

# Purfleet Centre Regeneration

## DESIGN & ACCESS STATEMENT

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Outline Masterplan

December 2017







Purfleet Centre  
Regeneration Limited

# Document Purpose

This document has been prepared in support of an outline planning application for the regeneration of Purfleet, Thurrock on behalf of Purfleet Centre Regeneration Ltd (PCRL).

Prepared by:



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On behalf of:



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# Executive Summary

Purfleet centre regeneration is an exciting opportunity to transform Purfleet, creating a new civic, cultural and residential centre that will be an asset to Thurrock and the surrounding area.

At the centre of Purfleet sits the railway station and the level crossing. Currently this is surrounded by mostly light industrial and fallow brownfield land, with the main residential areas arranged, like a doughnut, around the edge. These areas are divided into three distinct locations to the north, east and west, with only a small proportion within 5 minutes walking distance to the station and poor connectivity between each area.

Purfleet in its existing state is characterised by the paucity of amenity of all types for its residents. With such limited local services, Purfleet residents are required to make the majority of their journeys to shops, schools and work by private vehicle. This exacerbates the congestion already created by the level crossing and any problems with the nearby M25 and Dartford Crossing. Even the direct trains into Fenchurch Street and Grays do not relieve this issue as many people drive to and from the station because the road network is unappealing (and in some cases dangerous) for walking and cycling. Against this background and as a result of the poor permeability through the central industrial areas, Purfleet's three greatest assets; the 1km long south facing frontage to the River Thames, the RSPB reserve at Rainham Marshes and High House Production Park are effectively hidden away and offer limited positive benefit to the local community.

Our aim is to create a new town centre that builds the foundations of sustainable local economy and sets the benchmark for the regeneration of former industrial areas into thriving mixed use communities. The proposals seek to intensify and diversify the existing land use in Purfleet, increase permeability, and create an environment that promotes an active lifestyle encouraging modal shift where reliance on car journeys is reduced and people are encouraged to use other forms of transport such as walking and cycling more frequently.

The masterplan for Purfleet includes 2,850 new homes and a new mixed-use town square located around an upgraded railway station and new rail bridge replacing the level crossing. New employment opportunities will be created in the form of a new film and television studio, along with retail, schools, a new integrated medical centre, amenity spaces, enhanced access to the river & reuse of the existing jetties.

This masterplan will build on Purfleet's existing assets, including the extensive riverfront, accessibility to London and High House Production Park, by creating a new town centre and fostering a creative industries hub and waterfront destination. This creates the conditions for elevating the proposals from being a local focus regeneration scheme to being a destination in its own right.

**Purfleet Centre Regeneration is an active lifestyle-led regeneration that will transform Purfleet; connecting the existing residential communities and providing a wealth of local amenities and recreation opportunities. The primary ambition of the masterplan is to change the nature of Purfleet to better serve the local community, new residents and businesses. The vision for the masterplan has been carefully crafted through consultation with local communities, Thurrock Council and other major stakeholders.**

Purfleet Centre Regeneration will;

1. Provide high quality residential development,
2. Create employment and education opportunities,
3. Establish and grow a creative industry in Purfleet,
4. Transform the riverfront into an asset for Purfleet,
5. Create and reaffirm community links within Purfleet,
6. Address the lack of local amenities with a new town centre,
7. Encourage modal shift and a healthy lifestyle,
8. Close the level crossing and improve the safety of London Road,
9. Maximise the opportunities granted by the fantastic rail links to London and Grays, and,
10. Knit together the existing network of green spaces and ecological sites.



Figure 1.1





## Ambitions & Scope



# 1.1 Application & Regeneration Context

## 1.1.1 The Application

The description of the development proposed by Purfleet Centre Regeneration Ltd. is as follows:

Application for outline planning permission, with all matters reserved for subsequent approval, except for means of access, for mixed-use redevelopment involving the demolition of existing buildings and other structures; site preparation works; and the development of up to 2,850 Dwellinghouses (Use Class C3) comprising a mix of 1, 2, 3 and 4 bedroom units including affordable housing; up to 11,000 sq.m (floorspace) of Business uses (Use Class B1); up to 8,880 sq.m (floorspace) of Shops (Use Class A1); up to 5,220 sq.m (floorspace) of Restaurants and Cafes (Use Class A3); up to 900 sq.m (floorspace) Drinking Establishments (Use Class A4); up to 20,000 sq.m (floorspace) of Hotel accommodation (Use Class C1); up to 18,300 sq.m (floorspace) of Non-residential Institutions uses, comprising a Primary School, Secondary School and Sixth Form, Medical and Community uses (Use Class D1); up to 6,200 sq.m (floorspace) of Assembly and Leisure Uses (Use Class D2); up to 135,000 sq.m (floorspace together with external backlot production space) film and television production space including ancillary workshops, offices and post production facilities and ancillary infrastructure, together with ancillary car park; provision of temporary railway station facilities, up to 1,600 sq.m (floorspace) of upgraded railway station facilities and local waste and power facilities (Sui Generis); all together with associated vehicle parking, open space, landscape and public realm provision, ecological mitigation, highways, pedestrian and vehicular access routes, and other associated engineering, utilities and infrastructure works including but not limited to, rebuilding, repairing, replacing and upgrading of river wall and flood defence wall and associated works of repair and reinstatement of the former Yara Purfleet Terminal Jetty and the former Cory's Wharf Jetty to facilitate the river wall and flood defence works, the provision of four grade separated railway crossings including a new bridge as part of the reprofiling and realignment of London Road.

The following design and access statement supports the submitted planning application. Its purpose, in brief, is to explain the design analysis, principles and concepts that have been used to shape the proposed development. It also considers how issues relating to access to the development have been dealt with.

Consequently, this document:

- Appraises the context of the development and how the designs take this into account.
- Explains the design principles behind the development proposals.
- Demonstrates how policies in respect of access have been factored in.
- Outlines how consultations have also shaped the proposed design.

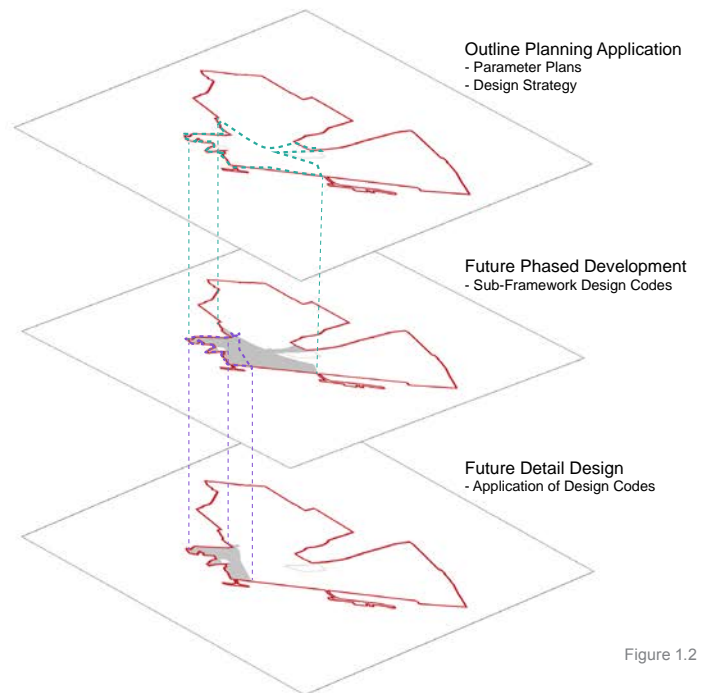


Figure 1.2

Future development of the Outline Masterplan will be via a series of sub-framework development zones and reserved matters applications for future detailed portions. All future development is required to be in line with the strategies that have informed this outline masterplan and follow the design principles and codes set out in this document

This Design and Access Statement is submitted for approval and is supported by a range of other documents for the purposes of an outline planning application, which are set out in the Savills planning statement.



Figure 1.3

## 1.1.2 Context for Regeneration

The ambition of regenerating and growing Purfleet has a long history. Most recently, Thurrock Council adopted a housing led regeneration vision for Purfleet within their Local Development Framework Document Core Strategy and Policies for Management of Development 2011, updated in 2015.

Informed by strategies set out by the Government Office for the East of England (now abolished), the Core Strategy and Policies sets out aspirations for Thurrock to be the dynamic heart of the Thames Gateway delivering 26,000 new jobs and 18,500 new homes by 2021.

To do this five regeneration areas were identified, of which Purfleet is one, with the focus for Purfleet being to re-establish a centre upon which the local community can thrive.

In 2013, a comprehensive planning permission was granted (LPA ref 11/5041/GOUT) to help demonstrate the deliverability of these ambitions. The PCRL proposals now update and take these forward.

PCRL have worked extensively with stakeholders including Thurrock Council to understand the detailed local need and critical ambition for the delivery of this key local scheme. The table on the following page sets out the design team's interpretation of these discussions.

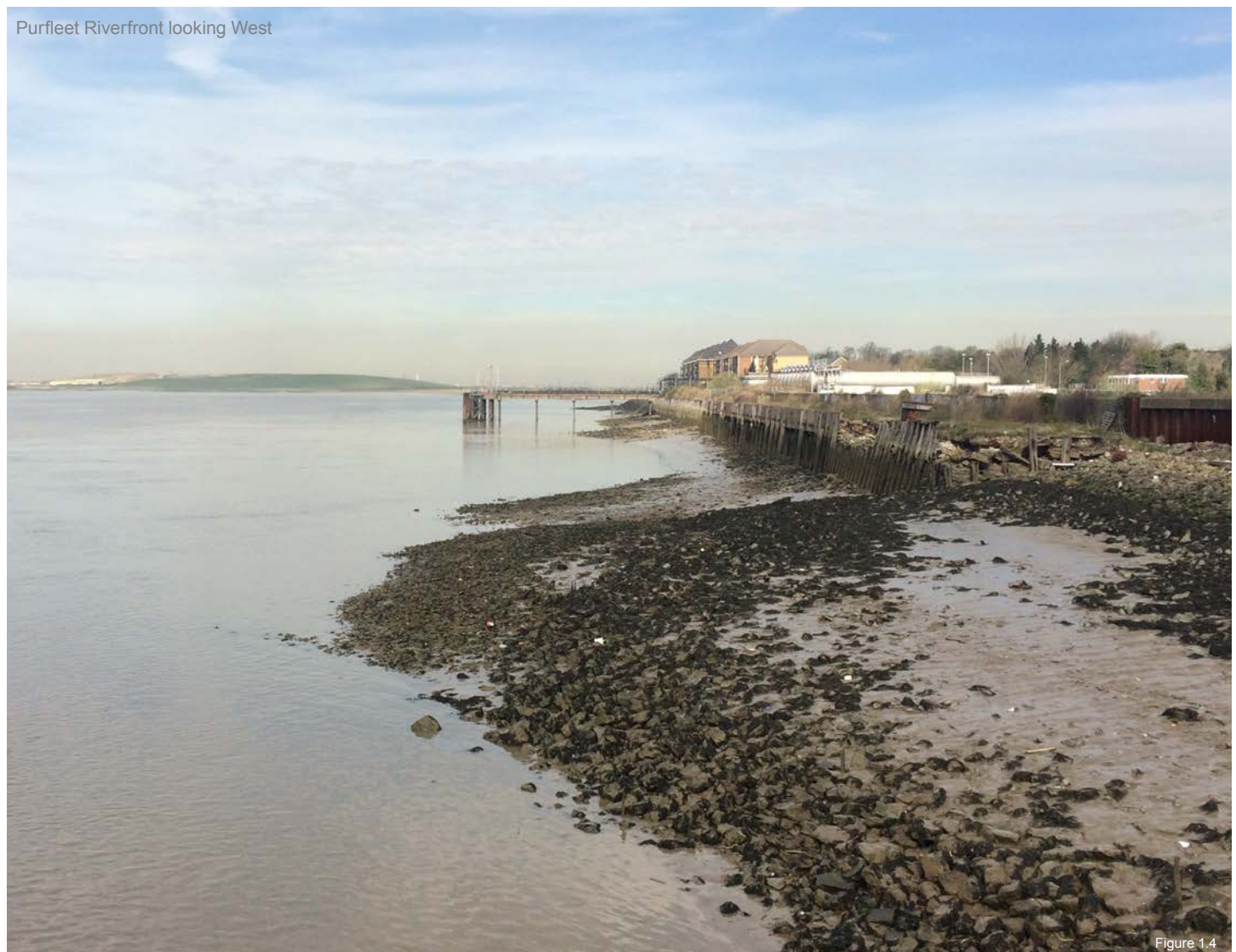


Figure 1.4

## 1.2 Stakeholder Ambitions

### 1.2.1 Thurrock Council

The design team have directly engaged with Thurrock officers and internal stakeholder teams throughout the course of the design process to ensure that the Council's ambitions for Purfleet and the wider area are reflected both in the project brief and the design outcomes.

A summary of the key objectives understood from this engagement is set out below and in greater detail in section 1.3.3.2.

| Objective   | Masterplan Implication  |
|---|---|
| a) Deliver homes and jobs in satisfaction of strategic objectives | <ul style="list-style-type: none"> <li>Design a balanced mixed use community of sufficient scale to fulfil developer, stakeholder and local authority objectives.</li> <li>Produce a deliverable, robust, phased masterplan of appropriate quality that properly reflects the character, history and potential of the area.</li> </ul>  |
| b) Manage congestion  | <ul style="list-style-type: none"> <li>Delivery of local facilities and services will reduce the need for movement out of Purfleet and reduce movement pressure on the strategic network.</li> <li>The new development should be designed to support walkability, cycling, public transport and ease of shift between modes.</li> <li>Greater population density and infrastructure improvements will encourage better and more integrated public transport services.</li> </ul>  |
| c) Build community capacity and cohesion                          | <ul style="list-style-type: none"> <li>Through placemaking, build in opportunities for community meeting, development of social networks and involvement.</li> <li>Deliver required community servicing (schools, integrated medical centre etc.).</li> <li>Create local identity.</li> </ul>   |
| d) Improve health & well being                                    | <ul style="list-style-type: none"> <li>Build walkable neighbourhoods.</li> <li>Include significant walking opportunities through a comprehensive route network.</li> <li>Include significant opportunities for active leisure (eg. running, cycling, gardening, other sports).</li> <li>Mental health can also be served by encouraging active lifestyles, local connections and creation of local opportunities for work and training so the scheme should build opportunities for participative community activities, culture and events.</li> <li>Deliver an integrated medical centre.</li> </ul> |
| e) Encourage modal shift  | <ul style="list-style-type: none"> <li>Through designing a walkable, mixed use, relatively dense community which has the capacity to service local needs walking, cycling and public transport become viable movement choices.</li> <li>Through improving passenger facilities and accessibility of the Purfleet train station.</li> </ul>  |
| f) Build in the potential to live and work locally                | <ul style="list-style-type: none"> <li>Through building a mixed use neighbourhood with a range of training, servicing, employment and entrepreneurial opportunities, there will be greater opportunity for residents and businesses to live/work locally thereby reducing pressure on transport networks whilst building economic capacity and encourage vitality and viability.</li> </ul>   |

Thurrock Council stakeholder teams included, but were not limited to, representatives from: Adult Social Care and Community Development, Economic Development, Environment and Place, Highways, Housing, Learning and Inclusion, Public Health, and Strategic Planning.

## 1.2.2 PCRL Vision

Thurrock Council's vision of delivering a new town centre and high quality new residential neighbourhoods in Purfleet represented a unique opportunity within the Thames Gateway.

PCRL was formed as a partnership between Swan/NU living and Regeneration Investments Limited to deliver this transformational scheme for Thurrock and the Thames Gateway. In responding to the Thurrock vision the development partners explored ways in which the potential impact of the scheme on the local area could be enhanced.

This developed into a series of key ambitions that are the foundation of the evolving design:

- Create a new town centre that provides amenities that serve the existing community as well as new development.
- Build high quality new homes to support an increasing local population.
- Create a building or series of buildings that could host businesses complementary to the existing creative industries established at High House Production Park and create significant new employment and a cultural industries hub.
- Remove barriers to the 1km of waterfront and allow public access to the south facing bank of the River Thames.
- Improve local permeability and mobility.

The delivery of the scheme is being managed by Development Manager Urban Catalyst with Swan/NU living managing housing construction and quality and Quartermaster providing the film & television studios operational management. This team is supported by a large team of experienced consultants and advisers.

### Urban Catalyst

Urban Catalyst are a mixed use real estate development firm established in 1998 to deliver public-private urban regeneration projects. Their portfolio of work includes large scale mixed use redevelopment such as Barking Centre delivered in partnership with the local authority and smaller boutique schemes such as Rivington Place, a contemporary arts venue in Shoreditch.

### Swan / NU living

Swan is an award-winning housing association and developer, managing over 12,000 homes across East London and Essex. It has been delivering regeneration for almost 25 years, developing thousands of homes in collaboration with local communities. Swan delivers homes for private sale through its subsidiary company NU living. It also has its own in-house contractor and has recently opened a factory to deliver homes through off-site modular construction. Current projects include the regeneration of Blackwall Reach in Tower Hamlets and the Craylands Estate in Basildon.

### Quartermaster

Quartermaster was formed by experienced veterans from the global Film & Television industry with the purpose of promoting and facilitating the production of creative and visual content in the United Kingdom.

Design ambitions were further refined into a brief that called for:

- Up to 3000 new homes across a mix of tenures and sizes that improve on the quality of housing stock in the local area and sets a benchmark for future development.
- Creation of a new heart to Purfleet with community facilities, local retail and improved transport connections.
- Replacement of the existing level crossing with a new pedestrian and road bridge.
- Definition of a suitable location for a new Film & Television Studio that could host live events and large cinematic productions with good links to High House Production Park.
- Creation and enhancement of links between the existing community and the new town centre.
- Improvement of public access to the river and creation of attractive and active public realm throughout the new development.



Figure 1.5



Figure 1.6



Figure 1.7



Figure 1.8

# 1.2 Stakeholder Ambitions

## 1.2.3 Community Vision

From the outset PCRL has been clear that the success of Purfleet's regeneration requires the involvement of the local community.

Purfleet is fortunate to have an engaged and passionate local community. Their input, through various forums, has guided the design process from inception. Their input is set out in detail in the *Statement of Community Involvement* which also supports the planning application.



Figure 1.9

The various workshops provided the client & the design team with very valuable outputs. These outputs are summarised in this word map above.

## 1.2.4 Public Consultation & Engagement

### 1. Planning Policy Framework

Under Section 18 of the Planning and Compulsory Purchase Act 2004, Local Planning Authorities (LPA's) are required to encourage participation from local community groups where development is proposed, and to produce a Statement of Community Involvement (SCI).

Furthermore, PCRL's clear objective was to have people's issues and aspirations collected, recorded and fed into the PCRL team for consideration as part of the design process.

### 2. PCRL Consultation Approach

The design strategy can be broadly summarised as covering three key elements:

- Establishment of Purfleet Community Design Panel.
- Three rounds of community consultation workshops.
- Suite of digital engagement and consultation tools.

The outputs from each of these elements have been used by the design team in shaping the developing masterplan.

### 3. PCRL Consultation Programme

#### A - Purfleet Community Design Panel

The Community Design Panel brings together representatives (20 volunteers) of the local community with PCRL, their appointed designers and consultants to work collectively to identify locally important issues and contribute local knowledge to the formulation of a design brief for the regeneration and development of Purfleet Centre. The Design Panel met 7 times throughout the design process and was instrumental in testing emerging design proposals.

Thurrock Council statutory and non statutory stakeholders



Community Consultation Workshops



Purfleet Community Design Panel



Digital Engagement & Consultation



- Local Business Leaders.
- Local businesses.
- Leaders of local institutions.
- Young people and older people.
- Local residents.



Figure 1.10

ourpurfleet.com

### B - Community Consultation Workshops

Three rounds of Community Consultation Workshops were held.

#### Stage 1 – (April 2016) Initial consultation and masterplan refinement:

Analysis of the comments received show that the majority of views expressed related to the community's aspirations around improved community infrastructure.

Community suggestions illustrate strong themes of desire for creating local amenities, for optimising the waterfront location and bringing a diverse range of new community, educational, leisure and cultural activities.

#### Stage 2 – (June 2016) Testing of draft masterplan.

Outputs from this event focused on:

- Preservation of Hollow Woods as a managed green space.
- Ensuring there is sufficient parking, especially for existing residents.
- Potential traffic congestion along London Road during drop-off and pick-up at the new secondary school.
- Opening up of the river front.
- Landscaping along London Road.
- Play areas for children.
- Increased capacity on the trains from London to Purfleet, e.g. longer trains and increased frequency.

