

Thames Tideway Tunnel
Thames Water Utilities Limited



Application for Development Consent

Application Reference Number: WWO10001

Design and Access Statement

Doc Ref: **7.04**

Part 3

Bekesbourne Street

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

Hard copy available in
Box **69** Folder **C**
January 2013

Thames
Tideway Tunnel 
Creating a cleaner, healthier River Thames

This page is intentionally left blank

Section 29

Bekesbourne Street

29.1 Introduction

29.1.1 A worksite is required to control the Holloway Storm Relief CSO and divert combined sewage flows into the northern Low Level Sewer No.1. These works avoid the need to connect this CSO to the main tunnel. The proposed development site is known as Bekesbourne Street, which is located in the London Borough of Tower Hamlets.

29.1.2 We have agreed with the London Borough of Tower Hamlets that some elements of the detailed design proposals would be drawn up at a later stage. Therefore, the majority of the images and plans in this section are for illustrative purposes only, except for the scale of the above-ground structures, which is indicative.



Figure 29.1: Aerial photograph of the existing Bekesbourne Street site with LLAU indicated

29.2 Existing site context

29.2.1 The site itself comprises a section of Bekesbourne Street and its junction with Ratcliffe Lane.

29.2.2 The northern part of the site, including the northern half of Ratcliffe Lane and the Limehouse Docklands Light Railway Station, falls within the York Square Conservation Area. This designation protects the architectural integrity of Mercer's Estate and the concentration of diverse historic buildings around Commercial Road and along Butcher Row.

29.2.3 The site is bounded to the north by Limehouse Station and the Docklands Light Railway, to the east by John Scurr House (a six-storey block of flats), and to the south and west by three to four-storey residential blocks of flats and the John Scurr Community Centre.

29.2.4 The area to the north beyond the Docklands Light Railway line is residential. Limehouse Basin lies to the east. To the south are residential properties and the River Thames beyond. St James's Gardens and the Royal Foundation of St Katharine lie to the southwest. The area to the west comprises mixed residential, commercial and cultural uses.

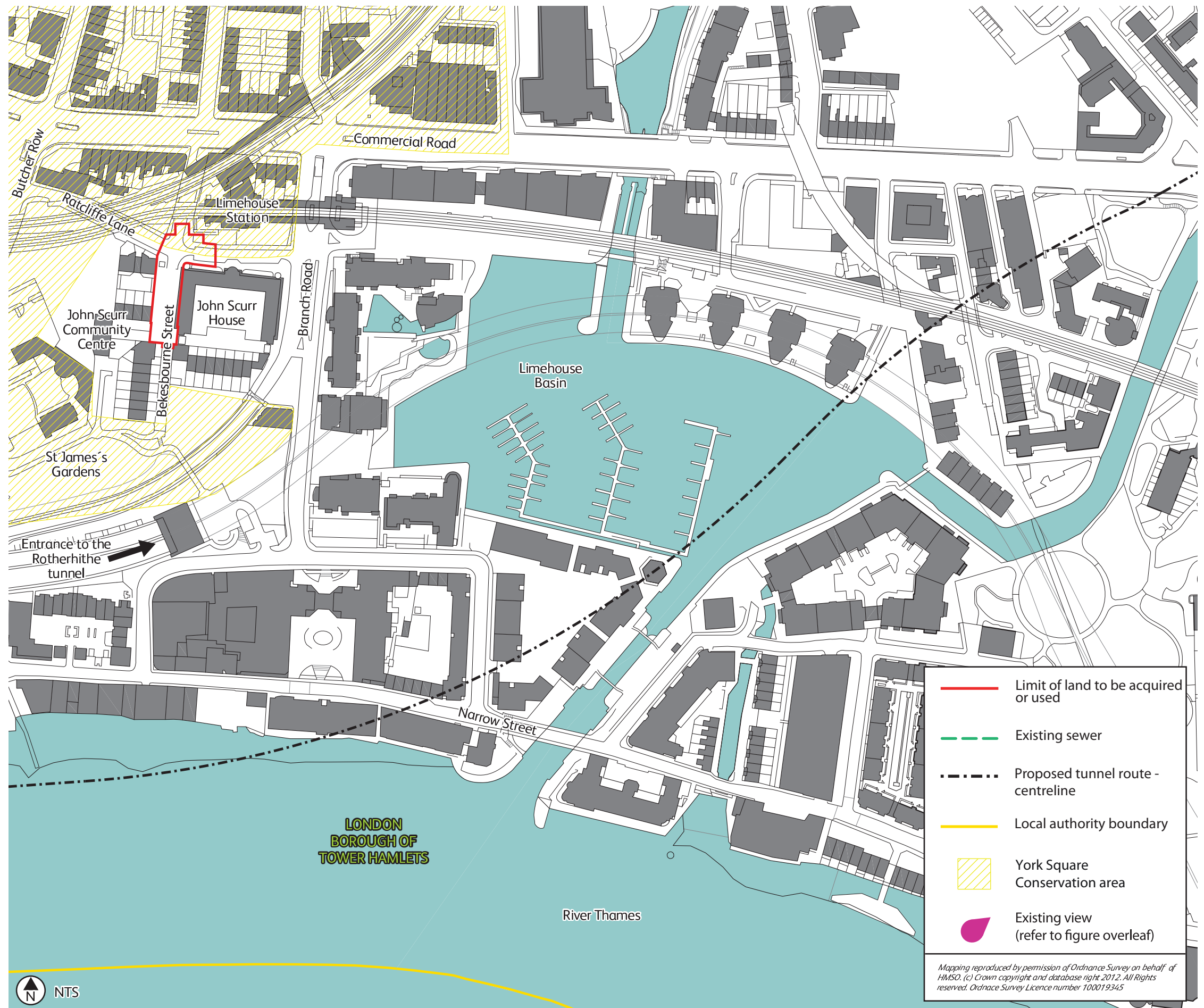


Figure 29.2: Existing site plan

Mapping reproduced by permission of Ordnance Survey on behalf of HMSO. (c) Crown copyright and database right 2012. All Rights reserved. Ordnance Survey Licence number 100019345



