



HaworthTompkins

River Road Employment Area (including Kingsway Industrial Estate)
Supplementary Planning Document
September 2020



Working in partnership



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Contents

EXECUTIVE SUMMARY	4
1.0 BASELINE ANALYSIS	
1.1 LOCATION AND CONTEXT	8
1.2 LAND USE	10
1.3 SITE HISTORY	11
1.4 TRANSPORT AND MOVEMENT	12
1.5 STREETScape AND MASSING	14
1.6 LANDSCAPE AND GREEN INFRASTRUCTURE	16
1.7 ECOLOGY	18
1.8 LOCAL AMENITIES AND COMMUNITY INFRASTRUCTURES	19
1.9 SITE CONSTRAINTS AND OPPORTUNITIES	20
1.10 INDUSTRIAL STRATEGY AND EVIDENCE BASE	22
1.11 BUSINESS CONSULTATION AND ENGAGEMENT	23
1.12 THAMES ROAD PLOT SIZES AND DEVELOPMENT APPROACH	24
1.12 FLOOD RISKS AND EA ISSUES	25
1.14 AIR QUALITY AND ODOUR	26
2.0 RIVER ROAD EMPLOYMENT AREA PROPOSALS	
2.1 SPD PRINCIPLES	30
2.2 PROPOSED LAND USE AND CHARACTER AREAS	32
2.3 INDUSTRIAL FLOORSPACE STRATEGY AND PHASING	34
2.4 LANDSCAPE AND ECOLOGY	36
2.5 LANDSCAPE INFRASTRUCTURE PHASING	38
2.6 TRANSPORT AND MOVEMENT	40
3.0 THAMES ROAD MASTERPLAN PROPOSALS	
3.1 THAMES ROAD ZONING/CHARACTER AREAS	44
3.2 ROUTES AND ACTIVE FRONTAGES	46
3.3 SERVICING AND ROUTES	47
3.4 LANDSCAPE, PUBLIC REALM AND STREETScape	48
3.5 ILLUSTRATIVE MASTERPLAN - CROSS SECTION	49
3.6 BLOCK TYPOLOGIES	50
3.7 INTERMEDIATE CONDITIONS AND CHARACTER PRECEDENTS	52
3.7 HEIGHT AND MASSING	54
APPENDICES	
A - TRANSPORT REPORT	
B - ECOLOGY REPORT	
C - SAFEGUARDED WHARF OVERVIEW	
D - FLOOD RISK REPORT	
E - AIR QUALITY REPORT	
F - ODOUR REPORT	
G - ACOUSTICS REPORT	
H - COMMERCIAL PROPERTY REPORT	

Executive Summary

INTRODUCTION

The River Road Employment Area (Including Kingsway Industrial Estate) ('RREA') is a large designated 'Strategic Industrial Location' ('SIL') in southwest Barking, which sits in a strategically important location for this part of the Borough. At present, the area is characterised by low-density industrial functions, poor quality public realm and limited transport connections. There is the opportunity for this area to be transformed into a vibrant new mixed-use neighbourhood, to provide an exciting mix of employment, residential and community uses alongside improved public realm and landscape.

A key objective of this transformation is to better link the communities of Thames View, Thames Road and Barking Riverside, while at the same time improving connections to Barking Town Centre and Renwick Road. Barking Riverside is one of London's largest housing development sites with outline planning approval for over 10,000 new homes and associated facilities. However one of Barking Riverside's challenges is the entrance to the area from the A13 to the north via the unwelcoming, unattractive SIL area. As such a second key aim of this masterplan is to improve this physical and perceptual barrier to Barking Riverside.

In order to realise the opportunity of the River Road Employment Area, the London Borough of Barking ('LBBD'), has commissioned this Supplementary Planning Document to guide the intensification of industrial capacity in the RREA and to free up land to meet other planning objectives, such as housing and infrastructure.

The wider Thames Road area (including the site as well as part of River Road and Beam Park) forms part of one of the GLA's Housing Zones (known as 'Barking Riverside Gateways Housing Zone'). While this zoning carries no formal planning status, it was designated as such with the specific intention of unlocking and / or delivering housing and regenerating the area. In July

2018, LBBD and the Council entered into a 'Composite Agreement' for the provision of £30m of GLA grant for the purchase of sites within the Housing Zone, with a requirement on LBBD to deliver 1,500 homes by 2026.

