Thames Tideway Tunnel
Thames Water Utilities Limited

Application for Development Consent

Application Reference Number: WWO10001

Design and Access Statement

Doc Ref: **7.04**

Part 1

Dormay Street

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

Thames Tideway Tunnel

Creating a cleaner, healthier River Thames

This page is intentionally left blank

Section 10

Dormay Street

This page is intentionally left blank

10.1 Introduction

10.1.1 A worksite is required to connect the Frogmore Storm Relief – Bell Lane Creek CSO to the Frogmore connection tunnel, which would transfer combined sewage flows into the main tunnel. The proposed development site is known as Dormay Street, which is located in the London Borough of Wandsworth.

10.1.2 We have agreed with the London Borough of Wandsworth that some elements of the detailed design proposals would be drawn up at a later stage. The detailed designs would be submitted to the local authority for approval in the form of a DCO requirement. Therefore, the majority of the images and plans in this section are for illustrative purposes only. The proposed site features design, however, is indicative, except for the layout of the above-ground structures, which is illustrative.

Figure 10.1: Aerial photograph of the existing Dormay Street site with LLAU indicated

10.2 Existing site context

10.2.1 The site itself comprises areas of hardstanding in parts of the London Borough of Wandsworth's Frogmore Complex and Causeway Island. 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.

10.2.2 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.

10.2.3 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 Preservation Orders.

10.2.4 The site is designated by the London Borough of Wandsworth 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 London Borough of Wandsworth's adopted *Site Specific Allocations Document* (February 2012) (SSAD). The site identified in the SSAD as 'Causeway Island' (proposals map ref. no. 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. no. 42) forms the southern part of the site adjacent to the south of Bell Lane Creek.

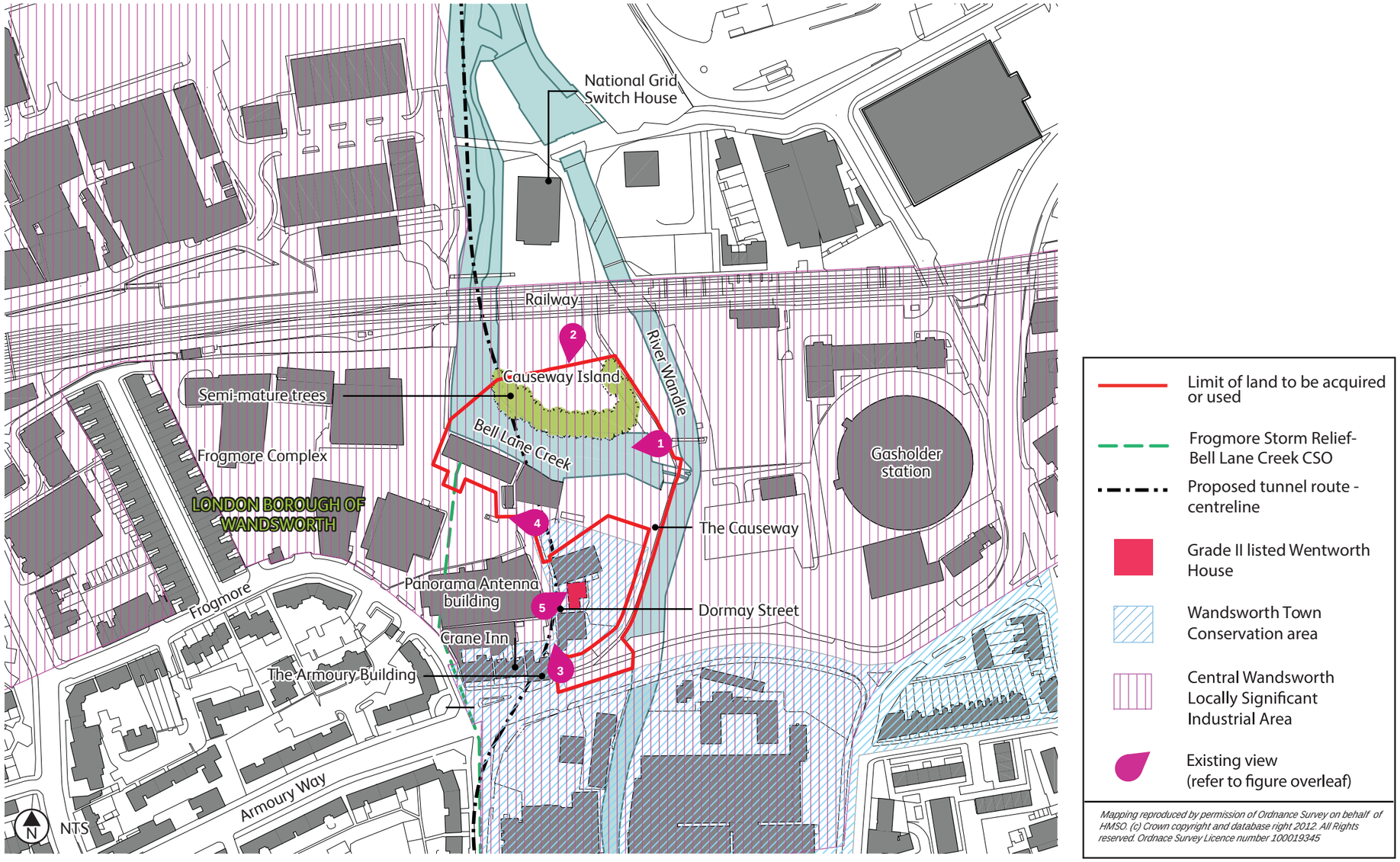

Figure 10.2: Existing site plan

Figure 10.3: Floodwall of Bell Lane Creek

Figure 10.4: Causeway Island

Figure 10.5: Dormay Street

Figure 10.6: Entrance to Frogmore Complex

Figure 10.7: Wentworth House (Grade II listed building)

10.2.5 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.

10.2.6 The site falls within the Wandsworth Archaeological Priority Area and partially within the Wandsworth Town Conservation Area.

10.2.7 The proposed development site is bounded by a fenceline 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.

10.2.8 The area to the north of the site comprises mixed commercial and industrial uses. 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 consent allows an area at the dead end of Dormay Street, which is currently designated Highway Land, to be stopped up.

10.2.9 To the east of the site and the River Wandle is an industrial estate and a gasholder station with associated plant. To the south, the site backs onto clusters of industrial buildings along Dormay Street including Wentworth House (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.

10.2.10 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.

10.2.11 The Frogmore Complex forms part of a wider industrial area to the west.

Existing site access and movement

10.2.12 Public access to the majority of the site is restricted due to its industrial nature and use.

10.2.13 The existing vehicle access to the site is off Dormay Street.

Highways

10.2.14 Dormay Street is a narrow two-way cul-de-sac that leads to a number of industrial units and the Frogmore Complex.

10.2.15 The Causeway is also a narrow cul-de-sac that can accommodate two-way traffic flow. However, due to its restricted width, only one direction of flow is possible at a time. The existing bridge in The Causeway is subject to a ten tonne weight restriction and is unsuitable for heavy vehicles.

10.2.16 Armoury Way is a four-lane one-way eastbound route with a speed limit of 30mph. It is not subject to weight restrictions and forms part of the Transport for London Road Network.