Figure 29.3: View east on Ratcliffe Lane Towards Bekesbourne Street



Figure 29.4: View West from Junction of Radcliffe Lane and Bekesbourne street



Figure 29.5: View south along Bekesbourne Street from its junction with Radcliffe Lane



Figure 29.6: View south along Bekesbourne Street



Figure 29.7: Existing Electrical sub-station on Bekesbourne Street



Figure 29.8: Limehouse DLR station from junction of Bekesbourne Street and Radcliffe Lane

Existing site access and movement

29.2.5 The existing access to the site is via Ratcliffe Lane.

Highways

29.2.6 Bekesbourne Street is a private road that serves a residential development to the south of Ratcliffe Lane. To the north of Ratcliffe Lane, Bekesbourne Street is adopted as a one-way (northbound) highway that links to Commercial Road. Ratcliffe Lane is part of the local highway network, which is one-way from the west of the junction with Bekesbourne Street until the junction with Butcher Row.

29.2.7 Commercial Road (A13) runs to the north of the site, Branch Road (A101) to the east and Butcher Row (A126) to the west. These roads form part of the Strategic Road Network and are characterised by high levels of traffic.

Car parking

29.2.8 Limited on-street parking is available along Bekesbourne Street and Ratcliffe Lane. There are five parking bays for business permit holders along the northern section of Bekesbourne Street and ten residential permit holder on-street parking bays on Ratcliffe Lane. The southern section of Bekesbourne Street has a total of 46 private residential parking spaces, including spaces outside residential properties and numbered spaces for nearby flats. There are also four visitor/ authorised contractor spaces and two spaces for use by the John Scurr Community Centre.

Public transport

29.2.9 Limehouse Docklands Light Railway Station is located approximately 5m and the Limehouse National Rail Station approximately 35m to the north of the site. Limehouse National Rail Station provides c2c services between Fenchurch Street and Shoeburyness via Grays and Southend Central.

29.2.10 Four daytime and three night bus services operate along Commercial Road within walking distance of the site.

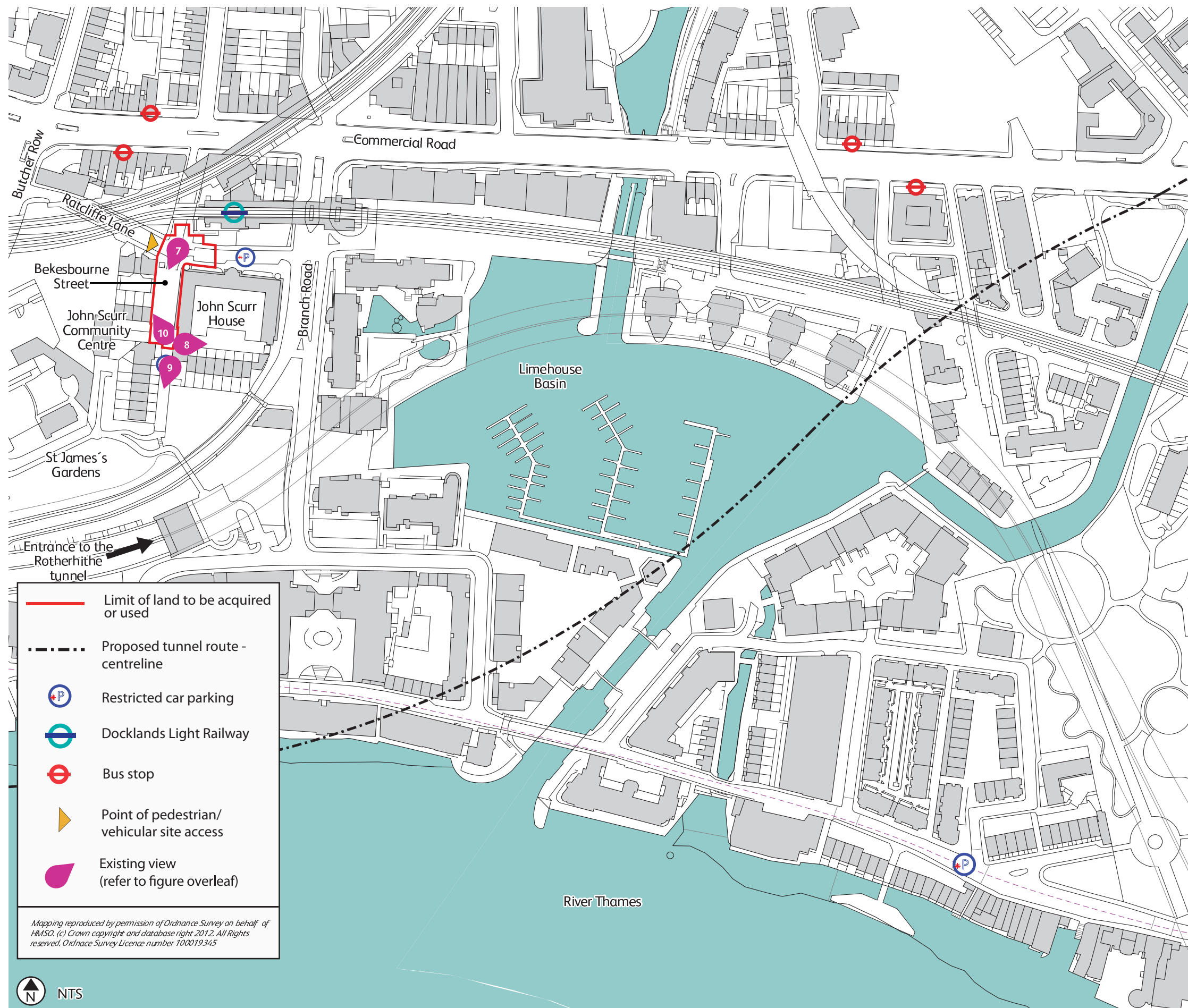


Figure 29.9: Existing site analysis plan



Figure 29.10: View south-west from the north end of Bekesbourne Street



Figure 29.11: View east from the south end of Bekesbourne Street towards Branch Road



Figure 29.12: View south from Bekesbourne Street towards St James Gardens



Figure 29.13: View north-west from the south end of Bekesbourne Street

Cycle routes

29.2.11 The main cycle route in the area is Cycle Superhighway CS3, which runs between Barking and Tower Hamlets. The closest section to the site is along Cable Street, Narrow Road and Limehouse Causeway.

