

Thames Tideway Tunnel
Thames Water Utilities Limited



Application for Development Consent

Application Reference Number: WWO10001

Planning Statement

Doc Ref: **7.01**

Appendix E

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

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Creating a cleaner, healthier River Thames

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Thames Tideway Tunnel

Planning Statement

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Appendix E: Dormay Street

E.1 Introduction

- E.1.1 Catchment modelling¹ indicates that in an average year, the Frogmore Storm Relief – Bell Lane Creek combined sewer overflow (CSO) spills approximately 32 times and discharges 18,000m³ of untreated sewage into the River Thames at Bell Lane Creek in the London Borough of Wandsworth. On the basis that litter tonnages are proportional to discharge volumes approximately 4 tonnes of sewage derived litter is also discharged from this CSO in an average year (*Environmental Statement Vol 8, Section 14*).
- E.1.2 A worksite is required to connect the Frogmore Storm Relief – Bell Lane Creek CSO to the main tunnel, and to drive a long connection tunnel (the ‘Frogmore connection tunnel’) southwards to King George’s Park and northwards to Carnwath Road. The proposed development site is known as Dormay Street, which is located in the London Borough of Wandsworth.
- E.1.3 The Environment Agency identified the Frogmore Storm Relief – Bell Lane Creek CSO as a CSO that needs to be controlled, and Thames Water’s² solution is for full interception. The CSO discharges have multiple impacts on water quality at the outfall location. This includes a localised effect of rapidly dropping dissolved oxygen levels, the release of pollutants and the discharge of sewage litter and effluent.
- E.1.4 Catchment modelling suggests that if the project is constructed as proposed, the annual discharge of untreated sewage into the tidal Thames would be reduced to 500m³, and that the number of CSO spills would be reduced to one spill event per year. The sewage derived litter from the CSO would therefore be reduced by approximately 97 per cent to less than one tonne per year (*Environmental Statement Vol 8, Section 14*). The location of the site is identified in the Site location plan in Annex E.
- E.1.5 This section is structured as follows:
- Section E.2 provides a brief description of the Dormay Street site.
 - Section E.3 sets out the planning context for works in this location.
 - Section E.4 describes the site-specific development for which consent is sought and how the proposals evolved in response to consultation.
 - Section E.5 analyses the principal site-specific planning considerations and how the proposals comply with relevant planning policy.
 - Section E.6 provides an overall conclusion of the site-specific assessment.

¹The assessment of the beneficial effect of a reduction in sewage derived litter discharged to the Tidal Thames was inferred from catchment modelling results of the reduction in discharge volume, frequency and duration and was not directly modelled. For further details on catchment modelling refer to the *Environmental Statement Vol 3, Section 11*.

² Thames Water Utilities Ltd (TWUL). The Draft Development Consent Order (DCO) contains an ability for TWUL to transfer powers to an Infrastructure Provider (as defined in article 2(1) of the DCO) and/or, with the consent of the Secretary of State, another body.

E.2 Site description

- E.2.1 The site itself comprises areas of hardstanding in parts of the London Borough of Wandsworth's maintenance depot (the 'Frogmore Complex') and Causeway Island, covering an area of approximately 0.99ha. The Frogmore Storm Relief – Bell Lane Creek CSO runs through the western section of the site and discharges into Bell Lane Creek, which runs through the centre of the site.
- E.2.2 Figure E.1 below contains an aerial photo of the Dormay Street site and its immediate surroundings. The proposed site boundary is identified on the Existing site features plan in Annex E.

Figure E.1 Aerial photograph of Dormay Street



- E.2.3 Part of the site was previously occupied by Keltbray Ltd, which vacated the site in early 2012. The site is now owned jointly by the London Borough of Wandsworth and Thames Water. A number of large, single storey, traditional brick-built storage buildings of low value on the site were demolished as part of an agreement between the joint owners.
- E.2.4 Causeway Island is currently used for open air storage of motor vehicles and materials. There are a number of semi-mature trees on the southern boundary of the 'island', which are not subject to Tree Protection Orders.

- E.2.5 The proposed development site is bounded by a fence line to the north (beyond which lie a vehicle storage area and railway lines), The Causeway to the east (beyond which lies the River Wandle), the junction of Dormay Street and Armoury Way to the south, and the remainder of the Frogmore Complex to the west. Site access is taken from the northern part of Dormay Street.
- E.2.6 The area to the north of the site comprises mixed commercial and industrial uses.
- E.2.7 To the east of the site and the River Wandle are an industrial estate and a gasholder station with associated plant.
- E.2.8 To the south, the site backs onto clusters of industrial buildings along Dormay Street and Wentworth House (approximately 40m from the site), which is a Grade II listed building currently in office use. The Armoury Public House, its adjoining cottages, and three two-storey terraced properties are located further to the south at the junction of Dormay Street and Armoury Way.
- E.2.9 The residential area to the southwest of the site is primarily characterised by three to four-storey residential apartment blocks, and there is further residential development beyond.
- E.2.10 The Frogmore Complex forms part of a wider industrial area to the west.
- E.2.11 The key features of the site are illustrated in the Existing site features plan in Annex E.

E.3 Planning context

- E.3.1 In developing the proposals and mitigation measures for the proposed development at Dormay Street, Thames Water had regard to the policies set out in the National Policy Statement for Waste Water (the 'NPS'), and to local development plan designations where these are relevant to the application.
- E.3.2 In this case, the local development plan comprises:
- a. the *London Plan* (July 2011)
 - b. the London Borough of Wandsworth's *Core Strategy* (October 2010)
 - c. the council's *Development Management Policies Document (DMPD)* (February 2012)
 - d. the council's *Site Specific Allocations Document (SSAD)* (February 2012)
- E.3.3 The site is designated by the council as part of the Central Wandsworth Locally Significant Industrial Area for industrial employment use. The two parcels of land that form the site are both allocated for B1c, B2 and B8 uses in the *SSAD*. The site identified in the *SSAD* as 'Causeway Island' (proposals map ref. 40) forms part of the northern section of the site, and the site identified as 'Keltbray site, Wentworth House and adjacent land at Dormay Street' (proposals map ref. 42) forms the southern part of the site adjacent to the south of Bell Lane Creek.

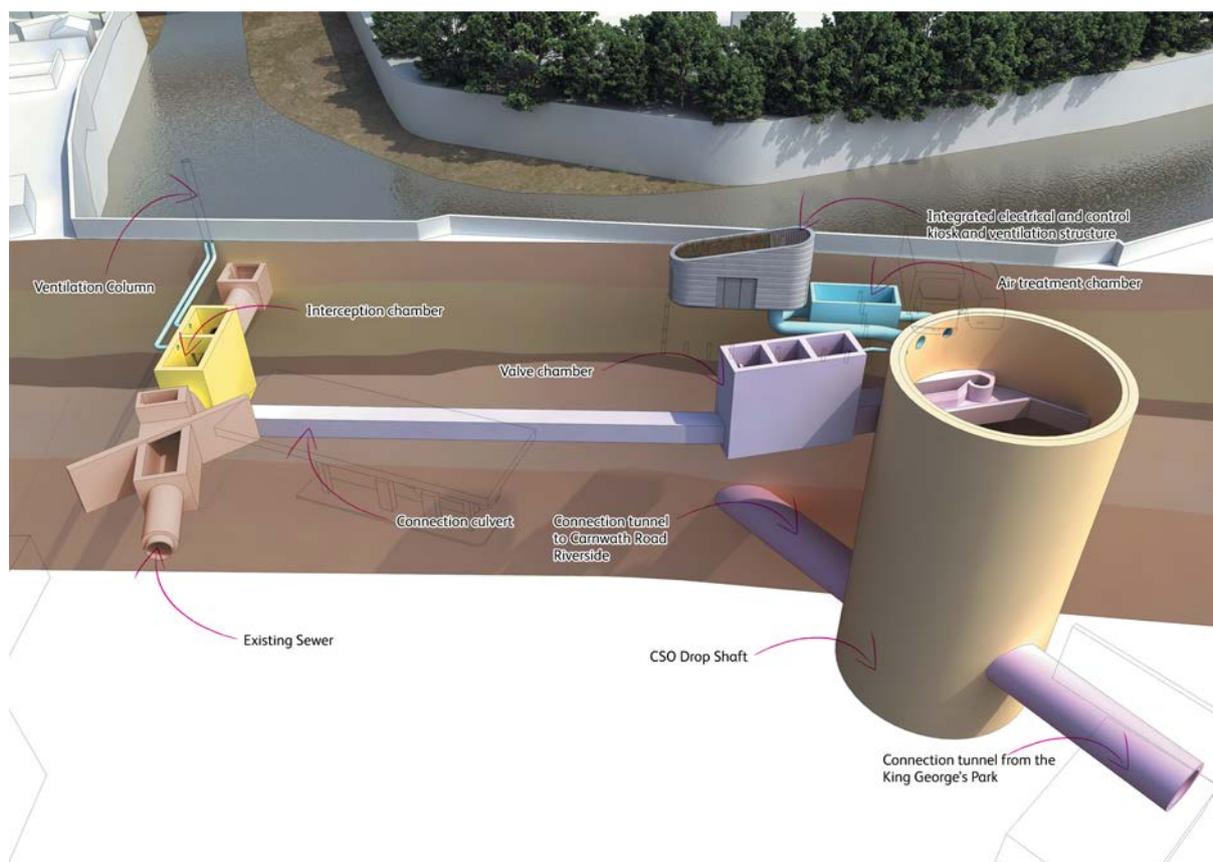
- E.3.4 The SSAD also sets out the council's aspirations for a new riverside walkway between Causeway Island and Dormay Street, via a newly constructed bridge link over Bell Lane Creek.
- E.3.5 The site falls within the Wandsworth Archaeological Priority Area and partially within the Wandsworth Town Conservation Area. It is in close proximity to Wentworth House, a Grade II listed building.
- E.3.6 A planning application (ref: 2012/1669) to change the use of the northern part of Dormay Street was approved on 15 August 2012. The planning permission allows an area at the dead end of Dormay Street, which is currently designated Highway Land, to be stopped up. This is in order to facilitate a single entrance to the expanded Frogmore Complex.
- E.3.7 No other relevant extant planning permissions or pending applications within the site boundary or its immediate vicinity have been identified as a result of on-going application monitoring.

E.4 Site-specific description of development

Overview

- E.4.1 The proposed development at Dormay Street would intercept flows from the Frogmore Storm Relief – Bell Lane Creek CSO and would enable the construction of the Frogmore connection tunnel. The works would convey the flows from the existing pipework beneath the Frogmore Complex to the main tunnel via the Frogmore connection tunnel.
- E.4.2 The work would require the construction of a CSO interception chamber, hydraulic structures (including chambers, culverts and pipes), ventilation structures and an electrical and control kiosk. Flows would be transferred from the relatively shallow depth of the existing pipework to the deeper level of the Frogmore connection tunnel via a CSO drop shaft and associated connection tunnel. The CSO shaft would be approximately 24m deep.
- E.4.3 The ventilation structure and electrical control kiosk would be integrated into a single above-ground structure. All permanent works would be surrounded by an operational maintenance area within the Frogmore Complex to facilitate vehicle access during maintenance activities. The area would be reinstated upon completion.
- E.4.4 All works would be contained within the relevant zones as indicated on the Site works parameter plan.

Figure E.2 Functional components diagram



Application for development consent

E.4.5 The geographic extent of the proposals for which development consent is sought is defined by the limits of land to be acquired or used and the drawings listed in Table E.1.