EXECUTIVE SUMMARY

This document has been prepared by Haworth Tompkins on behalf of BeFirst and Inland Homes, in collaboration with the design team listed overleaf, between June and September 2020.

The study was broken into two stages, the first being to analyse the existing conditions and to develop an overall zoning and infrastructure vision for the RREA, described within sections 1 and 2 of this report. This illustrates the preferred zoning approach of releasing industrial land along Thames Road for residential and colocation uses, while maintaining and increasing the overall quantum of industrial floorspace through intensification of the centre of the SIL as multistorey buildings. It also defines the key public realm infrastructure moves need to support this and transform the area. A phased approach is proposed to show how this zoning and industrial floorspace strategy can be delivered in stages over the next 30 years. The second stage of work focussed in more detail on Thames Road itself, as the area within the RREA proposed to undergo the most wholesale transformation. The conclusion of this, illustrated in section 3 of this report, is that in order to thrive as a new residential and working district, and to properly connect surrounding areas, the scale and nature of the existing industrial space on Thames road needs to transform over time to cater mainly for cleaner, class E industrial uses, and that there is scope to accommodate this within the overall industrial offer of the area. During both stages of work the core Design Team was supplemented by a 'Think Tank' of specialist consultants who provided review, critique and input into the masterplanning and design thinking, through workshop sessions.

PLANNING POLICY CONTEXT

This SPD is supplementary to LBBD's Local Plan; it has been prepared to provide additional guidance to developers, land owners, business and other stakeholders as to how to interpret relevant planning policies in the context of RREA and is a material consideration for the purposes of making decisions on planning applications. This SPD has been prepared to provide further guidance to those policies and to help communities, businesses and developers understand how these policies might be implemented. This SPD is compliant with salient policies in the following ways:

NPPF (2019)

- ✓ Paragraph 80 by building on local strengths to help create conditions where businesses can invest, expand, and adapt. This SPD gives businesses the confidence needed to invest and grow their businesses in Barking and Dagenham.
- ✓ Paragraph 81 by identifying this strategic site and providing a flexible plan to accommodate anticipated needs over the plan period.
- ✓ Paragraph 82 by planning for specific locational requirements of different sectors. River Road has excellent access to the A13, making this ideal for storage and distribution as an example.

INTEND TO PUBLISH LONDON PLAN (DECEMBER 2019)

- ✓ Policy E4 by ensuring that there is a sufficient supply of land and premises to meet current and future demand for industrial and related functions. The plan includes a range of industrial plot sizes and typologies, with flexibility for these to adapt in the future in-line with market demands. In addition, release of industrial capacity will contribute significantly to meeting the borough's housing delivery targets.
- ✓ Policy E5 by pro-actively managing and sustaining the industrial supply in the River Road Employment Area and exploring opportunities for to make more efficient use of its land.
- ✓ Policy E7 by pro-actively demonstrating how the area can be intensified to provide additional industrial capacity and support the delivery of residential and other uses (including social infrastructure).

LBBD LOCAL PLAN REGULATION 19 CONSULTATION VERSION (OCTOBER 2019)

- ✓ Policy SP5 by contributing to the plan-led managed release of land and continuing to protect Safeguarded Wharves.
- ✓ Policy DME1 by providing a framework that encourages a mix of unit sizes to meet the needs of all business sizes. In addition, a Agent of Change analysis is included in this SPD, demonstrating that residential growth will not jeopardise the functioning of retained employment uses.

1.0 Baseline Analysis



1.1 Location and Context

The RREA SIL is located in the southwest of London Borough of Barking and Dagenham, just north of the River Thames and around 5 miles east Canary wharf. As illustrated on the plan on page 9, it is strategically positioned within this part of the borough, being surrounded by Barking Riverside to the southeast, Thames View Estate to the north and Barking Town Centre to the Northwest, and close to the A13 and new rail networks. All of this means it offers real potential of being a major growth area to connect the wider site together. The SIL area is bounded on the west and south edges by the rivers Roding and Thames, however, the river frontage is largely inaccessible apart from at Barking Creek Park.