#### Stage 3 – (December 2016) further testing of draft masterplan prior to submission of Planning Application.

This event was held as an all-day public exhibition in order to allow attendees enough time to read PCRL's plans and ask any questions. Attendance was very good and over 142 people formally signed in and 33 feedback forms have been received.

### C - Digital Engagement and Consultation tools

At the start of the design process, PCRL established a suite of digital engagement and consultation tools designed to enable the community and wider stakeholders to engage and establish a dialogue with the project team. This suite of tools draws on the benefits of developing social media tools and has been helpful in engaging with groups who would not traditionally attend a community workshop.

Primarily the ourpurfleet.com website was set up to allow individuals to tag photos in social media using the hashtag #OurPurfleet which means it is displayed on the collective inspiration board. Engagement via this channel has been extensive.

The intention is that the use of digital engagement and consultation tools will continue throughout the life of the development. Moreover, there has been over 14,000 page views for the website and the various digital channels have accumulated the following interest.

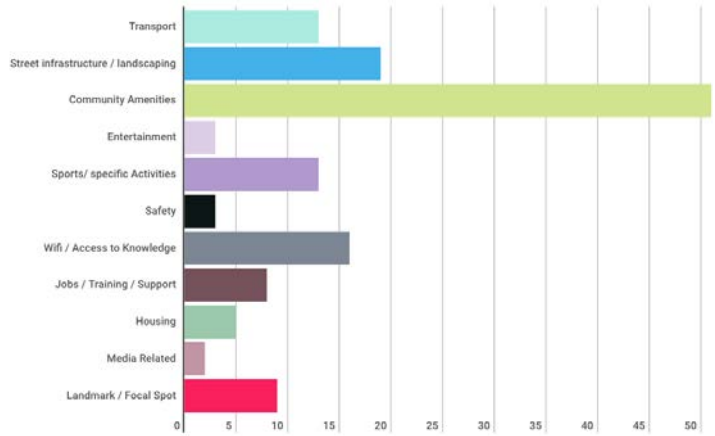


Figure 1.11

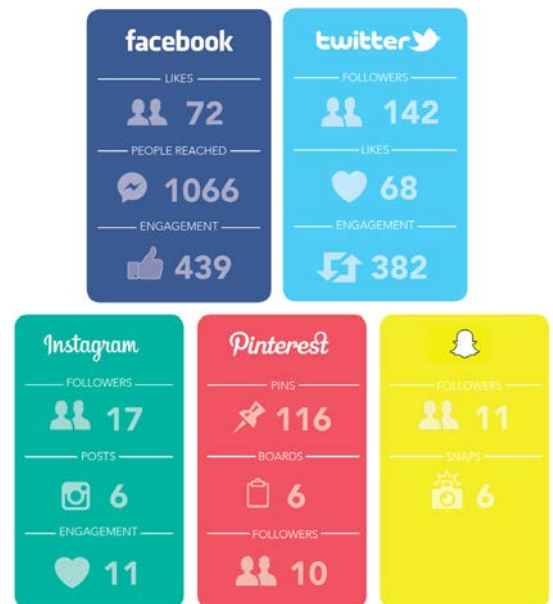


Figure 1.12



Figure 1.13

**Public Consultation & Engagement**

**COMMUNITY ASPIRATIONS**

**PCRL'S APPROACH**

**ENGAGEMENT DATA:**

- 142 people signed in at the public exhibition
- 33 feedback forms received
- 1066 people reached via Facebook
- 142 followers on Twitter
- 17 followers on Instagram
- 116 pins on Pinterest
- 11 followers on Snapchat

**JOIN THE CONVERSATION**

#OurPurfleet  
www.OurPurfleet.com

Figure 1.14

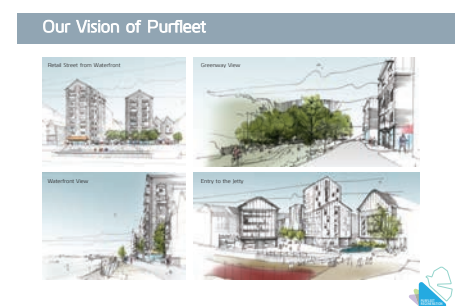


Figure 1.15

## 1.3 Design Ambitions

### 1.3.1 Ambitions

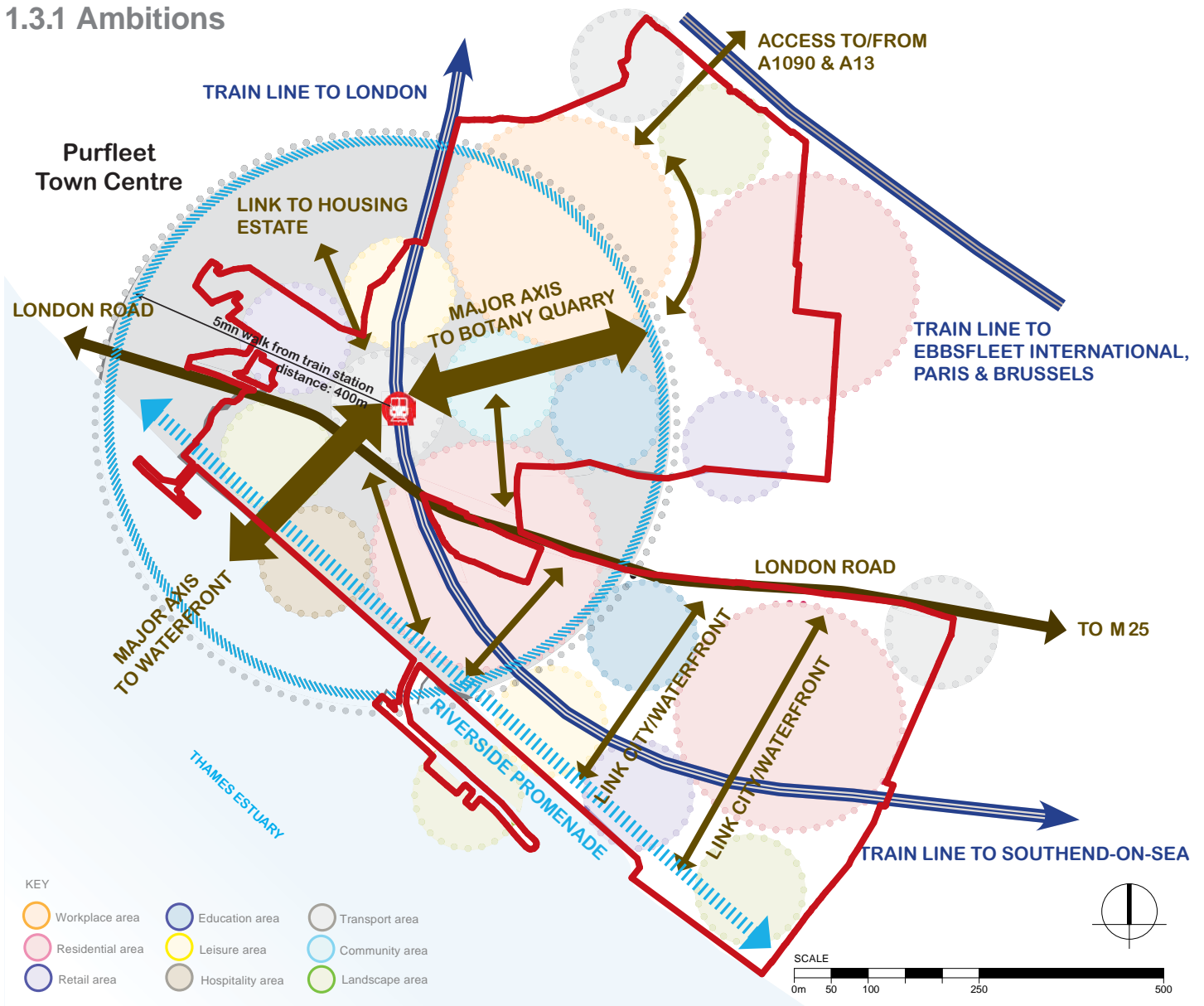


Figure 1.16

The site is located between the Rainham Marshes RSPB reserve, the High House Production Park and the River Thames. It is also geographically central to the existing Purfleet residential communities, and contains a railway station at its heart. This provides the opportunity to create a new centre integrated with the transport link, and to significantly improve links between the existing communities and introduce high quality places and spaces to live, work and relax.

The existing residential areas of Purfleet are scattered around the periphery of the masterplan site, so have little physical connection with the centre or each other. The site is currently used for industrial purposes, although its past use as a quarry is apparent in many locations. The site is also bounded by a large fuel storage site for Esso, a large distribution facility for Carpet Right as well as a railway line and an arterial road.

The physical characteristics which shape and influence the site are as varied as the existing uses. The natural features include the River Thames to the south, and quarry cliffs to the north and east, these are both positive and will become valuable features of the new layout.

The existing railway line is a physical barrier which unfortunately cuts the site in two and offers a significant planning challenge, although the proposal turns this issue to the advantage of the community, by removing the existing level crossing and integrating the new infrastructure into the new heart of the town.

The diagram above summarises the main outcomes of that process.

PCRL team ambitions for the proposal identified via the consultation workshops included; a core desire to halt the declining industrial nature and provide new uses and new employment, to define a structure which will enable a unique place to sustain growth, to stitch together the existing communities, to embrace the existing community and assets and ensure they benefit from the changes, and to ensure Purfleet has a wider significance in the area and in the Thames Gateway region.

### 1.3.2 Brief Relationship Diagram

As the brief relationship diagram below suggests, the resulting Purfleet Centre Regeneration concept is a mixed-use regeneration project that aims to combine within the same site:

- Residential dwellings.
- Education & medical facilities.
- Community centre.
- Retail amenities (permanent shops, temporary market).
- Workplaces (film & TV studios, ancillary workshops).
- Sports facilities.
- Entertainment amenities.
- Hotel.
- Energy & waste centres.
- Transport hubs (train station, bus stops, car parking).
- Various soft landscape areas: parks, green streets and squares.

The challenge of such an approach is to design a self-sustaining urban framework, where all the constituent parts are mutually beneficial.

To respond to this challenge, the design process required into the spatial implications, drawing on a careful analysis of the site and its context, as set out in the following sections.

#### Brief Relationship Diagram

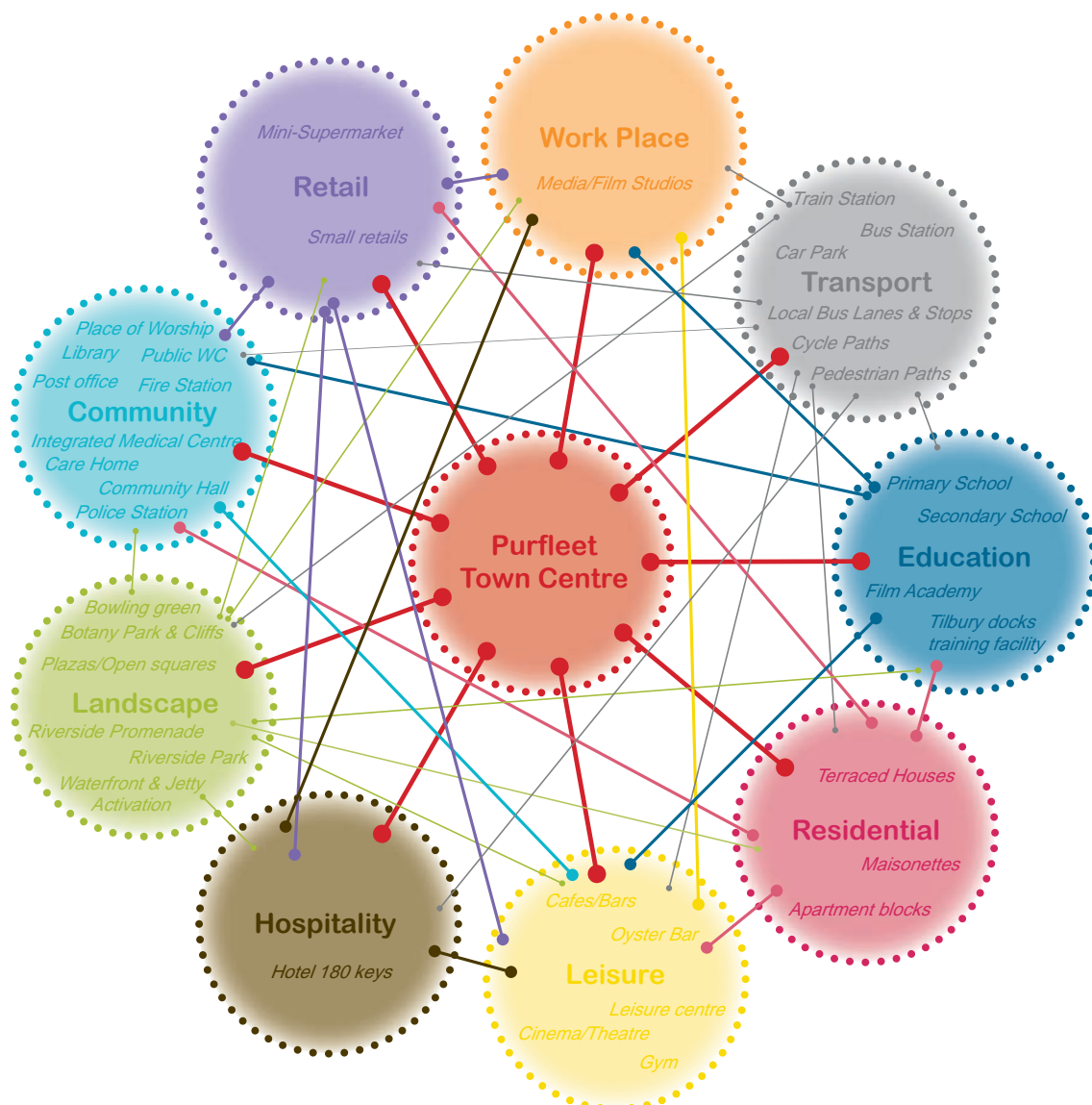


Figure 1.17

# 1.3 Design Ambitions

## 1.3.3 Brief Development

A series of meetings between the Purfleet community, Thurrock Council officers, PCRL and the design team helped shaping up the design brief for the mixed-use development.

### 1.3.3.1 Purfleet Community

The four Community Consultation events were led by the PCRL design team. Each of them was aimed at capturing ambitions of different sections of the community. The outputs from the Community Consultations were incredibly strong and have been used by the design team in shaping the developing masterplan. In order to help the design process, the ideas and aspirations were collated under eleven topic areas which are:

- (i) Transport.
- (ii) Street infrastructure / landscaping.
- (iii) Community amenities.
- (iv) Entertainment.
- (v) Sports activities.
- (vi) Safety.



Figure 1.18



Figure 1.19

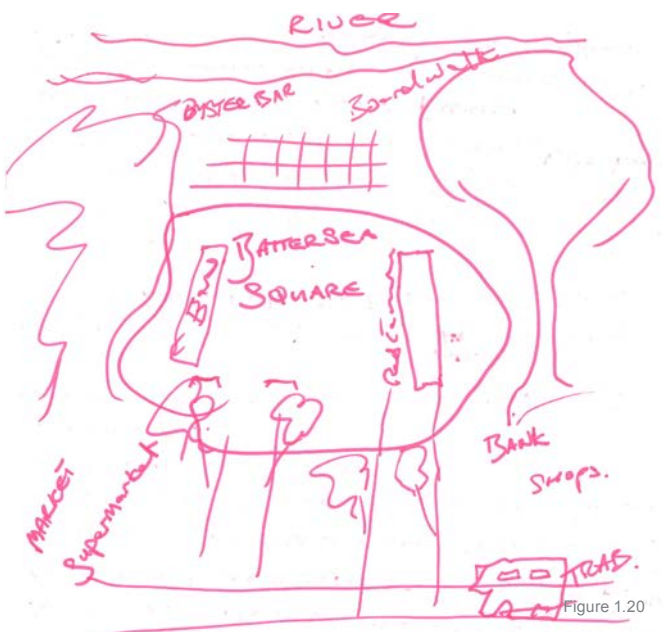


Figure 1.20

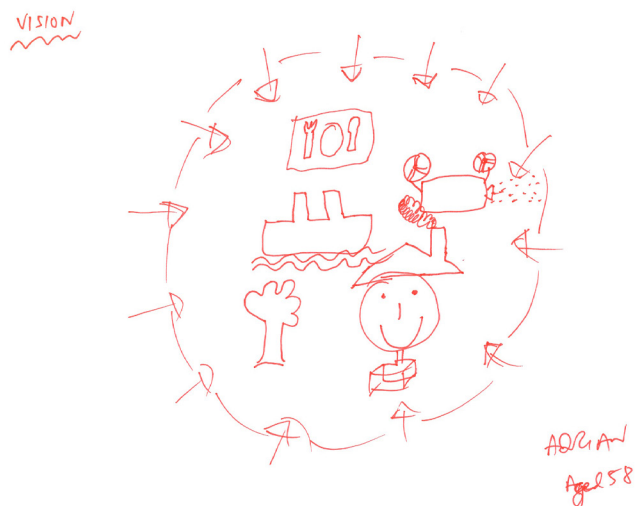


Figure 1.21

- (vii) Wifi / Access to knowledge.
- (viii) Jobs / Training / Support.
- (ix) Housing
- (x) Media related
- (xi) Landmark / focal spot

After feedback analysis it appears the majority of comments received were related to the communities' aspirations around improved community infrastructure. Given the state of community amenities and social infrastructure within Purfleet at present this result is not surprising. These results also echo PCRL's view from the outset and one of its key driving principles that this is not a development scheme just about delivering housing, it is about placemaking and delivering a new vibrant Purfleet centre with shops, community facilities, housing and employment opportunities.



Figure 1.22



Figure 1.23



Figure 1.24

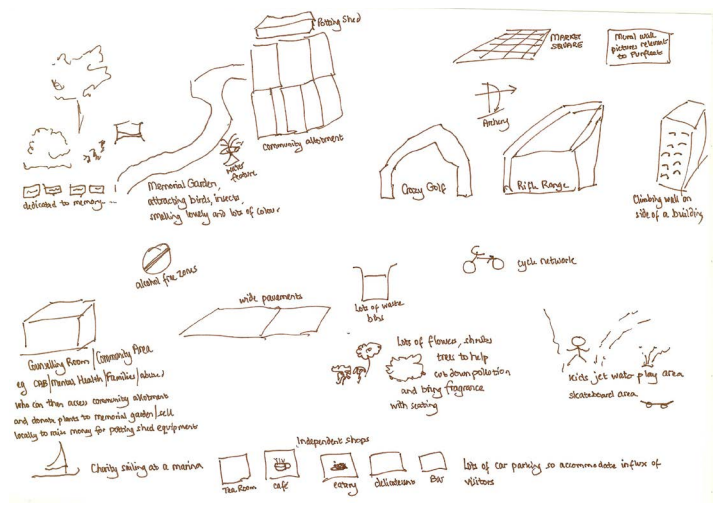


Figure 1.25

## 1.3 Design Ambitions

### 1.3.3.2 Thurrock Council

Two workshops, the first on 11th May 2016 and the second on 22nd September 2016, between PCRL, the design team and Thurrock Council officers explored 5 main topics of discussion:

A - Environment.

B - Housing.

C - Community & health.

D - Highways & parking.

E - Economic development.

During these exchanges, Thurrock Council officers highlighted their priorities for the regeneration of Purfleet and Thurrock in general, while PCRL and the design team presented various options and some strategies on the topics mentioned above.

#### A - Environment

##### Active Leisure

Thurrock Council referred to their Thurrock Active Play Strategy which has recently been completed. Reference was made to a preference for creating 'playful' spaces i.e. to accommodate active play, rather than 'play spaces' with play equipment that is quite age-limited and susceptible to vandalism.

PCRL raised question of whether play/leisure space could be concentrated and supplied as fewer, but more significant spaces.

##### Ecology

It was pointed out that Cory's Wharf has been identified as being of ecological interest. It was noted that PCRL surveys are being updated.

##### Green Infrastructure Management

Question was raised of cost of long term management of green areas and of how green infrastructure would be managed and maintained over time?

##### Water

Thurrock Council confirmed that they would be open to a SUDS drainage approach, however that it would raise question of commuted sum for ongoing maintenance.

##### Waste

PCRL set out their intention to explore various system of waste recycling management, the Envac waste collection system being one envisaged solution across site. It was agreed that when the viability of each approach has been fully explored, it would be appropriate to meet with Thurrock Council team to consider operational and pricing issues.