Table E.1 Dormay Street: Drawings that define the proposed development

Drawing title	Status	Location
Proposed schedule of works	For approval	Schedule 1 to the <i>Draft Thames Water Utilities Limited (Thames Tideway Tunnel) Development Consent Order</i>
Access plan	For approval	<i>Book of Plans, Section 10</i>
Demolition and site clearance plan	For approval	<i>Book of Plans, Section 10</i>
Site works parameter plan	For approval	<i>Book of Plans, Section 10</i>
Permanent works layout	Illustrative	<i>Book of Plans, Section 10</i>
Proposed site features plan	Indicative except the above-ground structures, which is illustrative	<i>Book of Plans, Section 10</i>
Section AA	Illustrative	<i>Book of Plans, Section 10</i>

Drawing title	Status	Location
As existing and proposed elevation (various)	Illustrative	<i>Book of Plans</i> , Section 10
Kiosk and ventilation structure design intent	Indicative	<i>Book of Plans</i> , Section 10
Construction phases (various)	Illustrative	<i>Book of Plans</i> , Section 10
Highway layout during construction (Various)	Illustrative	7.10.6 <i>Transport Assessment: Dormay Street Figures</i>
Permanent highway layout (various)	Illustrative	7.10.6 <i>Transport Assessment: Dormay Street Figures</i>

E.4.6 The NSIP works (Work no. 8a) comprise the construction of a CSO drop shaft with an internal diameter of approximately 12m and a depth of 24m. Associated development (Work no. 8b) comprises works to establish a tunnel drive site for use in constructing and operating the Frogmore connection tunnel, including the demolition of existing buildings and the strengthening and alteration of the existing river wall. Further associated development (Work no. 8c) comprises works to intercept and divert flow from the Frogmore Storm Relief – Bell Lane Creek CSO to the Dormay Street drop shaft (Work no. 8a) and into the Frogmore connection tunnel (Work no. 7) including construction of an interception chamber, CSO overflow structures, hydraulic structures, and other structures to manage and intercept flow. The full description of the proposed development can be found in Schedule 1 to the development consent order, and further details of the temporary construction works and permanent operational structures are contained below.

E.4.7 At this site, approval is sought for the works shown on the Works plan showing Work Nos. 8a and the Site works parameter plan, which shows the relevant zones and limits of land to be acquired or used in which the associated development works would be undertaken (Work No. 8b and 8c) Access plans, and Demolition and site clearance plans. The plans for approval are contained in the *Book of Plans* along with other plans showing the construction phasing and permanent works plans relevant to this site. These other plans are marked either for approval, for information, indicative or illustrative depending on the level of detail they provide. Section 2 of the *Planning Statement* explains in more detail the overall approach to the level of detail and how the plans for approval were developed. The Good design subsection of this appendix explains the level of detail with regard to the proposed above-ground structures at this site and the need to obtain further approvals.

Construction

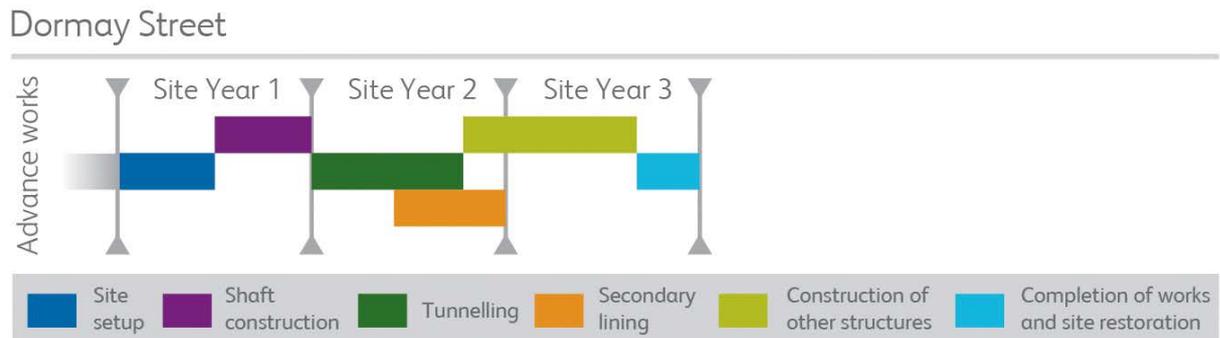
E.4.8 Construction at Dormay Street is anticipated to take approximately three years and would involve the following steps (with some overlaps):

- a. Site Year 1: site preparation (approximately six months)
- b. Site Year 1: CSO drop shaft construction (approximately six months)

- c. Site Year 2: tunnelling (approximately nine months)
- d. Site Years 2 to 3: construction of other structures (approximately ten months)
- e. Site Year 3: completion of works and site restoration (approximately five months)

E.4.9 The construction timeline is presented graphically in Figure E.3 below.

Figure E.3 Construction timeline



- E.4.10 The majority of construction would occur from 8am to 6pm Monday to Friday and 8am to 1pm Saturdays. Construction may occasionally be required outside of these hours during key construction activities.
- E.4.11 A period of 24-hour working would be required for construction of the connection tunnel and secondary lining. During this period of continuous working, activities would be predominately below ground, with support activities occurring at ground level. HGV movements however, would be limited to daytime hours.
- E.4.12 Further information about working hours and site specific restrictions are contained within the *Code of Construction Practice (CoCP)* Parts A and B, which accompany the application.
- E.4.13 Construction traffic would access the main site from Armoury Way (A3) travelling along Dormay Street and turning right into the site. Light vehicles would access the northern part of the site to the north of Bell Lane Creek from a new entrance from The Causeway. Traffic would leave the two site areas via the same routes. Beyond this, construction traffic would use the major road network to get to and from its final destination.
- E.4.14 It may be necessary to suspend or relocate some parking bays on The Causeway during construction. A temporary reconfiguration of the junction between Dormay Street and Armoury Way may be required to enable lorries to negotiate the turn into Armoury Way. It is not anticipated that any footpath, road diversions or bus stop relocations would be required.
- E.4.15 It is predicted that an average of eight heavy goods vehicles (HGVs) would access the site per day for the majority of the construction period. This would rise to approximately 25 HGVs per day over an estimated four month period while the Frogmore connection tunnel is excavated. There may be additional periods during key construction activities when these HGV numbers would need to be exceeded. Further details regarding the

number and breakdown of anticipated heavy goods vehicles accessing the site per day is contained within the *Transport Assessment*, which accompanies the application.

- E.4.16 Potential layouts of the construction site are shown on the Construction phasing plans, which are in Annex E. It should be noted that these layouts are for guidance only. The contractor may arrange the site in a different way, depending on the chosen construction method, provided that any environmental effects are appropriately managed and that main construction activities are contained within the appropriate zones.

Site preparation

- E.4.17 Prior to any works commencing the site boundary would be established and secured. The boundary would be built to an appropriate height for the site. It is anticipated that the hoarding enclosing the construction site would be up to 3.6m in height.
- E.4.18 Access gates and traffic management measures would be established to provide access from Dormay Street via a reconfigured entrance. Demolition of buildings would be undertaken and the trees cleared from Causeway Island.
- E.4.19 The existing Causeway crossing over Bell Lane Creek has a 10 tonne limit and a restricted width. In order to minimise the impact on The Causeway by site vehicles moving between the two parts of the site, a single span temporary Bailey-type bridge (a portable component panel bridge) could be built to the west of the Causeway. However, the contractor may choose to transport materials over the creek in other ways, such as by crane.
- E.4.20 Foundations for the bridge would also be required adjacent to the existing river wall. The existing condition of the river wall is known to be poor and strengthening or replacement works are likely to be required to accommodate both the temporary loading conditions and the permanent works.
- E.4.21 The existing electrical substation on the site would be retained and protected. The Causeway Island site would be set up to provide office and welfare facilities.
- E.4.22 Plant and material storage areas for shaft and tunnel connection works, waste skips, muck bin and delivery vehicle turning area would be established on site. Craneage, compressors, air receivers, material silos and static concrete pump would also be required on site. Utility and power connections would be installed and utility diversions undertaken where necessary.
- E.4.23 Junction modifications may be required to the junction between Dormay Street and Armoury Way to accommodate HGVs turning onto Armoury Way.
- E.4.24 River wall strengthening or alteration works to accommodate increased construction and operational loading may be carried out in a variety of ways including:
- a. mini-piles driven just behind the existing wall

- b. repairs to the existing wall structural elements
- c. new steel tie rods drilled through the face of the existing wall anchored to new walls constructed in stable ground approximately 10m behind the existing wall, or to the new shaft.

E.4.25 The preferred method of strengthening would depend on further analysis and on the contractor's method of working.

Shaft construction

E.4.26 The 12m internal diameter CSO drop shaft would then be constructed. This would comprise excavating in approximately 1m increments and then using a sprayed concrete lining to form the shaft walls. This process would be repeated until the required depth of shaft is reached.

E.4.27 There is anticipated to be a number of existing buried structures and foundations in the area of the shaft and connection culvert. These would be predrilled to enable the installation of the sheet piling.

E.4.28 Excavated material from the shaft would be lifted to ground level using a mobile crane prior to being deposited in a material handling area within the site. Excavated material would then be removed from site by HGVs. The concrete required on the site may either be batched on site, or delivered ready mixed as required.

Tunnelling

E.4.29 A tunnel between 2.6m and 3m internal diameter would be constructed to connect the Dormay Street and King George's Park sites to the main tunnel at Carnwath Road Riverside.

E.4.30 The connection tunnel would initially be driven from Dormay Street to King George's Park and the boring machine lifted out at this shaft. The tunnel would then be driven from Dormay Street to Carnwath Road Riverside where the tunnel machine would be removed from the shaft. Due to varying tunnelling requirements different types of tunnel boring machine may be used for each drive.

Secondary lining of connection tunnel and shaft

E.4.31 A secondary concrete lining would then be applied to the drop shaft and tunnels. This is required to improve the durability, water tightness and structural integrity of the shaft and tunnels. The process would involve casting an *in situ* concrete lining using a curved mould, or shutter, to form the internal face of the tunnel and the drop shaft. The secondary lining would be progressed by continuously pouring concrete to the shutter as it is advanced vertically up the wall of the shaft or along the tunnel.

E.4.32 The concrete for the secondary lining may either be batched on site, or delivered ready mixed to site. It would be pumped from surface level to the drop shaft or tunnel. The whole of the Frogmore connection tunnel would be secondary lined from Dormay Street.

Construction of other structures

E.4.33 The internal layout of the CSO drop shaft, including concrete access platforms and the concrete vortex generator would then be constructed.

- E.4.34 Other below ground hydraulic structures, including the interception chamber and valve chamber would be constructed from *in situ* concrete poured into shuttered excavations to provide the structure's shape.
- E.4.35 The integrated above ground ventilation structure and electrical and control kiosk would then be built. The structure would be between 4m and 6m in height. Further details of the permanent works layout are illustrated on the Permanent works layout plan.

Completion of works and site restoration

- E.4.36 On completion of the permanent structures, the site area would be landscaped and the operational maintenance hardstanding area formed.
- E.4.37 The area adjacent to the below ground structures would be reinstated in concrete, which would facilitate safe operational access.
- E.4.38 Final landscaping would incorporate the construction of an intertidal terrace in part of the southern river wall of Bell Lane Creek for environmental mitigation purposes. Further details of the reinstatement and landscaping proposals can be found on the Proposed site features plan.
- E.4.39 As the final reinstatement and landscaping is progressed, the hoarding around the construction site would be removed. The system would then be commissioned.
- E.4.40 Once all work is finished, any temporary fencing, vehicles or equipment would be removed and any final landscaping requirements completed.

Operation

CSO drop shaft

- E.4.41 A CSO drop shaft with an approximate internal diameter of 12m and approximately 24m deep would be constructed at the end of Dormay Street. The drop shaft would be constructed on the line of the proposed Frogmore connection tunnel.
- E.4.42 The drop shaft would be finished to approximately existing ground level. There would be covers on top of the drop shaft to allow access and inspection.

Chambers and culverts

- E.4.43 The interception chamber, connection culvert, and valve chamber would sit below ground. Ground level access covers would be incorporated on top of the chambers for inspection and maintenance purposes.

Integrated electrical and control kiosk and ventilation structures

- E.4.44 The height and location of the above-ground integrated electrical and control kiosk and ventilation structure of approximately 3m x 6m x 3m (minimum) would be located between the valve chamber and the Bell Lane creek river wall.
- E.4.45 A separate ventilation column to serve the CSO interception chamber would also be a maximum of 6m in height.

- E.4.46 Below-ground structures would contain passive filters and connect the ventilation columns to the structures that they are ventilating. These would have ground level covers to allow access and inspection.

