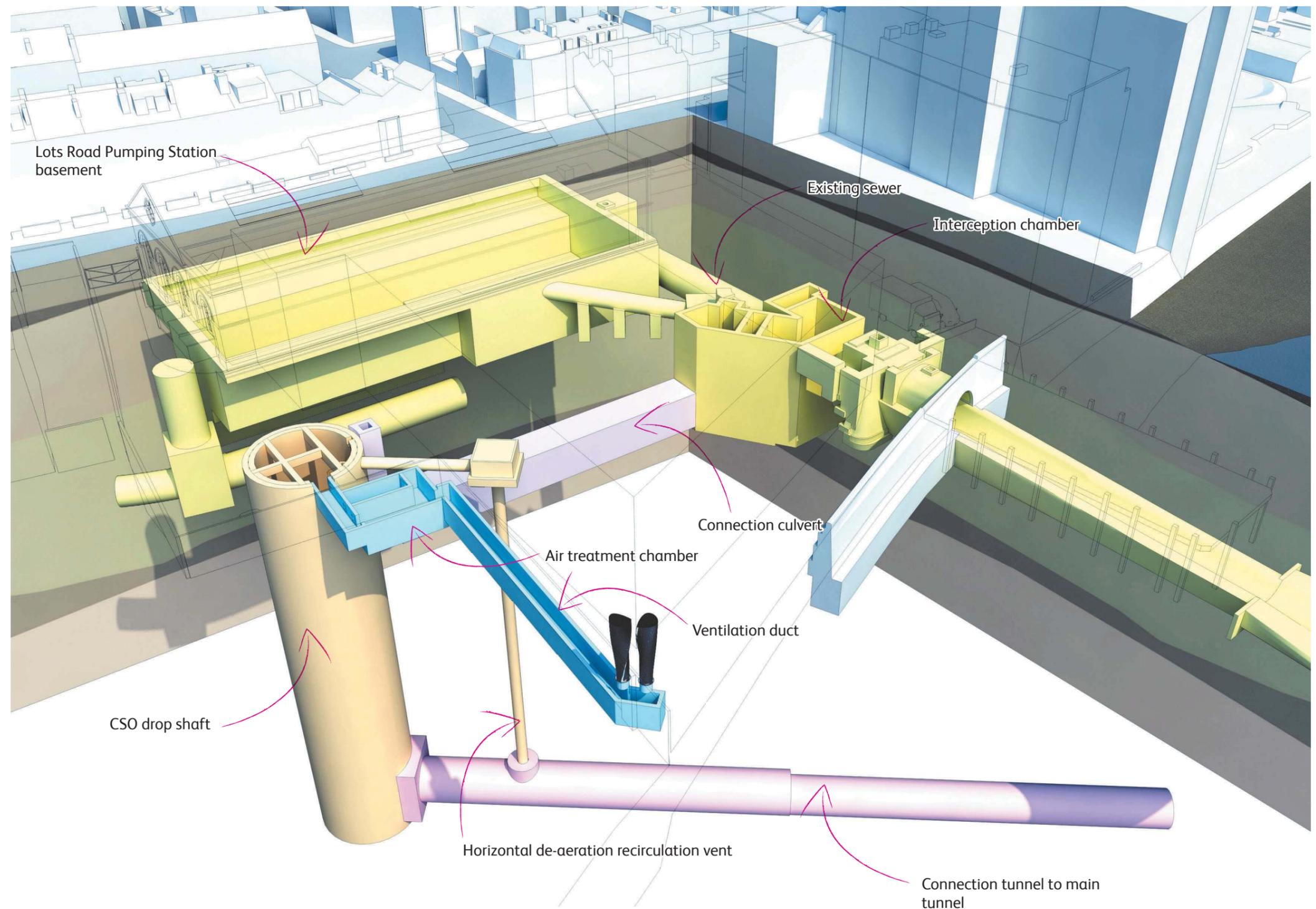


Figure 14.27: Proposed Functional components diagram: below ground view

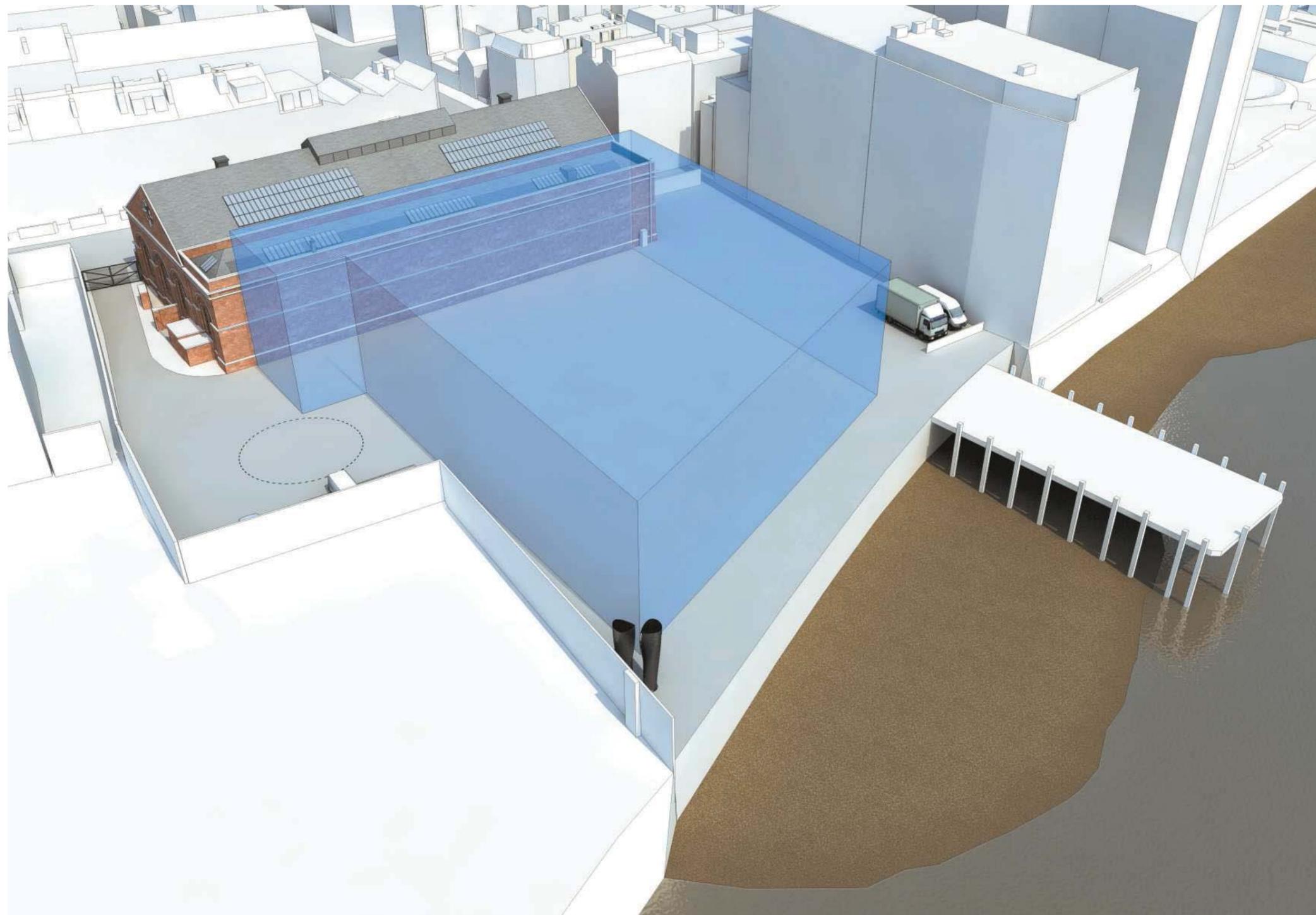


Figure 14.28: Proposed functional components diagram: above ground view

14.4.10 The two main columns would feature the project's 'signature' design and stand minimum 4m to maximum 8m high. There is scope to position these columns in various locations around the site, as indicated by the zone for the above-ground structures on the site works parameter plan. Our illustrative proposals suggest positioning them near the southern corner, where they could contribute to the river scene (as suggested in the Royal Borough of Kensington and Chelsea's phase two consultation response).