Figure 1: Borough Location

The River Road Employment Area is located in the London Borough of Barking and Dagenham



Figure 2: Context Aerial Map

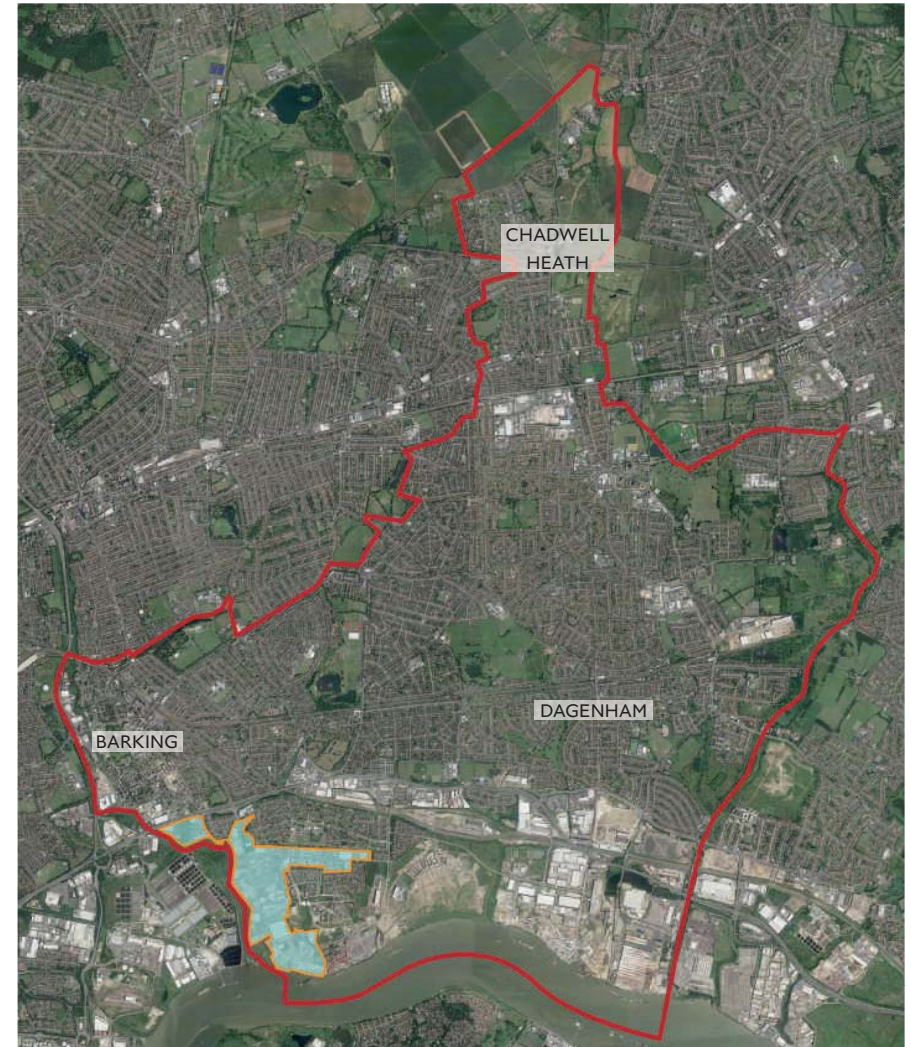




Figure 3: Barking and Dagenham Location Map

-  River Road Employment Area (Including the Kingsway Industrial Estate)
-  LBBDD Boundary