10.2.17 The Causeway forms a priority junction with Dormay Street just north of the Dormay Street/Armoury Way priority junction.

10.2.18 Armoury Road forms part of a one-way gyratory system that routes vehicles north on either Wandsworth Plain or West Hill, east on Armoury Way, south on Ram Street, and west on Wandsworth High Street.

Car parking

10.2.19 No on-street parking is available on either Armoury Way or Dormay Street. However, there are approximately 64 unrestricted parking spaces at the northern end of The Causeway, which appear to be used by staff of the Frogmore Complex.

10.2.20 Off-street parking is available in the B&Q and Riverside West car parks located in Smugglers Way; the Sainsbury's car park at 45 Garratt Lane; the Traders Hall multi-storey car park on Buckhold Road; and the Southside Shopping Centre multi-storey car park on Mapleton Crescent.

Figure 10.8: Existing site analysis plan

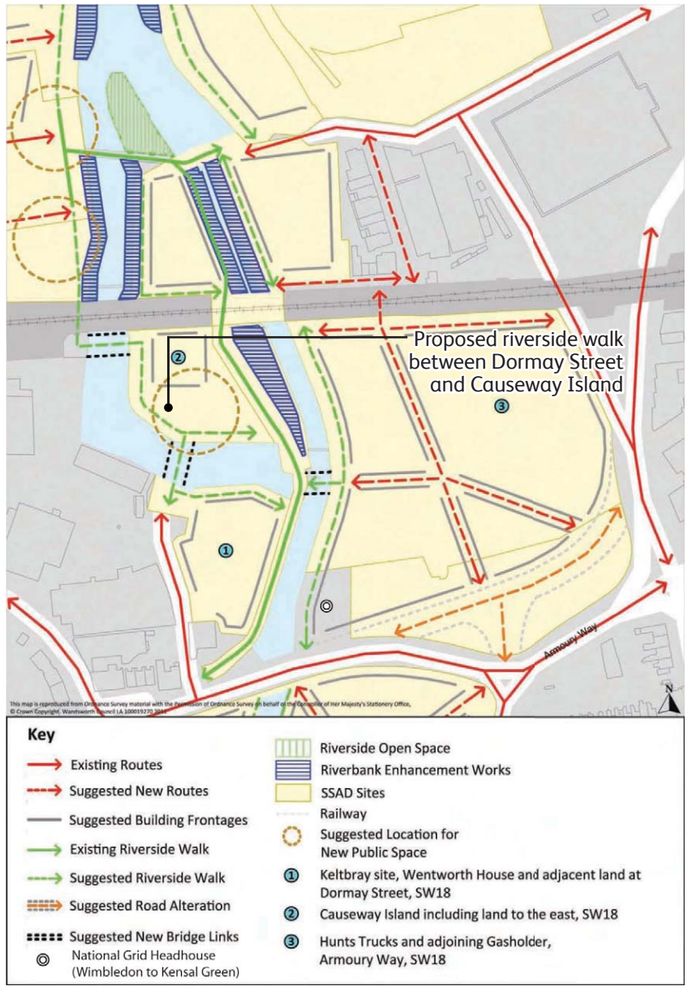

Figure 10.9: Extract from the Site Specific Allocations Document highlighting proposed riverside walk between Causeway Island and Dormay Street

Figure 10.10: The bell at the entrance of Bell Lane Creek

Figure 10.11: Floodwall of Bell Lane Creek

Public transport

10.2.21 The nearest London Underground station is East Putney (approximately 1.5km to the west), which is accessible via bus routes that run along Wandsworth High Street.

10.2.22 The closest National Rail Station is Wandsworth Town, which is approximately 700m to the northeast of the site. It services Waterloo Station to the northeast and Staines Station to the west.

10.2.23 There are a number of bus stops within 640m of the site. The stops are located on Fairfield Street (A3) and Wandsworth Plain (A3) (eastbound only), Armoury Way (A3) (eastbound and southbound), Ram Street (southbound only), and Wandsworth High Street (A3) (westbound). These stops serve 11 daytime bus routes and two night bus routes.

Cycle routes

10.2.24 There are a number of designated cycle routes in the vicinity of the site. National Cycle Route 20 runs off-street along Armoury Way and The Causeway to connect to National Cycle Route 4 where The Causeway meets Smugglers Way and Enterprise Way. National Cycle Route 4 continues in an east-west direction along Smugglers Way and Enterprise Way.

10.2.25 The closest Cycle Superhighway is CS8, approximately 230m from the site, which runs between Ram Street and Millbank.

Pedestrian routes

10.2.26 There are footpaths on both sides of Dormay Street, and a narrow footpath on the eastern side of The Causeway. The only north-south pedestrian route through the area from the Thames riverside to Wandsworth town centre is The Causeway, which is a Public Right of Way. The Thames Path runs along the river foreshore and is accessible from Armoury Way via The Causeway over Bell Lane Creek.

10.2.27 There are dropped kerbs on Dormay Street where it meets Armoury Way, but no tactile paving. Wide footpaths are provided on both sides of Armoury Way.

10.2.28 There is a signalised pedestrian crossing to the west of Dormay Street where Armoury Way meets Wandsworth Plain. This crossing features dropped kerbs and tactile paving on Wandsworth Plain and the western arm of Armoury Way.

Historical context

10.2.29 Situated on the western bank of the River Wandle, a tributary to the River Thames, the site was once an area of marshland to the north of the village of Wandsworth. It attracted sparse industrial development in the post-medieval period.

10.2.30 Wentworth House, a two-storey Grade II listed house set back from Dormay Street, was built to the south of the site in the early 18th century. Both Dormay Street (formerly Bell Lane) and The Causeway were laid out by the mid-18th century.

10.2.31 In the mid-18th century, there were a number of buildings set around the channels of the River Wandle on the site that were probably for industrial purposes. The River Wandle supplied power, a means of transport and water for various industrial processes. The site provided ample wharfage at the southern end of Bell Lane Creek and access to the River Thames.

10.2.32 By the mid-19th century, the railway that had been constructed along the northern boundary of the site had provided the impetus for urban growth and industrial development, including malt kilns, on the southern part of the site. There were also two small inlets/ wharfs off the main body of Bell Lane Creek within the site. By the end of the 19th century, the Wandsworth Royal Laundry occupied part of the site and a weir had been constructed on the River Wandle.

10.2.33 Early 20th century mapping shows that the site changed little from the mid-19th century, except that some of the buildings that had stood on the western part of the site had been demolished. By the late 1960s, earlier buildings on the southern part of the site had been demolished and replaced with three light industrial buildings. The northern part of the site remained open and is now an area of hardstanding.

10.2.34 There is a cluster of surviving historic buildings at the junction of Dormay Street and Armoury Way to the south of the site where the 1960s industrial buildings and workshops front onto Dormay Street. This pattern of development contrasts with the earlier Wentworth House, which is set back from the street.