14.4.11 The smaller diameter ventilation column for the interception chamber would utilise the existing ventilation column (approximately 10.5m high) attached to the southeastern corner of the Lots Road Pumping Station, which would either be modified or replaced to make it more sensitive to the listed façade of the pumping station building.

Electrical and control equipment

14.4.12 The necessary electrical and control equipment would be installed within the existing pumping station building, which is in keeping with its historic use for sewerage infrastructure. An external local control pillar is required to enable a line of sight between the control and the penstock for Thames Water operations staff. The pillar would sit adjacent to the existing ventilation column on the side of the pumping station building to keep it out of the path of maintenance vehicles.

Areas of hardstanding

14.4.13 The areas of hardstanding would facilitate maintenance vehicle access and incorporate access covers to the below-ground infrastructure. The access covers would be located in an open, uncovered area as per the existing set up because it is preferable not to install plant or store waste or loose materials over them. The open area would facilitate necessary inspections and maintenance and minimise the impact on the future operation of the site by others.

Illustrative design of the replacement depot building

14.4.14 In order to demonstrate the feasibility of reinstating a similar use as the existing around the project's permanent structures, we developed an illustrative design for the replacement depot building based on an accommodation schedule provided by the Royal Borough of Kensington and Chelsea, the design of the current depot building, and the agreed design principles and site works parameters plan.

14.4.15 In the event that a warehouse-style building is required to replace the existing depot building, we have developed the following illustrative approach to the design. It is consistent with the designs we presented at phase two consultation and complies with the agreed design principles and site works parameter plan for the site. The detailed design of the replacement building would be developed in consultation with the Royal Borough of Kensington and Chelsea and submitted for approval in the form of a DCO requirement.

14.4.16 The footprint and location of the replacement building was determined by the following factors:

- a. the location of the existing sewers and proposed below-ground structures on the eastern side of the site and the illustrative engineering layout for the CSO drop shaft and associated structures
- b. maintenance access to the proposed project and existing Thames Water infrastructure.

14.4.17 During consultation, the Royal Borough of Kensington and Chelsea and other respondents expressed a desire for the Thames Path to be extended to connect the future Lots Road Power Station development to Chelsea Wharf. The Greater London Authority, stated that Cremorne Wharf must be returned to a viable working wharf on completion of the works and that the reinstatement must enable the Thames Path to be extended in this location. For this reason, we propose to leave an area adjacent to the river wall clear of structures so to enable the future extension by others, having regard to *Core Strategy Policy CT1*.

14.4.18 The northwestern elevation of the replacement building would sit approximately 2m back from the façade of the pumping station building, which reduces the available floor area for the replacement building slightly. This change was agreed with the local authority.

14.4.19 The illustrative design suggests a partially open-sided, warehouse-type structure with a ground-level weighbridge, a welfare office and an area of concrete hardstanding at a similar height and footprint to the present structure.

14.4.20 Not all of the future operational requirements of the depot are known at this stage; however, the illustrative design is based on a schedule provided by the Royal Borough of Kensington and Chelsea in early 2011 that indicated the size of the principal rooms and the parking requirements.

14.4.21 The existing recessed weighbridge cannot be positioned over shallow sewer structures and we therefore suggest positioning it to facilitate smooth traffic flow through the site. The Royal Borough of Kensington and Chelsea (the landowner) does not require the reinstatement of the second surface-mounted weighbridge or the concrete vehicle ramp, which is a remnant of the depot's use as a civic amenity site prior to 2003.