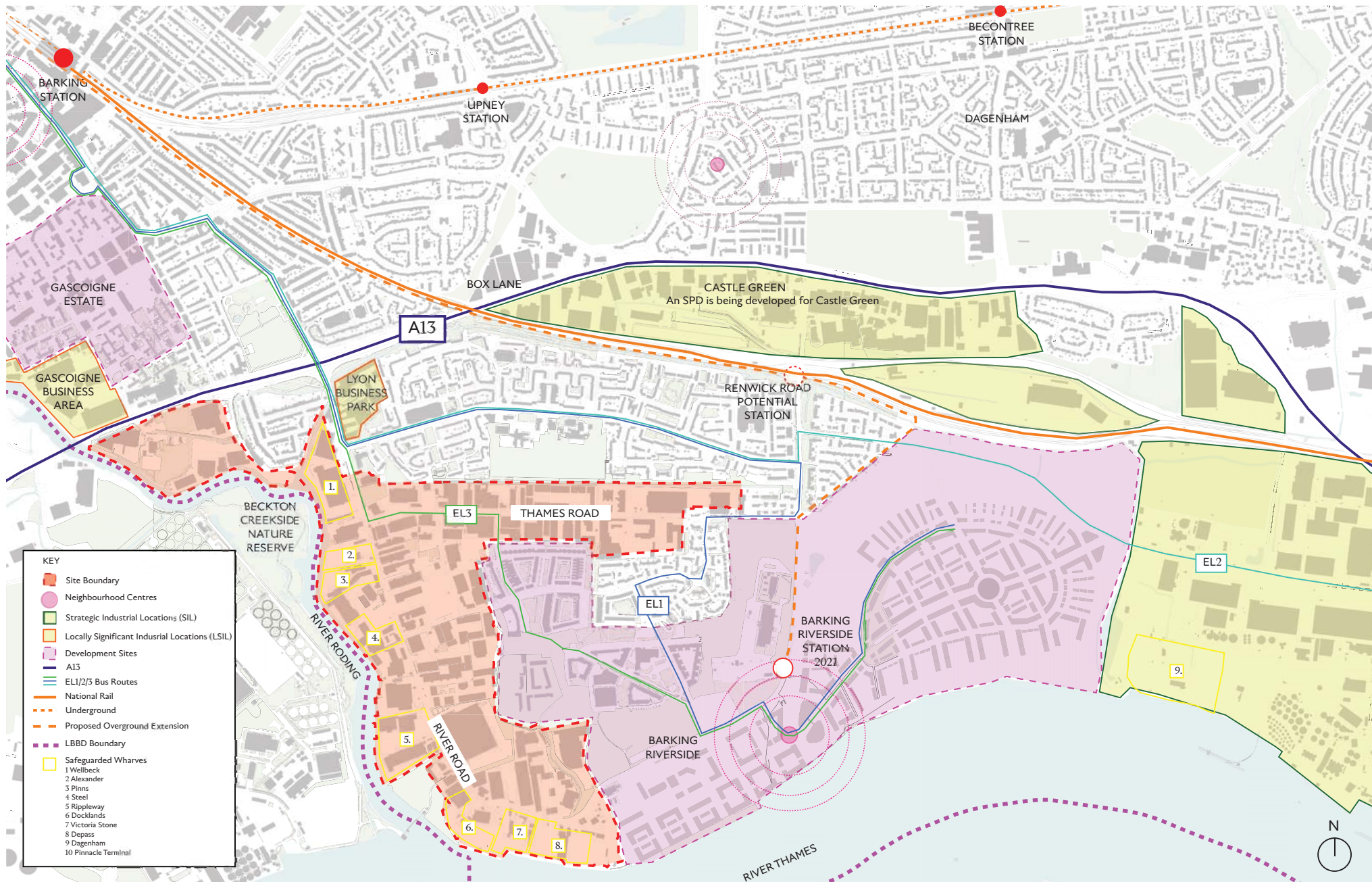


FIGURE 4: WIDER CONTEXT DIAGRAM

1.2 Land Use

The SIL district around River Road and Thames Road, is in almost entirely industrial land use, containing a total of around 250 businesses and 3500 jobs, ranging from heavy manufacture, logistics, and wholesale to food production and recycling. These businesses have grown substantially in the 20th century and play an important role in the economy for the borough and the city.

These industrial uses comprise a rich mix of different types of employment, across a wide range of building types, from large footprint sheds to smaller units focused around the long straight axis of Thames Road and the more curving profile of River Road, and including a number of wharfs along the River Roding and River Thames edges. Many of the industrial buildings in the area are poor quality or older stock that would benefit from modernisation. Similarly the local streets offer a poor quality environment, and there is a lack of local amenities for workers such as cafés, shops or public spaces in which to pause, eat lunch or make a phone call.

INDUSTRIAL FLOORSPACE DATA METHODOLOGY

During the first stage of this SPD, Haworth Tompkin's team generated a data schedule of all existing industrial plots within the SIL, including information on site area, use, floorspace and so on, based on CAD measure, site surveys, previous WeMadeThat business survey data & client supplied land registry information. Each plot was numbered and keyed to a plot plan, and the existing SIL area split into six into zones, shown here. In summary this data schedule shows:

- The SIL contains approximately 350,000sqm GIA aggregate industrial floorspace (includes all storeys)
- The SIL contains approximately 850,000sqm aggregate GEA of industrial plot site area (excludes roads, public land etc)
- This gives an average plot development ratio across the site of 41%, fairly typical for an industrial area of this nature.
- Density of development on the existing plots varies from around 20% ratio on some sites, particularly the river edge wharf sites many of which feature large areas of open yard, up to 60-80% on the denser large shed plots in the central zones.