#### B - Housing

##### PRS requirement

The dearth of good quality PRS offering was raised by Thurrock Council staff who indicated that they would actively support a high quality private rental provision. They recognise the need, particularly given the connectivity of the Purfleet site to the City, for serving a market of younger commuters. Thurrock Council's own PRS vehicle 'Gloriana' is to begin developing its own sites however initial volumes will be limited.

##### Strategic Planning

Thurrock Council officers referred to fact that a new plan for the area is in preparation. Various consultations are underway that will feed into the plan which will also be relevant to the Purfleet development.

##### Housing need/demand

The Housing team referred to an increasing need for traditional council housing offer and rise in homelessness within the wider area; due to rising unaffordability and other factors. The 'London Effect', which is increasingly influencing prices across the area, was referred to (as a negative as well as positive).

They recognised that Purfleet centre will have a specific role within the area, and that the scheme will not necessarily have to respond to wide ranging housing need, regeneration being the central objective.

The need to consider demand segments was highlighted with specific reference to: young commuters; older people looking for urban lifestyle; extra-care accommodation; creative industry participants – and financing issues connected with self-employed status.

##### Exemplar aspiration for the scheme

The housing team referred to desire for the scheme to come forward rapidly as an exemplar within the council to influence future schemes his team are identifying through the plan review process.

##### Accessibility of the waterfront

The housing team raised concern at routing of road behind eastern section of waterfront. They requested meeting for a discussion of street hierarchies and street activation.

## C - Community and Health

Discussions about the health and well-being ambitions behind the scheme, took place during this session with Thurrock Council officers.

### Integrated medical centre

PCRL recognise the need for a new integrated medical centre within Purfleet and the value that its inclusion within the town centre will deliver to the scheme. Thurrock Council officers informed the PCRL team that they were liaising with the CCG to develop the health care provision and to provide further definition of operational requirements.

### Air quality and planting

The air quality of the area was raised as contributing to poor health outcomes, and the question raised of whether the planting strategy across the site could be informed by desire to absorb pollution.

The design team suggested that large park areas could include biomass species that are particularly effective in absorbing pollution and particles.

### Pedestrianisation/Walkability

A discussion took place about the relative merits of a pro-pedestrianisation street design approach with regard to encouraging walkability and healthy lifestyles.

PCRL team highlighted that encouraging walkability of street network and instating locally accessible neighbourhood servicing have been fundamental design principles of the masterplan

The general point was made that, in the interests of pedestrian safety and functionality, it was the teams' preference to design streets that observe a traditional model with clearly defined pavement area (for pedestrians) and carriageway (to contain movement and parking); other than in specific locations where shared surface approach might be specifically appropriate.

### Green infrastructure / health proposition

PCRL team highlighted the ambition to create active green spaces that would fully engage local residents:

#### - Hollow Woods

The potential for Hollow Woods to be opened up to public use and to support community connections e.g. via gardening, garden centre, woodland management was raised by PCRL and met with approval.

#### - The Green Way

The linear green park was raised as a key element of a health and well-being strategy supporting environmental/ecological objectives as well as active leisure.



Figure 1.26

## 1.3 Design Ambitions

### D - Highways & Parking

#### Key design principles

PCRL team set out key strategic aims and challenges in designing streets and movement across site (some of which exert oppositional pressures):

- Central principle is that we are designing within an urban, not suburban context given town centre nature of scheme.
- The inclusion of an adequate (though not over-generous) parking (on street and underground) provision will be critical to the overall success and functionality of the area.
- If we are successful in creating a town centre and creative industries destination, the current movement pattern of outward movement from Purfleet (daily servicing, jobs, leisure) may be thrown into reverse.
- A key objective should be safe, walkable streets that accommodate multiple predictable movements.
- A further critical aim will be to encourage modal shift towards walking, cycling public transport / self-containment of area through local servicing.

#### Future strategic movement

The future strategic movement servicing of the site was discussed, mainly c2c train operation. The potential that Purfleet Station may at some point be included within TfL Zone 6 was discussed.

#### Bus

Thurrock Council encouraged early discussion with local bus operators to establish dialogue, as bus routes and service are not within their gift. A local low emission hopper service could be a consideration.

#### Lakeside development

It was highlighted that the new development underway at Lakeside (leisure and entertainment) is likely to generate demand for a bus service from Purfleet. It was discussed that once Purfleet Town Centre, waterfront, creative industries is established that movement into Purfleet by bus from surrounding area may become also an issue.

#### Walkability

It was discussed that walkability is not just about street surface treatment, but is also supported by the disposition of mixed uses to support daily needs.

#### Signalised junctions vs heavy engineering

Two principle approaches to street safety and movement management were discussed, namely engineered treatment of the street on one hand; and speed control and signalised junctions on the other. Both approaches were acknowledged by Thurrock Council as being acceptable.

#### Speed management

A 20 mph speed limit in vicinity of both schools was discussed. It was suggested that this would likely be popular with members and community. Applying this speed limit all throughout the development was also discussed.

#### Weight limit on London Road

It was suggested that area could become a 'rat run' for HGV's in event of gridlock on strategic road system. Thurrock Council suggested that this could be controlled by means of camera enforcement at key pinch points, with system of fines.

#### Parking enforcement

Thurrock Council acknowledged likelihood of need for parking control certainly within scheme if not across wider area. It was suggested that PCRL could propose a controlled parking zone.

It was discussed that implications for the wider area could intensify if Purfleet Station were to be included in TfL Zone 6.

#### Delivery of road infrastructure and adoption

The adoption of roads throughout the scheme was discussed as an opportunity to be considered early on during detail design.

#### Cycle approach

A discussion took place around the differing needs of different categories of cyclist, e.g.: speed/commuter; leisure cyclist; children. That these differing needs should be recognised in the street design. The general principle of speed reduction to underpin safety was acknowledged.

#### Key highways design elements

Key elements highlighted as posing clear highways design issues;

- London Road/Botany Way Junction.
- Design of London Road.
- Design of Botany Way.
- Waterfront accessibility.

It was agreed that further discussion on the basis of more detailed design development should take place.

## E - Economic Development

### Creative industries strategy and joint promotion

The economic development team indicated that they are working closely with the LEP to develop a creative industries strategy for the wider region. The scheme clearly could form a centrepiece of this. The South East Creative Economy Network was raised / Thames Estuary as a production corridor.

The opportunity of attracting out-movers from Soho, Old Street etc. both on basis of competitive rental levels and area offer was discussed.

### Creative Retail

It was discussed that the retail proposition embedded within the masterplan is for a high quality differentiated retail offer (i.e. not in competition with either Lakeside or established local centres); and that this could provide an opportunity for creative retail start-ups alongside high quality multiple operators not currently present in the area. Thurrock Council indicated that a retail academy has been run from Lakeside; and that South Essex College could pick up on the entrepreneurial/start-up agenda.

### Nursery School

The potential to co-locate the nursery school beside the station within the community facility was raised by Thurrock Council.

### Young People

The ability for the masterplan to facilitate the provision of services for the support and development of young people to better enable the transition into work was discussed, especially in relation to new local employment opportunities.

### Linkages

How to link Purfleet Town Centre with the other side of the river was raised, in particular with opportunity of Paramount Park.

It was highlighted that major investors into the area are Amazon (1700 jobs) and UPS (500 jobs). Question was raised whether these corporations might be supportive of public transport links (whether bus, clipper service) to support local jobs market.

## 1.3.4 Summary

The extensive consultation process informed and reinforced the design team's understanding of Thurrock's vision for Purfleet. It also allowed the local community to have meaningful input into proposals that will significantly affect their day to day lives. The core ambitions of PCRL are to:

- Create a sustainable new town centre serving new and existing communities.
- Build high quality new homes to support an increasing local population.
- Create a building or series of buildings that could host businesses complimentary to the existing creative industries established at High House Production Park and create significant new employment and a cultural industries hub.
- Remove barriers to the 1km of waterfront and allow public access to the south facing bank of the River Thames.
- Improve local permeability and mobility. These were tested against an in-depth analysis and understanding of the site, as explained in the following chapters.

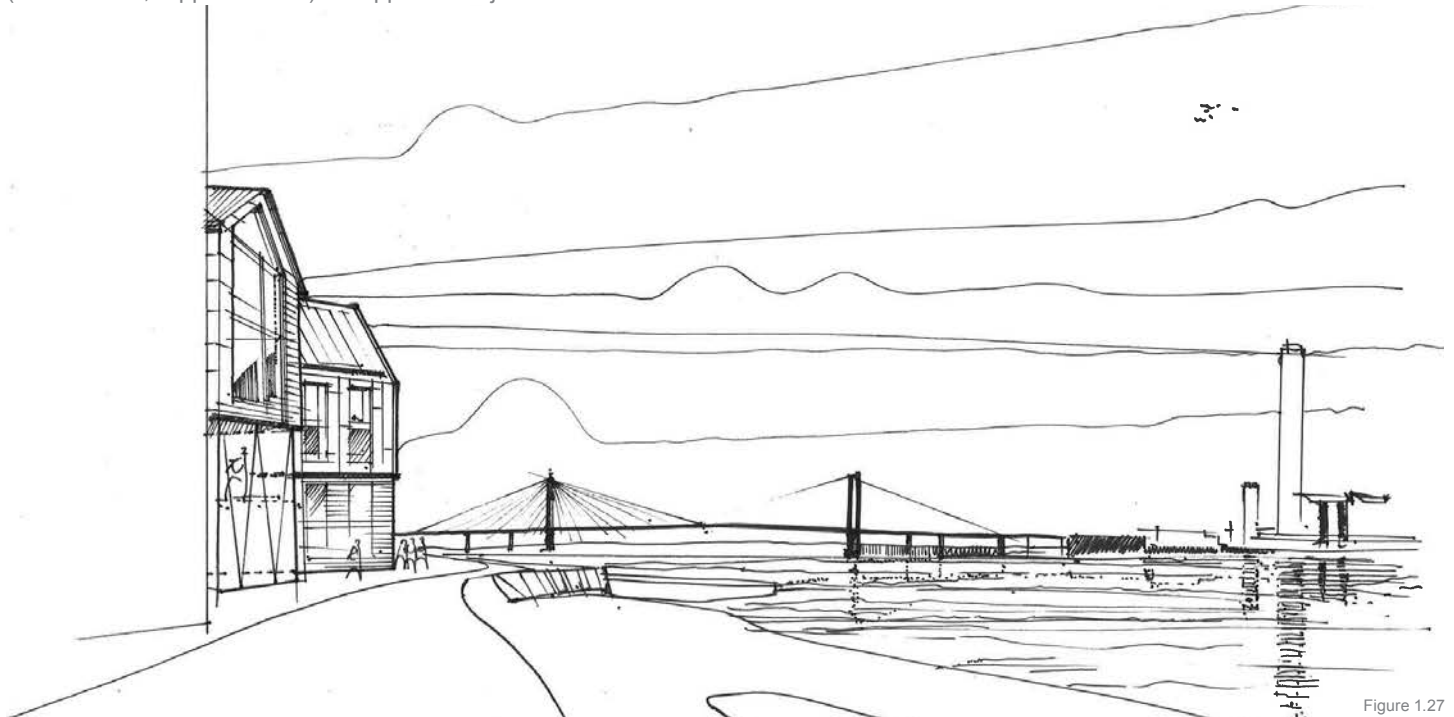


Figure 1.27





Figure 1.28



# Context & Site Analysis



## 2.1 Location

View of the River Thames



Figure 2.1

## 2.1.1 London & Essex Area

Purfleet is located in the south western portion of Thurrock Council on the North bank of the River Thames. Thurrock is bordered to the west by the London Borough of Havering (part of the Greater London Authority administration area) and to the north and east by the County of Essex.

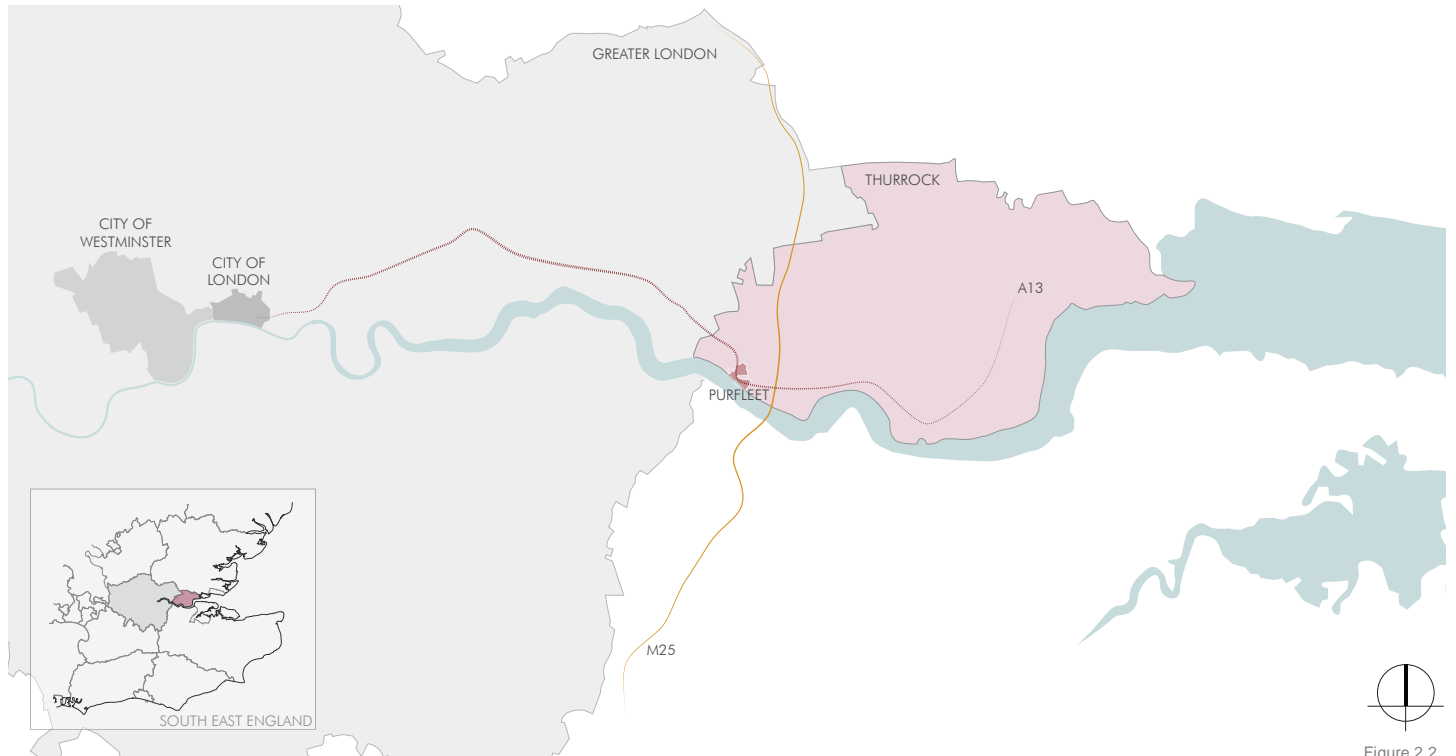


Figure 2.2

## 2.1.2 Thurrock and Purfleet Area

Purfleet benefits from transport links; London Fenchurch Street is 30 minutes on the c2c rail line, whilst the M25 is approximately a 12 minute drive away. The adjacent RSPB nature reserve, The Rainham Marshes, is an invaluable piece of natural respite along the industrial northern edge of the Thames Estuary. The estuary itself is one of the largest in Great Britain and is a major shipping route for oil tankers, container ships and bulk freight.

Purfleet is Thurrock's westernmost conurbation. Bounded to the west by Rainham Marshes, to the north by the village of Aveley, to the east by the M25 and to the south by the River Thames.

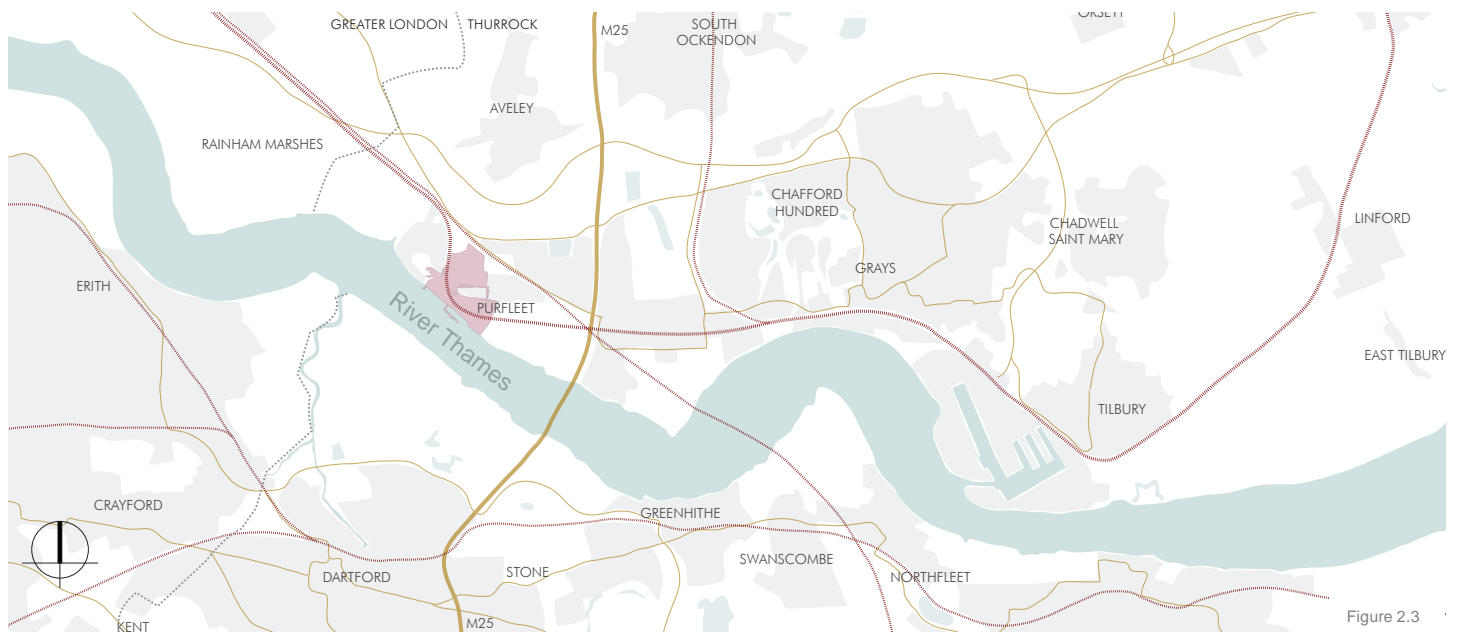


Figure 2.3

## 2.1 Location

### 2.1.3 Site Boundary

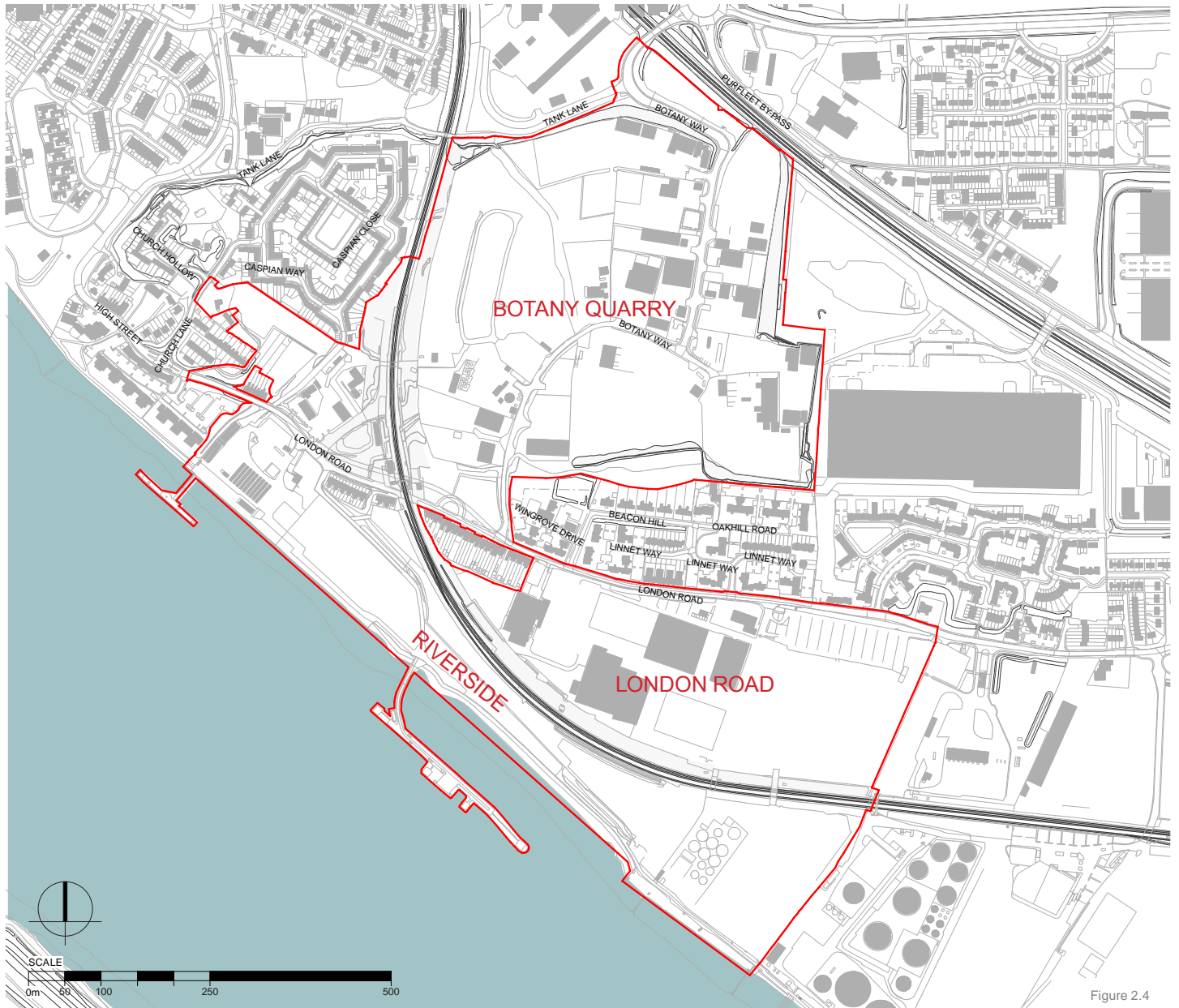


Figure 2.4

The Purfleet Centre Regeneration site comprises the following characteristics:

- Development area of 62.85 hectares.
- Development site divided into three main zones: Botany Quarry, London road, Riverside.
- Bound to the south and south-west by the River Thames.
- Northern parts of the site are bordered by the Purfleet bypass (A1090), the arterial road (A1306), the High Speed 1 Rail Link, and Tank Lane
- Western parts of the site are bordered by residential neighbourhoods (Caspian Way estate, Harrison's Wharf, Church Hollow, Garrison estate).
- Eastern parts of the site are bordered by residential neighbourhoods (the London Road estates), the chalk cliffs of Botany Quarry, the Carpentright storage and distribution centre, and the Esso Petroleum storage facility.