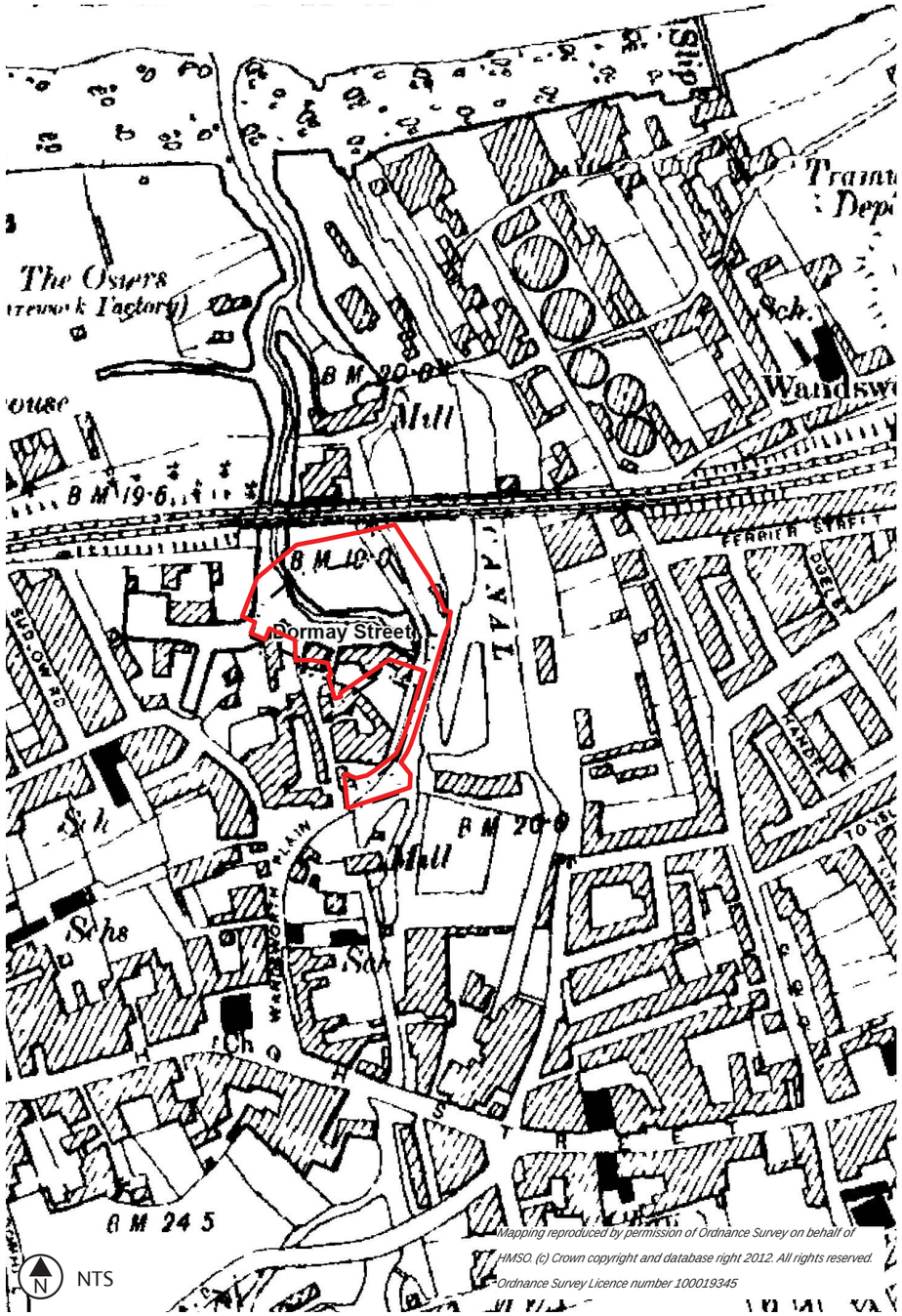

Figure 10.12: Historic map of Dormay Street site (1896-1899)

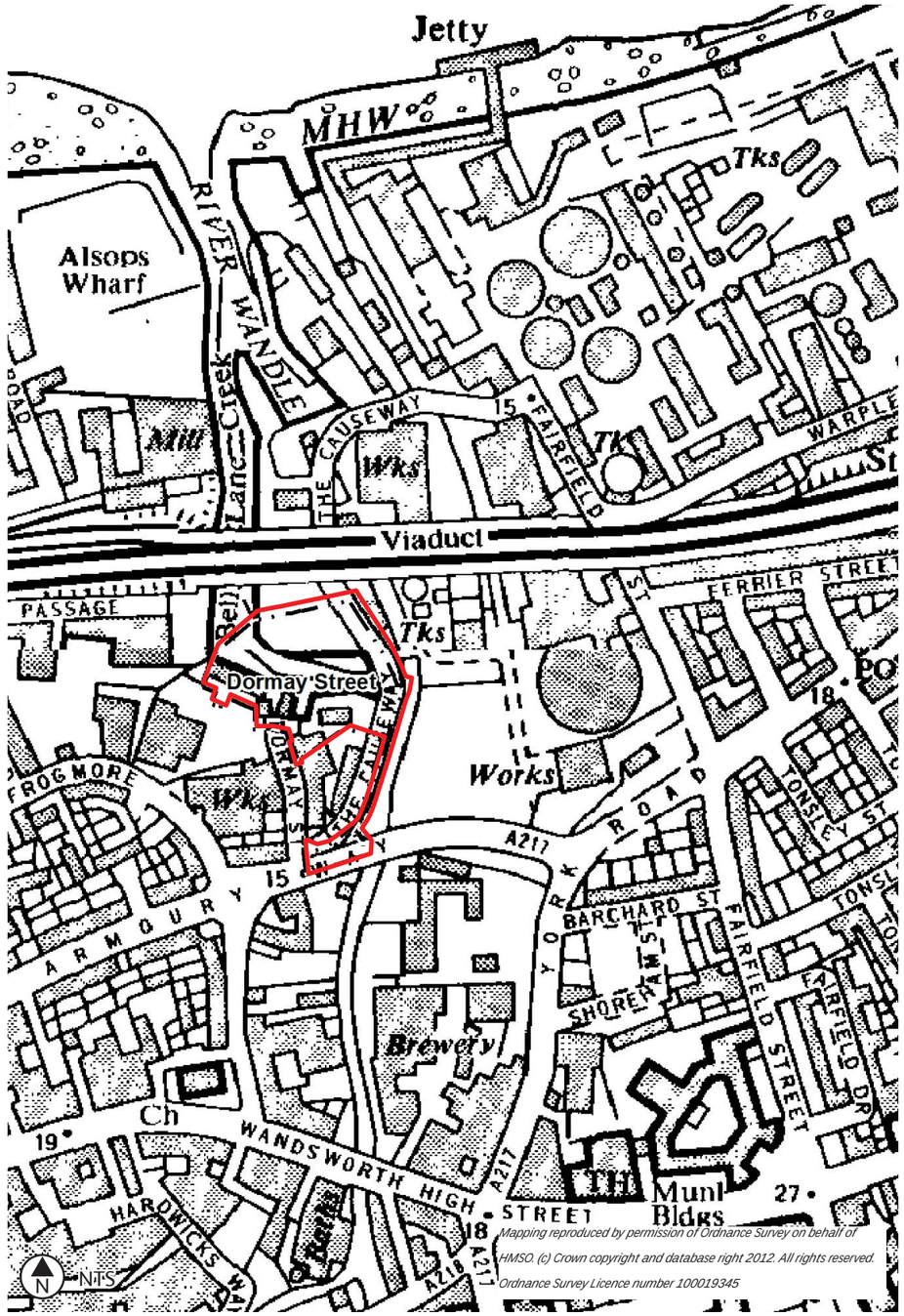

Figure 10.13: Historic map of Dormay Street site (1962-1968)

Site analysis: Opportunities and constraints

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 London Borough of Wandsworth's *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.