This set of information was used as the basis for the zoning scenario testing described in section 2 of this report.

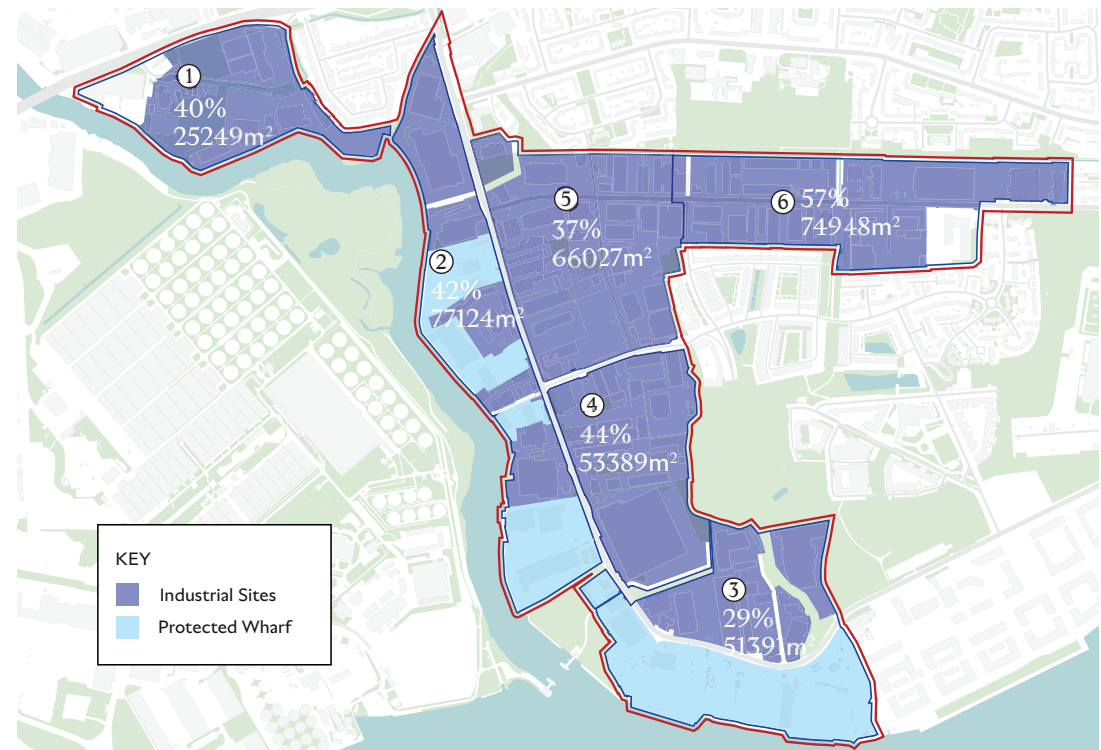


Figure 5: Existing Land Use Diagram

Zone Name	Total Site Area of all plots (sqm GEA)	Total Site Area of Industrial Plots (sqm GEA)	Total Existing Industrial Floorspace (all floors, sqm GIA)	Existing Industrial Plot Development Ratio
1 Kingsbridge Road	73744	62827	25249	40%
2 River Road West	184212	184212	77124	42%
3 Creekmouth Road	183133	179438	51391	29%
4 River Road East	121936	121936	53889	44%
5 Thames/River Road Junction	168471	168471	66027	37%
6 Thames Road	146915	132053	74948	57%
TOTAL	878410	848937	348628	41%

1.3 History

The River Road Employment Area (Including Kingsway Industrial Estate) has a rich history: the natural floodplain became a Victorian pleasure and holiday destination, and later a 20th century industrial strip. The site has historically been at the edge or the fringe of the City, surrounded by marshland and grazing fields. It was an important fishing community between 14th and mid 19th Century, serving Billingsgate Market until this declined due to the increasing pollution of the Thames and replacement with faster rail links. Industry replaced this trade in the late 19th Century, including: jute spinning and paint and chemical works, with development focused along the River. In the 20th Century there was further growth in industrial estates, which was also supported by new residential estates to address the post-war housing crisis.