14.4.22 The fabric of the replacement welfare accommodation and office block would differ from the main body of the replacement building as it would be inhabited and therefore must be insulated and heated. We have raised it by 500mm and positioned it to command views of the traffic areas of the site and to provide a line of sight into the cabs of large lorries using the weighbridge. The exposed corner of the block seeks to reconcile its massing and scale with the pumping station and would let natural light into the principal welfare accommodation spaces, mess and changing areas.

14.4.23 We believe that the architecture here supports the use as a safeguarded and operational wharf. It is economic and durable and the proportion and dimensions respond positively to the surrounding context and character, having regard to the aims of *Core Strategy Policy CL1*. It also seeks to protect and enhance the historic environment and assets and respect the quality of the

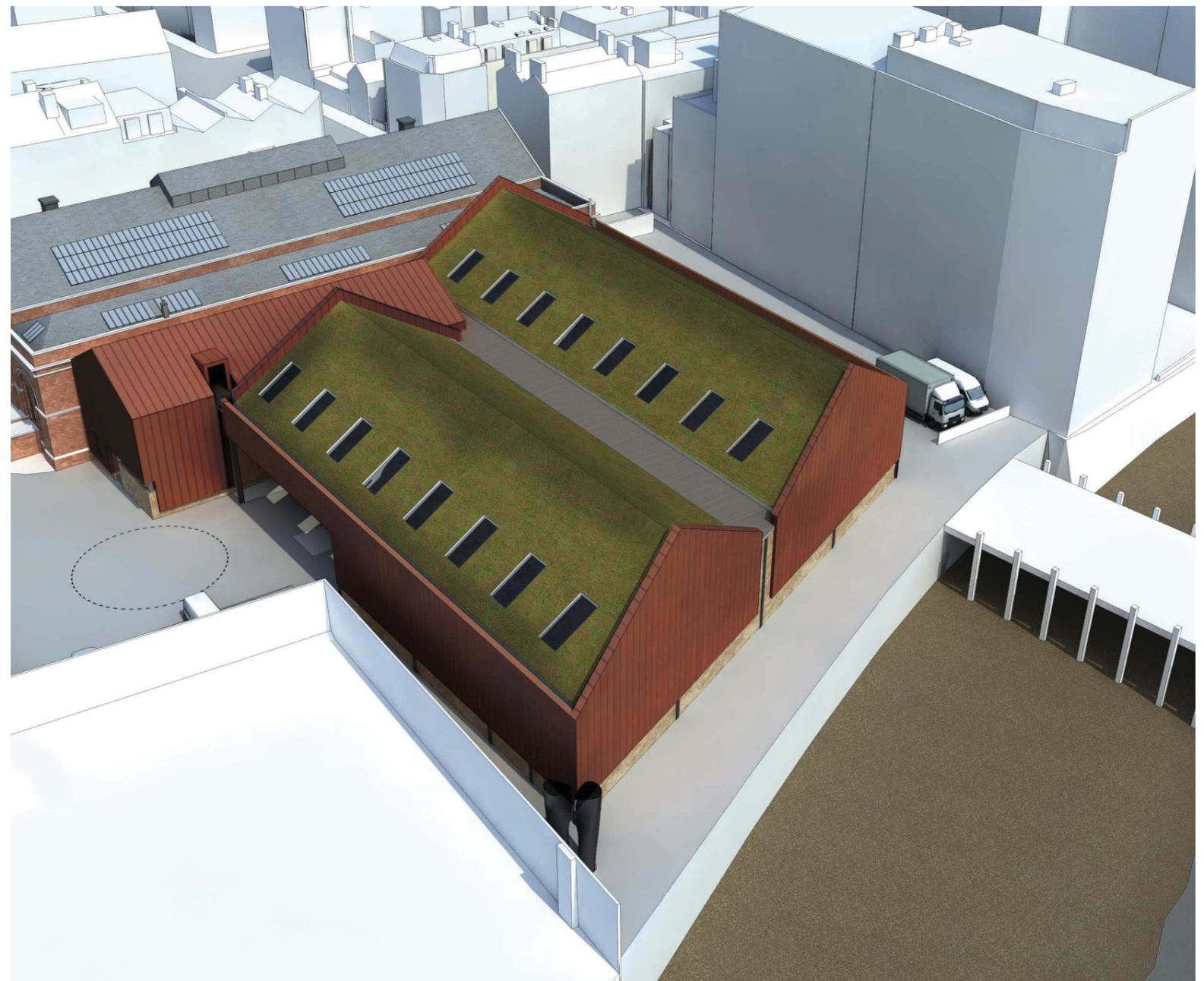


Figure 14.29: Proposed view of depot building

operational buildings nearby, namely the pumping station and power station, having regard to Policies CL3 and CL4. We anticipate that a steel frame would be required in order to achieve the required spans for vehicle movement. We then propose to apply a lightweight weathered steel cladding to the frame. This material would be appropriate for a structure of this type and reflect the red colour of the adjacent brickwork.

14.4.24 We determined the proposed roofscape according to the large spans required and presented the gable ends to the

River Thames to emphasise the historic and on-going relationship between the wharf and the river. The proposed eaves line and pitch line of the replacement building align with those of the pumping station. We propose to construct the lower levels of the replacement building in a grey brick that is evocative of, but distinct from, the bricks of the pumping station and power station.

14.4.25 We also propose to include a biodiverse roof in order to reduce storm water run-off and to provide potential habitat. The final planting scheme for the biodiverse roof

and any other ecological features, such as bat boxes, would be considered in detail in relation to the operation of the site and any specific ecological needs that may be identified. A staircase from the welfare accommodation would provide controlled access to maintain the biodiverse roof. The parapets on the roof would be relatively high to reduce the risk of falling and level walkways would surround planted areas. Additional biodiversity enhancements to the river wall were not identified as a mitigation measure within the *Environmental Statement* and would be outside the limits of deviation for the project.