Pedestrian routes

29.2.12 Pedestrian movements around the site are facilitated by the local highway network and the private highway to the south of Bekesbourne Street.

Historical context

29.2.13 The site lies in the area of Ratcliff, a small village on the river named after a red cliff visible from the river, which was popularly known as ‘Sailor Town’. The village was adjacent to the foreshore, although it was hidden by buildings. Ratcliff was a centre of ship building, provisioning and fitting from the late Middle Ages onwards. It also seems to have acted as a watch post for maritime attacks on London and there were various proposals to fortify the River Thames at this point. By the 17th century, Ratcliff was the largest village in Stepney and comprised several shipyards. However, a massive fire in 1794 destroyed a large area of the village.

29.2.14 In 1820, the Regent’s Canal Basin (now Limehouse Basin) was opened to the east of the site and was a focus of trade and industry until the late 20th century. London Road (the modern Bekesbourne Street) was laid out in the 1830s and many new buildings were built nearby, including St James’s Church.

29.2.15 The Ordnance Survey map of 1873 shows London Road lined with dense housing on both sides of the street. There were a number of timber yards fronting onto Horseferry Road and the canal basin to the east. This layout remained until 1895 although some of the housing on London Road was lost.

29.2.16 By 1910 the established layout had changed; London Road was removed and the Bekesbourne Buildings, a large range of five-storey flats with open galleries between three brick blocks, were built on what remained of its western side. The former timber yards to the east were also swept away. The area suffered heavily during the Second World War and the nearby St James’s Church was reduced to ruins. The mapping of 1947 shows the addition of the residential John Scurr House to the east of the site and the St James Gardens to the west. Other buildings remained ruined until the 1970s. The Bekesbourne Buildings survived until at least 1979 and were then replaced by the modern housing units at the end of the 20th century.