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 London 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.

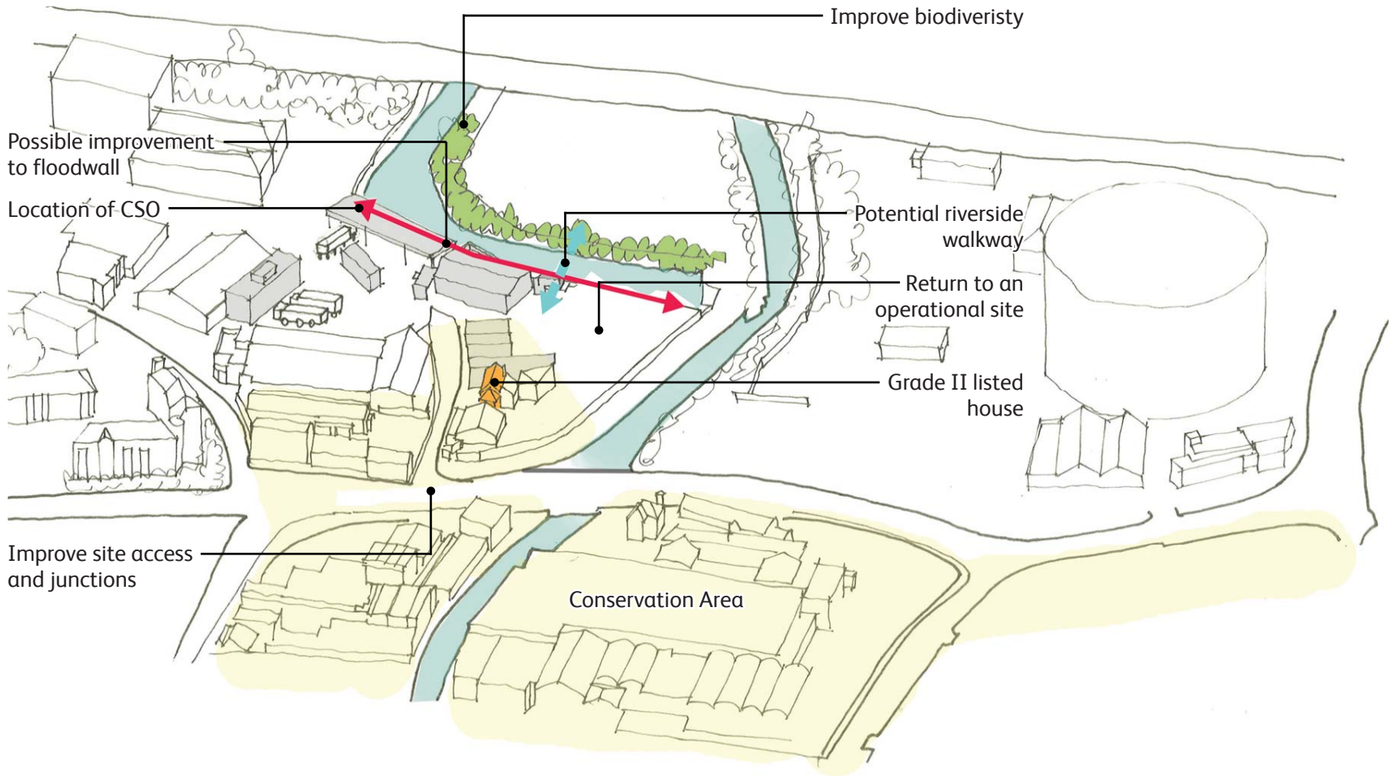

Figure 10.14: Existing site opportunities and constraints sketch

This page is intentionally left blank

10.3 Design evolution and alternatives

10.3.1 As the majority of the infrastructure for the project would be below ground, the key design objective of the permanent above-ground works was to integrate the functional components into the surroundings. The site-specific design objective at Dormay Street was to successfully integrate the works into an area of existing employment land without compromising future development asipirations. We also aimed to improve the quality and layout of the site in order to facilitate the council's plans for the continued operation and future expansion of the Frogmore Complex.

10.3.2 The design of our proposals at Dormay Street was significantly influenced by an extensive process of stakeholder engagement and design review. In order to ensure design quality, we undertook two rounds of review hosted by the Design Council CABE and held various pre-application meetings with the London Borough of Wandsworth and other strategic stakeholders, such as English Heritage and the Environmental Agency. More information on our public consultation process is provided in the *Consultation Report*, which accompanies the application.

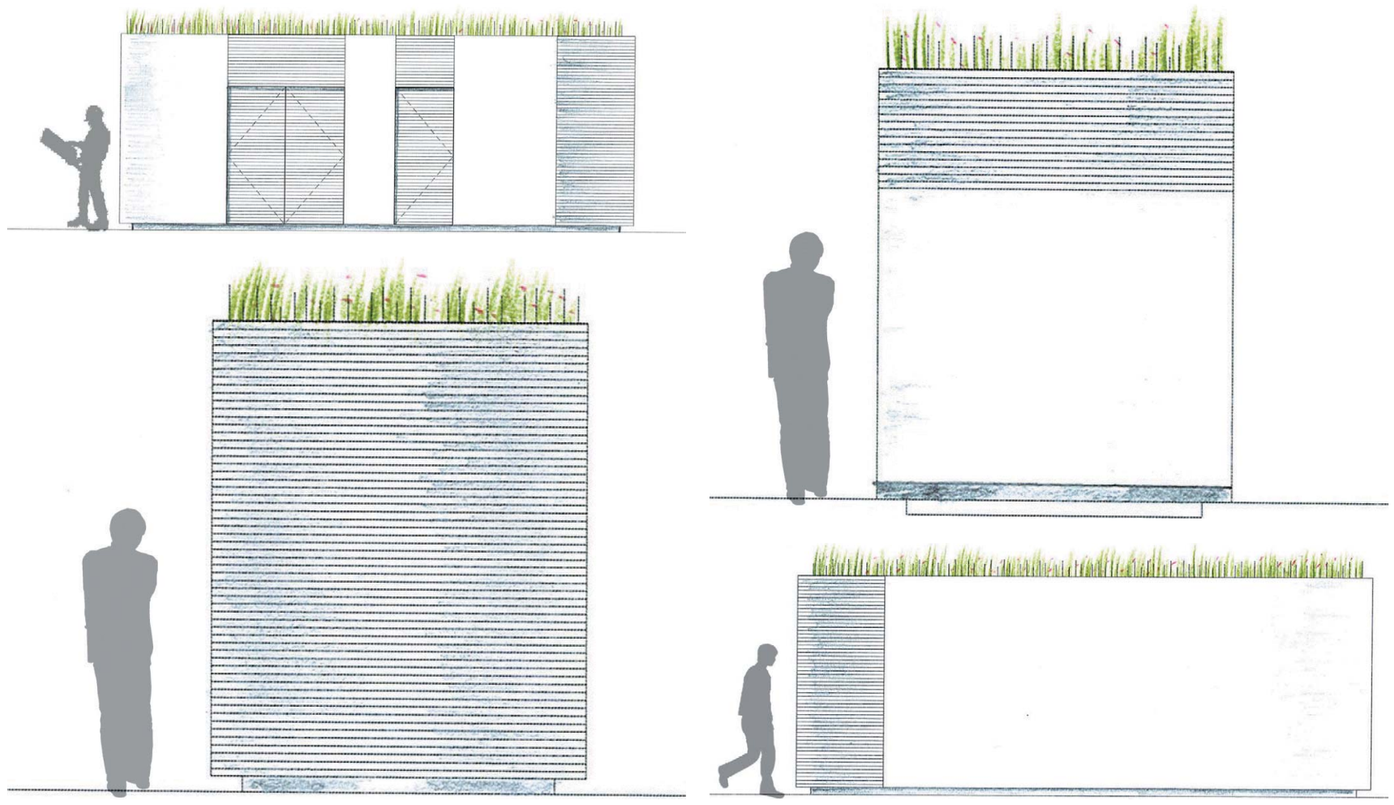

Figure 10.15: Design development sketches of combined kiosk and ventilation structure