#### KEY

— Site Boundary

## 2.1.4 Aerial Photograph



### KEY

— Site Boundary

### Purfleet Area Datas:

- OS grid reference TQ555775.
- Purfleet Train Station coordinates: 51.4811° N, 0.2368° E.
- Unitary Authority Thurrock.
- Ceremonial County Essex.
- Region East.
- Country England.
- Sovereign State United Kingdom.
- Post Town PURFLEET.
- Postcode District RM19.
- Dialing Code 01708.

## 2.2 Site Photographs

The development site has varied architectural, landscape and topographical characters. The following pictures capture the key aspects of the site.

### 2.2.1 Botany Quarry Views

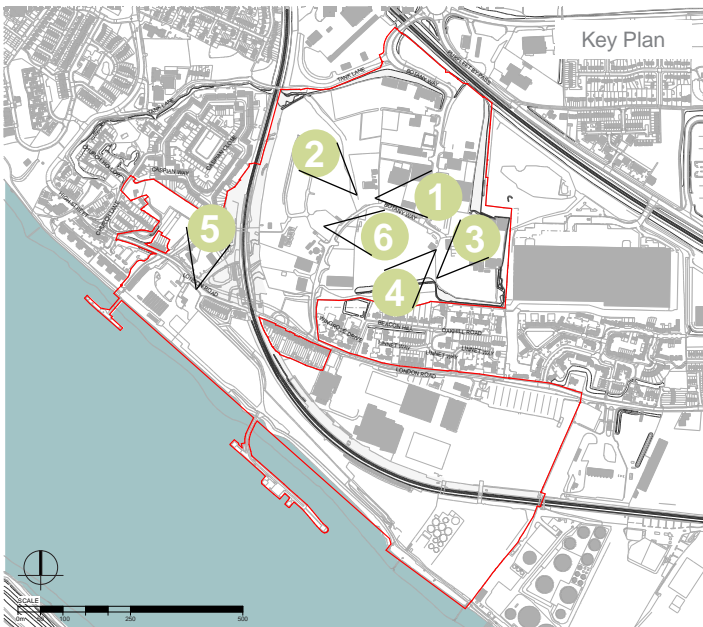


Figure 2.6

Figure 2.7

### 2.2.2 Riverside Views

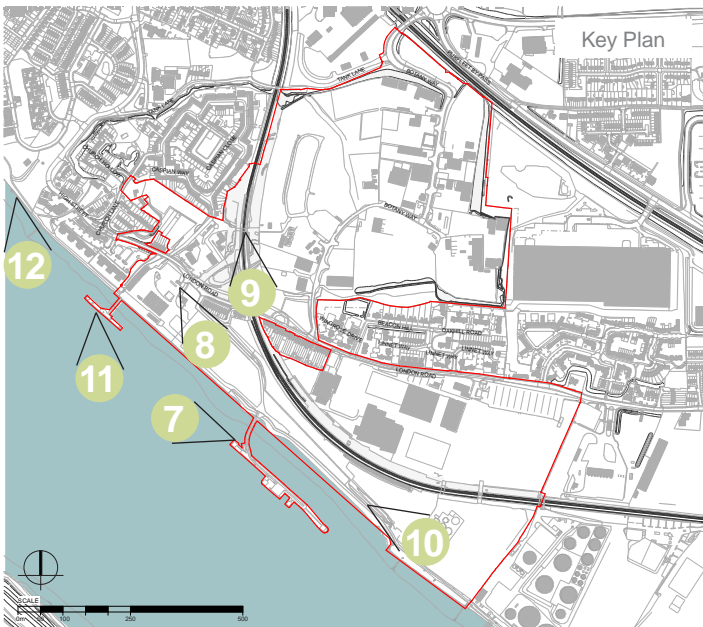
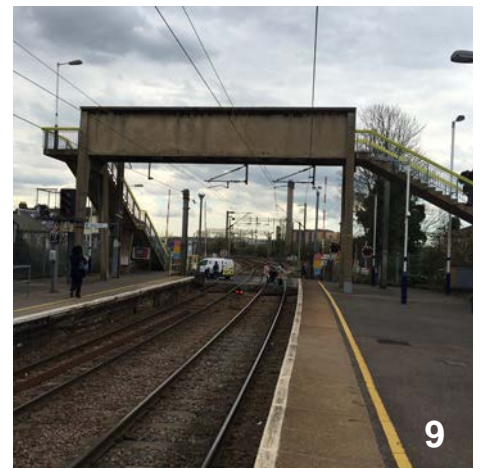


Figure 2.9

Figure 2.8

## 2.2 Site Photographs

### 2.2.3 Surrounding Views



Figure 2.10

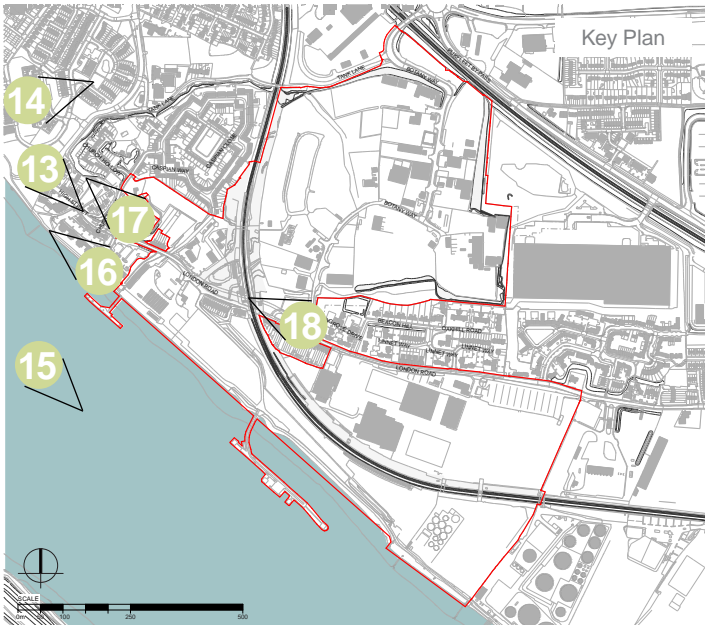


Figure 2.11

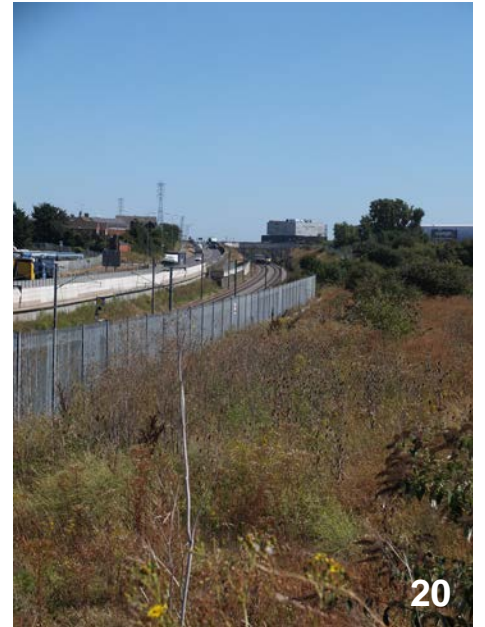


Figure 2.12

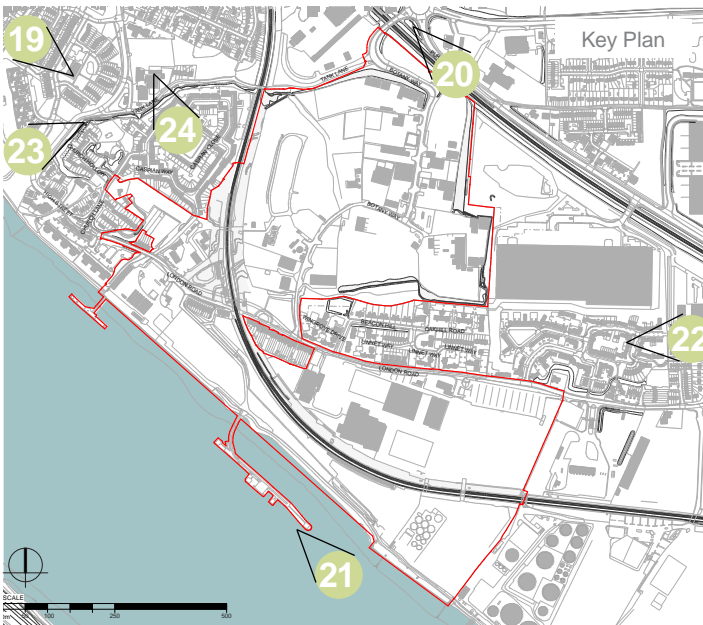


Figure 2.13

## 2.3 Site Analysis

### 2.3.1 Site Constraints

The following paragraphs explore the various constraints that shaped the design process.

#### 2.3.1.1 Existing Key Constraints Plan



Figure 2.14

#### KEY

|  |                               |
|--|-------------------------------|
|  | HSE Consultation Zone         |
|  | Network Rail Operational Land |
|  | Purfleet Chalk Pit SSSI       |
|  | TPO areas                     |
|  | Conservation Area             |
|  | Listed Building               |
|  | Non designated Heritage Asset |
|  | Spoil Heap                    |

#### KEYS









1. HSE Consultation Zones. The presence of the Esso plant to the south east projects development limitations within the site boundary.
2. Network Rail Operational Land.
3. Purfleet Chalk Pits SSSI.
4. TPO's. Areas indicated have a number of Tree Protection Orders.
5. Conservation Area. The western portion of the site is within the boundary of the conservation area.
6. Listed Buildings.
7. Spoil heaps. As a result of the industrial works within the quarry there is a large amount of spoil here to be removed.

### 2.3.1.2 Existing Physical Geography

The existing topography of the site is primarily the result of historic chalk extraction into the landscape. Purfleet gently slopes from a high point broadly demarcated by the Purfleet Bypass down to the river. Between this road and the river the chalk extraction workings have created exposed cliffs, ridges and hollows generating a multi-level landscape.



#### KEY

|  |                      |
|--|----------------------|
|  | +0m to +2.5m AOD     |
|  | +2.5m to +5.0m AOD   |
|  | +5m to +7.5m AOD     |
|  | +7.5m to +10.0m AOD  |
|  | +10m to +12.5m AOD   |
|  | +12.5m to +15.0m AOD |
|  | +15.0m to +17.5m AOD |
|  | +17.5m to +20.0m AOD |

The multi-level landscape provides opportunities for areas of markedly different aesthetic and ecological character but also creates barriers to accessibility and interconnection of the existing areas of Purfleet across the site.

The level differences and mounds of surplus material within the site also allow opportunities for localised re-profiling to enhance and augment landscape and built areas.

## 2.3 Site Analysis

### 2.3.1.3 Railway & London Road

The main railway through the site and the route of London Road define and inform the physical layout of Purfleet and the existing and potential interconnectivity of the area. The rail line is variously a cutting or level with the surrounding ground scape. The road follows the original ground level east west through the site with adjacent land at equal or lower levels depending on historic use. The rail line has two active pedestrian bridges (Tank Lane footpath, station pedestrian walkway). Beside the presence of a level crossing on the far eastern part of the site, the only active crossing is the level crossing at the junction with London Road. This is the most significant constraint to permeability of access across Purfleet. The only true east west connection is severed by the railway and congestion here is a significant local concern. Network Rail have a strategic policy to remove level crossings where possible. The removal of this level crossing and its potential replacement represents the major strategic opportunity in the redevelopment of Purfleet.

#### KEY

- ||||| Railway
- London Road

### 2.3.1.4 Purfleet Terminal Planning Consultation Zones

To the immediate east of the site Esso have a major petroleum storage facility. All development in the vicinity of this facility is subject to assessment by the Health & Safety Executive (HSE) using PADHI (Planning Advice for Developments near Hazardous Installations) methodology. Development type and quantum is restricted within set zones according to proximity to the facility.

#### KEY

- ▨ HSE Consultation Zones
- Site boundary

### 2.3.1.5 Purfleet Chalk Pits SSSI

The north east corner of the quarry is subject to a SSSI citation from Natural England. The aspect of the site noted of interest is the geological stratification.

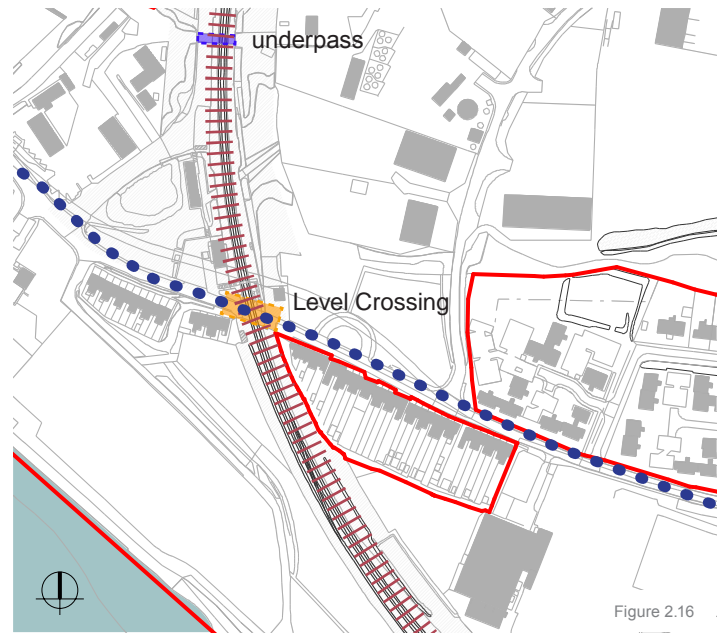


Figure 2.16

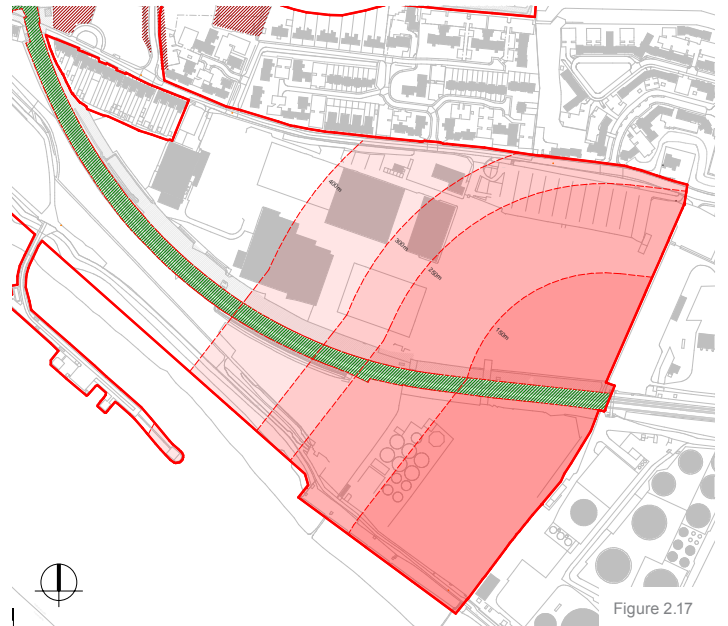


Figure 2.17



Figure 2.18

### 2.3.1.6 Tree Preservation Orders

Within the site, there are five areas protected by tree preservation orders. The TPO's that cover these areas include individual, group, area and woodland designations. They differ in terms of the sizes/ages/numbers of trees which are afforded protection. It appears that some of the historic TPO's overlap in terms of their respective spatial coverage and not all of the trees listed within the original order are still present on the site, especially in the south-western corner of Botany Quarry.

#### Hollow Wood.

TPO 8/92 (W2)

This blanket TPO is included within the Purfleet Conservation Area designation. However there is little mention of the wood, associated trees or their contribution to the setting of the conservation area within the Purfleet Conservation Area Character Appraisal (March 2007).

Trees here are immature and appear to have only become established in the last 20-30 years through natural regeneration. Historic use of this area was ancillary to the industrial uses or as allotments with historic mapping from 1987 suggest no significant tree cover in this area. The immaturity of the trees and species range is consistent with ad-hoc growth over an unmanaged area as prior uses have declined.

#### Network Rail 'mound'.

TPO 1/99 (W1)

This blanket TPO is similar to Hollow Woods in covering an area of natural regeneration. Prior use of the land was as embankment to a rail crossing related to the historic quarry and military uses.

Tree species range is again consistent with informal development although trees in this area have greater maturity.

#### Botany Quarry South West.

TPO 05/2000 (W1), TPO 11/91 (T1-T7 & G1)

This area incorporates two TPO's one with a woodland designation the other covering a group designation and some specific trees. Some of the trees and the grouping noted in these TPO's have been removed or no longer exist. The majority of the area covered runs along the railway edge and is another area of natural regeneration.

#### Botany Quarry Road.

TPO 11/91 (A1), TPO 11/91 (A2)

An area of trees that act as a natural buffer between the roadway entry to Botany Quarry from London Road and the housing on Wingrove Drive.

#### Botany Quarry South.

TPO 11/91 (W1)

A small wooded copse of trees to the north of Wingrove Drive on the edge of the southern quarry cliffs.