Permanent restoration and landscaping

- E.4.47 The indicative landscaping at this site is presented in the Proposed site features plan. The final landscape and restoration proposals would be subject to both the generic and site-specific design principles.
- E.4.48 Following construction, the existing Frogmore Complex would be enlarged to include the northern end of Dormay Street. The permanent works would therefore be located inside the enlarged complex but a right of access would be retained for operations and maintenance purposes.
- E.4.49 The area around the drop shaft, interception chamber and valve chamber would be finished with hardstanding to allow crane and other maintenance vehicles access to the drop shaft and chamber access covers.
- E.4.50 The site would be used for vehicle parking by the council. The electrical and control kiosk and valve chamber would be located within a bollarded area for protection and to allow unrestricted operational access via Dormay Street. However this may not be required subject to a Collaboration Agreement with the council. Access to the drop shaft covers, which may have vehicles parked over them, would be undertaken in agreement with the council.
- E.4.51 Once the project is complete, the council would take ownership of the majority of the site for future redevelopment in accordance with its plan to expand the Frogmore Complex.

Typical maintenance regime

- E.4.52 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.
- E.4.53 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 involve 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.
- E.4.54 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.

Scheme development

- E.4.55 The proposed interception of Frogmore Storm Relief – Bell Lane Creek CSO was subject to over 18 months of extensive consultation and engagement. The site featured as a preferred site in the second full round of public consultation, in a phase of interim engagement, and in a period of

pre-application publicity. Throughout this period, the scheme evolved in response to consultation, through engagement with key stakeholders, and through on-going design development. The *Consultation Report*, which accompanies the application, contains detailed information on the consultation process.

- E.4.56 At phase one consultation, which ran from September 2010 to January 2011, Bell Lane Creek was the preferred site to connect the Frogmore Storm Relief – Bell Lane Creek CSO to the Frogmore connection tunnel. Bell Lane Creek comprised the existing business premises of Panorama Antennas to the southwest of Dormay Street. A site known as The London Borough of Wandsworth Maintenance Depot, Dormay Street was shortlisted as a potential alternative site. However, it was less suitable due to the effects construction and tunnelling activities would have on the Frogmore Complex site (which is operational 24 hours a day and includes public access to a MoT workshop), and because it would be difficult to find a suitable alternative location for this facility.
- E.4.57 Feedback from phase one consultation on the proposal to use the Bell Lane Creek site gave rise to a number of objections concerning the potential impact of the proposed works on local businesses and employment through loss of an existing factory. This included opposition from the occupier of the site, Panorama Antennas, who expressed concern about loss of business and the implications of relocating to a different site. The London Borough of Wandsworth shared this view and stated in its response to phase one consultation that “*the use of this site in connection with the Thames Tunnel³ should be strongly resisted*”. Other issues raised included the potential impact on residential amenity, impact on heritage features, access to the site and the impact of odour and noise.
- E.4.58 Following phase one consultation, as part of the site selection process, a review was carried out that considered the consultation feedback and new information, which included a site to the north of Dormay Street that became available during phase one consultation. All this information triggered a back-check process of all the potential alternative sites to intercept the Frogmore Storm Relief – Bell Lane Creek CSO, including the Dormay Street site. This process allowed all feasible sites to be re-assessed and resulted in Dormay Street being identified as the phase two consultation site to intercept the Frogmore Storm Relief – Bell Lane Creek CSO and to drive the Frogmore connection tunnel. For further details refer to the *Final Report on Site Selection Process*, which accompanies the application.
- E.4.59 Given the identification of a new shortlisted site, drop-in sessions were held on 13 and 14 June 2011 at the York Gardens Library and Community Centre to fully understand any concerns members of the public may have. There were no issues raised as a result of the informal consultation and the comments received were generally positive, namely:
- a. Dormay Street would not disrupt a long established local business

³ The project changed its name from the Thames Tunnel project to the Thames Tideway Tunnel project in July 2012.

- b. Dormay Street is located further from the residential area.
- E.4.60 Thames Water therefore concluded that Dormay Street was the most suitable site to connect the CSO to the main tunnel via the Frogmore connection tunnel and to drive the tunnel boring machine to King George's Park. It was the preferred site at phase two consultation which ran from November 2011 to February 2012. In summary, it was selected for the following reasons (not in order of importance):
- a. It would result in less impact on existing businesses than the two shortlisted sites.
 - b. It would make use of a brownfield site with few constraints.
 - c. Thames Water jointly owns part of the site with the council.
- E.4.61 The council was supportive of the proposed use of the Dormay Street site which is evident in its phase two consultation response: *"Following extensive discussion with Thames Water, this alternative site was identified in Dormay Street. The Council is, therefore, supportive of the use of this site, dependent on agreement of a number of details"*. These details are discussed in the Good design subsection below.
- E.4.62 There were some modifications to the design of the engineering components at this stage. It was recognised that heavy construction work would take place adjacent to the Bell Lane Creek flood defence wall, which was already suspected to be structurally weak in places. This would require work in the creek to strengthen the wall before commencing construction, in agreement with the Environment Agency. The height of the proposed ventilation column close to the existing CSO outfall was reduced from approximately 10m to 6m. This was in response to modifications to the project-wide air management strategy, which required stack heights to be consistent across all CSO sites. The permanent works would be located to the northern end of Dormay Street in order to avoid conflict with the operational sites of the Frogmore Complex and adjacent land east of Dormay Street.
- E.4.63 The option of driving the Frogmore connection tunnel from King George's Park (rather than Bell Lane Creek) was assessed. However, the drive option proposed at phase one consultation remained the preferred option because King George's Park is a valuable public open space. Furthermore, there would be an additional environmental impact on the trees and wildlife if King George's Park was used as a drive site, compared to its use as reception site.
- E.4.64 In response to phase two consultation feedback and on-going engagement with key stakeholders, there were further design developments including the minor relocation of the integrated electrical and control kiosk and ventilation structure and potential junction improvements at Armoury Way, Dormay Street and The Causeway. Refer to the Good design subsection for further details.
- E.4.65 The proposed site was identified and then assessed through a robust, qualitative, and iterative site selection process. The site selection

methodology used to select the site was subject to consultation with local authorities and key stakeholders.

- E.4.66 No feasible or preferable alternative sites were put forward by stakeholders and the extensive site selection process did not identify any alternative sites that would be suitable for the works that are required.
- E.4.67 As a result of the improvements and the identification of mitigation measures, the Dormay Street site was the most appropriate site to intercept the Frogmore Storm Relief – Bell Lane Creek CSO and to drive the Frogmore connection tunnel southwards to King George's Park and northwards to Carnwath Road Riverside. It was therefore publicised as Thames Water's proposed site at Section 48 publicity, which ran from July 2012 to October 2012.
- E.4.68 In summary, the principal issues that arose from pre-application consultation and Section 48 publicity for Dormay Street are as follows:
- a. The need to relocate the permanent works, so that they are set back from Bell Lane Creek. This means that the proposals would not prejudice the potential future development of a riverside walkway: this issue is addressed in the Good design subsection below.
 - b. The need for potential temporary junction improvements at Armoury Way, Dormay Street and The Causeway in order to accommodate construction traffic: this issue is addressed in the Good design and Traffic and transport subsections below.
 - c. The concern that proposals may result in river erosion and scour associated with any piling required to construct a Bailey Bridge to span across Bell Lane Creek: there would be no piling in the river as a result of the proposals, so this issue is not considered any further.

E.5 Site specific planning considerations

- E.5.1 This section provides an analysis of the key planning considerations associated with the proposed works at Dormay Street. It considers the issues and factors identified in the NPS and other issues relevant to the site, as set out in para. E.4.68.

Meeting the need

- E.5.2 The proposed works at Dormay Street Site would be successful in meeting the need to intercept the Frogmore Storm Relief – Bell Lane Creek CSO and to connect the Frogmore connection tunnel to the main tunnel, and would make an important contribution to meeting the wider need for the project identified in the NPS.
- E.5.3 Currently, in an average year, the Frogmore Storm Relief – Bell Lane Creek CSO discharges approximately 18,000m³ of untreated sewage into the River Thames at Bell Lane Creek. The CSO discharges approximately 32 times a year, and releases 4 tonnes of sewage derived litter.
- E.5.4 The CSO was identified by the Environmental Agency as a CSO that needs to be controlled. The proposed solution to control the CSO is for full interception. The CSO discharges have multiple impacts on water quality

in this location, including a localised effect of rapidly dropping dissolved oxygen levels, the release of pollutants and the discharge of sewage derived litter and effluent.

- E.5.5 Modelling suggests that if the project is constructed as proposed, the annual discharge of untreated sewage into the Thames would be reduced to 500m³, and the number of CSO spills would be reduced to approximately four per year. The sewage derived litter from the CSO can be expected to reduce by approximately 97 per cent to less than one tonne per year (*Environmental Statement Vol 8, Section 14*).

Good design

- E.5.6 The amount, layout and scale of the proposed development is primarily dictated by the function it needs to perform in transferring flows from the Frogmore Storm Relief – Bell Lane Creek CSO and directing flows into the main tunnel, and the site's location within the Frogmore Complex.

- E.5.7 The site-specific design opportunities included:

- a. Return the site to a London Borough of Wandsworth operational site that could be enhanced in line with the council's plans to expand the Frogmore Complex. The complex would encompass the northern end of Dormay Street and become one compound.
- b. Improve the biodiversity and habitat value of the site.
- c. Make structural improvements to the existing Bell Lane Creek flood defence wall in agreement with the Environment Agency.
- d. Make provision for the potential future development of a riverside walkway (by others) between Causeway Island and Dormay Street, in line with the SSAD.
- e. Improve access by permanently stopping up the northern end of Dormay Street and potentially carrying out improvement works at the Dormay Street/Armoury Way/The Causeway junction.

- E.5.8 The site-specific design constraints included:

- a. The design of the permanent works must not impede the future operations of the Frogmore Complex.
- b. The Grade II listed Wentworth House is in close proximity.
- c. Part of the site falls within the Wandsworth Town Conservation Area.
- d. The site comprises a section of Bell Lane Creek and is in close proximity to the River Wandle and their banks form part of London's flood defences. The existing river wall to Bell Lane Creek is structurally weak in places. The integrity of these walls must not be compromised as a result of the temporary bridge and works to and near the river wall.
- e. The works to intercept the existing Frogmore Storm Relief – Bell Lane Creek sewer must be located on or immediately adjacent to the sewer and the CSO drop shaft must be located as near to it as possible.

- f. There are existing utilities on-site: a UK Power Networks substation is present on the Bell Lane Creek boundary of part of the Frogmore Complex.
- g. Underground fuel tanks and a filling station are located immediately to the south of the associated vehicle canopy.

E.5.9 The design of the proposals for the site evolved through phase two consultation and continued engagement with key stakeholders such as the Design Council CABE, the London Borough of Wandsworth, Thames Water's pan-London strategic stakeholders and the local community. Details of the consultation process for this site are reported in the *Consultation Report* and the evolution of the design is explained in further detail in the *Design and Access Statement (DAS)* which accompanies the application. Based on the analysis of opportunities and constraints, and the feedback from stakeholder consultations, the principal objectives that influenced the design include:

- a. achieving a high quality of design and siting of the above-ground structures
- b. ensuring careful site layout
- c. enhancing the river wall and habitat
- d. managing construction impacts.