1870s



Figure 6: Aerial view of Lawes Chemical and Fertiliser Company



Figure 9: Historic Map 1870s

- Decline in use of Barking as the centre of the fishing industry
- Barking railway station opened 1854.
- Creekmouth village was developed as worker houses for Lawes Chemical and Fertiliser Company in the 1850s.
- Industry replaced nautical trades in the 1890s, including Jute spinning, paint and chemical works.

1920s



Figure 7: Creekmouth Village with Barking Power Station in background



Figure 10: Historic Map 1920s

- Barking underground station opened in 1908.
- Barking power station burnt coal shipped in from the river between 1925 and 1970.

1950s



Figure 8: Aerial view showing Creekmouth Flood Barrier



Figure 11: Historic Map 1950s

- The great flood of 1953 damaged Creekmouth village which led to its demolition.
- Council construction estates such as the Gascoigne and Thames View.
- Barking Creek Flood Barrier installed in 1983.

1.4 Transport and Movement

The RREA is dominated by vehicular traffic with wide carriageways being used by heavy and light goods vehicles and the street scene dominated by parked cars or servicing points/ accesses. Movement is currently restricted throughout much of the area due to private ownership and extensive areas of industrial land. The result is an area that feels disconnected, impermeable and difficult to navigate, particularly for pedestrians and cyclists.

The RREA is well connected to the strategic road network via the A13 but has limited access to public transport. The EL1, EL2 and EL3 bus services currently provide the area's only public transport connections, offering services towards Barking town centre, Barking Riverside, Dagenham Dock and Ilford. TfL's PTAL index suggests that across the area, the best-connected sections achieve only poor accessibility (PTAL score of 2) to public transport; this is experienced within the northwestern section of the masterplan area, along River Road. The worst-connected section, the southern end of River Road in the vicinity of Barking Point, has no accessibility (PTAL score of 0), as no bus services run along this section of road. Public transport facilities in the area are starting to improve, with the relatively recent introduction of designated bus lanes on River Road north of the junction with Thames Road and new bus services along Mallards Road joining River Road. There is also a considerable amount of committed infrastructure and growth projects planned for the local area. The imminent Barking Riverside extension will add c.4.5km to the London Overground Gospel Oak to Barking line, and take it from Barking Station to a new station at Barking Riverside just to the south east of the masterplan area, with long-term potential of a future connection to the south of the River Thames. Construction is on-going and train services are anticipated to commence in December 2021, offering 4 services per hour. In order to maximise integration of public transport in the area, both the EL1 and EL3 bus services will also stop at the station.

To further boost the area's public transport connectivity, a new Riverboat service stop will be introduced at Barking Riverside. The Thames Clipper service RB1 will be extended to a new pier at Barking Riverside, and construction will be completed by Winter 2021. This service will provide connections to Woolwich, Greenwich, Canary Wharf and Central London. Alongside public transport, a suite of active travel improvements are currently being brought forward in the local area. Some of these, such as Cycle Superhighway 3 (CS3) are already constructed. CS3 runs alongside the A13 from the River Road / Movers Lane junction, just to the north of the RREA. This segregated cycleway runs towards Central London via Canary Wharf, whilst a number of Quietways and local cycle routes also exist in Barking town centre. As part of the Barking Riverside proposals, segregated cycleways have been constructed alongside both sides of Renwick Road, immediately to the east of the RREA. A segregated cycleway is also being constructed from Barking Riverside towards Barking town centre and Ilford. This cycleway, known as CFR10, has been approved by TfL and runs through the River Road Employment Area itself, via Marine Drive and Thames Road, before crossing the Ripple Greenway.

These sustainable travel improvements will improve the PTAL index to a degree and also provide active alternatives to car travel. They will provide key transport opportunities for the new homes and jobs to be created within the SIL and wider area.

Full detail of the existing and forthcoming transport infrastructure can be found within the technical appendices.