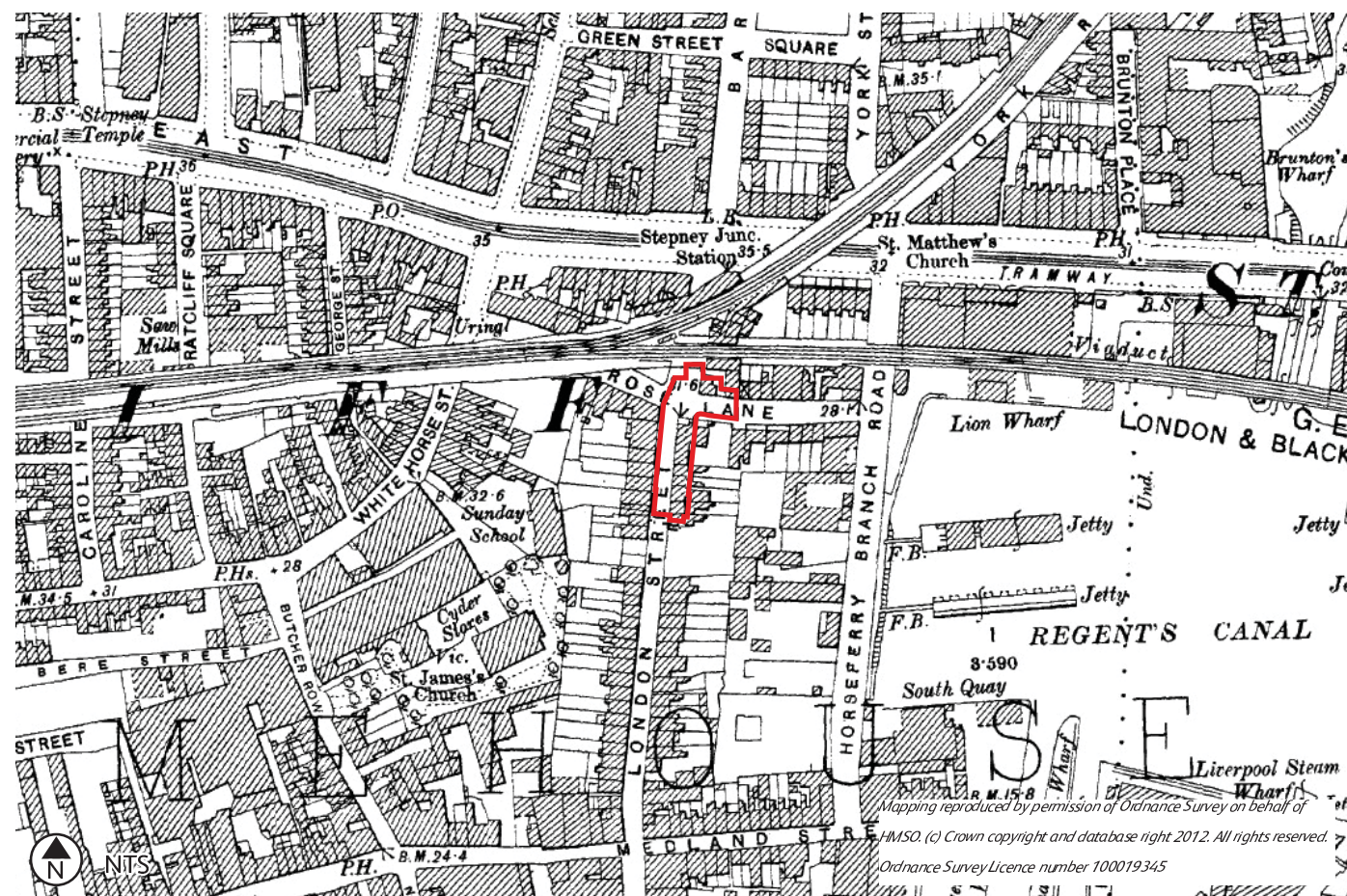


Figure 29.10: Historic map from 1896

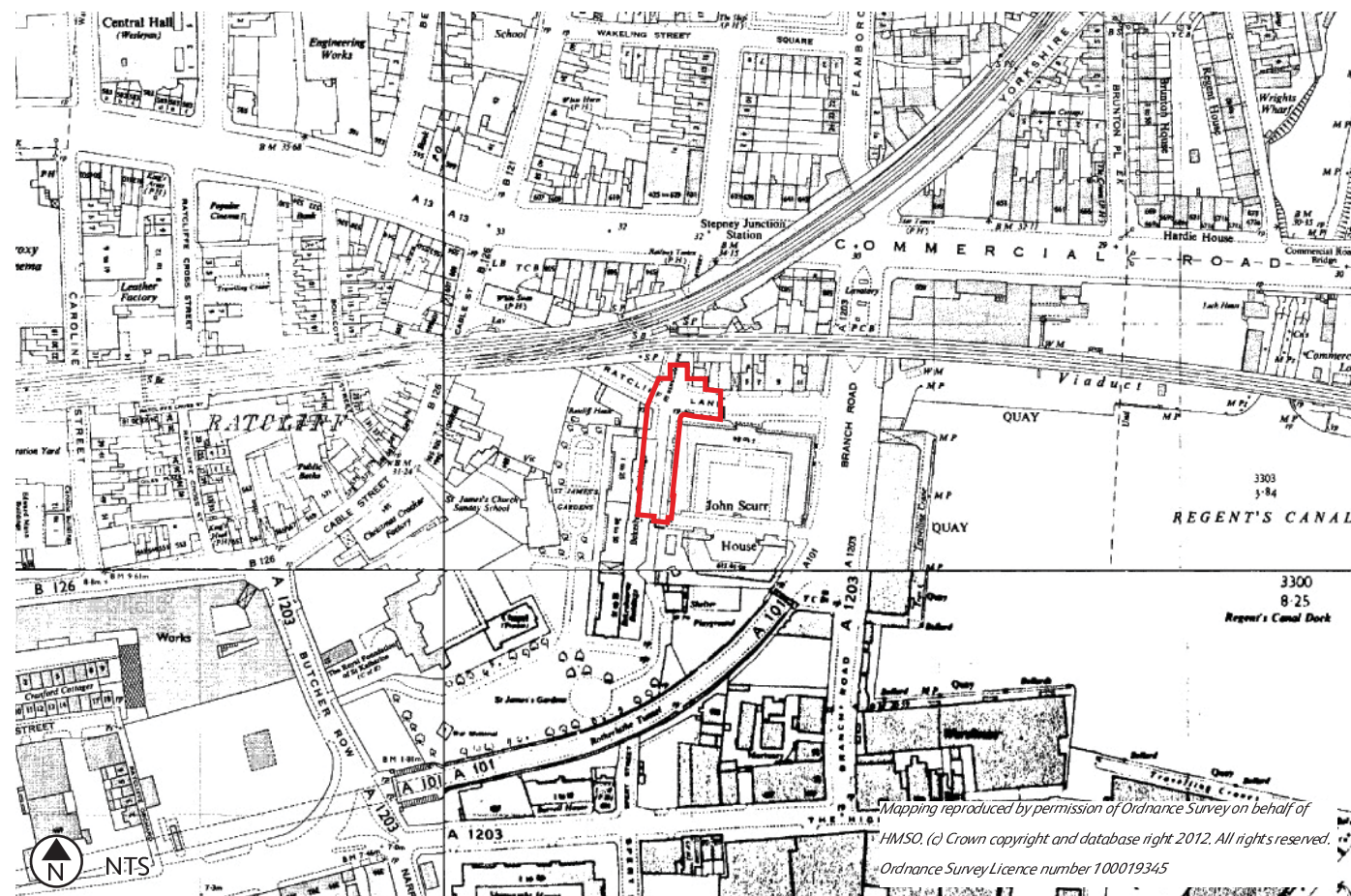


Figure 29.11: Historic map from 1955-1971

Site analysis: Opportunities and constraints

The site-specific design opportunities included:

- Integrate the works within the existing site context.
- Ensure that the streetscape remains open and uncluttered.

29.2.18 The site-specific design constraints included:

- the proximity of residential properties
- the proximity of the Docklands Light Railway line and associated land
- potential loss of car parking
- the location of existing underground infrastructure
- the northern part of the site falls within a conservation area and is in proximity to listed buildings and structures.