Figure E.4 Illustrative aerial view of the completed site



Achieving a high quality of design and siting of the above-ground structures

- E.5.10 The integrated electrical and control kiosk and ventilation structure would be a maximum of 6m in height. A separate ventilation column to serve the CSO interception chamber would also be a maximum of 6m in height. These are shown on the Site works parameter plan which is for approval. The final detailed design of the kiosk would be guided by the potential solution illustrated in the *DAS* and consistent with the generic and site-specific design principles which would be secured by a Requirement or Section 106. Details of the external appearance and materials of the above-ground structures would in due course be submitted to the London Borough of Wandsworth for approval, pursuant to a site-specific Requirement.
- E.5.11 The ventilation structure would be integrated into the electrical and control kiosk in order to minimise land take and the footprint of the permanent works, which is encapsulated in design principle DRMST.01. The roof of the kiosk would slope downwards from east to west in order to accommodate the structure. The integrated structure would serve the CSO drop shaft and be positioned to the west of it, between the valve chamber and the Bell Lane Creek flood defence wall. The integrated structure is restricted to this location to ensure that the underground structures would be visible during maintenance activities. As also required by design principle DRMST.01, the project's signature ventilation column design would not be used at this site since the ventilation structure is integrated into the kiosk.
- E.5.12 The Design Council CABE stated that "*we would support the general approach presented*" and did not raise any issues in response to the proposed design or siting of the above-ground structures during the review stage or at phase two consultation.
- E.5.13 As illustrated in the *DAS* the materials for the above-ground structures at this site would be selected to suit the utilitarian surroundings. The *DAS* suggests that the integrated electrical and control kiosk and ventilation structure could have a high quality pre-cast concrete external finish. This would provide a robust and durable structure that respects and complements the industrial context and setting of the site.
- E.5.14 The location of the separate ventilation column is restricted to an area near the existing CSO outfall and flood defence wall to the west of the site. The footprint of the column would be kept as small as possible to maximise the space available for the Frogmore Complex operations. As illustrated in the *DAS*, it would be similar in scale to a lamp post and could be finished to blend in with the local context.

Careful site layout

The riverside walkway

- E.5.15 The permanent works would be set back from Bell Lane Creek by a minimum of 4m from the river wall to allow for the future provision of a river walkway, as committed to by design principle DRMST.05. This is shown on the Site works parameter plan.

- E.5.16 At phase two consultation, the London Borough of Wandsworth noted that the SSAD identifies Dormay Street as *“a stepping stone in a series of connections designed to create a new route from Wandsworth town centre to the Thames riverside along the line of the River Wandle”*.
- E.5.17 It also noted that the SSAD indicates how Dormay Street could be extended north via a new bridge over Bell Lane Creek to Causeway Island. Similarly, a new riverside walkway could be created along the southern side of Bell Lane Creek to connect to The Causeway. The council stated that the proposed works provided:
- “an opportunity to enable the achievement of these key objectives and the following improvements should be secured as part of the works:*
- a. *“A new riverside walk of 4m should be laid out on the south side of Bell Lane Creek from Dormay Street to The Causeway. The proposed electrical and control kiosk should be positioned to allow for the 4m [wide] riverside walk; and*
 - b. *“The proposed bridge from Dormay Street to Causeway Island would offer one of the links identified in the Area Spatial Strategy and should be left in place to provide permanent access to Causeway Island”* [Letter dated 9 February 2012].
- E.5.18 Design Council CABE suggested that the proposals should be designed *“in such a way that could offer public benefit in the form of footpaths in the future”*.
- E.5.19 At phase two consultation, the integrated electrical and control kiosk and ventilation structure was proposed to sit perpendicular to the Bell Lane Creek flood defence wall. In response to the above feedback, the permanent works were re-sited by 4m southwards of Bell Lane Creek and the integrated electrical control kiosk and ventilation structure was rotated to the west by 90 degrees in order to maintain the 4m space without intruding further into the site. As a result, the proposals would not prejudice the potential development of a riverside walkway in the future.
- E.5.20 The option of retaining the temporary bridge for permanent use following the construction phase was considered and discussed with the London Borough of Wandsworth following phase two consultation. However, it was agreed that if the contractor opts to construct the bridge for construction purposes (as opposed to another method) then further discussions regarding its future use could take place between the council and the contractor nearer the time.

Future expansion of the Frogmore complex

- E.5.21 The position of the integrated electrical and control kiosk and ventilation structure was carefully sited to the edge of the site to leave enough space to allow for unimpeded ingress/egress to and from the site in order to enable the maintenance depot operations to continue across a large proportion of the site in permanent form. It would also best suit the future operational requirements for parking municipal vehicles. Refer to the *DAS* for further details.

- E.5.22 The northern end of Dormay Street is likely to be permanently stopped up to create an area of private land, which the council would incorporate into the enlarged Frogmore Complex. Refer to section E.3 of this appendix for further details. As indicated on the indicative Proposed site features plan, the existing vehicle access gate to the Frogmore Complex would be relocated (by others) to form the permanent maintenance access from Dormay Street, which is incorporated into design principle DRMST.04.
- E.5.23 As indicated on the indicative Proposed site features plan, the electrical and control kiosk could be raised on a kerb and surrounded by drop down bollards to prevent any vehicles from both parking on this area and to reduce the potential for heavy vehicle collision with these permanent structures, which is encapsulated by design principle DRMST.07. The raised kerb and bollards would isolate these structures for maintenance purposes from the on-going depot operations. However, the London Borough of Wandsworth suggested in recent discussions that the use of bollards could potentially impede operations at the Frogmore Complex. Thames Water is working with the council to reach a mutually beneficial solution.
- E.5.24 On completion of the construction works, it is the intention to leave the areas of the southern part of the site not occupied by the proposed CSO drop shaft and associated facilities vacant for future redevelopment, in accordance with the council's proposed plans to expand the Frogmore Complex. The final reinstatement scheme would be subject to approval and developed in accordance with the Site works parameter plan, the indicative Proposed site features plan and the design principles. The final detailed landscaping proposals would in due course be submitted for approval by the council, pursuant to a site-specific Requirement.

River wall and habitat enhancement

- E.5.25 The existing river wall to Bell Lane Creek is in a poor state of repair and may be structurally weak in places. Section 8 of the CoCP Part B seeks to ensure that the river flood defence integrity during construction is maintained.
- E.5.26 Design principle DRMST.06 ensures that a detailed assessment of the existing river wall would be carried out prior to construction. Thames Water is in discussion with the council with regard to the works required to the river wall, and this would be subject to a Collaboration Agreement. River wall strengthening or alteration works to accommodate increased construction and operational loading may be carried out in a variety of ways, as described in a para. E.4.24. The preferred method of strengthening would depend on further analysis and on the contractor's method of working. Furthermore, it would be designed to support the forecast raised flood defence levels stipulated in the Environment Agency's Thames Estuary 2100 Guidance.
- E.5.27 The London Borough of Wandsworth requested at phase two consultation that opportunities for *"further enhancements to the river wall to provide biodiversity habitats in the form of fendering or similar"* should be considered. Design principle DRMST.06 was developed so that the river wall would be constructed to enable provision for biodiversity. The wall

finishes would relate to the surroundings and in agreement with the Environment Agency, the wall would incorporate horizontal fenders to enable accretion and potential habitat for vegetation and invertebrates.

- E.5.28 A section of the river wall on the southern side of Bell Lane Creek east of the shaft location would be altered following the construction period to incorporate an inter-tidal terrace, as committed to in design principle DRMST.08. This is shown on the indicative Proposed site features plan, and is illustrated in the *DAS*. Refer to the Biodiversity and geological conservation subsection for further details.
- E.5.29 The northern part of Causeway Island would be required for construction purposes only and would not be occupied by any permanent structures. It would be reinstated to its current condition following construction. Design principle DRMST.09 would ensure that replacement tree and scrub planting would be provided for vegetation lost during construction adjacent to Bell Lane Creek. This would be to restore a habitat corridor for the movement of bats and a foraging resource for bats, in addition to a nesting and foraging resource for birds.

Managing construction impacts

- E.5.30 Due to weight restrictions on The Causeway, Section 5 of *CoCP Part B* ensures that only light vehicles (up to 10 tonnes gross weight) would use The Causeway during construction. Vehicular and pedestrian access along The Causeway would be maintained for the duration of the works.
- E.5.31 Section 4 of the *CoCP Part B* was developed to ensure that the site layout would be designed to minimise the project working area on the south side of Bell Lane Creek, thereby maximising the land available to the London Borough of Wandsworth. This is in accordance with the council's Section 48 response: "*the Frogmore Depot is already operating at capacity and the area of the depot used and the duration of its use should be kept to a minimum*".
- E.5.32 There is a range of further measures in Section 5 of *CoCP Part B* which seek to ensure that the contractor would manage and coordinate vehicle movements into and out of the site. These measures were developed in discussion with the London Borough of Wandsworth throughout consultation and on-going engagement. Further measures are detailed in the Traffic and transport subsection of this Appendix.
- E.5.33 Thames Water may carry out improvement works at the Dormay Street/Armoury Way/The Causeway junction, subject to agreement with the council and Transport for London.

Conclusion

- E.5.34 In conclusion, the proposals for Dormay Street were carefully developed through a collaborative process of design review and extensive consultation. The key functional requirements at this site relate to the need to build and ventilate the tunnel in an efficient manner and to intercept the CSO. The proposals demonstrate that this can be achieved by making efficient use of a brownfield site to drive the Frogmore connection tunnel to King George's Park and to Carnwath Road Riverside. Through a careful

and considered site layout and appropriate landscaping, the proposal is successfully integrated into an existing area of employment land without comprising future development aspirations. The layout of the site was designed in order to facilitate the council's plans for the continued operation and future expansion of the Frogmore Complex. The aesthetic components relate to the creation of a new, high quality integrated electrical and control kiosk and ventilation structure. The functional and aesthetic elements were combined in a way that would create an attractive, durable and adaptable space. The proposals at this site would achieve good design, in accordance with paras. 3.5.1 to 3.5.4 of the NPS.

- E.5.35 The design life of the major civil engineering components of the project is 120 years, including buildings. The details of the external finishes of the integrated electrical and control kiosk and ventilation structure are not specified in the application, but would be submitted for the subsequent approval of the local planning authority. These details must be in accordance with the design principles, which require materials to be high quality and durable. The project was therefore designed to be durable and resilient to change.
- E.5.36 The Environment Agency established the Thames Estuary 2100 project to develop a long-term flood risk management plan for London and the tidal Thames. The plan suggests that the height of the tidal Thames flood defences could be raised in the future. This was taken into account at this site and any works to the river walls would be designed to support the forecast raised flood defence levels stipulated in the Environment Agency's Thames Estuary 2100 Guidance.

Water resources and flood risk

- E.5.37 There are no licensed or known unlicensed abstraction sources from the upper or lower aquifers located within a radius of 1km around the site. The nearest licensed groundwater abstraction source from the River Terrace Deposits or upper aquifer is located at approximately 1km to the northwest of the Dormay Street site. There are no known unlicensed groundwater abstractions within 1km of the site. The nearest defined Source Protection Zone for a Chalk source is located approximately 3.5km away to the south. There are no environmental designations relevant to ground water in the vicinity of the site.
- E.5.38 The Dormay Street site is located in Flood Zone 3a associated with the tidal Thames.
- E.5.39 A Flood Risk Assessment including the sequential and exception test undertaken in accordance with Section 4.4 of the NPS is included in the *Environmental Statement* (Vol 3, Section 15 and Vol 8, Section 15). This shows that the proposed development would be appropriate for the area as flood risk to the development would remain unchanged. Flood risk would be managed through appropriate design measures and the development would not lead to an increase in flood risk on the surrounding areas. Therefore, no significant flood risk effects are likely.
- E.5.40 In accordance with the *CoCP* (Section 8) all site drainage during construction would be drained and discharged to mains foul or combined

sewers. Where this is not practicable, the site would be drained such that accumulating surface water would be directed to holding or settling tanks, separators and other measures prior to discharge to the combined or surface water drains. Foul drainage from the site welfare facilities would be connected to the mains foul or combined sewer. This design measure would help manage the risk from this source during construction but would not reduce the level of risk associated with this flood source.

- E.5.41 The development is at residual risk of tidal flooding in the event of a breach in the local flood defence wall along the edge of the tidal Thames or overtopping of the defence wall as a result of a failure of the Thames Barrier. The consequence of a breach or failure of flood defences would not compromise the long-term operational function of the main tunnel and therefore no additional measures above those outlined in the *CoCP* are proposed.
- E.5.42 Flood risk from all sources was managed as far as possible through design and the measures incorporated in the *CoCP*, so the criteria in NPS para. 4.10 would be satisfied. No significant flood effects are likely from the proposed development.
- E.5.43 Measures to protect water quality and resources during construction are detailed in Section 8 of the *CoCP* Part A and referred to in Section 8 of the *Planning Statement*. The *CoCP* covers activities that are subject to pollution control and makes references to good practice as suggested in the NPS.
- E.5.44 Thames Water considered design approaches and measures to ensure surface water is positively drained from this site when operational. The permanent design would comply with the design principles, including generic site drainage principle SDRN.04 which requires compliance with the Mayor's *Essential Standard*. This requires use of Sustainable Drainage Systems measures, to achieve a 50 per cent attenuation of the undeveloped site's surface water run-off at peak times, wherever practical. Pursuant to a Requirement the specific drainage details would be submitted and approved in writing by the local authority.
- E.5.45 The site therefore meets the decision making principles set out in the NPS, because no adverse effects are expected on water resources or flood risk. The Environment Agency has no outstanding concerns.