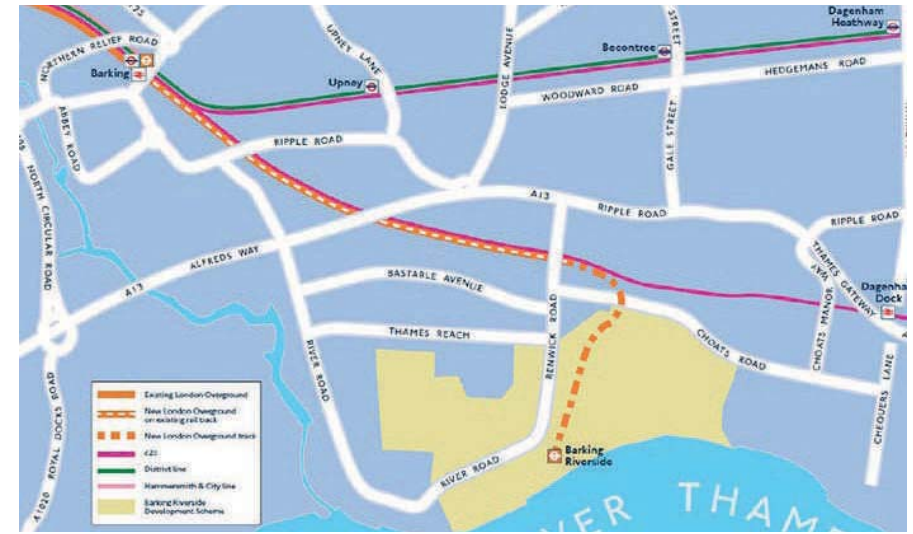


Figure 12: Transport Links Diagram

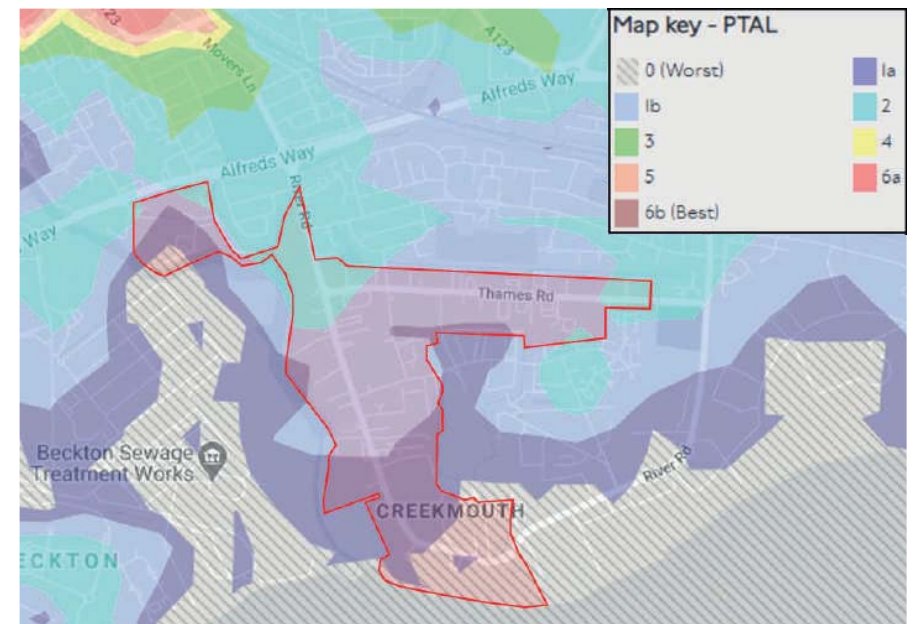


Figure 13: Existing PTAL zones



FIGURE 14: CIRCULATION AND PUBLIC TRANSPORT: EXISTING (INCLUDES BARKING RIVERSIDE PROPOSALS)

1.5 Streetscape and Massing

The SIL area currently has a homogeneous character, with no real sense of a centre to the district. Building heights are typically 5-10m, mainly as single storey sheds with some 2-3 storey offices. The surrounding areas are generally 2-4 storey terraced houses or residential blocks, with a few taller blocks of 6-9 storeys.

Across the area there are a range of different edge conditions, including the northern sites with their adjacency to the A13, the western sites which border the River Roding and Thames, and some which abut neighbouring housing. However these differences are hidden within the sites not generally viable.

There are larger concentrations of big shed and open yard based activities in the south, near Creekmouth, with more consistent concentrations of smaller units to the north east of River Road and Thames Road. Buildings are typically set back behind fences and with servicing yards and car parking variously to front, side or rear. Generally the larger units have larger yard areas between, and the smaller unit typologies have a more defined street frontage, however this is often still irregular due to the differing set backs and yard conditions.