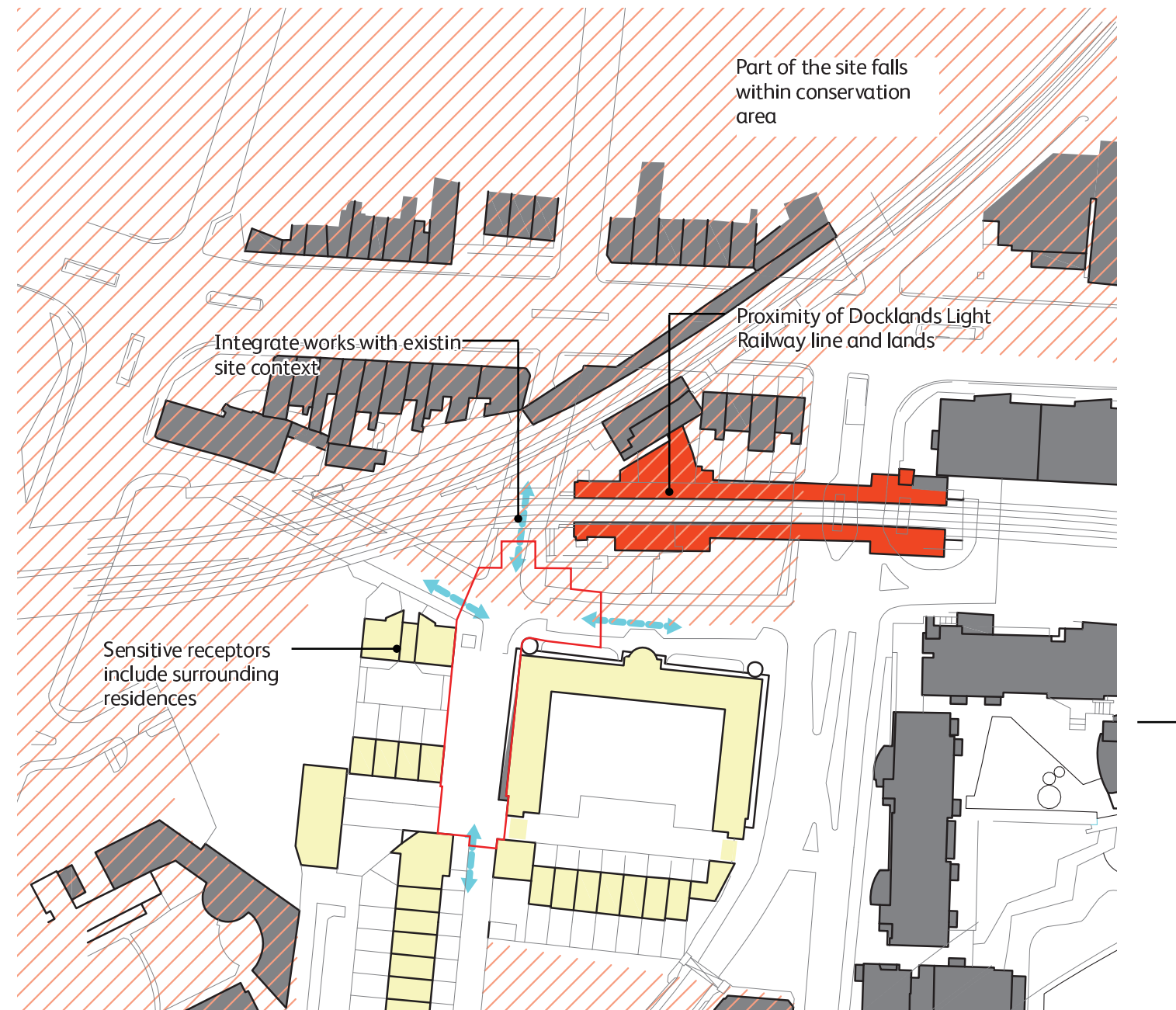


Figure 27.12: Existing site opportunities and constraints sketch

This page is intentionally left blank

29.3 Design evolution and alternatives

29.3.1 As the majority of the infrastructure for the project would be below ground, the key design objective for the permanent above-ground works was to integrate the functional components into the surroundings. The site-specific design objective at Bekesbourne Street was to successfully design the minor above-ground structures to fit the existing streetscape.

29.3.2 The design of our proposals at Bekesbourne Street was also influenced by an extensive process of stakeholder engagement. We held various pre-application meetings with the London Borough of Tower Hamlets and other strategic stakeholders such as DLR. More information on our public consultation process is provided in the Consultation Report, which accompanies the application.



Figure 29.14: Proposed view from phase one consultation- Buthcer Row site

October 2010

Phase one consultation

29.3.3 The Bekesbourne Street site was not a preferred site at phase one consultation. At this stage, we proposed to use a site known as Butcher Row to intercept the Holloway Storm Relief CSO and connect it to the main tunnel at King Edward Memorial Park.

29.3.4 We held drop-in sessions on 18, 19 and 20 October 2010 at the John Scurr Community Centre to inform the local community of the potential use of the Butcher Row site. We also gathered views on local issues that we needed to take account of in developing our proposals.

29.3.5 We considered the feedback received from phase one consultation and on-going stakeholder consultation, as well as new information that had emerged. We also undertook further technical work. We then conducted a site selection 'back-check' and reviewed the tunnelling strategy (refer to Volume 1, Section 8 of the Final Report on Site Selection Process, which accompanies the application, for details).

29.3.6 The further technical work established that there was no longer a need to connect the Holloway Storm Relief CSO to the main tunnel. This was due to the capacity identified in the northern Low Level Sewer No. 1, to which the Holloway Storm Relief CSO could be connected. This would considerably reduce the scale of the work required and the site at Butcher Row was therefore no longer required.



Figure 29.14: Proposed view from phase one consultation

December 2011

Phase two consultation

29.3.7 Bekesbourne Street subsequently became our preferred site at phase two consultation. This was primarily because it was appropriately located to carry out the required engineering works and the relatively minor above ground works could easily be integrated into the existing streetscape.

29.3.8 We held further drop-in sessions at the John Scurr Community Centre on 5, 6 and 7 December 2011 to inform the local community of the potential use of the Bekesbourne Street site. We also gathered views on local issues that we needed to take account of in developing our proposals.

29.3.9 We received a limited amount of feedback at phase two consultation with a total of seven comments, three of which were in support of the proposals. The key concerns included the potential effects of construction on air quality, and associated noise, dust and dirt in the surrounding residential area.