Air quality, emissions, dust and odour

- E.5.46 The London Borough of Wandsworth has declared the whole Borough an Air Quality Management Area. Local monitoring data indicates that there are currently exceedences of the air quality standard for nitrogen dioxide in the vicinity of the site.
- E.5.47 The nearest receptors which may be sensitive to air quality changes are occupiers of nearby residential dwellings (between Dormay Street and Frogmore and on Frogmore Street), and the adjacent commercial and industrial premises.
- E.5.48 An assessment of the air quality impacts of the proposed development during construction and operation is provided in the *Environmental*

Statement (Vol 8, Section 4) and includes impacts arising from emissions and dust. In accordance with the measures incorporated into Section 7 of *CoCP* Part A, all reasonable steps would be taken to minimise detrimental impacts on air quality or amenity resulting from emissions and dust. With the implementation of the *CoCP* measures, the overall effect on local air quality from construction, ie, effects from construction road traffic and construction plant would not be significant at any of the closest sensitive receptors.

- E.5.49 The consideration of operational air quality impacts including odour are set out in Section 8 of the *Planning Statement*. The project-wide *Air Management Plan*, which accompanies the application, is designed to ensure that the air in the tunnels is kept fresh, that a low pressure is maintained within the tunnels to prevent unwanted releases and that when air is released it is treated. This would be achieved by a combination of forced or active ventilation and treatment and passive air treatment. In addition, at all sites there are to be ventilation structures which would enable air to enter and leave the tunnel system.
- E.5.50 When the tunnels are empty, clean air would be drawn into the tunnels at specific sites by the extraction of air at other specific sites so as to keep the air in the tunnels fresh. This means that odours would not build up while the tunnels are empty. As the tunnels fill, air displaced from the tunnels would initially be extracted and treated at the active ventilation sites before being released and later, depending of the level of filling, would pass through the passive carbon filters. These filters clean the air and remove any odours before it is released.
- E.5.51 At passive ventilation sites a passive carbon filter would be installed within a below ground chamber. During a typical year this treats all the air displaced from the particular shaft which would occur only when the shaft is drowned by the rising wastewater in the tunnel. During infrequent, extreme storm events (approximately once in 15 years), the air that is pushed out of the shaft could exceed the capacity of the passive filter and would be released untreated through a pressure relief structure to prevent damage to the passive filter. For 100 per cent of the time during a typical year, all air released would be treated, which means that all regulatory requirements would be met and there would be no nuisance odours or loss of amenity due to odours. The construction and operational effects with regard to air quality and odour would be consistent with the NPS policy objectives to minimise detrimental impacts on amenity and the likelihood of nuisance (paras.4.12.3, 4.11.4 and 4.11.5) at Dormay Street. Appropriate measures are proposed to ensure that proposals would not lead to any substantial changes in air quality, emissions, dust or odour or a significant loss of amenity during construction or operation.

Biodiversity and geological conservation

- E.5.52 The site is not designated for its geology or geomorphological importance, and there are no internationally (Special Protection Areas, Ramsar sites) or nationally designated ecological sites (Sites of Special Scientific Interest, Marine Conservation Zones) in the vicinity of the site.

- E.5.53 In respect of aquatic ecology, no significant impacts are predicted on aquatic ecology as a result of construction works at this site.
- E.5.54 As required by design principle DRMST.08, a section of the river wall on the southern side of Bell Lane Creek would be altered at the end of the construction period to incorporate a vegetated inter-tidal terrace set back into the river wall between the mean high water springs and mean high water neaps. The vegetation would comprise species characteristic of the marginal habitats that may be expected to occur in the freshwater zone of the river. As confirmed in the *Environmental Statement* (Vol 8, Section 5), this would lead to significant improvements in habitat structure and biodiversity within the local area, as well as offering refuges for fish and burrowing substrate for invertebrates. Interception of the Frogmore Storm Relief – Bell Lane Creek CSO would have a beneficial effect in river water quality in the local area and lead to an increase in the diversity and abundance of invertebrates and the distribution of pollution-sensitive fish and invertebrate species throughout the tidal Thames.
- E.5.55 In respect of terrestrial ecology, the site currently comprises buildings, hardstanding and foreshore habitat, small areas of short perennial vegetation, scattered trees and dense scrub.
- E.5.56 The northern part of Causeway Island would be required for construction purposes only and would not house any permanent structures. It would be reinstated following construction. Design principle DRMST.09 would ensure that replacement tree and scrub planting would be provided for vegetation lost during construction adjacent to Bell Lane Creek. This would be to restore a habitat corridor for the movement of bats and a foraging resource for bats, in addition to a nesting and foraging resource for birds.
- E.5.57 Design principle DRMST.06 would enhance biodiversity at the site by ensuring that the reconstructed river wall would enable provision for biodiversity by incorporating horizontal fenders to enable accretion and potential habitat for vegetation and invertebrates.
- E.5.58 The *CoCP* requires an ecological management plan to be prepared for the site, to detail the approach to managing effects on ecological receptors.
- E.5.59 In accordance with NPS policy, the proposed development and mitigation measures would avoid significant harm to biodiversity and geological conservation interests. Thames Water also sought to take advantage of the opportunities to conserve and enhance biodiversity. These measures would be addressed through final landscape designs to be discussed with and approved by the council, and would allow for the maximisation of opportunities for building in beneficial biodiversity features as part of good design (NPS para. 4.5.14).
- E.5.60 As required by the NPS, the footprint of the proposals is not greater than it needs to be and measures are in place to mitigate any adverse effects and to put into place proposals to enhance the value of long-term habitat on site.

Landscape and visual impacts

- E.5.61 The site does not lie within or in close proximity to any nationally designated landscapes. The local townscape shaped the design development and evolution of the proposed works in this location.
- E.5.62 The *Core Strategy* and the draft *Wandsworth Town Conservation Area Character Appraisal* (produced by the London Borough of Wandsworth) were taken into account in this assessment, in accordance with para. 4.7.2 of the NPS.
- E.5.63 The existing landscape and visual quality of the site is fair, but has no particular value due to its industrial usage. The river wall is in a poor state of repair, with potential for improvement.
- E.5.64 The intensity of construction activity (and related visual and townscape impacts) throughout the phases would vary. Section 4 of *CoCP Part B* ensures that the hoarding height would be 3.6m at this site to provide suitable screening of the site.
- E.5.65 The Dormay Street Townscape and Visual Assessment (*Environmental Statement*, Vol 8, Section 11) identifies potential significant temporary visual impacts from two locations: from the National Cycle Route 20 on The Causeway (Viewpoint 2.2) and from the confluence of Bell Lane Creek and the River Wandle (Viewpoint 2.3). The removal of vegetation and the presence of welfare facilities, hoardings and construction activity in the site to the north of Bell Lane Creek would be highly visible in the foreground of the views. However, this is consistent with the existing industrial use of this part of the site and there are no residential properties in these locations.
- E.5.66 Construction activity to the south of Bell Lane Creek, including cranes and vehicles crossing the temporary bridge over Bell Lane Creek and activity associated with the construction of the new river wall would be visible in the background of the views. However, this would be set against the existing industrial context to the south. Therefore, in planning terms the visual impact would not be significant particularly given that the nature of the construction activity would be temporary and well controlled.
- E.5.67 The NPS recognises in para. 1.4.4 that Nationally Significant Infrastructure Projects are likely to take place in mature urban environments, with adverse townscape and visual effects within a built up environment, with many possible receptors. Large scale construction works are commonplace in London, and the city has a high capacity to accommodate change. The construction works at Dormay Street should be viewed in this context and would be experienced against the background of any planned developments in the surrounding area.
- E.5.68 Operational effects were not assessed in the *Environmental Statement* on the basis that there are only very limited changes in operation. As a result of an agreement between the London Borough of Wandsworth and Thames Water, the existing dilapidated buildings within the site have been removed. The proposed high quality low level structures located within the site, would, on balance improve the visual appearance of the site which is an industrial compound.

E.5.69 In conclusion, construction activity would result in temporary visual impacts on recreational receptors in close proximity to the site. A range of mitigation measures is applied to reduce these impacts as much as practicably possible. Once construction is complete the improvements to the quality of the site would benefit townscape and visual amenity. The proposals are therefore consistent with the approach required in Section 4.7 of the NPS. The landscape and design proposals were designed taking careful account of the townscape characteristics of the area, to minimise adverse effects during construction and to create significant longer term townscape and visual benefits.

Land use including open space, green infrastructure and green belt

E.5.70 The site is located on land within the Frogmore Complex. The site is jointly owned by Thames Water and the London Borough of Wandsworth.

E.5.71 The Land use plan is provided in Annex E.

E.5.72 The site has now been cleared. Upon completion of the permanent works, the site would be returned to a London Borough of Wandsworth operational site allowing for it to be enhanced in line with the council's proposed plans to expand the Frogmore Complex to encompass the northern end of Dormay Street to become one compound.

E.5.73 As a result of design principle DRMST.05, Thames Water's proposals also demonstrate that permanent works would be laid out to allow for the potential future development (by others) of a riverside walkway between Causeway Island and Dormay Street, in line with the SSAD.

E.5.74 Use of the site for the purpose of constructing the project is, therefore, broadly consistent with its long established use and would positively re-use an existing brownfield site. The proposals at the Dormay Street site do not affect any open space.

E.5.75 The site is not designated for any other land use or future development proposals. Whilst the proposed permanent structures would remain within the curtilage of the existing Frogmore Complex, the works would be configured to group the permanent structures to the southern edge of Bell Lane Creek. This would enable the maintenance depot operations to continue across a large proportion of the site once construction works have ceased and to allow unimpeded ingress/egress to and from the Frogmore Complex site.

E.5.76 The hardstanding of the shaft would be used for the parking of municipal vehicles in association with the future operational requirements of the site, as advised by the council. For further information with regard to this arrangement, refer to the DAS.

E.5.77 In conclusion, no land use implications arise from the use of an existing industrial site for the interception of the Frogmore Storm Relief – Bell Lane Creek CSO and to drive the Frogmore connection tunnel to King George's Park.

Noise and vibration

- E.5.78 The noise conditions in the vicinity of the site are predominantly generated from road traffic and rail noise. The nearest locations to the site that are sensitive to noise and vibration are residential dwellings to the south of the site along the A3 and Armoury Way and between Dormay Street and Frogmore.
- E.5.79 The NPS recognises that Nationally Significant Infrastructure Projects are likely to take place in mature urban environments, and in the short term, do lead to noise disturbance during construction.
- E.5.80 A series of measures are embedded within the project design, within Section 6 of CoCP Part A to manage noise impacts. These include operating in accordance with best practice, selection of the quietest cost effective plant available, and optimisation of plant layout to minimise noise emissions. Compliance with these measures is secured through a project-wide Requirement.
- E.5.81 As a result of the proposed mitigation measures and demonstration of good design, there would be no significant noise or vibration effects at this site during the construction or operational phases, as confirmed in the *Environmental Statement* (Vol 8, Section 9).