Works to Lots Road Pumping Station

14.4.26 Our works would interface with Lots Road Pumping Station in two ways: firstly, our electrical and control equipment would be installed inside the pumping station building; and secondly, we aim to make use of the redundant ventilation structure on the southeastern corner of the building. These amendments would be in keeping with its historic function and relationship with sewerage infrastructure.

Electrical and control equipment

14.4.27 We have determined a location within the pumping station building in which to accommodate the electrical and control equipment. We initially identified two possible areas and then selected Area A as our preferred location following a visit to the site with the Royal Borough of Kensington and Chelsea Senior Urban Design Officer. We selected this location due to the absence of glazed wall tiles in the area in order to preserve the fabric of the listed building, as noted in *Core Strategy Policy CL4*.

14.4.28 Ducting is required from the works in the depot to the selected location. This connection would be installed below ground in order to avoid any visual impact on the external appearance of the building. Furthermore, to minimise the impact on the fabric of the building, we propose to make the connection via the route of a redundant gas main that runs into the building below the northeastern elevation.

Works to the redundant ventilation column

14.4.29 An existing ventilation column clad in cement runs up the southeastern corner of the pumping station. It is one of the later additions to the building and is generally out of character with the original red brick work. We propose to use this column to ventilate the CSO interception chamber.

14.4.30 We also propose to improve the appearance of this ventilation structure. Given that modifications to the structure are required in any case, we have agreed with the local authority to develop a treatment that would be more sympathetic to the original building at a later date. This may involve re-cladding the column with brickwork, or replacing it with a cast iron pipe. This commitment is captured in the design principles.