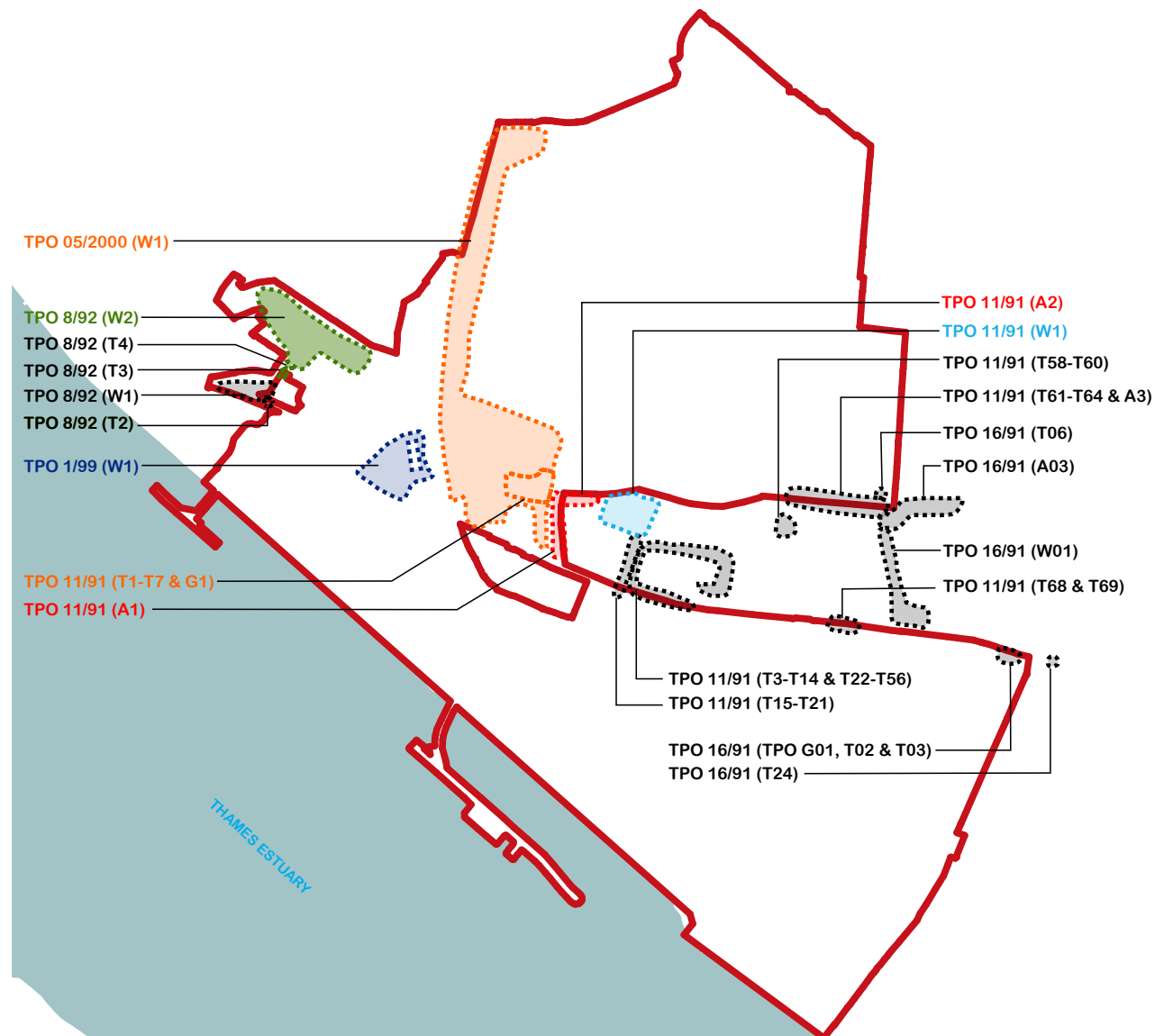


Figure 2.19

## 2.3 Site Analysis

### 2.3.1.7 Network Rail

Beyond the track and station infrastructure Network Rail control two types of land in the development site; one operational land (including station railway track corridor, station car parking and track access area) and one non-operational land alongside the railway corridor (now densely vegetated.)

#### KEY

-  Network Rail Operational Land
-  Network Rail Ownership Land (Non Operational)
-  Site Boundary

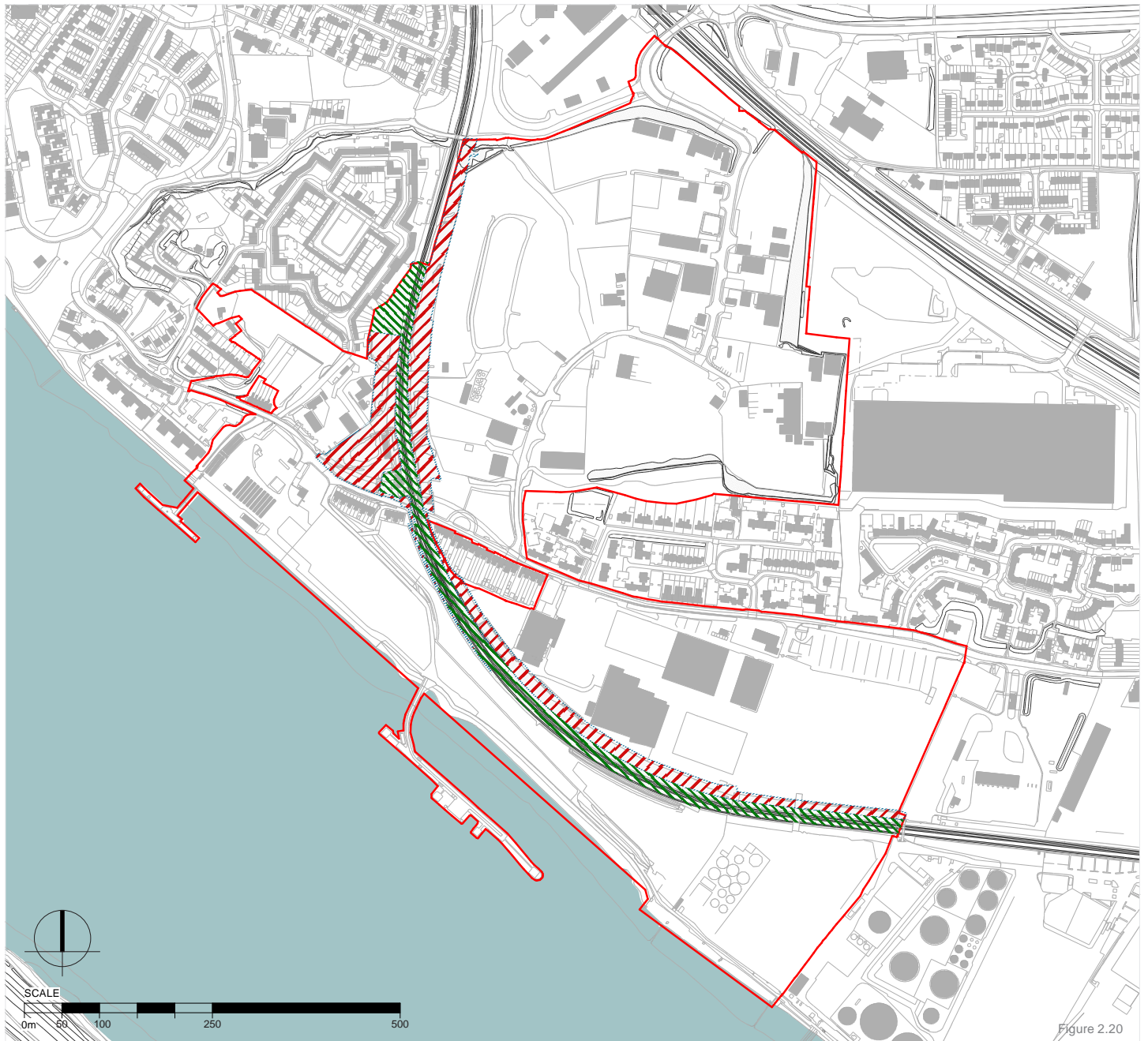


Figure 2.20

### 2.3.1.8 Existing Residential Areas and Connectivity

Purfleet's existing population is broadly concentrated in 3 areas surrounding the site:

1. To the west spanning from the Mar Dyke to the railway.
2. To the north separated from the rest of Purfleet by the high speed rail link between the Purfleet bypass (A1090) and the arterial road (A1306).
3. To the east, bounded by London Road, the Botany Quarry and the Carpetright facility.

The community is dispersed over a wide area with little or no defined centre other than the railway station. Inter connectivity between these areas is poor with the majority of journeys needing to be undertaken via private vehicle along the A1090, London Road or Tank Hill Road. A solitary pedestrian route exists to the north of the quarry, Tank Lane, but has no clear destination.

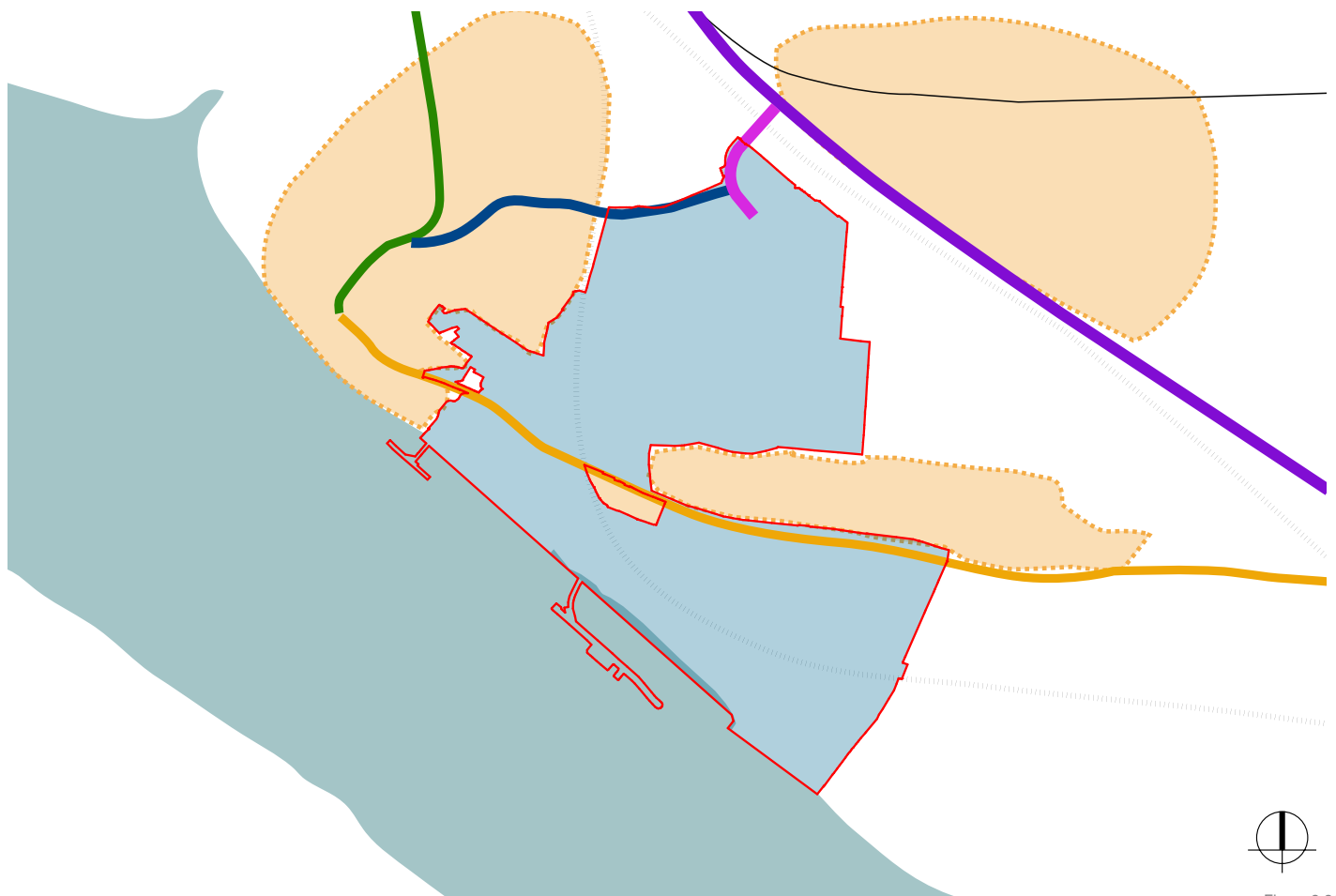
### Identifying Key Uses

Purfleet and the existing site is dominated by the light industrial uses at its core. Large areas are open storage and parking as ancillary functions to business operations out of predominantly single storey warehouse facilities.









Many of these employment uses are of an activity type that are poor neighbours for residential or mixed use development. These include waste reprocessing, haulage and distribution, general storage bottled gas distribution and chemical storage and distribution. One of the two river structures within the site remains an active jetty for waterborne operations.

The other is structurally sound but no longer in active use.

### Key Land Uses & Connectivity



#### KEY

|  |                |   |                   |
|--|----------------|---|-------------------|
|  | Tank Hill Road |  | Residential areas |
|  | Tank Lane      |  | Industrial areas  |
|  | London Road    |  | Site Boundary     |
|  | A1090          |   |                   |
|  | Botany Way     |   |                   |

Major site constraints include a multi-level topography, tidal flooding risk, TPO areas, Chalk pits SSSI, HSE consultation zones, NR land ownership, London Road level crossing, Purfleet conservation area and dispersion of surrounding residential areas.

## 2.3 Site Analysis

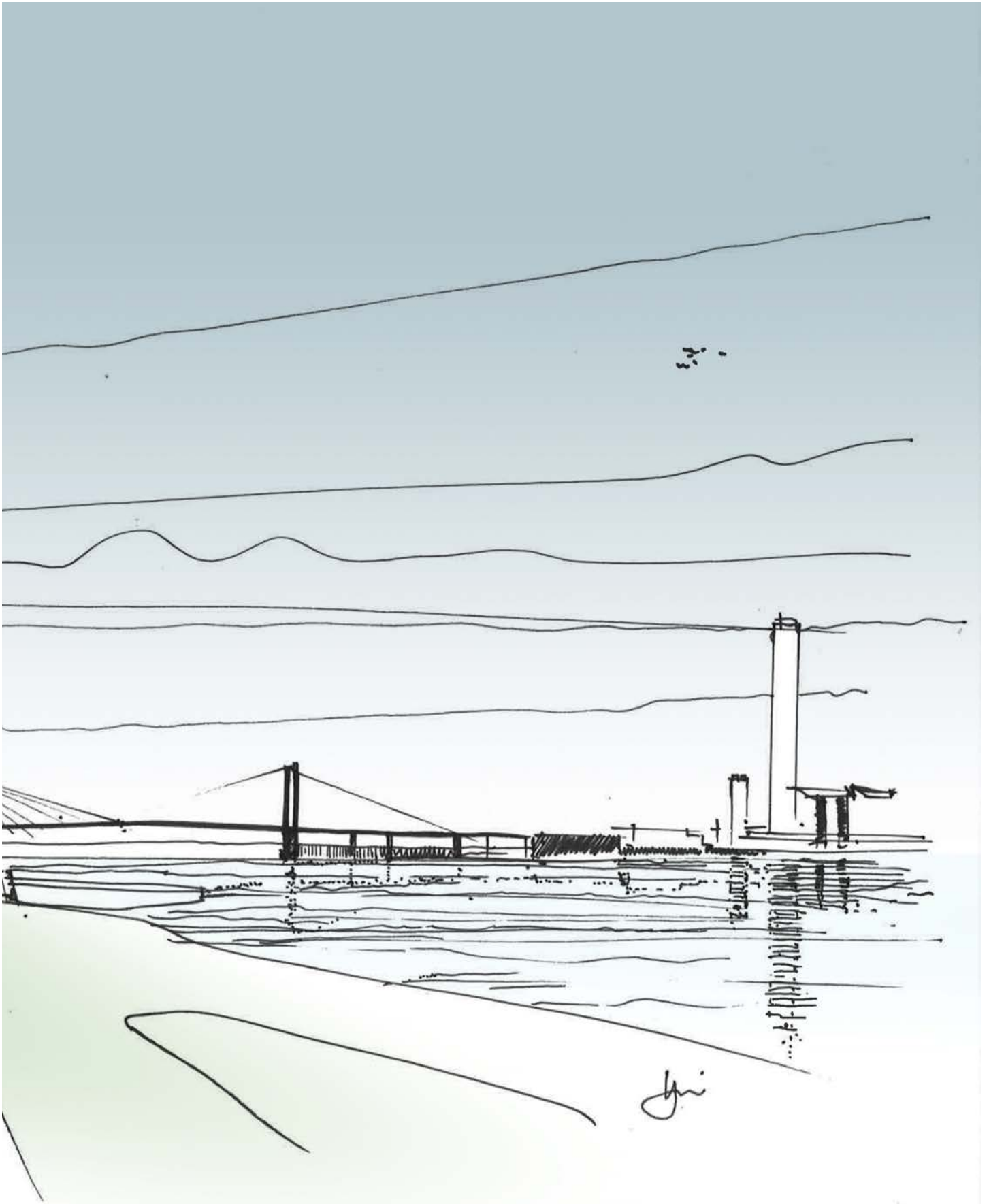


Figure 2.22

## 2.3.2 Site Opportunities

The following paragraphs explore the various site related opportunities that influenced the design process.

### 2.3.2.1 The River Thames

The greatest natural asset in Purfleet is the River Thames along a distance of 1 km, but access to it is limited both in terms of views and as an amenity. The largest expanse of river potentially accessible to the public lies within the site at Cory's Wharf. Currently access to view the river is limited due to the position and size of the flood defences. Existing pedestrian access and amenity (part of the River Thames path) terminates at the boundary of the site outside Harrison's Wharf. A large grassed area along the Thames is part of the conservation area setting between The Royal public house and the remaining Purfleet powder store building.

#### KEY

- Cory's Wharf
- ■ ■ Publicly Accessible Section of River
- ■ ■ Publicly Inaccessible Section of River
- Site Boundary

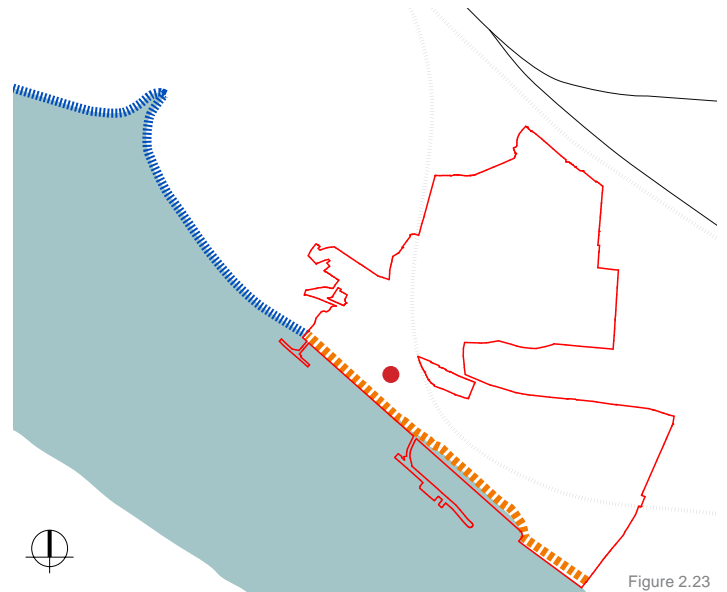


Figure 2.23



Figure 2.24



Figure 2.25

### 2.3.2.2 Rainham Marshes

The River Thames Path from London comes into Purfleet across the Marr Dyke through the RSPB nature reserve at Rainham Marshes. Rainham Marshes is an ex-military firing range that was acquired by the RSPB in 2000 as an important estuary marshland habitat for breeding wading bird species. Although a fantastic part of the areas cultural and environmental assets it is poorly connected to Purfleet and is little used by the local population.

#### KEY

- Rainham Marshes
- RSPB. Purfleet Environment & Education Centre
- Site Boundary

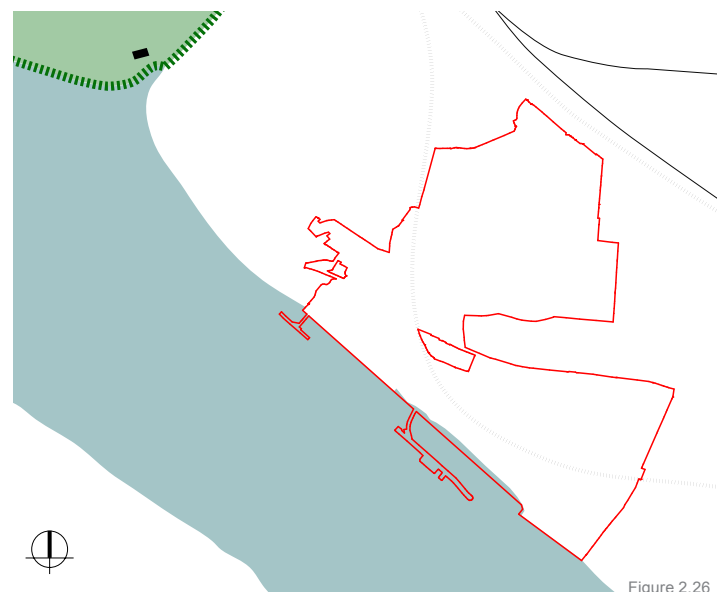


Figure 2.26

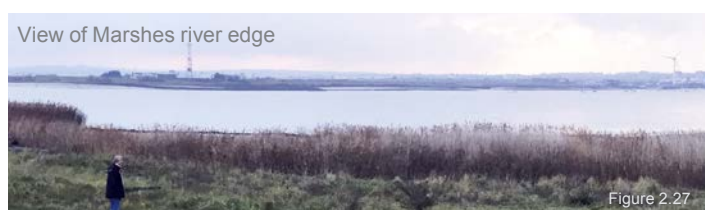


Figure 2.27



Figure 2.28

## 2.3 Site Analysis

### 2.3.2.3 Cultural & Creative Assets

High House Production Park to the east of Purfleet is the result of a long term collaboration between Royal Opera House, Creative & Cultural Skills, Acme Studios, Thurrock Council, Arts Council England, together with the Department of Business Innovation & Skills (BIS) and the Department for Communities and Local Government (DCLG). The first phase was completed in 2010 with the opening of the Royal Opera House's Bob and Tamar Manoukian Set Production workshop followed by the Creative & Cultural Skills' Backstage Centre in 2013. The costume department opened in 2015.