Historic environment

- E.5.82 This site does not contain any significant (statutorily protected or otherwise important) heritage assets, nor are there any in the immediate vicinity.
- E.5.83 In terms of above ground assets, the Grade II listed early 18th-century Wentworth House lies approximately 40m to the south of the site. A small part of the site falls within the Wandsworth Town Conservation Area. The Conservation Area is characterised by remnants of the former townscape and industrial use of the area and riverside, most apparent in the narrow form of Dormay Street and the Causeway. Buildings within this part of the Wandsworth Town Conservation Area include Wentworth House and adjacent undesignated industrial buildings.
- E.5.84 As detailed in *Environmental Statement* (Vol 8, Section 7), Dormay Street may have some low potential regarding the possibility of containing earlier archaeological remains. However there would be no significant archaeological effects during construction.
- E.5.85 Measures have been taken to minimise the land take at the site. An approach to recording evidence was developed and agreed with English Heritage.
- E.5.86 The NPS recognises that Nationally Significant Infrastructure Projects are likely to take place in mature urban environments and to have adverse effects on archaeology and cultural heritage.
- E.5.87 There would be no significant heritage impacts on the Wandsworth Town Conservation Area or Wentworth House listed building during construction. The construction works would affect a small area of the Conservation Area, through the redevelopment of the northern tip of Dormay Street with a new site boundary and the demolition of the brick shed. However, the

Heritage Statement, which accompanies the application, concludes that this would have a very limited effect upon the historic character of the Conservation Area as a whole. The effect of construction works on the setting of Wentworth House would be largely limited to the presence of hoardings; however the impact would not be significant.

- E.5.88 The proposed operational scheme took opportunities to enhance the long-term setting of the historic environment. It would improve the quality of the setting of Wandsworth Town Conservation Area and Wentworth House by opening up lost views northwards from Dormay Street. For further details refer to *Environmental Statement* (Vol 8, Section 7).
- E.5.89 A listed building assessment of Wentworth House was undertaken to determine possible ground movement effects of the connection tunnel construction. The recommendations conclude that although the general condition of the building is poor, its significant heritage features are unlikely to be damaged as a result of the proposed works and no further mitigation works are required.
- E.5.90 The proposals were developed with the benefit of a thorough understanding of the surrounding heritage assets. As stated in the *Heritage Statement*, the significance of the area relates to the preservation of a mix of light industrial and residential uses, which would be preserved and its setting enhanced. The proposals would minimise the conflict between preservation of its significance and the need for development and would cause less than substantial harm. The design developed to take opportunities to enhance the long-term setting of nearby buildings. This approach satisfies paras. 4.10.11, 4.10.12, 4.10.13, 4.10.14, 4.10.15 and 4.10.17 of the NPS, which also reflect *London Plan Policy 7.8*, *DMPD Policy DMS2*, and para. 2.2 of the *Wandsworth Town Conservation Area Appraisal and Management Strategy*.

Light

- E.5.91 The *Daylight/Sunlight Assessment* establishes that the proposed temporary and permanent works at Dormay Street would not have a material impact on sunlight or daylight of surrounding residential properties, therefore this issue was scoped out of the detailed assessment.
- E.5.92 For practicality and safety reasons tunnel construction needs to take place over extended periods of time, including working on a 24-hour, seven days a week basis. A short period of 24-hour working would be required at this site. During this period, the working would mainly take place below ground but artificial lighting would be required for the supporting activity at ground level for extended periods during the secondary lining phase. Measures are included within the *CoCP Part A* to ensure that all reasonable steps would be taken to minimise detrimental impact on amenity resulting from artificial light. For example, site lighting during construction would be capped and directional to ensure minimal light spill and lighting is only used when necessary and as such there would be no unreasonable effects on residential properties during the construction period.

- E.5.93 As identified in the *Environmental Statement* (Vol 8, Section 11), at night, continuous lighting would be visible during construction in the foreground of two locations: south from the National Cycle Route 20 on the Causeway (viewpoint 2.2) and south west from the confluence of Bell Lane Creek and the River Wandle (Viewpoint 2.3). These viewpoints are located in an industrial area and with no existing residential properties. In planning terms the impact of the proposed temporary construction lighting would not be significant particularly given that it would be temporary and well controlled, in compliance with *CoCP* Part A.
- E.5.94 The operation of the proposed development would have no substantial lighting requirements. This is encapsulated in design principle DRMST.02 which restricts the proposed lighting to a low level light on the kiosk doors to allow access for maintenance purposes in the hours of darkness. This light would only be activated by a directional motion control switch linked to the door opening. Design principle DRMST.03 would ensure that the existing operational lighting to the depot areas would be retained or reinstated.
- E.5.95 All reasonable steps have been taken to minimise any detrimental effects arising from the use of artificial lighting at the site in accordance with para. 4.12.7 of the NPS. As a result, there would be no significant artificial light effects on amenity during the construction or operational phases.

Traffic and transport

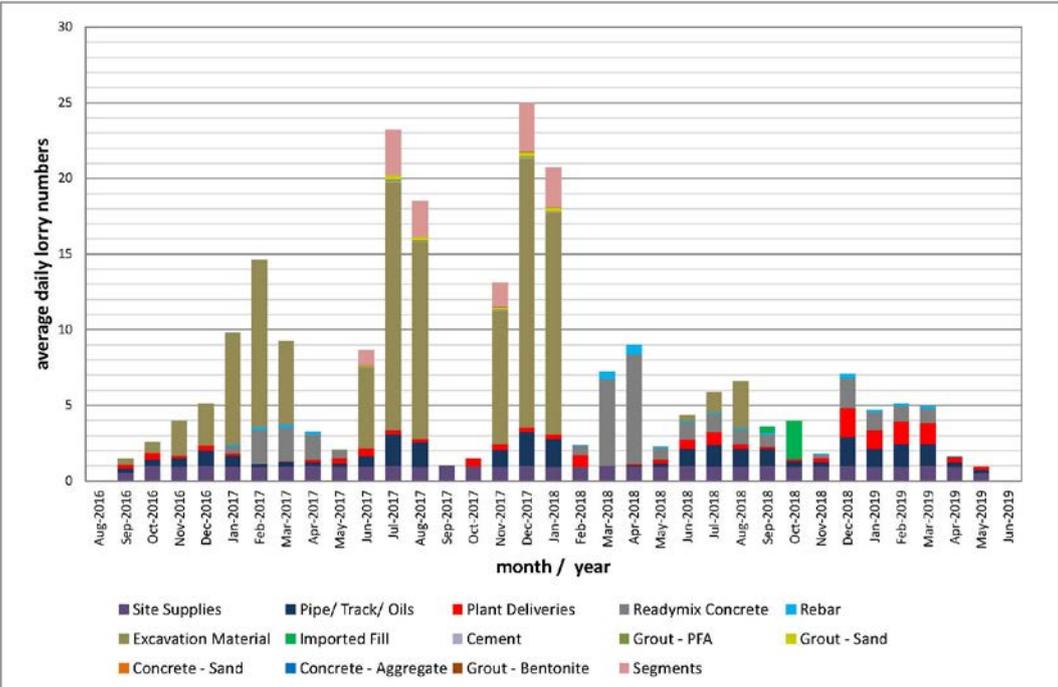
- E.5.96 The Dormay Street site has very good public transport accessibility, being located in close proximity to a number of high frequency bus stops and within 800m of Wandsworth Town Rail Station and the Wandsworth Riverside Quarter pier. There are a number of bus stops within 640m of the site.
- E.5.97 Access to the site for construction lorries would be from a new access on Dormay Street, which in turn is accessed with a 'left in, left out' arrangement from Armoury Way (A3/A217) which accommodates eastbound traffic only and links to the A3 to the south. This access would avoid traffic entering and exiting the site via the residential road located to the west, instead passing through industrial land uses. There would be a secondary access on The Causeway (this would be a new entrance to access the northern part of the site), which in turn is accessed from Dormay Street. The Causeway is a narrow cul-de-sac which is subject to a 10 tonne weight restriction. As required by section 5 of *CoCP* Part B, usage of this access would be limited to light goods vehicles (LGVs) and cars. Traffic would leave the two site areas via the same routes.
- E.5.98 It is not proposed to use the river to transport materials at this site because the site has poor navigational access.
- E.5.99 At this site there would be no parking provided within the site boundary for construction workers. The construction site is expected to require a maximum workforce of approximately 70 workers on the site at any one time. The *Transport Assessment* assumes, based on a robust assessment, that 46 per cent of workers journeys would be made by car. The site has good access to the Strategic Road Network (A3). Measures

to reduce car use would be incorporated into a site-specific travel plan, and details would be submitted to the local authority for approval, pursuant to a site-specific Requirement. The requirements for site-specific travel plans are set out in the *Draft Project Framework Travel Plan*, which accompanies the application.

E.5.100 During construction, HGV movements would take place on weekdays between 8am and 6pm and on Saturdays 8am to 1pm. Up to one hour before and after these hours for mobilisation and demobilisation of staff. In exceptional circumstances, on agreement with the local authority, HGV and abnormal load movements could occur up to 10pm or later for large concrete pours. Continuous working hours would be required for a short period of time during the long connection tunnel drive and the secondary lining. During these periods only those activities directly connected with the task would be permitted within the varied hours.

E.5.101 As stated in the Transport Assessment, it is anticipated that an average of eight HGVs would access the site per day during the construction period. This would rise to approximately 25 HGVs per day over an estimated four month period while the Frogmore connection tunnel is excavated. There may be additional periods during key construction activities when these HGV numbers would need to be exceeded. Further details regarding the number and breakdown of anticipated heavy goods vehicles accessing the site per day is contained in the *Transport Assessment*. The histogram in Figure E.5 shows the construction vehicle profile during construction.

Figure E.5 Estimated construction lorry profile



E.5.102 As shown on the Access plan which is for approval, a small section of the highway at the northern end of Dormay Street would be permanently stopped up and would become part of the Frogmore Complex. A smaller area of highway on Dormay Street would be temporarily stopped up for the

construction of a cross over for site access. Thames Water may carry out improvement works at the Dormay Street/Armoury Way/The Causeway junction; however, this is subject to agreement with the council and Transport for London. If agreed, details would be submitted to the local highway authority for approval, pursuant to a site-specific Requirement.

- E.5.103 A section of permit controlled on-street parking on The Causeway opposite the site access would need to be suspended for movements of light goods vehicles, if required. According to the *Environmental Statement* (Vol 8, Section 12), parking surveys undertaken indicate that the parking usage along The Causeway is light and that there is spare capacity available throughout the day therefore there would be no significant impact on parking as a result of the proposal.
- E.5.104 Measures to further reduce transport impacts are detailed in the *CoCP* Part A. These include HGV management and control measures such as designated vehicle routes to sites for construction vehicles. There is also a provision for management plans for construction workers journeys to and from the site. In addition, traffic and vehicle control measures in the *CoCP* Part B were developed with the London Borough of Wandsworth to ensure that there would be no conflict with the operation of the Frogmore Complex throughout the construction period. These are as follows:
- a. Site access would be provided from Armoury Way on to Dormay Street and right turn onto the site.
 - b. Site access for light vehicles (up to 10 tonnes gross weight) would be only from The Causeway.
 - c. Vehicular and pedestrian access along The Causeway would be maintained for the duration of the works.
 - d. The section of Dormay Street from Armoury Way to the site is narrow and is a primary vehicle route from the Frogmore Complex. The contractor would manage and coordinate the access and egress of site vehicles along Dormay Street. This includes, but is not limited to:
 - i liaising with the Frogmore Complex on planned construction vehicles movements and where practical avoiding times where there are a frequent number of vehicles exiting the complex; this would specifically include buses exiting the complex
 - ii liaising with other local businesses, including the adjacent public house, plumber merchants and stone masons, to avoid planned construction vehicle movements during scheduled third party delivery periods where practical
 - iii coordinating and communicating with deliveries and suppliers to manage vehicle arrival and departure times to minimise likelihood of site vehicles meeting on the narrow section of the Dormay Street and also meeting council vehicles
 - iv utilising a suitable remote lorry holding area and having radio communication to call in vehicles to site

- v using traffic marshals as required to direct vehicle movements in Dormay Street and, when required, manage turning of vehicles in from Armoury Way; vehicles would be prevented from queuing on Armoury Way when attempting to turn into Dormay Street
- vi advising deliveries and suppliers that queuing on Armoury Way is prohibited and all drivers are required to continue around the one way system and to not queue on Armoury Way.