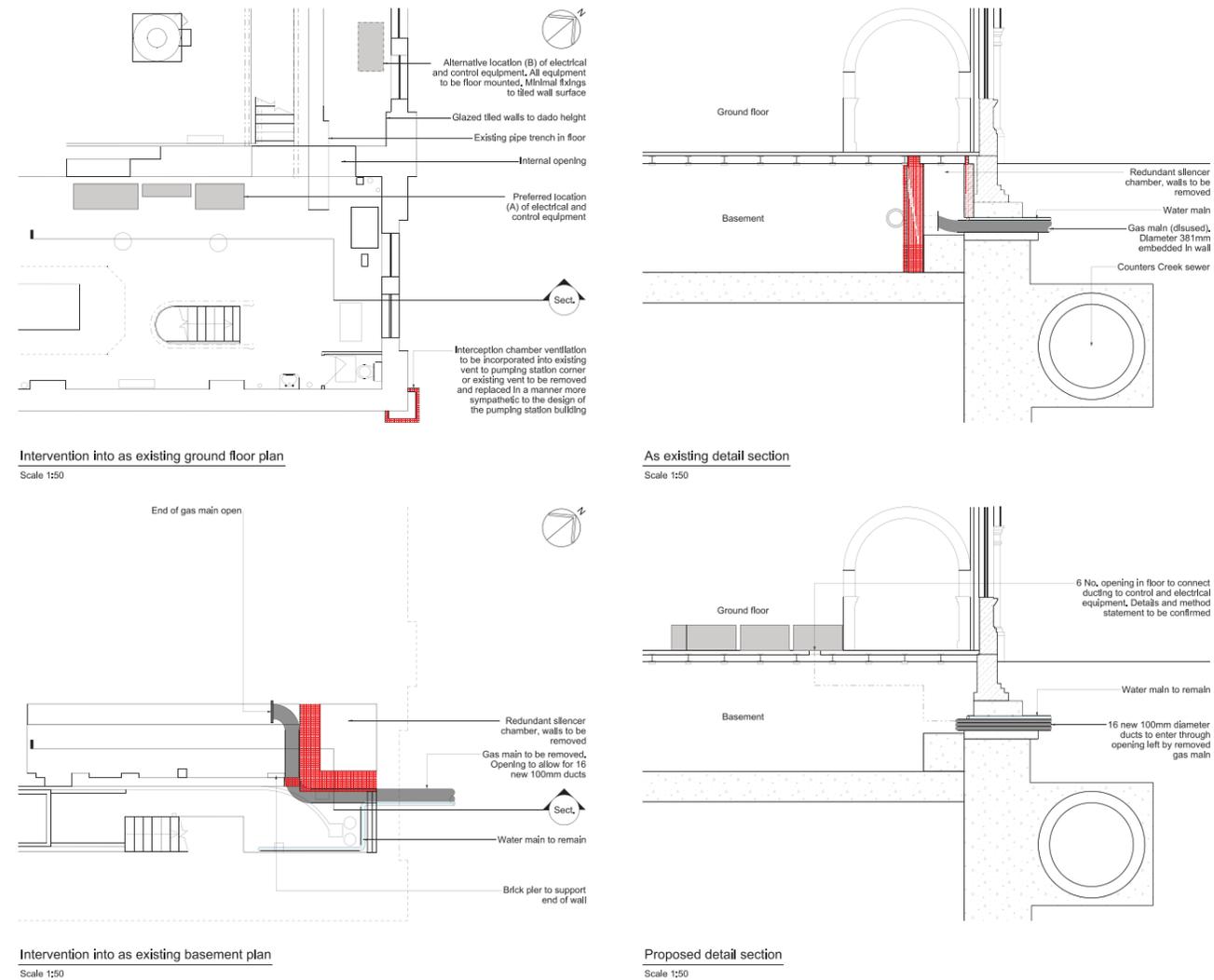


Figure 14.35: Proposed listed structure interface (not to scale) - refer to Listed structure interface - Lots Road Pumping Station in the Book of plans