This collection of buildings in the grounds of an existing 17th Century farmhouse is now complemented by an artist studio building and a theatre wardrobe store established to support an international centre of excellence for creative industries in Thurrock that will inspire a new generation.

Although a successful and important part of Purfleet, the High House production park operates in a virtual silo from the rest of the community. Isolated at the eastern end of Purfleet, the only access from the railway station is via London Road. It is difficult to access locally and is geographically separate.

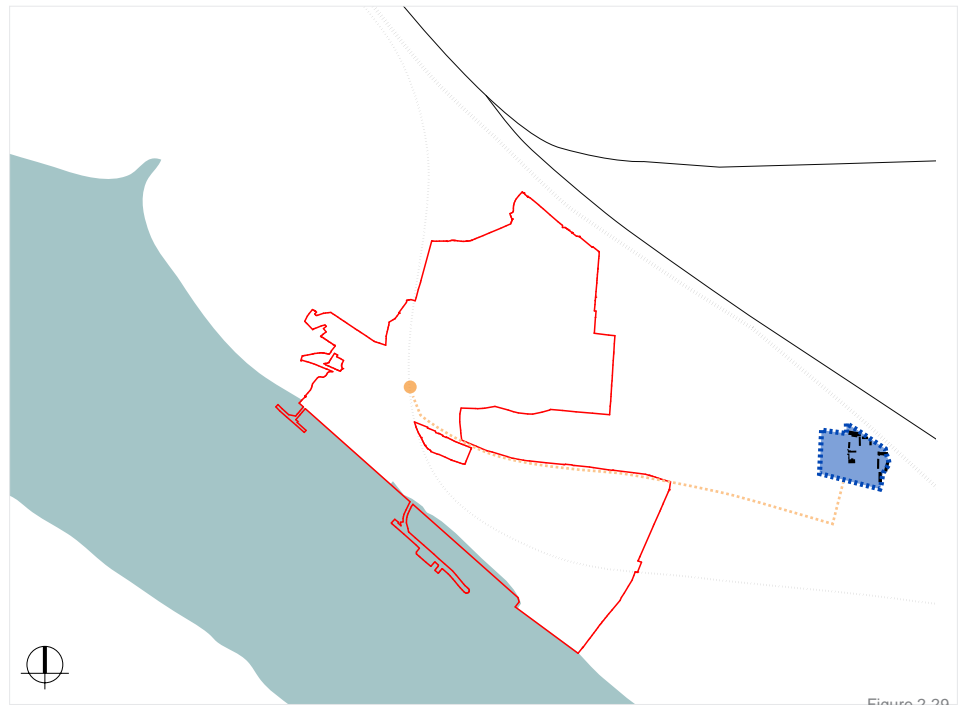


Figure 2.29

#### KEY

- Access from Station
- Railway Station
- High House
- Site Boundary

View of high House Orchard



Figure 2.30

High House Production Park

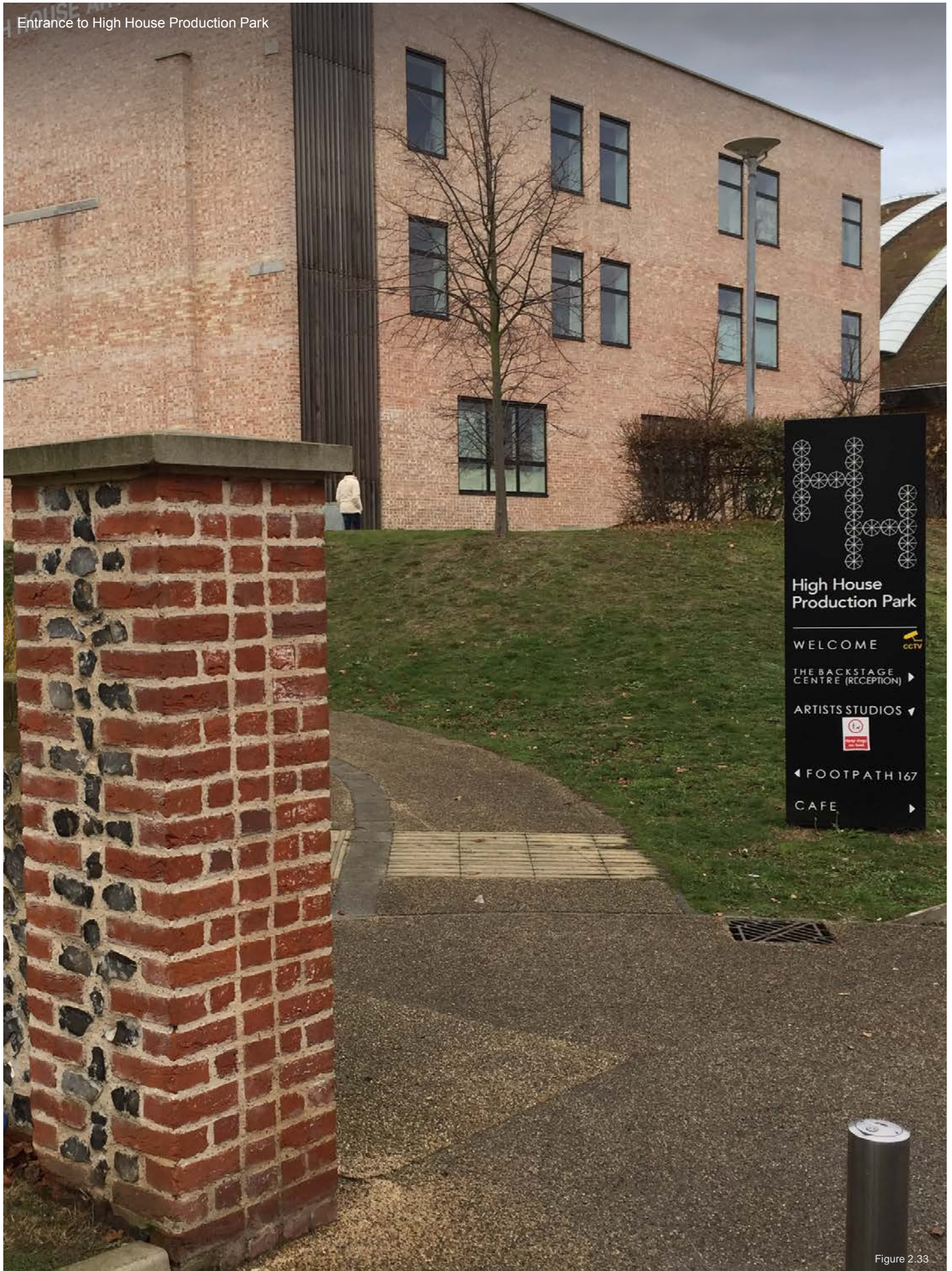


Figure 2.32

View of Backstage centre



Figure 2.31



Entrance to High House Production Park

Figure 2.33

## 2.3 Site Analysis

### 2.3.3 Opportunities for Improving Permeability

Purfleet has limited east/west and north/south permeability for both vehicle and pedestrian movement. The areas listed below within the site or immediately adjacent to it, could improve the lack of permeability in both medium and long term.

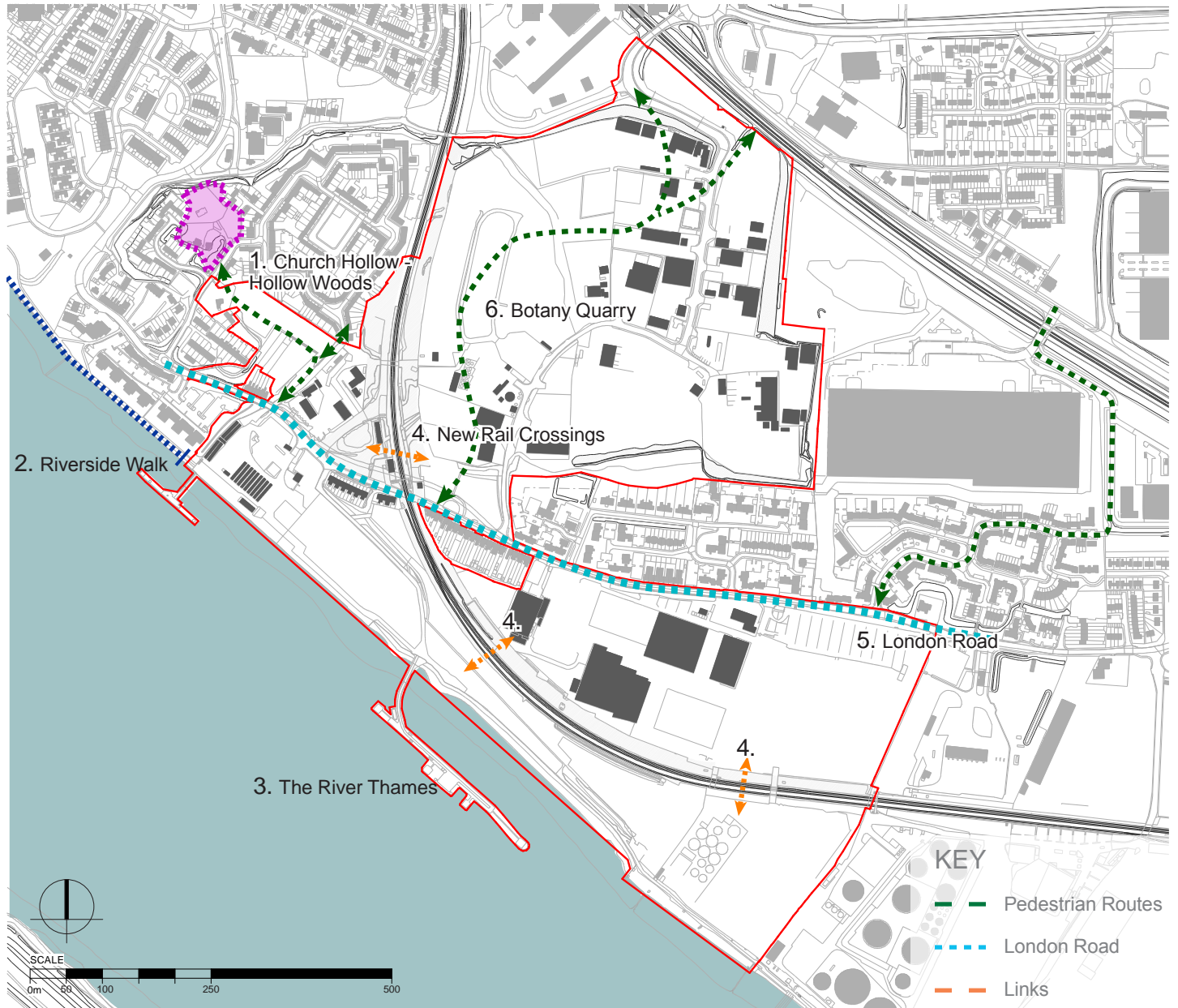


Figure 2.34

1. Church Hollow, part of the Purfleet Conservation Area, is a substantial area to the west of the site between Church Lane/Dippings Estate and Tank Hill Road/Garrison Estate. Unoccupied, it contains three partially ruined listed buildings and the remains of surrounding gardens now substantially overgrown. The potential exists to form a second east west route through Hollow Woods & Purfleet. Located here this route would help link the station and existing centre of Purfleet with the western entry to Tank Lane, Tank Hill Road, The Garrison Estate and further west the RSPB nature reserve at Rainham Marshes.



Figure 2.35

2. The River Thames path terminates at the western boundary of the site against the existing Yara Terminal. The final section behind Harrison's Wharf can only be entered adjacent to the Royal Pub with no access through Harrison's Wharf itself. Opening up this route would not only allow a further kilometre of the River Thames path but also potential for direct access and views to the water from multiple points along the bank.
3. The River Thames is Purfleet's greatest asset but access is either severely restricted or poorly integrated into existing townscape. Historically the waterfront was well used but now only the Yara terminal has an active jetty. Mostly it appears to sit, tantalisingly, just out of reach.



Figure 2.36

Within the site at +3m AOD flood defence wall prevents views and access to the river for over a kilometre. The potential clearly exists to improve connections, both visual and physical, to the river.

4. There are only two publicly accessible crossings over the railway within Purfleet, the pedestrian crossing on Tank Hill Lane and the vehicle/pedestrian level crossing on London Road. This lack of connection not only restricts movement through the site but also creates a bottle neck of significant vehicle traffic through the centre of Purfleet. Further crossings would allow greater permeability but also, in the form of bridges or underpasses, allow the railway to operate with less risk.
5. London Road in its current form has very limited natural observation from adjacent properties and has limited pavement extents through the majority of the site with many areas being single sided. Pedestrian connection to High House Production Park from the railway station is hampered by the number of private vehicles parked on the pavement reducing the passable width. The potential exists to significantly improve the environs of this road with buildings both sides and greater opportunities for pedestrian and cycle movement. Another potential exists to change the nature of Botany Way junction with London road, into an urban street easily accessible to pedestrians and cycles.

6. Botany Way, the road through Botany Quarry forms one of three access points to the arterial road in Purfleet. Currently this is a poorly maintained road with limited pedestrian access and has a significant number of HGV movements throughout the day due to the nature of the surrounding land uses. With re-purposing of the land and improvement to the road route this will be a key connection for Purfleet residents to the north of the arterial road.
7. Two national cycle routes terminate near to or within Purfleet. Sustrans Route 13 terminates at the western end of the site at the Mar Dyke bridge and Sustrans Route 137 begins at Ship Lane to the north east of Purfleet. An existing local cycle way over the arterial road and through High House has been established and connects with London Road at Coniston Avenue. Linking these national routes by improving the network and linkages within Purfleet is a key opportunity.

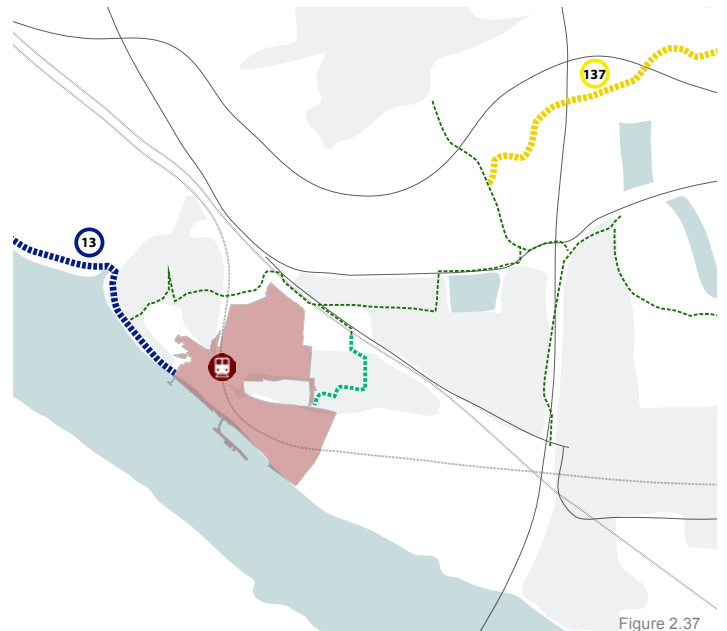






Figure 2.37

#### KEY

-  Cycle Route 137
-  Cycle Route 13
-  Pedestrian Routes
-  Site Area

Major site opportunities include optimising the proximity of great natural assets (the River Thames, Rainham Marshes, Chalk Cliffs), developing the link with HHPP, improving vehicle and pedestrian permeability within and beyond the site, enhancing the amenities infrastructure.

## 2.3 Site Analysis

### 2.3.4 Transport Connections

Purfleet superficially at least appears to be well connected to Thurrock and adjacent areas. From the station it is a 12 minute drive to the M25 (Junction 31) and a 15/20 min Drive to Grays, Thurrock's administrative centre. A commuter train service from Purfleet between Grays & London Fenchurch Street runs at regular intervals throughout the day.

Two bus routes serve Purfleet with Route 11 having a frequency of 1 every one & a half hours and Route 44, a local service, having a frequency of one bus every half hour. Interchange at the nearby Lakeside shopping centre enables connection to wider Thurrock destinations.

All this facility is hampered by the lack of connectivity within Purfleet, the impact of the level crossing and volume of traffic using the M25. On bad days when the Queen Elizabeth 2 crossing is closed or disrupted it has been reported by the local community that many queue on London Road for several hours just to leave Purfleet. The necessity of driving due to the lack of local amenities and limited local walking and cycling infrastructure only exacerbates these problems.

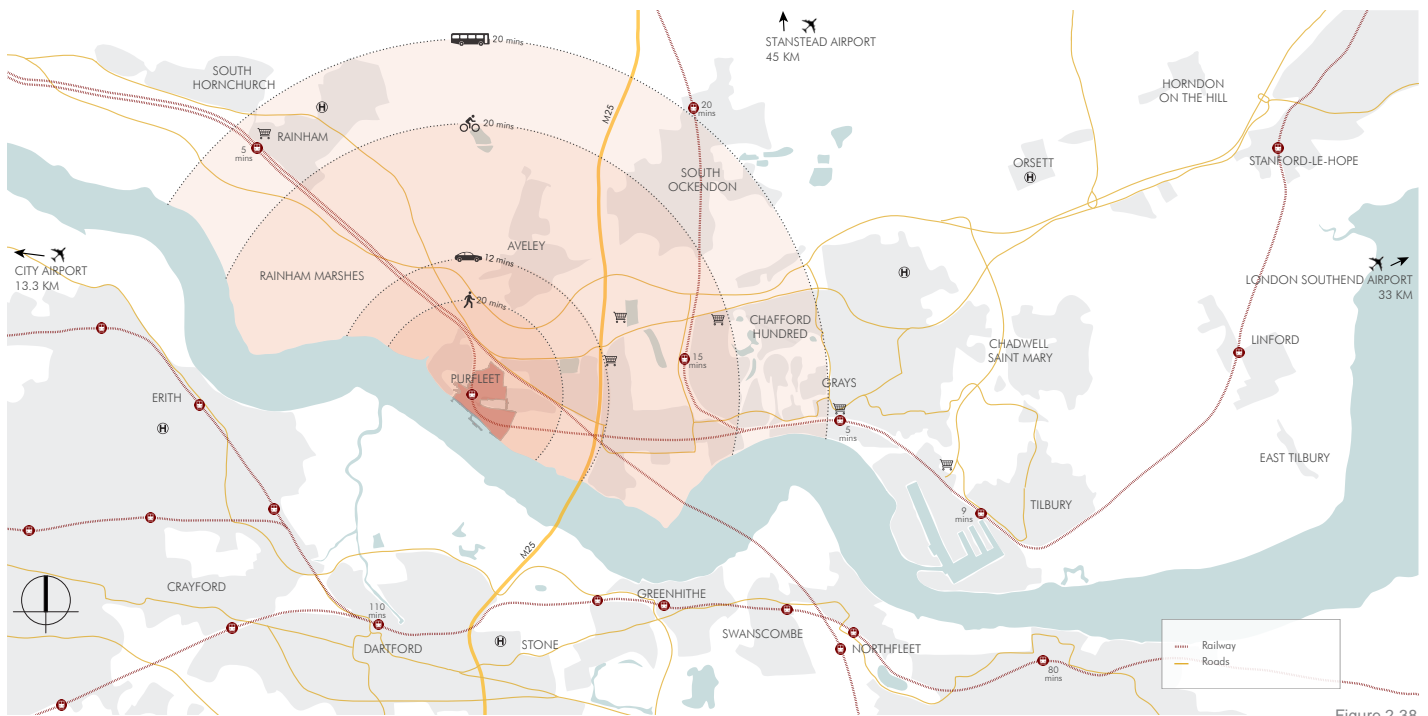


Figure 2.38

#### Existing transport infrastructure in Purfleet

- London Fenchurch Street - 30 minute train.
- Grays - 5 minute train.
- M25 - 12 minute drive.
- A13 - 5 minute drive.
- Airport connections to London City, and Southend-on-Sea.
- Local bus routes with interchange at Lakeside.