October 2010

Phase one consultation

10.3.3 The Dormay Street site was not presented at phase one consultation. At this stage, our preferred site to connect the Frogmore Storm Relief – Bell Lane Creek CSO to the Frogmore connection tunnel was known as Bell Lane Creek. This site comprised the existing business premises of Panorama Antennas to the southwest of Dormay Street.

10.3.4 The Bell Lane Creek site was considered less suitable primarily because there is an existing business on the site that employs approximately 80 people. Use of this site would potentially affect this business in terms of relocation and loss of employment.

10.3.5 Having considered the feedback received at phase one consultation and on-going engineering design developments, we undertook a site selection back-check (see the Final Report on Site Selection Process, Volume 7, which accompanies the application, for details). We then chose the Dormay Street site as our preferred site for phase two consultation because it is brownfield land that is subject to few constraints.

Figure 10.16: Proposed view from phase one consultation

April 2011

CABE sketch review

10.3.6 A sketch review based on our initial site assessment and sketched ideas for the site was held with the Design Council CABE on 20 April 2011.

10.3.7 At this stage, we proposed to construct an electrical and control kiosk with an integrated ventilation column. The kiosk would be located on part of the Frogmore Complex at the northern end of Dormay Street, where a warehouse would be demolished in order to accommodate the CSO drop shaft. It would sit parallel to the proposed council parking configuration and perpendicular to the Bell Lane Creek flood defence wall. This location would avoid conflict with the operational sites at the Frogmore Complex and adjacent land east of Dormay Street. The integrated kiosk and ventilation structure would be raised on a kerb and surrounded with bollards to avoid vehicle damage and prohibit parking over the access cover to ensure emergency access to the penstock. The proposed kerb would also run across the flood wall to help avoid vehicle damage to the wall.

10.3.8 Various buildings would be demolished on both sites to create space for construction activities. We noted the potential to use another site opposite Bell Lane Creek owned by the council as part of the construction site, with a bridge erected between both sites across Bell Lane Creek.

Figure 10.17: Proposed view from Design Council CABE sketch review

10.3.9 Once the project is complete, the council would take ownership of the majority of the site for future redevelopment in accordance with its plans to expand the Frogmore Complex. We envisaged that the area of hardstanding above the drop shaft would be used for bus/truck parking, in accordance with advice from the council.

10.3.10 The Design Council CABE was supportive of our general approach. The panel emphasised the need for the design to respond to a changing urban landscape in the long term. It commented that industrial areas beside rivers can become subject to regeneration pressures and that the proposals should respond to this. The panel also suggested:

"... designing the proposals in such a way that could offer public benefit in the form of footpaths in the future. A close dialogue with the local authority could establish an initial waterside public realm strategy that anticipates more stringent flood defence measures and perhaps set[s] a framework to guide developers as sites come forward for redevelopment" [Design Council CABE letter dated 5 May 2011].

Figure 10.18: Proposed view from Design Council CABE sketch review

June 2011

Design development

10.3.11 We made a number of changes to the design of the engineering components during the interim phase, as follows:

a. We recognised that heavy construction work would take place adjacent to the Bell Lane Creek flood defence wall, which we 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.

b. The height of the proposed ventilation column close to the existing CSO outfall was reduced from approximately 10m to 6m, and the height of the ventilation structure (integrated into the electrical and control kiosk) was reduced from approximately 10m to 4.5m. This was in response to modifications to the project-wide air management strategy.

10.3.12 As part of our interim engagement, we held drop-in sessions on 13 and 14 June 2011 at the York Gardens Library and Community Centre. The purpose of these sessions was to inform the local community of the potential use of the Dormay Street site and to gather feedback on our proposals.

10.3.13 No new issues were raised during the informal consultation and the comments received were generally positive, such as:

a The new proposed site would not disrupt a long-established local business.

b. The site is located further from the residential area.

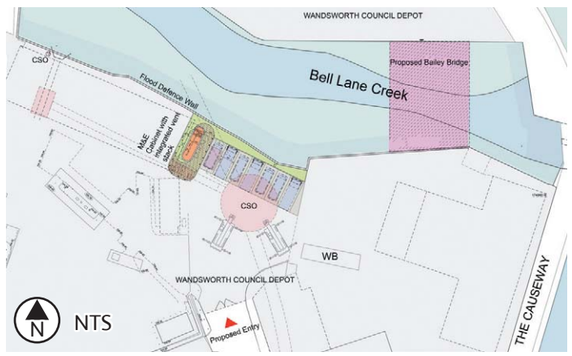

Figure 10.19: Design development sketch proposal

November 2011

Phase two consultation

10.3.14 A detailed Area Spatial Strategy for the area was published in the SSAD (February 2012), to possibly influence how the final proposals would look and function.

10.3.15 At phase two consultation, the London Borough of Wandsworth noted that the SSAD (February 2012) 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".*

10.3.16 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 our 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].

Figure 10.20: Proposed view from phase two consultation

10.3.17 The Design Council CABE did not raise any additional issues in its response to the proposals presented at phase two consultation.

10.3.18 Following phase two consultation, we made two main changes to the layout of our proposals:

a. We proposed to relocate the permanent works and set them back from Bell Lane Creek by 4m. We rotated the electrical and control kiosk and ventilation structure to the west by 90 degrees in order to maintain the 4m space without intruding further into the site. As a result, our proposals would not prejudice the potential development of a riverside walkway in future.

b. We proposed to carry out temporary junction improvements at Armoury Way, Dormay Street and The Causeway in order to accommodate construction traffic.

10.3.19 These amendments were presented to the local authority, which was broadly happy with our approach.

10.3.20 There were no significant design developments at this site after this phase.

Figure 10.21: Proposed river view from phase two consultation

July 2012

Section 48 publicity

10.3.21 There were no significant design developments at this site following Section 48 publicity.

Figure 10.22: Proposed view from Section 48 publicity

This page is intentionally left blank

10.4 Proposed design

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

Fixed principles

10.4.2 The Site works parameter plan defines the zones in which the proposed works would take place. The plan indicates the general location of the CSO drop shaft, the ventilation column, and the intergrated electrical and control kiosk and ventilation structure.