29.3.10 English Heritage commented that it was unlikely that the proposals would have an impact on the York Square Conservation Area and the London Borough of Tower Hamlets supported the use of the site.

29.3.11 We considered the feedback received and considered further design development. As the Holloway Storm Relief CSO would now be controlled by means of relatively minor works, we decided to retain Bekesbourne Street as an alternative to a CSO interception site. There were no significant design developments at this site following phase two consultation.

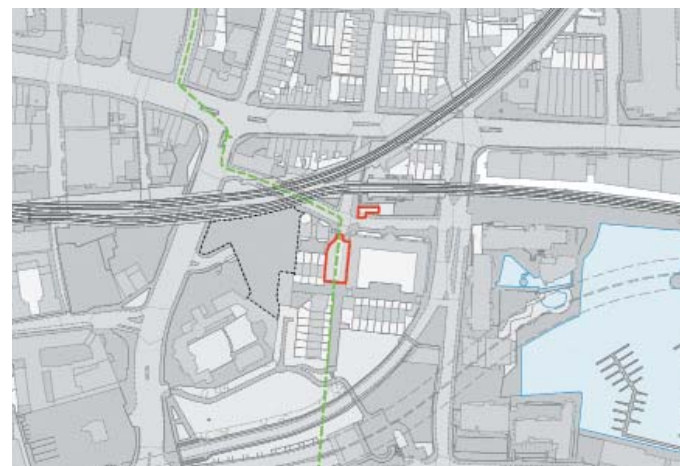


Figure 29.15: Proposed view from phase two consultation

29.4 Proposed design

29.4.1 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.

Above ground permanent structure	Maximum height above finished ground level (Minimum heights are in brackets where applicable)
Ventilation column(s)	6.0m
Electrical and control kiosk(s)	2.5m

Fixed principles

29.4.2 The Site works parameter plan defines the zones in which the proposed works would take place. The plan indicates the general location of the ventilation column and electrical and control kiosk.

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.

Design objectives

29.4.4 The scale of the works at Bekesbourne Street is much smaller than at most other proposed development sites for the project. Once construction is complete only minimal above-ground structures would remain on-site. Our main aim was to restore the site to its current condition as closely as possible.



Figure 29.16: Site works parameter plan - refer to Site works parameter plan in the *Book of Plans*

Integration of the functional components

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

- a. a penstock and flap valve chamber
- b. a ventilation duct
- c. works to existing infrastructure to facilitate the connection to the northern Low Level Sewer No. 1.

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

- a. an electrical and control kiosk
- b. a ventilation column.

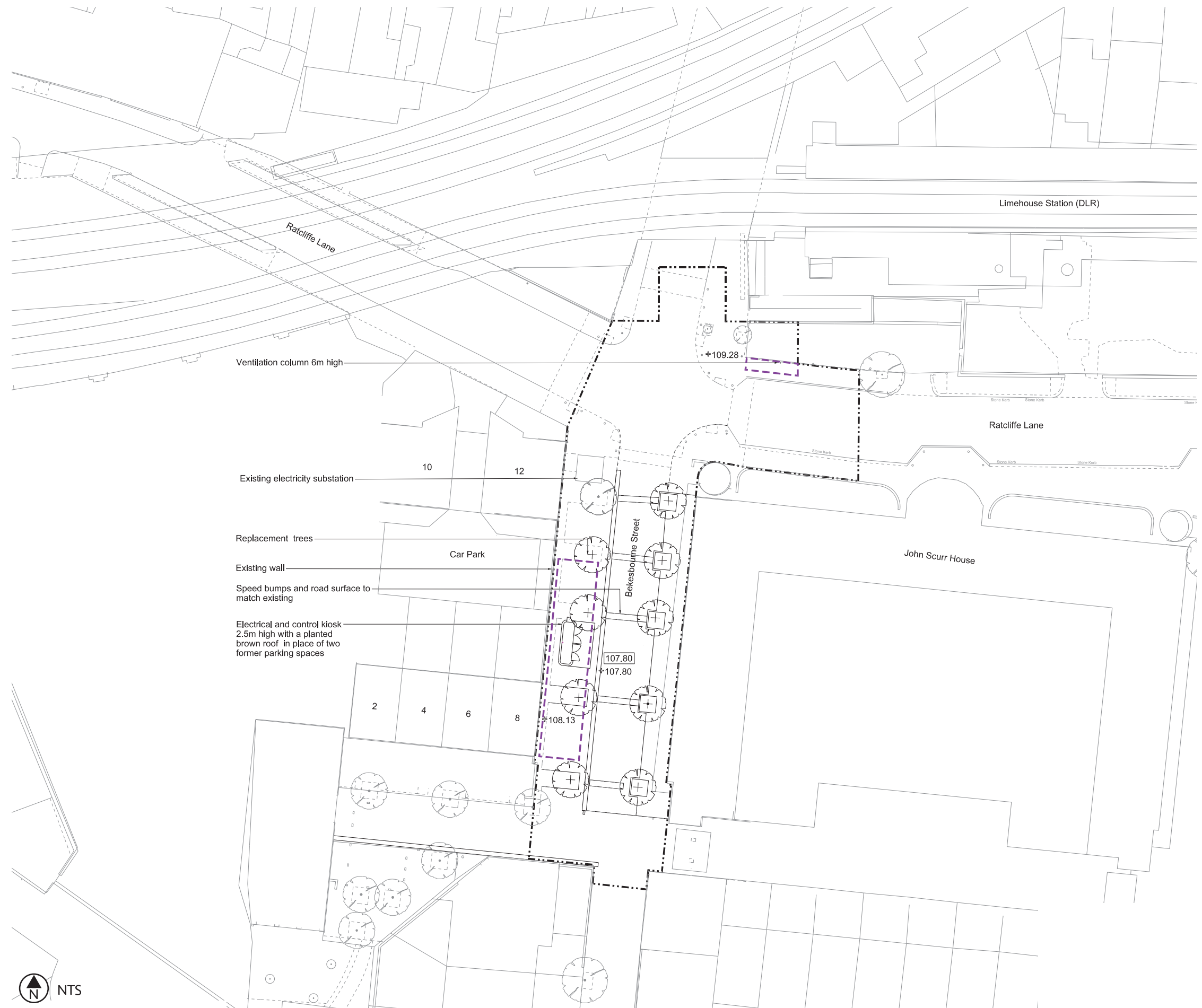


Figure 29.17: Proposed site plan - refer to Proposed landscape plan in the *Book of plans*