In conclusion, construction works in this location are not likely to result in any significant transport effects on road operation or delays. A range of measures are in place in the *CoCP* and the *Draft Project Framework Travel Plan*, which would mitigate any potential significant impacts. In accordance with para. 4.13.7 of the NPS, appropriate requirements are proposed to minimise impacts at this site. HGV traffic at this site would not be substantial and there would be no significant effects regarding pedestrian and cyclist amenity, safety or local public transport services. This is supported in the *Environmental Statement* (Vol 8, Section 12).

- E.5.105 During the operational phase there would be very occasional vehicle trips to and from the site for maintenance activities therefore there would be no significant traffic impacts.

Waste management

- E.5.106 The project-wide Waste Strategy was developed to provide a framework for the management of materials and waste that would be produced throughout the construction and operation of the project. This ensures that the requirements set out in para. 4.14.6 of the NPS would be satisfied, and the Waste Strategy would be secured via an obligation in accordance with para. 4.14.7 of the NPS.
- E.5.107 No particular site-specific waste issues arise at this site.

Socio-economic

- E.5.108 The project-wide socio-economic issues and benefits of the project both during construction and operation, and equalities considerations are detailed in Section 8 of the *Planning Statement*.
- E.5.109 The site is within the Frogmore Complex. The Wandle Trail and National Cycle Route 20 passes adjacent to the site along a private road. These are occasionally used for walking and cycling. Industrial and storage uses immediately surround the site.
- E.5.110 The community profile suggests that the local community is made up of predominantly white residents, who generally experience good health and have high life expectancy. Nevertheless, deprivation near the site is higher than across Greater London.
- E.5.111 In accordance with the NPS, the project undertook an initial *Equalities Impact Assessment* in order to identify potential (direct or indirect) adverse, differential or positive impacts on equalities groups and to determine whether a full *Equalities Impact Assessment* should be undertaken. Given the scale of the project and the potential for impacts on

certain equalities groups, it was determined that a full assessment should be undertaken.

- E.5.112 The *Equalities Impact Assessment* states that there are no equalities issues at Dormay Street.
- E.5.113 The proposed development would result in a temporary reduction in the supply of employment land for the duration of the construction works. However, the area of employment land used during construction would be approximately 0.4ha, and the *Environmental Statement* (Vol 8, Section 10) states that this amounts to less than 0.5 per cent of the overall supply of 190.1ha of employment land in the borough. The works would therefore result in no significant change to the wider level of employment provision.
- E.5.114 Construction is expected to require a maximum workforce of approximately 70 workers at any one time. This compares positively to the existing condition where no direct jobs physically exist on the portion of land that would be encompassed within the construction site. These jobs and training opportunities would provide a stimulus to the local economy.
- E.5.115 There would be no significant socio-economic impacts on any nearby sensitive receptors including users of the Wandle Trail and National Cycle Route 20, the Frogmore Complex or any nearby residents.
- E.5.116 Once operational, there would be no significant impacts on the availability of employment land resulting from the presence of operational structures on the site. Thames Water worked closely with the London Borough of Wandsworth to ensure that the proposed works would be successfully integrated into an existing area of employment land without comprising future development aspirations. The layout of the site was designed in order to facilitate the council's plans for the continued operation and future expansion of the Frogmore Complex.

E.6 Overall conclusions

- E.6.1 There is a need to intercept the Frogmore Storm Relief – Bell Lane Creek CSO. In an average year, the CSO discharges approximately 32 times and discharges 18,000m³ of untreated sewage into the tidal Thames at Bell Lane Creek in the London Borough of Wandsworth. The Environment Agency identified the Frogmore Storm Relief – Bell Lane Creek CSO as a CSO as a CSO that needs to be controlled. The reduction of discharges from the Frogmore Storm Relief – Bell Lane Creek CSO would significantly improve the water quality in the Thames with consequent benefits to water quality, ecology, recreation and amenity. This would also help to reduce sewage derived litter and the health risks to users.
- E.6.2 Dormay Street was selected after extensive consideration and engagement as the appropriate site on which to meet the need. The site is suitable and the application proposals would meet the identified need through full interception.
- E.6.3 Thames Water sought to minimise any disturbance that would be experienced through sensitive design and mitigation, and it is concluded

that following mitigation, no significant negative effects are likely to remain during construction.

- E.6.4 The proposals at Dormay Street would give rise to a number of other significant beneficial effects:
- a. The legacy to be left by the project in this location includes the re-instatement of the site for use as the Frogmore Complex in line with their plans to expand it. The complex would encompass the northern end of Dormay Street and become one compound.
 - b. Improvements would be made to access by permanently stopping up the northern end of Dormay Street and potentially carrying out improvement works at the Dormay Street/Armoury Way/The Causeway junction.
 - c. Structural improvements would be made to the existing Bell Lane Creek flood defence wall in agreement with the Environment Agency.
 - d. Improvements would be made to the biodiversity and habitat value of the site by incorporating an inter-tidal terrace and the use of horizontal fenders within the reconstructed river wall.
 - e. Provision would be made for the potential future development of a riverside walkway (by others) between Causeway Island and Dormay Street, in line with the *SSAD*.
 - f. Enhancements would be made to the long-term setting of the historic environment by improving the setting of the Wandsworth Town Conservation Area and Wentworth House listed building by opening up lost views northwards from Dormay Street.
- E.6.5 The proposed works at the Dormay Street site and the mitigation measures developed and advanced as part of the application for development consent directly accord with the approach required by the NPS. Adverse effects have been minimised as far as possible and opportunities taken to enhance the local environment and to leave a positive legacy.
- E.6.6 Section 8 and 9 of the *Planning Statement* considers the implications of the local effects of the works at Dormay Street and the other sites, and describes the overall balance between impacts and benefits associated with the project as a whole, against the guidance in the NPS. It concludes that the works at Dormay Street, and the project as a whole, are compliant with the NPS and that development consent should be granted.

Annex E: Drawings for Dormay Street

List of drawings

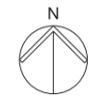
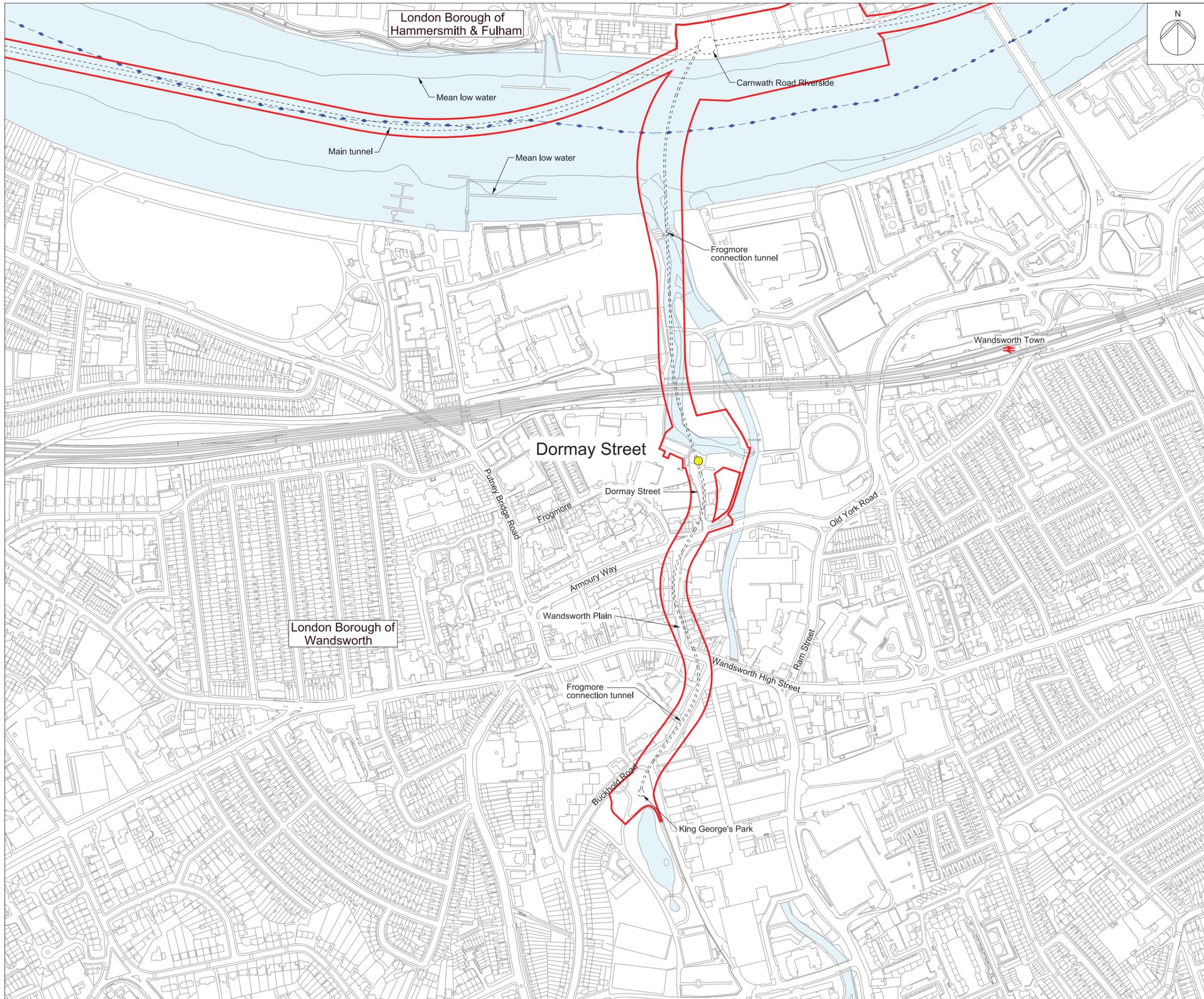
Dormay Street: Location plan

Dormay Street: As existing site features plan

Dormay Street: Construction phases plans

Dormay Street: Land use plan

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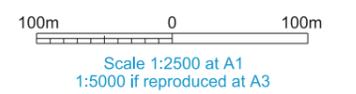
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Coordinates are to be Ordnance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

- Key:
- Local authority boundary
 - Order limits
 - Tunnel
 - Shaft

- Notes:
1. The alignment of the tunnels are illustrative within limits of deviation.



FOR INFORMATION

Location
Dormay Street
 London Borough of Wandsworth

Document Information
Application for Development Consent
 Location plan

Book of plans - section 10
 DCO-PP-08X-DRMST-100001
 January 2013

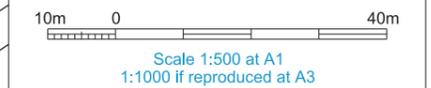


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Coordinates are to be Ordnance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

- Key:**
- Limits of land to be acquired or used (LLAU)
 - + 105.40m Existing levels (shown in metres above tunnel datum)
 - ✳ Listed buildings/structures
 - Approximate position of CSO outlet