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

Use and programme

10.4.4 The northern part of the site on Causeway Island would be required for construction purposes only and would not house any permanent structures. It would be reinstated to its current condition and a number of trees would be planted along the southern boundary with Bell Lane Creek subject to agreement with Wandsworth.

10.4.5 On completion of the construction works, we intend to leave the areas of the southern part of the site that are 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. It would be developed in accordance with the Site works parameter plans, the indicative proposed landscape plan and the agreed design principles set out below.

10.4.6 The permanent works at Dormay Street would not be publically accessible. However, it is possible that this would change if the riverside walk were extended through this location by the landowner. In view of this fact, the main design aim was to develop proposals that would be robust enough to fit into the present environment. However, the quality of the proposed materials and the understated finish would not be out of place in a future development.

Above ground permanent structure	Maximum height above finished ground level (Minimum heights are in brackets where applicable)
Ventilation column(s)	6.0m
Integrated electrical and control kiosk(s) and ventilation structure(s)	6.0m Integrated kiosk (3.0m Electrical and control kiosk) (4.0m Ventilation structure)

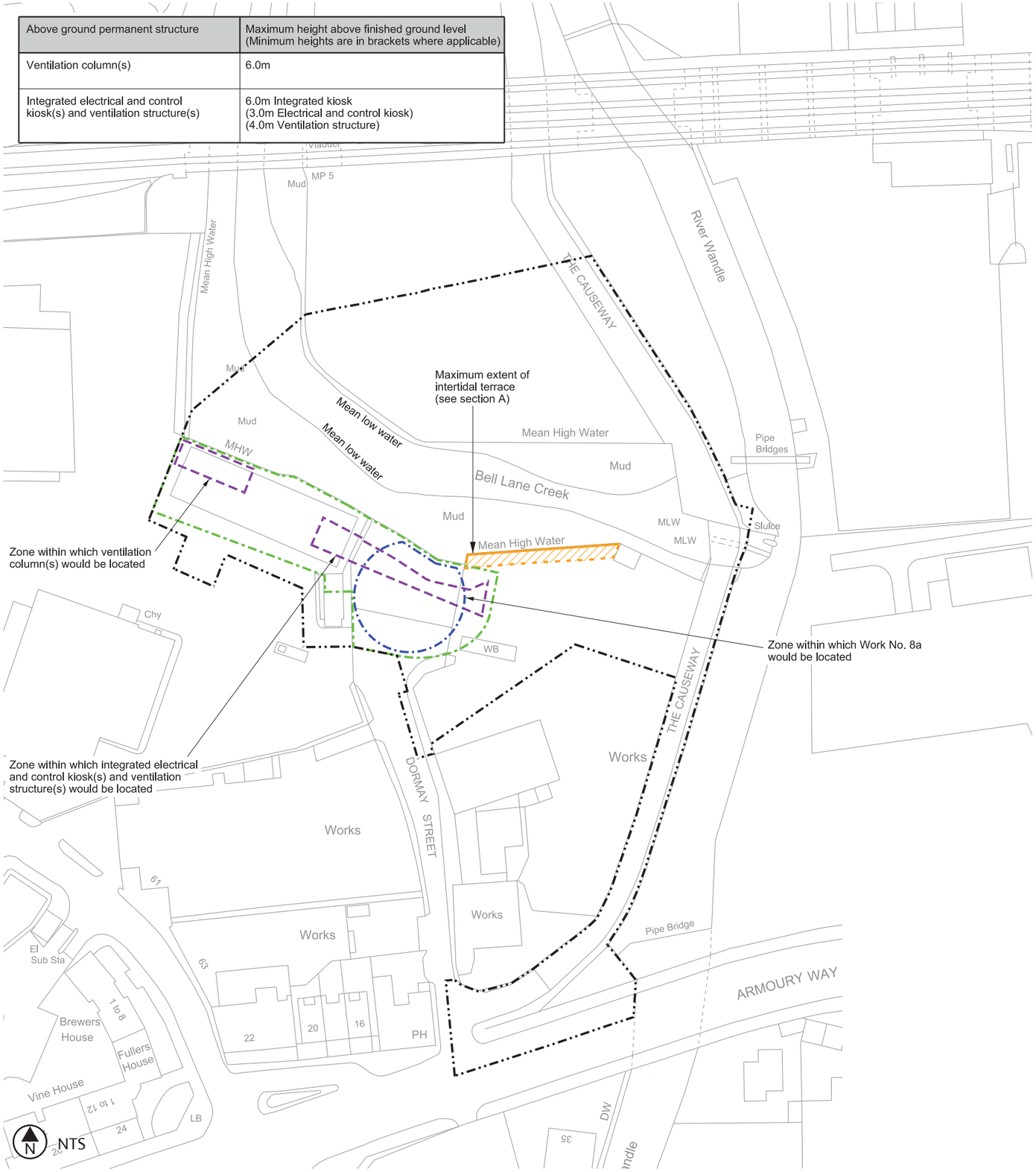

Figure 10.23: Site works parameter plan - refer to Site works parameter plan in the *Book of Plans*

Integration of the functional components

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

a. a CSO drop shaft

b. a CSO interception chamber

c. a connection culvert

d. a valve chamber

e. an air treatment chamber.

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

a. a ventilation column

b. an integrated electrical and control kiosk and ventilation structure

c. a bollarded operational refuge around the integrated kiosk structure.

10.4.9 The CSO drop shaft would be approximately 12m internal diameter and would connect the Frogmore Storm Relief – Bell Lane Creek sewer to the Frogmore connection tunnel. The location of the drop shaft is constrained by the Bell Lane Creek flood defence wall. The drop shaft would be set back from the edge of the wall in order to avoid compromising the integrity of the flood defences during construction. It would be finished just below ground level, and the cover slab would be incorporated into an area of hardstanding.

10.4.10 The filling station is still in use and is supplied by the above-ground fuel tank to the south of the existing depot entrance gate. The location of the nearby fuel tanks and filling station was taken into consideration for the layout of the proposed connection culvert, which would link the CSO interception chamber to the drop shaft, although they may be relocated by Wandsworth as part of a minor reconfiguration of the depot.