#### KEY

-  Railway
-  Roads

### 2.3.5 Amenities infrastructure

Purfleet's local amenity provision is limited to a three form entry primary school, a small row of shops in the western part of Purfleet, a community hall and church, two pubs and a crown green bowling green and hall. Purfleet Care Centre on Tank Hill Road provides GP services and Purfleet Hub on Centurion Way hosts a small library with limited opening hours. All other amenity uses are situated at Lakeside or Grays, respectively a 10 or 20 min drive away.

#### Supermarkets, Structured Sport and Leisure

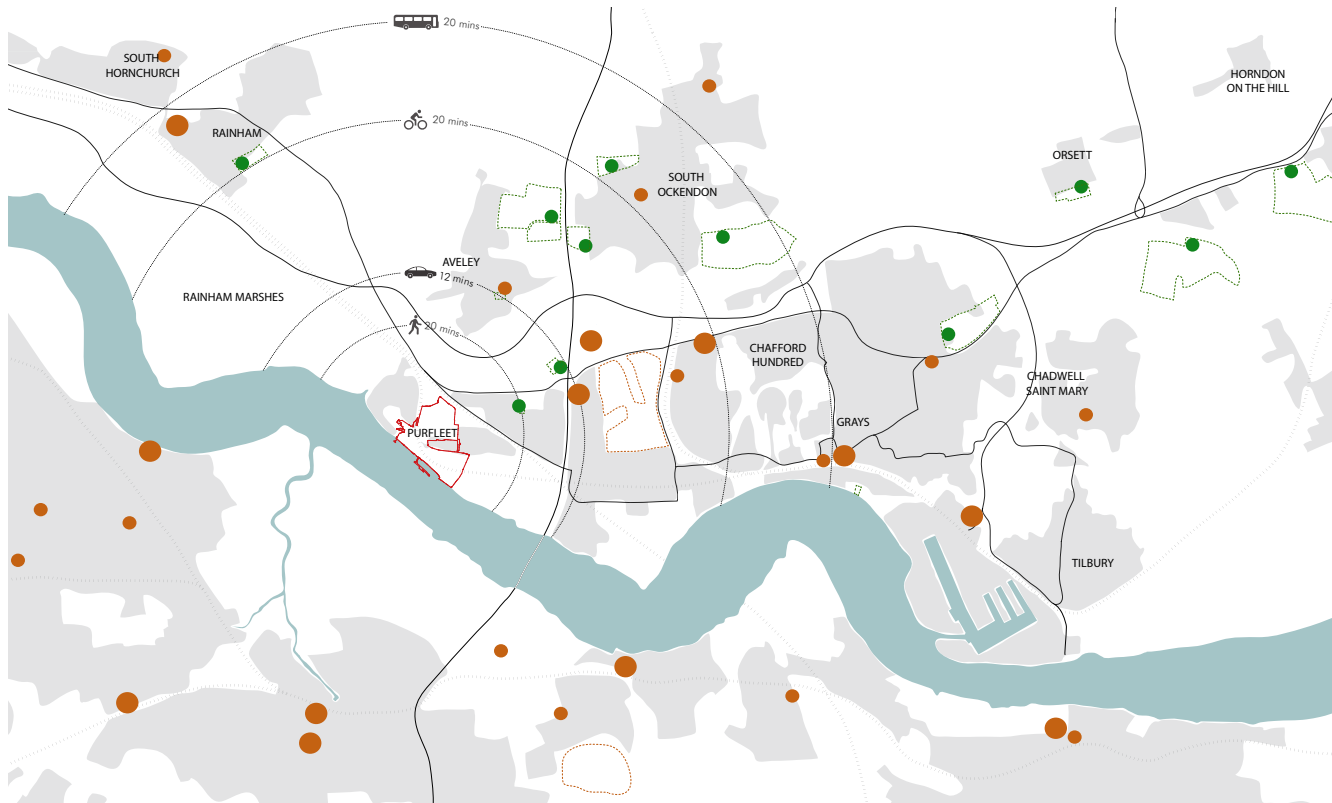


Figure 2.39

#### KEY

- Express/Local Supermarkets
- Large Supermarkets
- Retail Parks
- Sport & Leisure

## 2.3 Site Analysis

### 2.3.5 Amenities Infrastructure

#### Schools and Places of Worship

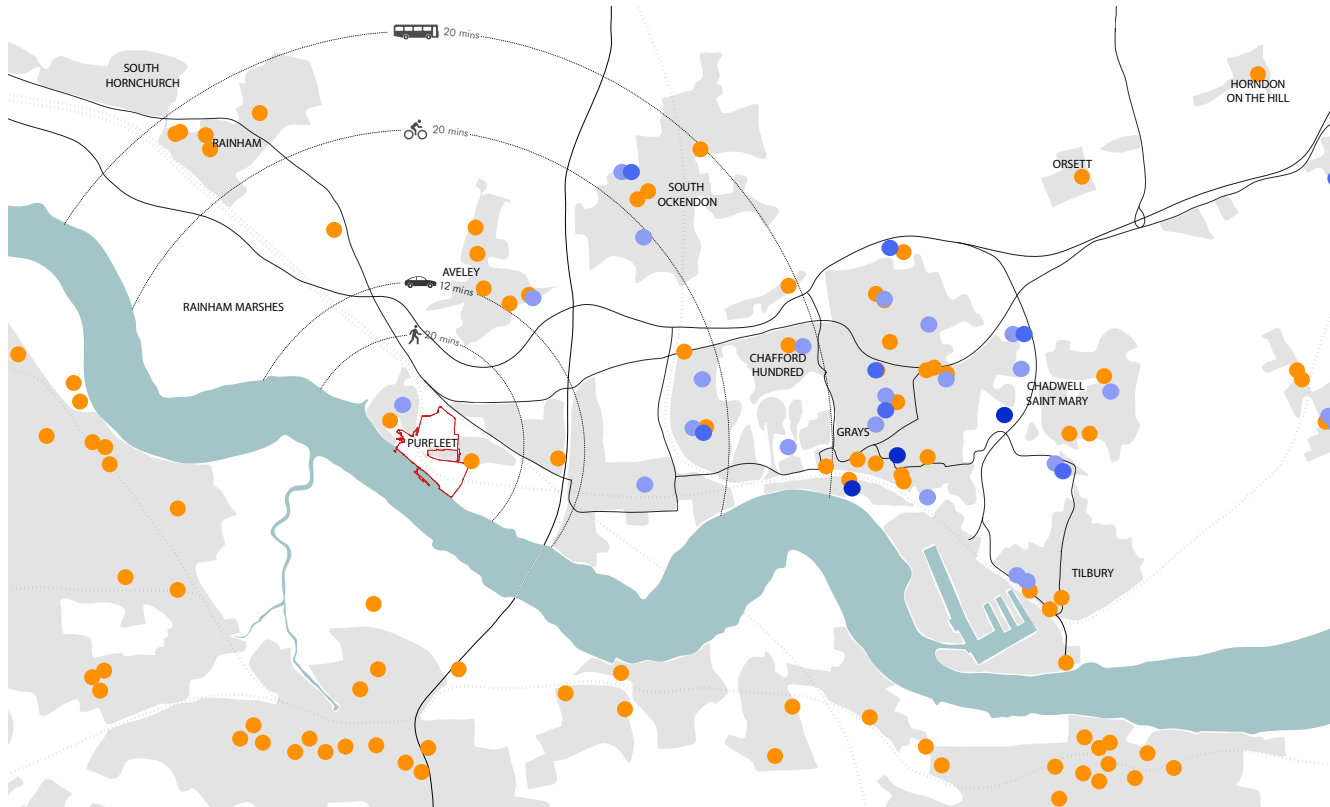


Figure 2.40

#### KEY

- Primary Schools
- Secondary Schools
- Colleges
- Places of Worship

### Libraries & Post Offices, Culture & History

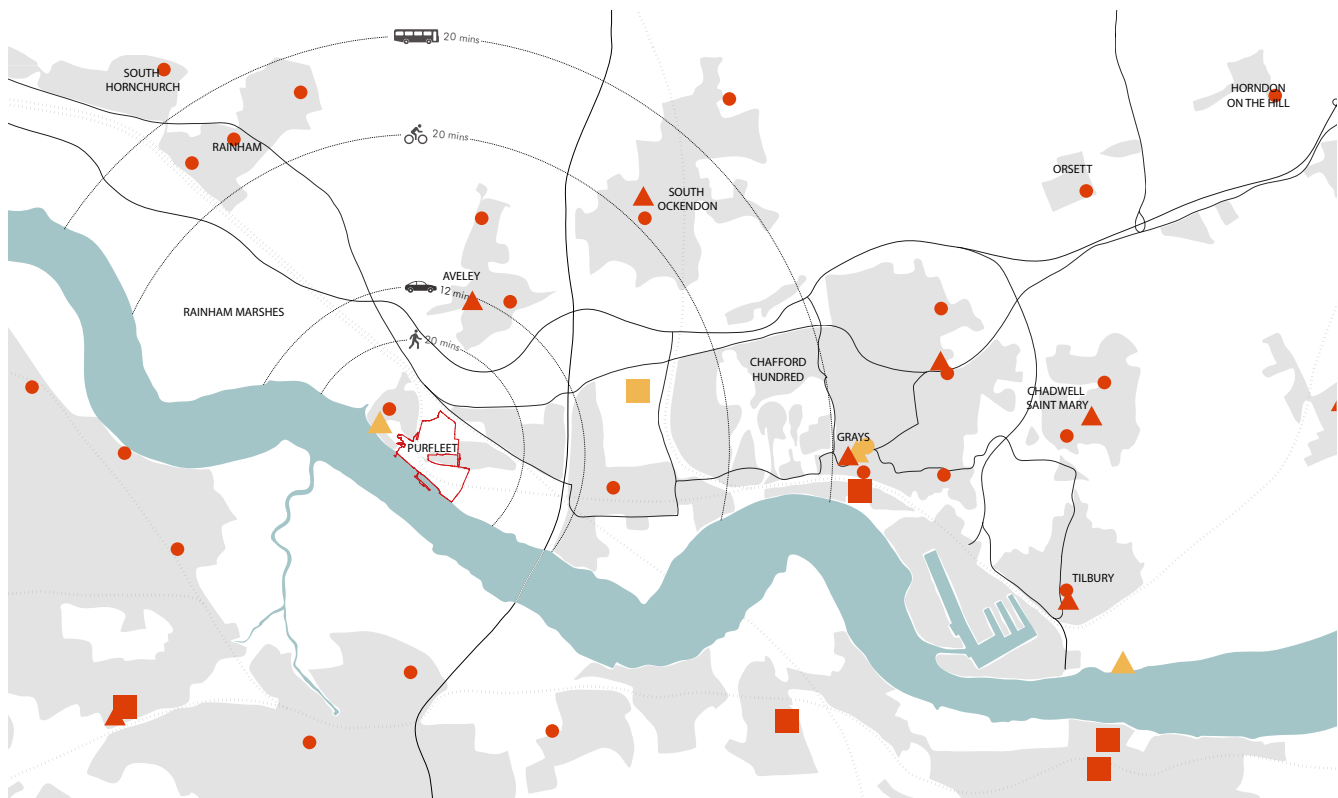


Figure 2.41

#### KEY

- ▲ Libraries
- Post Offices
- Town Hall
- ▲ Museums
- Theatres
- Cinemas

## 2.3 Site Analysis

### 2.3.6 Flood Risks

The site lies partly within flood zone 3 (high probability of tidal flooding) but is protected by the Thames Tidal Defences. Existing defences are acceptable for current requirements but upgrade to a consistent height of +7.2m AOD will be required to meet future flood protection.

The likelihood of flooding at Purfleet is increased by the nature of the local defences within the site. Flood walls with access doors have an inherently greater chance of experiencing a breach event and this is reflected in the Environment Agencies assessments of the local area.

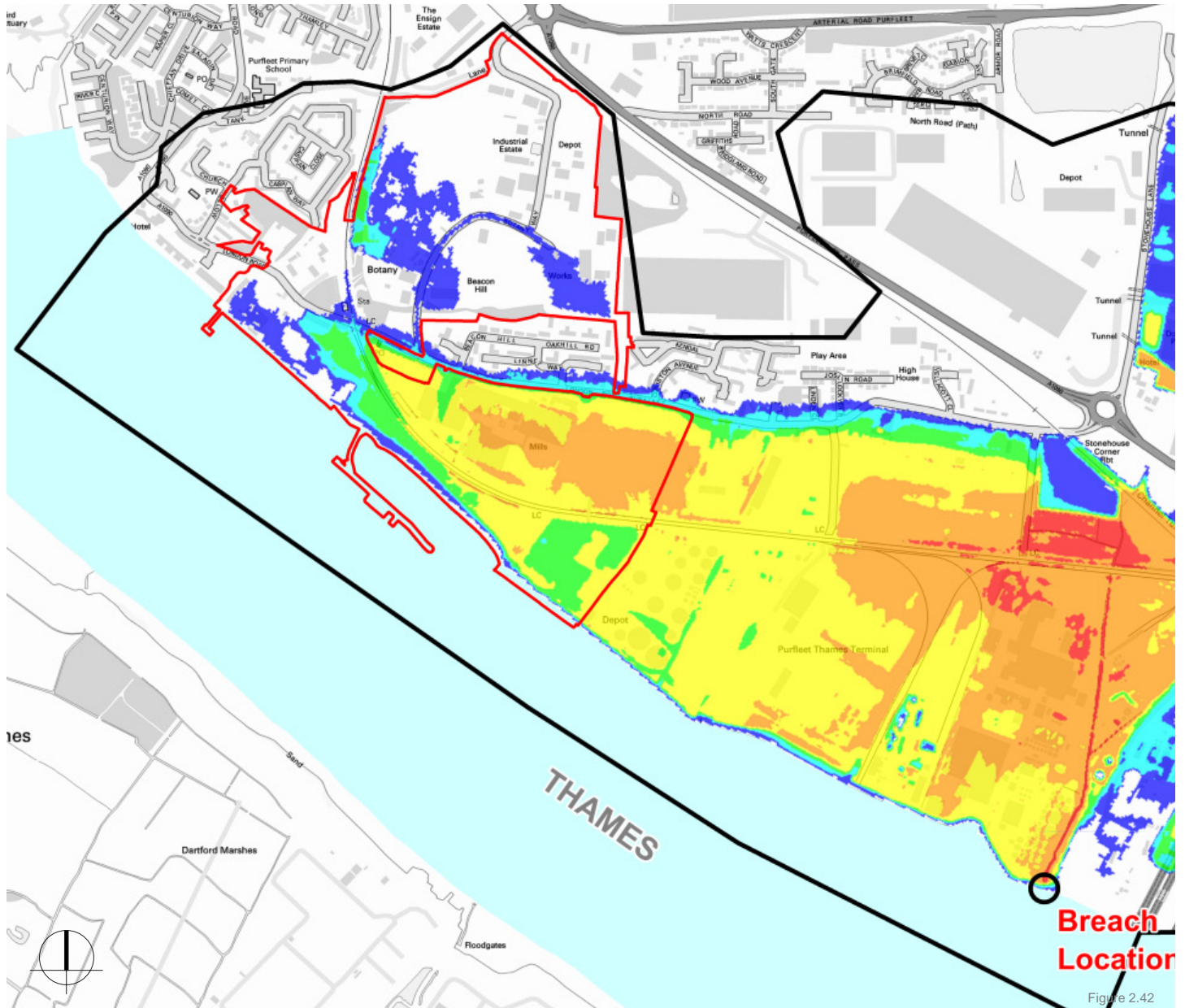


Figure 2.42

Maximum flood depth, breach location 4. Existing scenario, open breach 1 in 200 year + Climate Change (2116)

#### KEY

Depth (m)

|  |         |   |         |   |               |
|--|---------|---|---------|---|---------------|
|  | 0.0-1.0 |  | 3.0-4.0 |  | Site Boundary |
|  | 1.0-2.0 |  | 4.0-5.0 |  | Model Domain  |
|  | 2.0-3.0 |  | > 5.0   |   |               |



Figure 2.43

## 2.3 Site Analysis

### 2.3.7 River Edge Condition

The Southern boundary of the site directly addresses the River Thames. Apart from the Yara site, this ex industrial working river edge is now mostly fallow having been recently remediated and allowed to naturally regenerate.

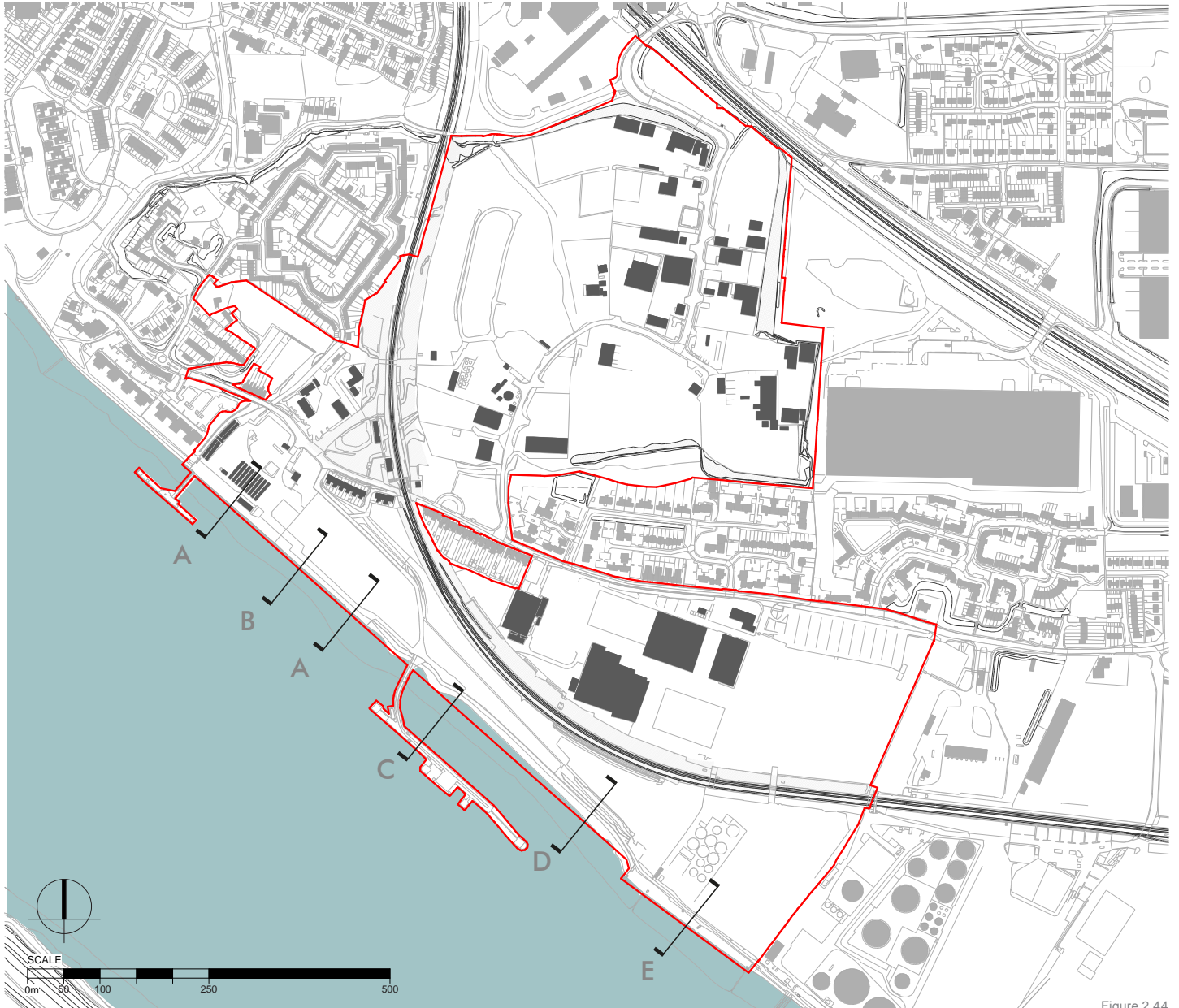


Figure 2.44

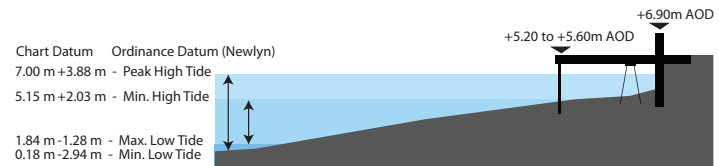
The river edge is characterised by five distinct conditions defined by the relationship of the river to the river wall, flood wall and jetty structures.