Electrical and control kiosk

29.4.7 The electrical and control kiosk would be approximately 5m wide, 2m deep and 2.5m high. It would sit towards the southwest of the site adjacent to an existing high brick wall. This position would require the removal of two car parking spaces from the formal avenue of parking on the western side of Bekesbourne Street. The kiosk structure would be constructed with decorative precast concrete panels inscribed with flowing horizontal lines. In line with our project-wide design principles, the kiosk would feature a planted brown roof. Replacement trees and planting would help screen the kiosk from viewpoints along Bekesbourne Street to the north and south. The structure would sit comfortably within the existing streetscape.

Ventilation columns

29.4.8 The number and size of the ventilation columns is determined by the air management requirements for the site. The proposed ventilation column would be 6m high with an internal diameter of approximately 0.225m. It would stand on the northeastern corner of the site away from nearby residential properties where it would avoid unnecessary clutter in the streetscape.

29.4.9 The minor scale of the proposed permanent works at this site is consistent with works commonly undertaken by utilities companies across London and would not affect the setting of the adjacent conservation area or any listed structures/buildings in the vicinity of the site.

Other works

29.4.10 Ground-level access covers to the below-ground infrastructure would be incorporated in the highway.

29.4.11 Any trees or paving removed during construction would be reinstated as existing.

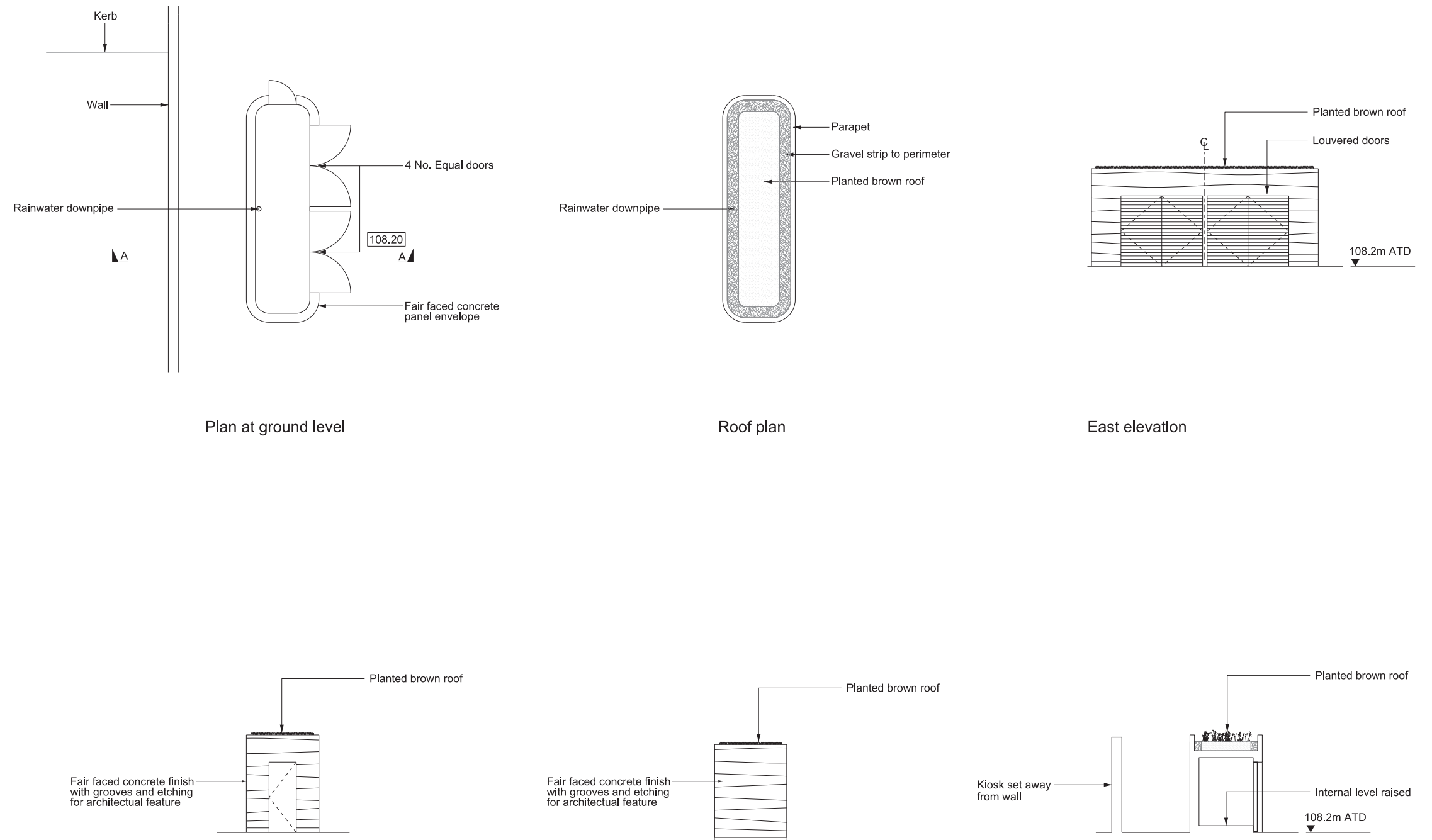


Figure 29.18: Proposed kiosk design - refer to Kiosk design intent in the *Book of plans*

This page is intentionally left blank

29.5 Access and movement

29.5.1 Access and movement around the operational site would be unaffected by the project works. The position of the electrical and control kiosk would require the loss of two private car parking spaces.