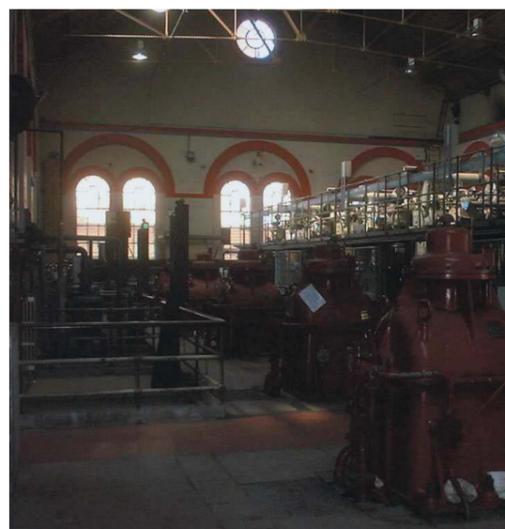


Figure 14.30: Interior of the pumping station



Figure 14.31: Cast iron gas main to be removed to accommodate ducting



Figure 14.32: Preferred location for electrical and control equipment inside pumping station - location 'A'



Figure 14.33: Example of glazed brick inside pumping station - location 'B'

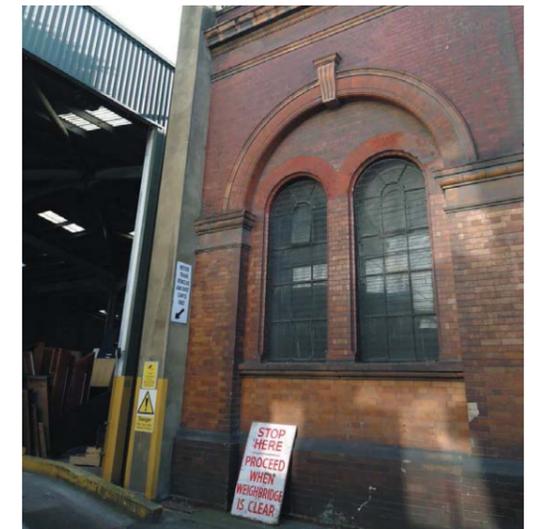


Figure 14.34: Ventilation column on south eastern corner of pumping station

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Landscaping and appearance

14.4.31 There would be minimal above-ground project structures at Cremorne Wharf Depot as the site would be returned to use as a council depot/safeguarded wharf. For this reason, no landscaping is required.

14.5 Access and movement

14.5.1 The use and character of the site would not be altered and it would remain a safeguarded wharf; therefore no alterations are proposed to the vehicular access points. However, the access points could be made two-way instead of one-way if required.

14.5.2 The existing planning permission on the site (TP/92/0929) permits no more than 150 heavy goods vehicle movements per working day. The Thames Water access requirements during the operational phase would be minimal (see below). Future numbers of movements would therefore be subject to the final use of the site, which will be determined by others through the normal planning process.

14.5.3 The site is also accessible from the River Thames.

14.5.4 The replacement office and welfare accommodation for the wharf and waste management facility would be designed for inclusive access. All facilities would be at ground-floor level with step-free access. All room sizes, door widths, window heights and fixtures, and finishes would comply with the Disability Discrimination Act.

14.5.5 A parking zone for council personnel is proposed towards the western site boundary.

14.5.6 The vacant strip adjacent to the river wall would enable the landowner to extend the Thames Path along the riverfront, if permitted by the future use of the site.

Thames Water access requirements

14.5.7 Permanent vehicular access would be via Lots Road and the site would not be publicly accessible.

14.5.8 Once the project is operational, it is anticipated that Thames Water personnel would visit the site approximately every three to six months to inspect and carry out maintenance of the electrical and control, ventilation and below-ground equipment. This would likely involve a visit by personnel in a small van during normal working hours and may take several hours.

14.5.9 It is anticipated that a major internal inspection of the tunnel system and underground structures would be required once every ten years. This process would likely require a small team of inspection staff and support crew and two mobile cranes to lower the team into the CSO drop shaft. The inspection would be carried out during normal working hours and would likely take several weeks. Temporary fencing would be set up around the drop shaft for safety and security reasons.

14.5.10 Thames Water may also need to visit the site for unplanned maintenance or repairs, for example, in the event of a blockage or an equipment failure. Such a visit may require the use of mobile cranes and vans.