FOR INFORMATION

Location
Dormay Street
 London Borough of Wandsworth

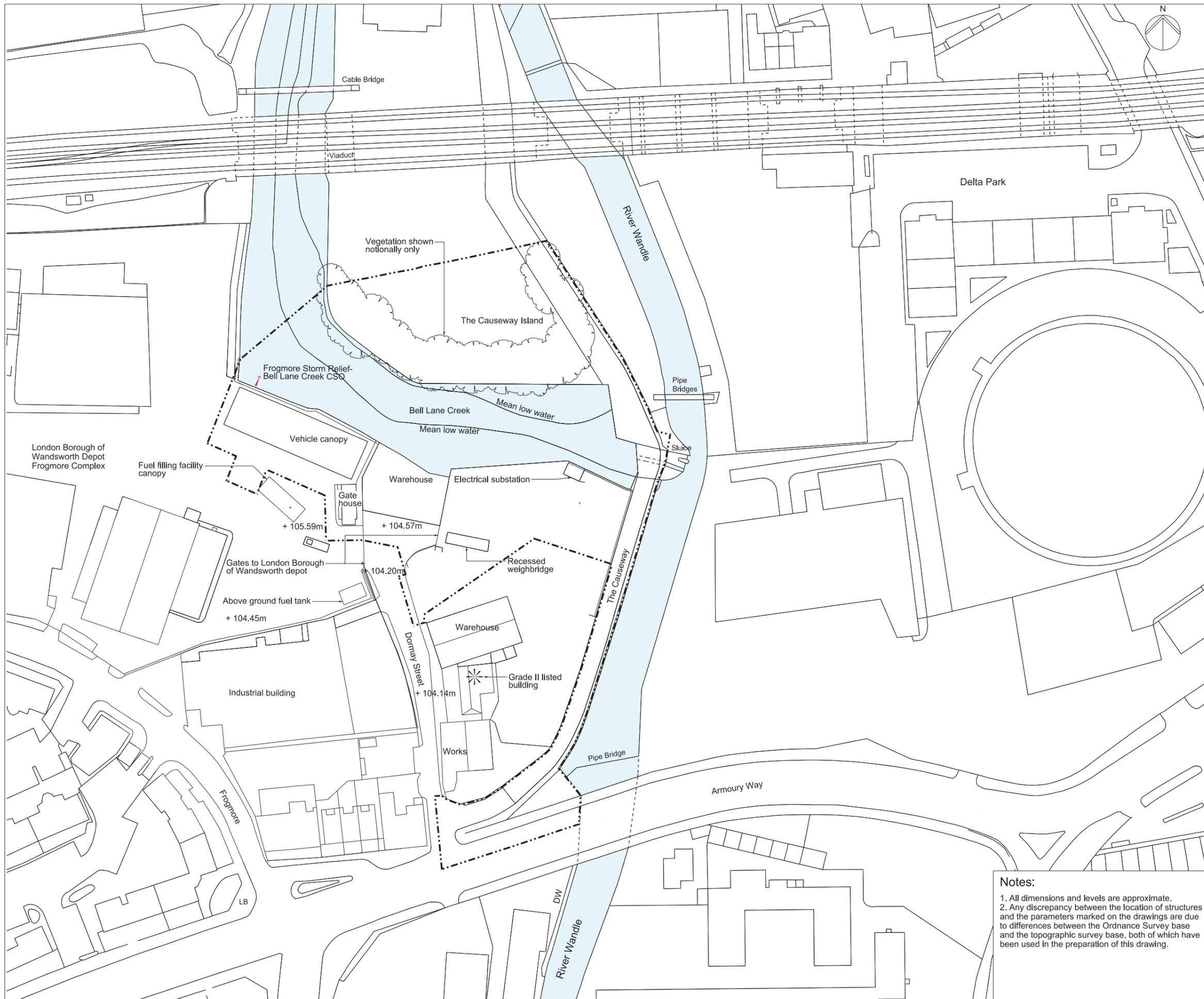
Document Information
Application for Development Consent

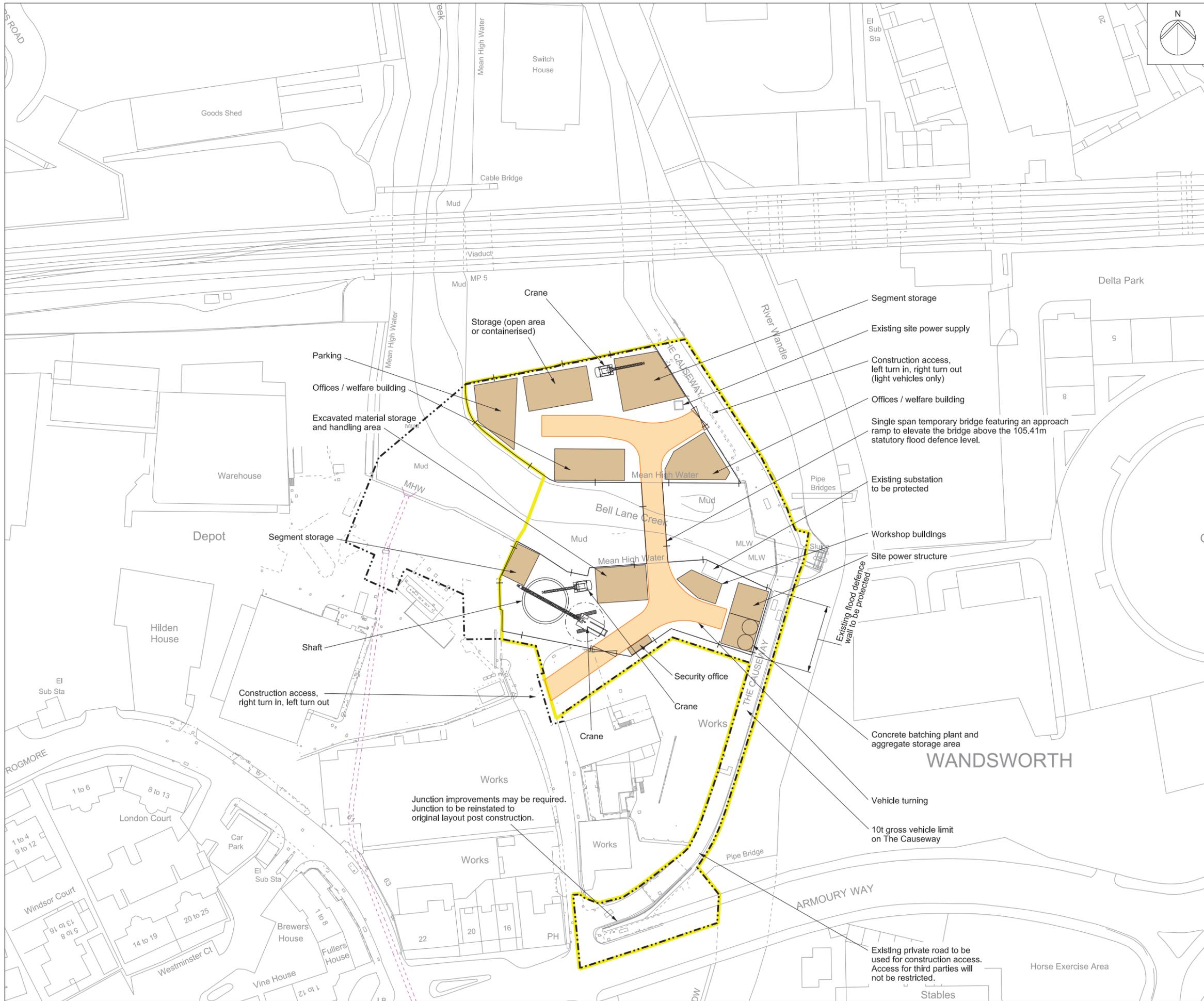
As existing
 Site features plan
 Book of plans - section 10
 DCO-PP-08X-DRMST-100002
 January 2013



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.





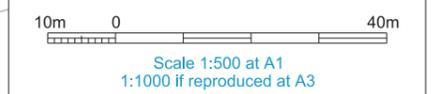
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- Key:**
- Limits of land to be acquired or used (LLAU)
 - Hoarding
 - Maximum extent of working area
 - Site access
 - Access / haul route
 - Existing sewers

- 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.

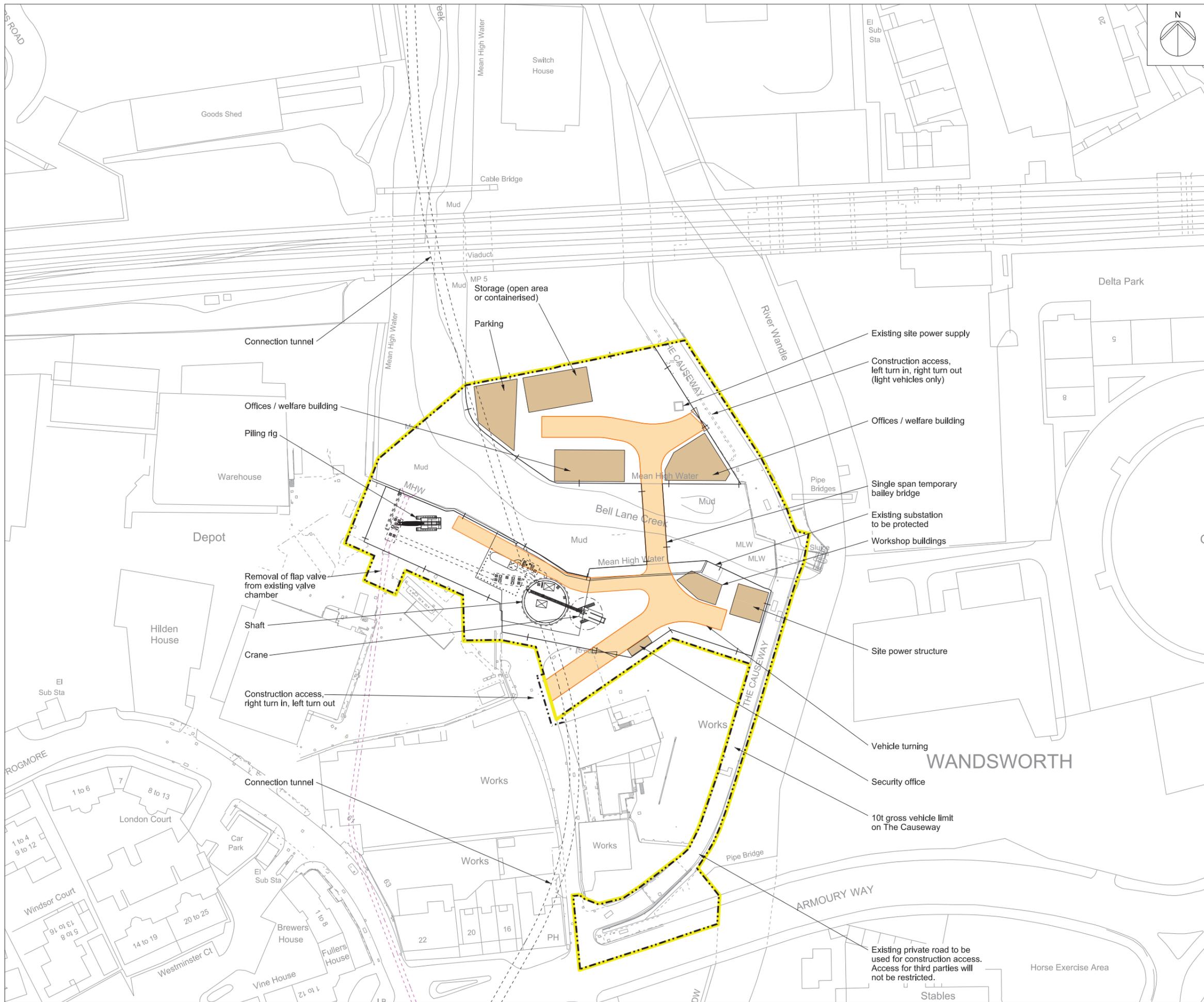


ILLUSTRATIVE

Location
Dormay Street
London Borough of Wandsworth

Document Information
Application for Development Consent
Construction phases - phase 1
Site setup, shaft construction & tunnelling
Book of plans - section 10
DCO-PP-08X-DRMST-100013
January 2013





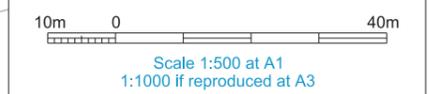
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Coordinates are to be Ordnance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

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

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ILLUSTRATIVE

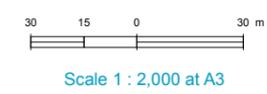
Location
 Dormay Street
 London Borough of Wandsworth

Document Information
 Application for Development Consent
 Construction phases - phase 2
 Construction of other structures
 Book of plans - section 10
 DCO-PP-08X-DRMST-100014
 January 2013





- Key**
- Limits of Land
 - - - to be Acquired or Used
- Land Use**
- Class A1-A5 (Shops, Financial & Professional Services, Restaurants, Drinking Establishments and Hot Food Takeaways)
 - Class B1 (Business (Offices except A2) Research and Development, Light Industry)
 - Class B2-B8 (General Industrial / Storage or Distribution)
 - Class C3-C4 (Dwelling Houses)
 - Class D1-D2 (Non Residential Institutions (Community Facilities) and Assembly and Leisure)
 - Mixed Use
 - Other
 - Open Space



FOR INFORMATION

Location
Dormay Street
 London Borough of Wandsworth

Document Information
Planning Statement
 Land use

1PL03-MG-00817
 January 2013



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