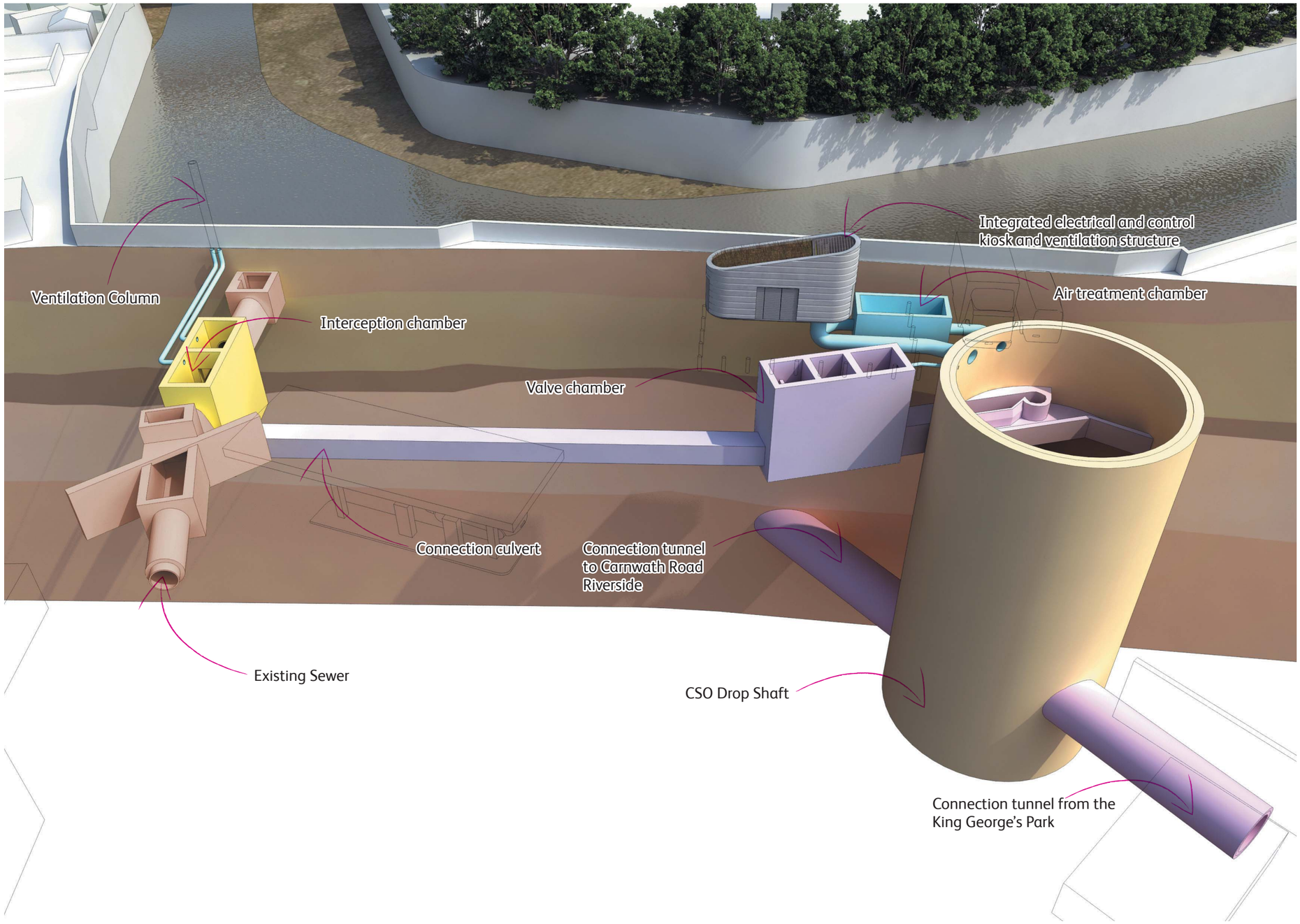

Figure 10.24: Proposed functional components diagram : below ground view

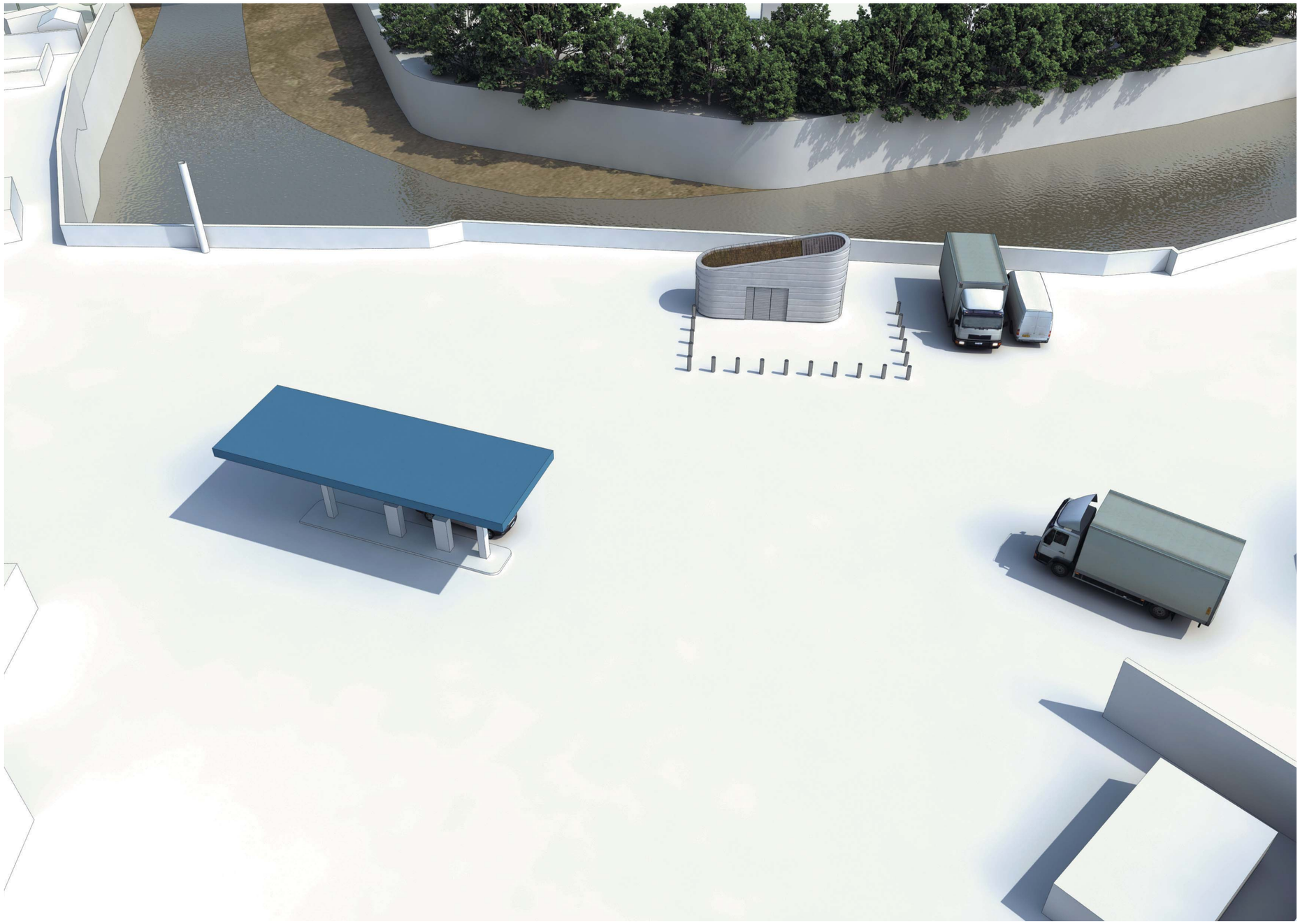

Figure 10.25: Proposed functional components diagram : above ground view

10.4.11 The number and size of the ventilation columns are determined by the air management requirements for the site. At Dormay Street, we propose to include one small diameter 6m high column (maximum) to ventilate the CSO interception chamber. The location of the 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. It would be similar in scale to a lamp post and finished to blend in with the local context.

10.4.12 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. The roof of the kiosk would slope downwards from east to west in order to accommodate the integrated ventilation column. 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. The project's signature ventilation column design would not be used at this site since the ventilation structure is integrated into the kiosk.

10.4.13 Areas of hardstanding would be included to facilitate maintenance vehicle access and incorporate access covers to the below-ground infrastructure. The area of hardstanding is constrained by the location of the integrated kiosk structure and drop shaft at the edge of the site. As the London Borough of Wandsworth would eventually take ownership of the majority of the site in order to expand the Frogmore Complex, the proposed location of these structures would best suit the future operational requirements for parking municipal vehicles. It would also allow unimpeded entry/egress to and from the complex.