AOD: Above Ordnance Survey

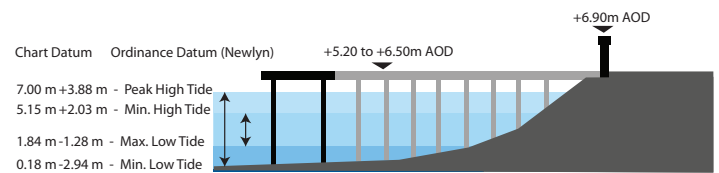
A. At the western end of the site, to the south of the Yara terminal and again further east as indicated on the adjacent plan, the river is bounded by a timber piled river wall with a maximum height of +5.6m AOD. A concrete flood defence wall, +6.9m AOD, sits behind this wall leaving a 5-10m wide platform. This platform is inaccessible from the northern side except via a ship's ladder or along the tidal beach at low tide. The river wall is constructed of hardwood piles with boarding, the flood defence wall is a cantilevered concrete structure with ground anchors.



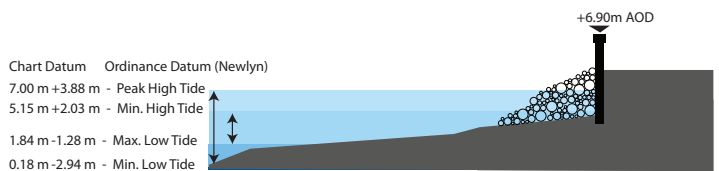
B. Immediately adjacent to this area, between the Yara Terminal and the Main Jetty, the river wall is a cantilevered concrete deck with external timber piles and boarding. The flood wall continues as a concrete wall with ground anchors.



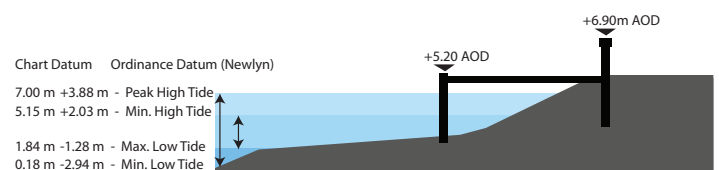
C. Two jetties project into the navigable portion of the river serving a navigable draft depth of 10m. The Western most Jetty, the smaller of the two is part of the existing Yara terminal and is still operational. The easternmost Jetty, broadly at the centre of the riverfront within the redline area is now defunct in terms of use but is still for the most part structurally sound.



D. The majority of the river edge to the site is a sheet piled wall with concrete cap protected by rock armour that forms a combined flood and river wall. At the eastern end the concrete cap is partly a timber beam.



E. At the far eastern end of the site is a projecting concrete dock. Also a cantilevered concrete deck this structure sits in front of the sheet piled flood defence wall.



All tide levels are measured in 2016 at Tilbury. The tide tables are provided by Port of London Authority, Tilbury.

Figure 2.45

## 2.3 Site Analysis

### 2.3.8 History & Cultural Character

#### 2.3.8.1 Archaeological and Prehistoric background

A SSSI area has been designated in the Purfleet Chalk Pit for its high level of geological interest to study both the evolution of the River Thames and interglacial sequences.

The only material of archaeological interest observed within the Botany Quarry is the exposed cliff face, which is known to contain palaeo-environmental evidence similar to other nearby cliff faces. *Homo Neanderthalensis* exploited the natural flint stone during this time.

Remnants of prehistoric times were found in a major topsoil removal in 1969, mainly in the Botany Quarry: palaeolithic flint materials, a neolithic polished axe, a Bronze Age cinerary urn, some Iron Age pottery shards and a large pit from the Roman period, proof of an early quarrying activity.

Evidence of Bronze and Iron Age human settlement, of a Romano-British burial ground were found in the nearby site at High House.

Purfleet is not recorded as a settlement in a 1086 survey, the nearest settlement recorded being at Aveley. The site had little early-medieval activity, that developed in the 13th century on higher ground near the mouth of the Mardyke river (Anglo-Saxon peat deposits).

Historical Photo of High House, Purfleet



Figure 2.47

#### 2.3.8.2 Historic Background

Purfleet's origin as a settlement related to its current form dates back to the 16th Century. A small village established itself around the extensive chalk quarries, vestiges of which can still be seen today. Development beyond this use was limited until the construction of both military gunpowder magazine and railway station in the 18th Century.

At the beginning of the 19th Century the industrial uses of the Purfleet intensified with jetties being constructed into the River Thames, establishment of petrochemical storage facilities, a paper mill and other activities, some of which continue to this day.

Vestiges of historic use define the character of today's Purfleet. A conservation area to the west protects the remaining historic military infrastructure and quarry workers facilities, the walls of the quarry can be clearly seen at many places throughout the area and various buildings lie testament to various industrial uses including the river jetties and concrete bases of paper pulping facilities.

#### 2.3.8.3 Heritage

The conservation area to the west of Purfleet was designated in 1985. There are 14 statutorily listed buildings (including at least three of which that are little more than ruins) and 18 buildings of significant local interest. Of these, the listed buildings 1-9 Hollow Cottages and 1-6 Botany Terrace are closest to the application site, situated immediately adjacent to the western boundary.



Figure 2.46

#### 2.3.8.4 Existing Site & Buildings

The 62.85 ha site within the boundary contains approximately 84 permanent structures. These are mainly related to continuing or defunct industrial uses other than the 16 residential properties to the south of London Road and the railway station. No buildings of local or national historic significance lie within the site boundary.

Other than the houses the other, mainly industrial, buildings on site are a mixture of pre-war and post-war portal frame warehouses and ancillary structures. Little have any architectural merit other than the elegant saw tooth roof profile of the Kappa building located to the east of the Riverside Terrace.

#### 2.3.8.5 Surrounding Built Context

Outside of the historic buildings Purfleet and its environs are dominated by the River Thames and the surrounding industrial and infrastructure context. Within Purfleet to the east there is a large petrochemical storage depot that dominates the eastern boundary of the scheme and a circa 46,000m<sup>2</sup> distribution warehouse for Carpet Right that equally dominates the sky line to the east of the quarry. The one complex of buildings of note lies in the eastern parts of Purfleet in the form of the High House Production park. This assembly of 5 main buildings and ancillary structures incorporates a listed property, a 17th century farm house with its converted Essex vernacular out buildings; a dramatic arts training facility, a set production facility for the Royal Opera House, a costume making and storage facility for the same and an artist studio building. Though the buildings are an eclectic range of styles the overall collection is the highlight of the local area.

Beyond Purfleet the key buildings/structures are those which can be viewed from the waterfront. The Queen Elizabeth II Bridge carrying the orbital M25 motorway bookends the views to the east alongside the 200m high chimney of the now decommissioned Littlebrook power station. Directly to the south the outlook is primarily riparian marshland punctuated only by the Dartford Creek flood defence barrier. To the west views are possible to the tower cluster at Canary Wharf along with the partially landscaped Rainham Marsh landfill site with the Coldharbour Lane logistics and warehouse site.

Purfleet, London Road - 1955



Figure 2.48

### 2.3.8.6 Map of Historic Significance

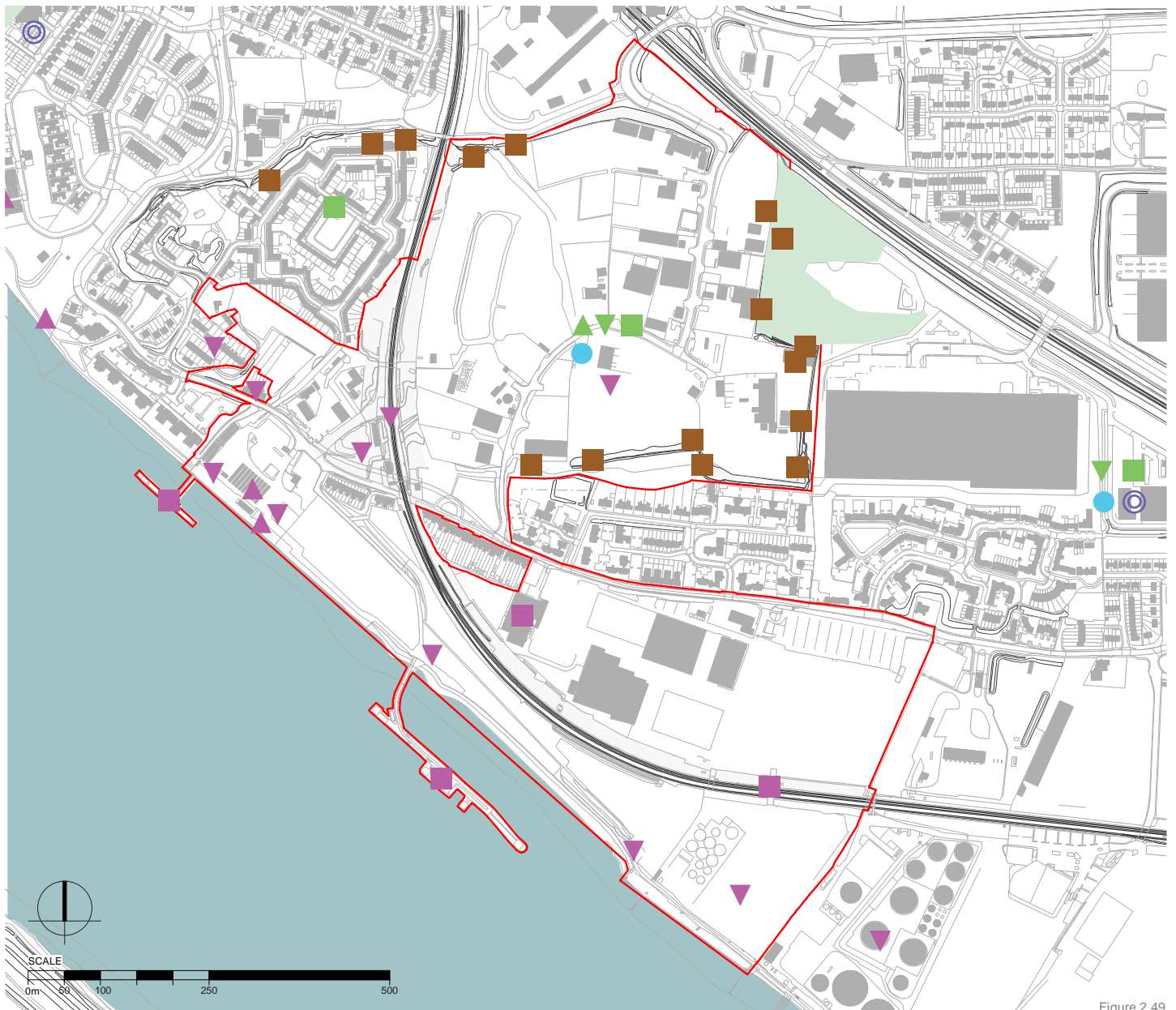













Figure 2.49

#### KEY

|   |                        |   |                           |
|---|------------------------|---|---------------------------|
|  | Geological Material    |  | Modern Industrial 18th C. |
|  | Palaeolithic Material  |  | Modern Industrial 19th C. |
|  | Neolithic Material     |  | Modern Industrial 20th C. |
|  | Bronze Age Material    |  | Site Boundary             |
|  | Iron Age Material      |   |                           |
|  | Roman-British Material |   |                           |
|  | Medieval Material      |   |                           |

The above map highlights the prehistoric and historic materials found in the development site and its surroundings:

- The Botany Quarry Cliffs and the site of the current High House Production Park, reveal geological and man made materials from various ages (from Prehistory to Roman-British times).
- The Riverside and London road areas include mostly remnants of the Industrial Ages (from 18th to 20th C).
- The west side of Purfleet adjacent to the site, include a conservation area rich in listed residential buildings.

## 2.3 Site Analysis

### 2.3.8.7 Current Iconic Features Map

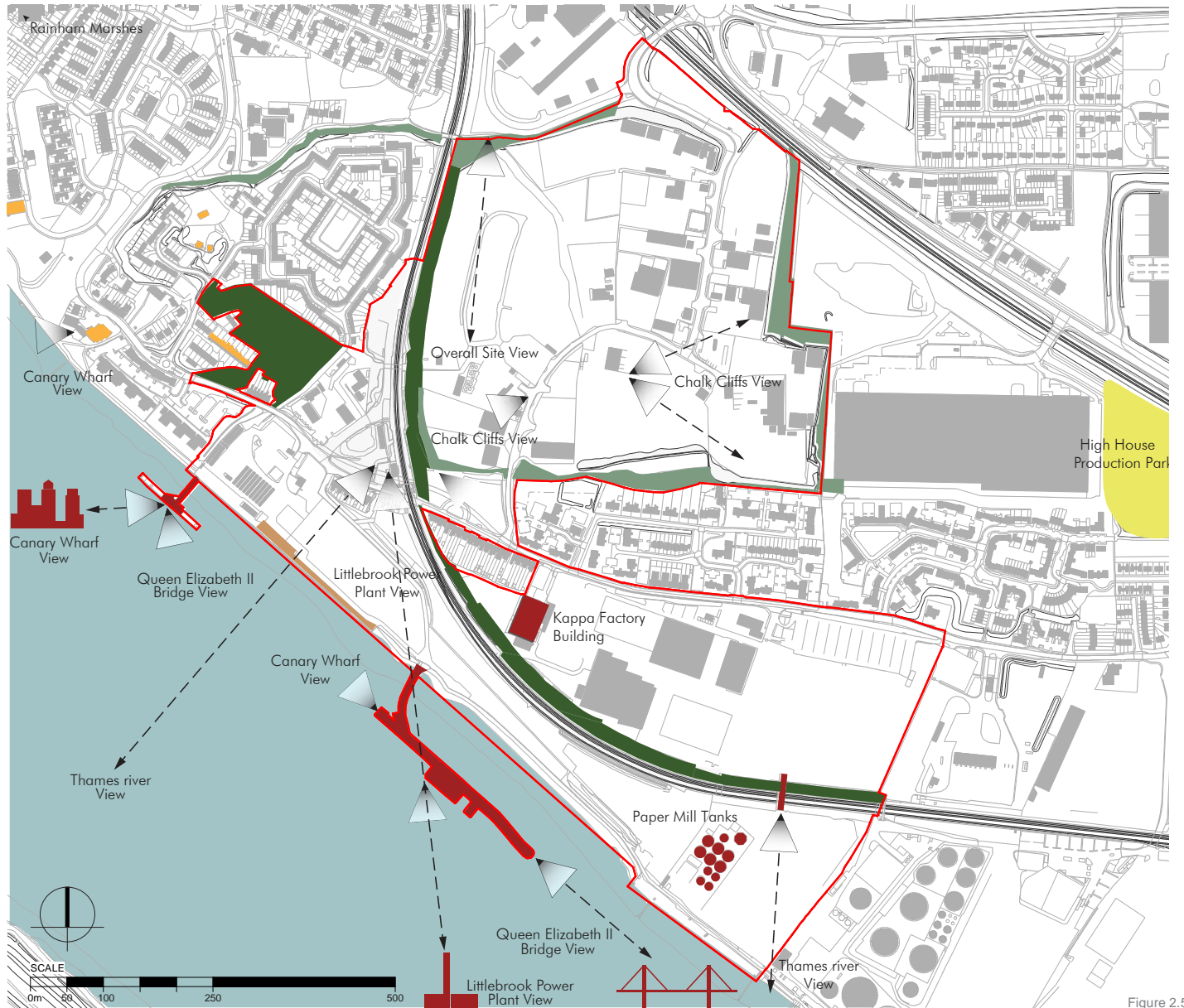


Figure 2.50

#### KEY

|   |                                  |
|---|----------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:#4CAF50; border:1px solid black;"></span>  | Chalk Cliffs                     |
| <span style="display:inline-block; width:15px; height:15px; background-color:#2E7D32; border:1px solid black;"></span>  | Woodlands                        |
| <span style="display:inline-block; width:15px; height:15px; background-color:#C8A27A; border:1px solid black;"></span>  | River Wall Landscape             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFF9C4; border:1px solid black;"></span>  | High House Production Park       |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFB74D; border:1px solid black;"></span>  | English Heritage Listed Building |
| <span style="display:inline-block; width:15px; height:15px; background-color:#C0392B; border:1px solid black;"></span>  | Industrial Icons                 |
| <span style="display:inline-block; width:15px; height:15px; background: linear-gradient(to right, transparent 49%, #000 49%, #000 51%, transparent 51%); border:1px solid black;"></span> | Significant Views                |
| <span style="display:inline-block; width:15px; border-bottom:2px solid red;"></span>  | Site Boundary                    |

The above map highlights the iconic physical assets (geography & man made built environment) present on site and its surrounding, that PCRL team wants to enhance within the future masterplan:

- The man made Botany Quarry Cliffs with their vegetation and natural habitat.
- The woodlands in Hollow Woods and alongside the railways (eastern green corridor).
- The river wall natural landscape, south of the Yara jetty.
- The presence of a cultural industry site, High House Production Park.
- The presence of a conservation area (western Purfleet) and some industrial icons (remnants of paper mill tanks, walkway bridge, Kappa building, piers).
- The views across the River Thames towards modern era gigantic structures (QE II bridge, Littlebrook power station, Canary Wharf).

### 2.3.8.8 Purfleet Cultural History

Purfleet has a remarkably rich cultural history for a town with such strong industrial roots. Much of this history is related to story making and this tradition is continued to this day by Kinetika, an artist studio based in the High House Production Park studios in Purfleet, that has undertaken a project collating and retelling local Thurrock stories. Although some may be apocryphal all contribute to the rich sense of connection that the residents of Thurrock and therefore Purfleet feel about their community and home. Some highlights are set out below to give a flavour of the breadth of stories and events.



kinetikaonline.co.uk

Figure 2.51

#### Film Making

Prior to the First World War Purfleet's botanic gardens within the old quarry workings were regularly used as film locations for Britain's burgeoning silent film industry. Soldiers from the Garrison often filled in as extras with the quarry itself standing in for many locations, including the old west. Thurrock museum's website records some films it is aware of that were made in Purfleet and it is clear this was a thriving industry at the time.

“ The motion picture industry was very much in evidence in Purfleet up to the outbreak of the 1914 war. Scenes were shot almost daily when the weather permitted in the “Botany”, the chalk cliff area, and around the Royal Hotel. Probably most of the British made ‘Westerns’ and war films of that period had their outdoor shots taken in this vicinity. ”

Article in Panorama no.10, p.33

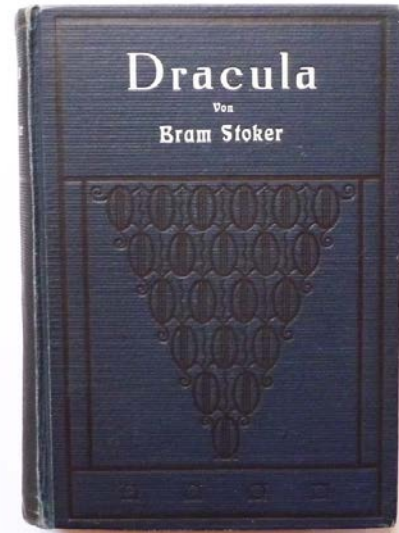


Figure 2.52

#### Dracula

In Bram Stokers 1897 novel Dracula, Count Dracula was transported from his castle in Transylvania to a house named 'Carfax' in 50 boxes of earth. Until the mid 1980's a house stood near the proposed site adjacent to the old Thames Board Mills factory site with the name Carfax. Though this was possibly a coincidence as the house construction post-dated the novel there is enough circumstantial evidence to suggest that many of the properties within Purfleet at the time contributed to Bram Stokers description of Carfax.

#### Paintings by Turner

Turner spent some time in Purfleet as he painted the River Thames through Essex. He exhibited a painting Purfleet and the Essex Shore as seen from Long Reach in 1808 which resides within a private collection.

#### The Zeppelin

On the night of March 31st, 1916, gunners at Purfleet, protecting the Royal Gunpowder Magazines, engaged anti-aircraft fire against Zeppelin LZ15, damaging the airship so badly she finally crashed in the sea at the Nore. Seventeen survivors were rescued and imprisoned.

(extract from [www.thurrock-history.org.uk/gunners.htm](http://www.thurrock-history.org.uk/gunners.htm))





Figure 2.53