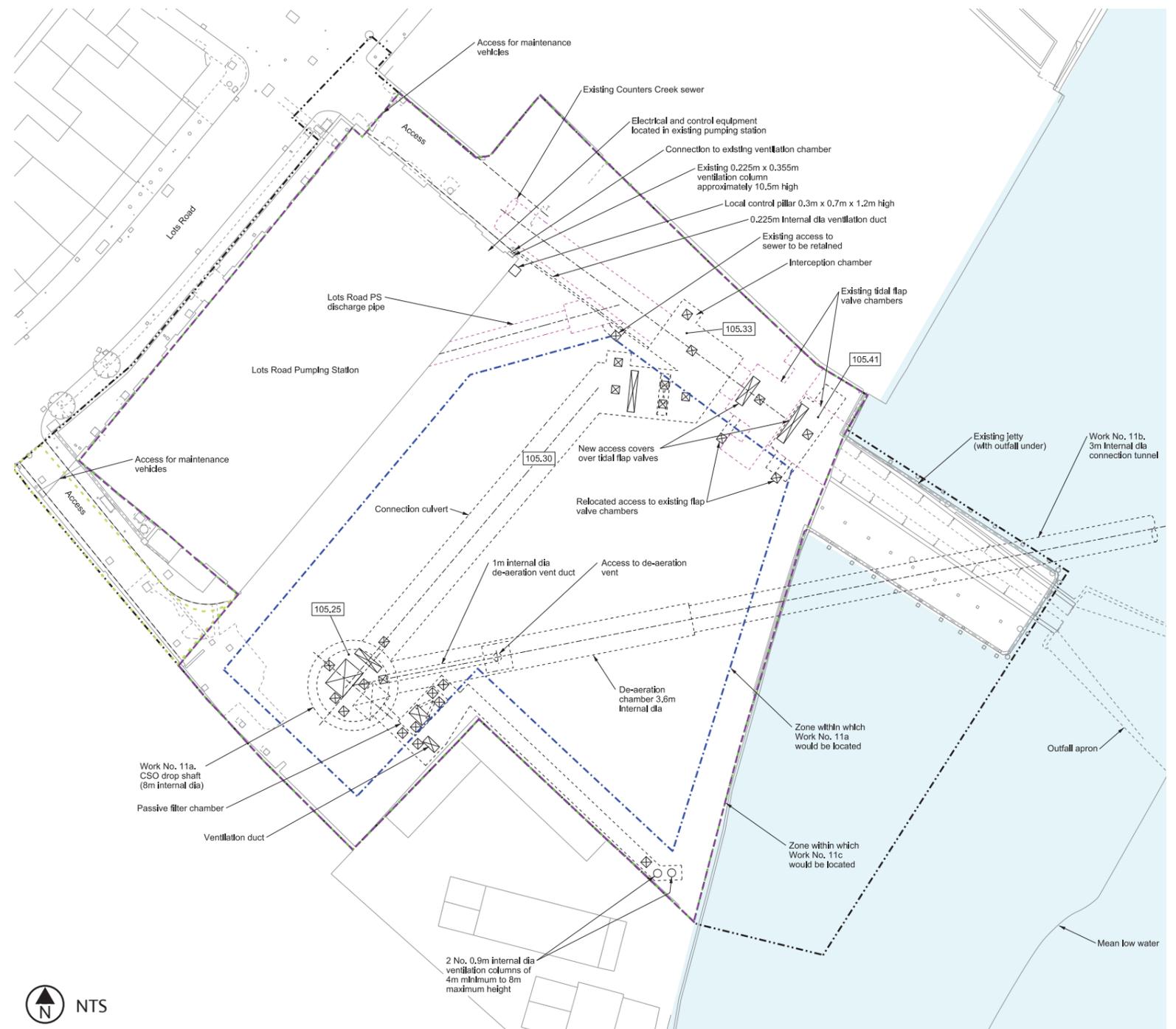


Figure 14.36: Permanent works layout - refer to Permanent works layout in the *Book of Plans*

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