29.5.2 The site is broadly flat and the space would remain accessible to all. In line with project-wide aspirations and good practice, landscaping treatments and materials would ensure that pedestrian routes meet the best standards of accessibility.

Thames Water access requirements

29.5.3 Access to the above-ground structures and access covers would be via the existing road network.

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

29.5.5 It is anticipated that a major internal inspection of the below-ground equipment would be required once every ten years. This process would likely require a small team of inspection staff and support vehicles.

29.5.6 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.

29.5.7 Traffic management measures would be required during the inspections, which might include temporary suspension of parking bays.

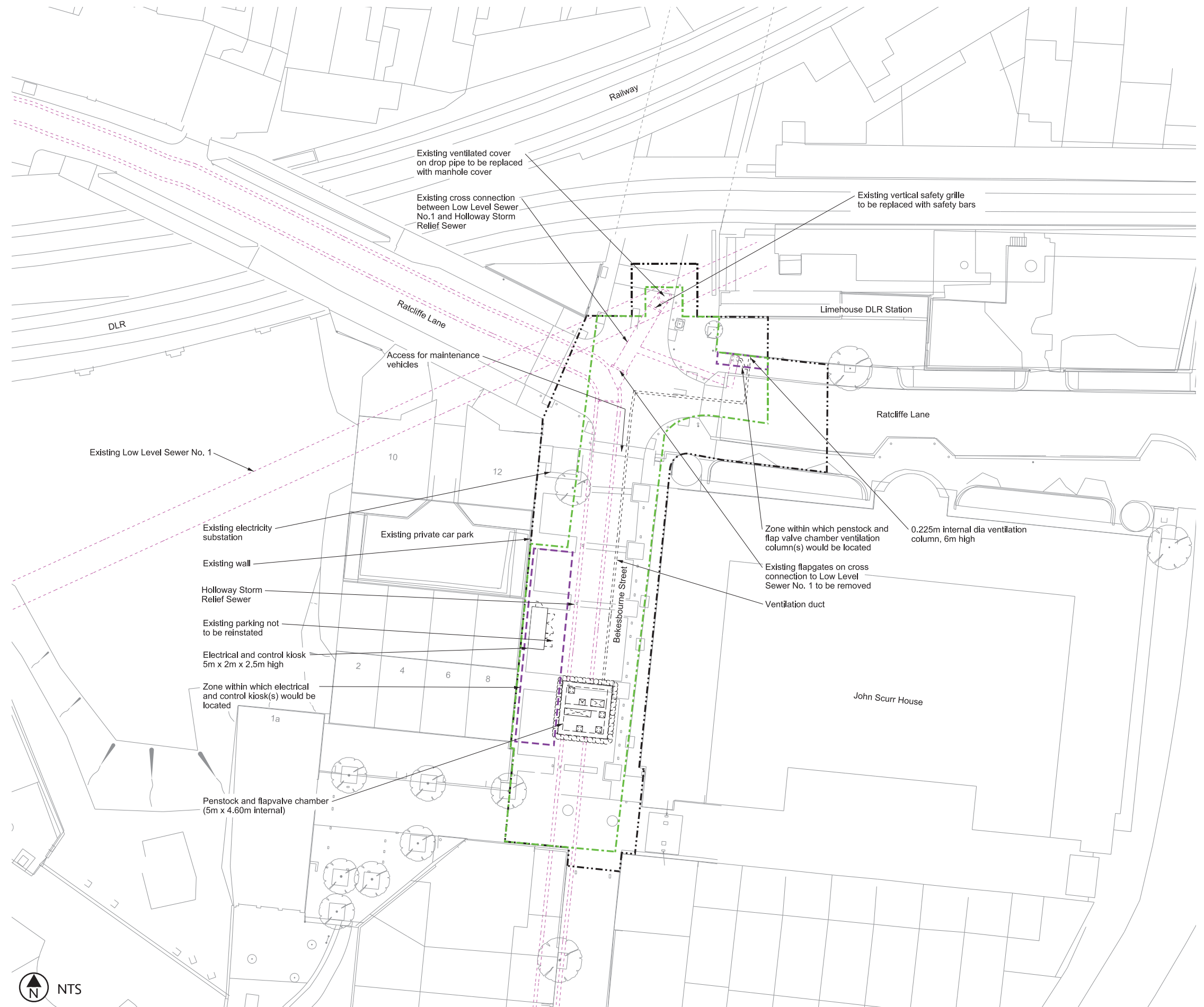


Figure 29.19: Permanent works layout - refer to Permanent works layout in the *Book of Plans*

This page is intentionally left blank

Copyright notice

Copyright © Thames Water Utilities Limited January 2013.
All rights reserved.

Any plans, drawings, designs and materials (materials) submitted by Thames Water Utilities Limited (Thames Water) as part of this application for Development Consent to the Planning Inspectorate are protected by copyright. You may only use this material (including making copies of it) in order to (a) inspect those plans, drawings, designs and materials at a more convenient time or place; or (b) to facilitate the exercise of a right to participate in the pre-examination or examination stages of the application which is available under the Planning Act 2008 and related regulations. Use for any other purpose is prohibited and further copies must not be made without the prior written consent of Thames Water.

Thames Water Utilities Limited

Clearwater Court, Vastern Road, Reading RG1 8DB

The Thames Water logo and Thames Tideway Tunnel logo are © Thames Water Utilities Limited. All rights reserved.

DCO-DT-000-ZZZZZ-070400