10.4.14 We may need to carry out temporary improvement works to the Dormay Street/Armoury Way/The Causeway junction.

Landscaping and appearance

10.4.15 There would be very few permanent above-ground structures at this site. The materials for these structures would be selected to suit the utilitarian surroundings.

10.4.16 We propose to include a brown roof on the integrated kiosk and ventilation structure in accordance with the project's commitment to attenuate stormwater run-off wherever possible and to enhance the biodiversity of our sites. The roof may be left barren to allow local seeds to germinate or it may be planted with managed, low-maintenance planting.

10.4.17 The walls of the integrated structure would likely be high quality precast concrete to ensure consistency with existing buildings and structures on the site. This material is both robust and durable and the finish could correspond to a future Thames Path.

10.4.18 Our proposals at Dormay Street include an intertidal terrace. A 55m section of the existing river wall along Bell Lane Creek is in poor condition and requires strengthening or alteration. The terrace would be approximately 3m wide and extend along 30m of the strengthened river wall. It would terminate where the wall would step out around an existing electricity sub-station.

10.4.19 The tidal Bell Lane Creek currently has lower water velocity and offers a good nursery habitat for young fish. An intertidal terrace in this location would have greater biodiversity value than in the main channel of the tidal Thames. A number of freshwater species were recorded in fish baseline surveys within the creek undertaken in May 2011, including stone loach (Barbatula barbatula), a species that was not recorded elsewhere in the tidal Thames.

10.4.20 The final design of the terrace would be based on best practice guidance such as the Environment Agency's Estuary Edges Design Guidance. It would be designed to maximise inundation between the Mean High Water Spring and the Mean High Water Heaps tidal levels to enable the intertidal vegetation to establish.

Figure 10.26: Example of an intertidal terrace on the foreshore of the River Thames

Figure 10.27: Example of an intertidal terrace on the foreshore of the River Thames

Figure 10.28: Louvres and concrete

Figure 10.29: Louvres with concealed doors

Figure 10.30: Planted roof

Figure 10.31: Louvres and concrete

10.5 Access and movement

10.5.1 On completion of the works, the majority of the site would remain inaccessible to the public.

10.5.2 The northern end of Dormay Street would be permanently stopped up to create an area of private land, which the council would incorporate into the enlarged Frogmore Complex. The existing vehicle access gate to the Frogmore Complex would be relocated (by others) and form the permanent maintenance access.

Thames Water access requirements

10.5.3 Access to the permanent works would be via the new access gate on Dormay Street. In future, the works would form part of the enlarged Frogmore Complex; however, Thames Water would retain right of access for operational and maintenance purposes. Thames Water would provide the council with sufficient notice to remove any parked vehicles obstructing the access covers to the CSO drop shaft or air treatment chambers. The electrical and control equipment must be accessible 24 hours a day in case of emergency and access would be preserved by means of drop down bollards.

10.5.4 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 other below-ground equipment. This would likely involve a visit by personnel in a small van during normal working hours and may take several hours.

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

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

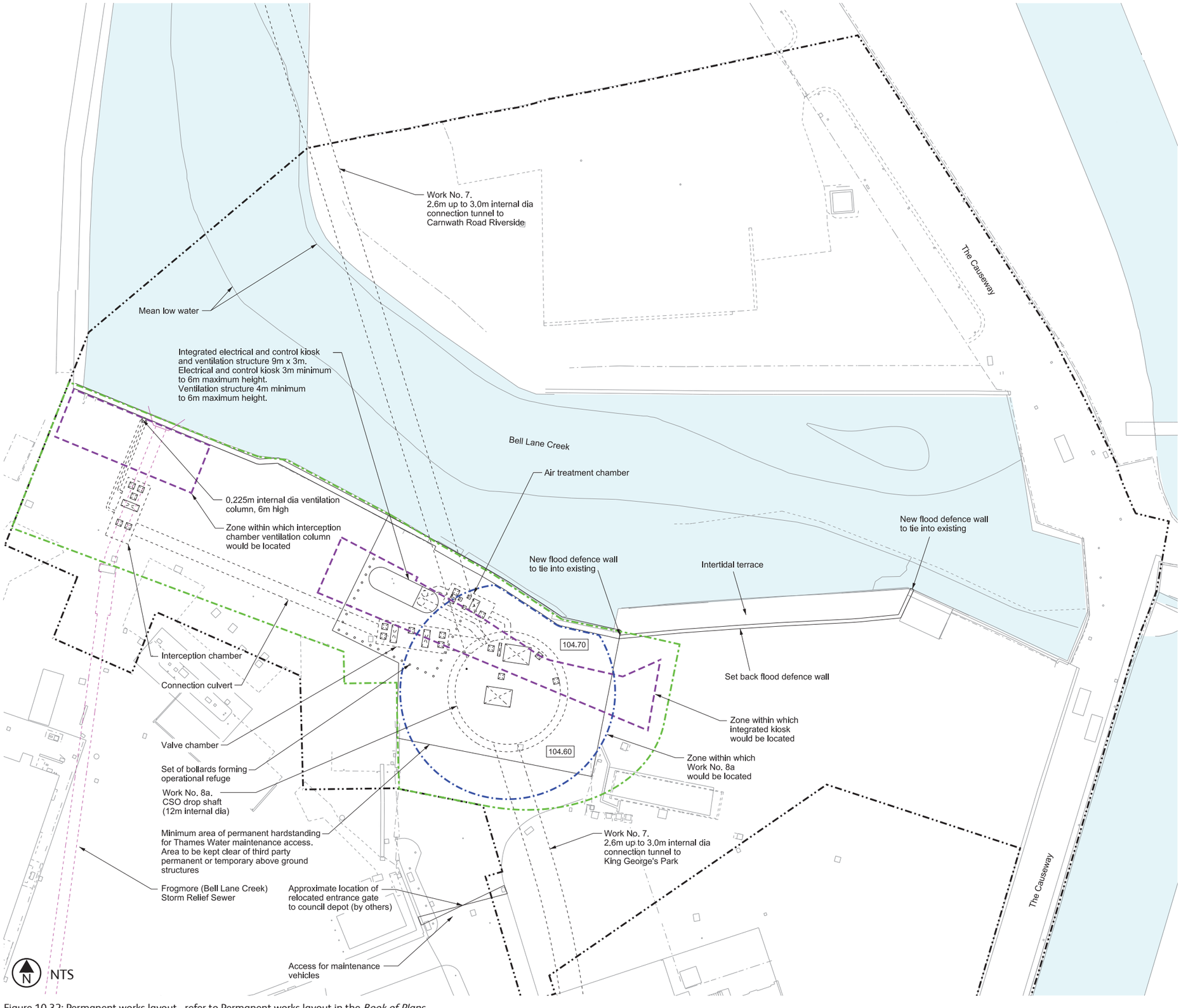

Figure 10.32: Permanent works layout - refer to Permanent works layout in the *Book of Plans*

Thames Water Utilities Limited
Clearwater Court, Vastern Road, Reading RG1 8DB

DCO-DT-000-ZZZZZ-070400