Many buildings have poor quality frontages which feel undefined and inactive throughout the area. Cars are often parked informally on street and pavements, blocking views and obstructing access. There are few cycle paths and street trees, and there is heavy HGV. This combined with dust, smells and noise from open yards, recycling uses and waste transfer stations creates poor air quality in many areas.

As such the streets are generally inhospitable to pedestrians and cyclists. Permeability is poor, with a large block grain and fewer streets than surrounding areas, increasing the sense of disconnection from the neighbouring residential areas and green amenity spaces. A few sporadic moves to improve urban realm - eg core-ten special lampposts on Long Reach Road, special high quality way-finding signage and recent cycle path added to section at the east end of Thames Road.



Figure 15: Aerial View of the RREA



Figure 16: Typical Street Section Diagram



Figure 17: Thames Road and Marine Drive Junction



Figure 18: Thames Road and River Road Junction



Figure 19: River Road looking South



Figure 20: River Road looking North



Figure 21: River Road looking South



Figure 22: River Road looking towards Long Reach

1.6 Landscape and Green Infrastructure

Bound by the River Roding and the River Thames, the landscape history of the area is intrinsically linked with water. Historically the site was a tidal area for the Thames, with marshland, grazing and an extensive network of tributaries and ditches to drain the land. Industrial development from the 19th Century onwards means large stretches of the natural river edge have been replaced with industrial activity, whilst many of the ditches and watercourses have been buried under roads.

Within the RREA SIL area, there is little public realm or green space. The most notable natural asset is the Gascoigne Road Pumping Station. This has designated SINC status, is inaccessible and is only partially visible to the public. Street trees are restricted primarily to two ends of River Road. Elsewhere within the site, occasional buffer planting to plots and scattered street trees provide some greening, but these offer little significant visual or ecological value.

There are a number of nearby Site's of Importance for Nature Conservation (SINC). These include Buzzard's Mouth Creek, Mayes Brook, Thames View Ditch, and Creekmouth Open Space. The latter currently provides the only opportunity to access and view the river edges of the Roding and Thames.

The recently completed Phase 1 of Barking Riverside, Buzzard's Mouth Court, has created several accessible green spaces which expand the site's water character and incorporates retention ponds and riparian planting which form part of a wider sustainable water management strategy.

The Ripple Greenway and Ripple Nature Reserve form the primary existing public green spaces within the immediate context of the site. The Ripple Greenway forms a linear park with amenity grass and natural play features, as well as a key pedestrian and cycle route, notably part of the TfL Cycleway linking Ilford to Barking. The Ripple Nature Reserve is protected for its biodiversity and noted for its rare flora, a result of the site previously being a dumping ground for pulverised fuel ash and subsequently reclaimed by nature. Access is currently limited, however the Reserve will have improved access as part of landscape proposals associated with the Barking Riverside development.

Green spaces within the wider context include Greatfields Park, Castle Green and Rippleside Cemetery. These provide good sports, amenity and play provision, however access from the south is severely restricted by the physical barriers of A13 Road and rail line.

FUTURE CONTEXT

The local landscape context will change significantly in the coming years with the development of Barking Riverside. This will deliver an extensive network of enhanced and new public green spaces, together forming a new Metropolitan Park for the London Borough of Barking and Dagenham. Notable spaces will include Pylon Park; a large parkland of mosaic wetland with trails and play provision, Foreshore Park; a riverside park on the bank of the River Thames, Barking Riverside District Centre; a new civic centre, and Wharf Park; riverside public realm with an industrial character. These public spaces will be connected by walking and cycle trails and will offer good access to nature and amenity for Thames View and Thames Road residents.



Figure 23: The Ripple Green Space



Figure 24: The Ripple Nature Reserve



Figure 25: The Ripple Waterway



Figure 26: Beckton Nature Reserve

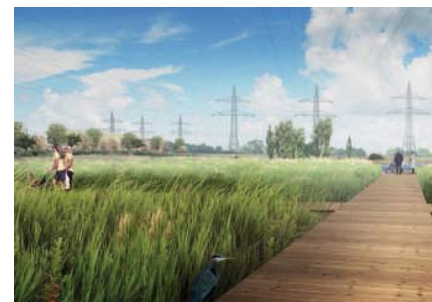


Figure 27: Barking Riverside Landscaping



Figure 28: Creekmouth Open Space

1.7 Ecology

Several designated sites of varying importance (from local to metropolitan) are present within, or in close proximity to the site. As illustrated here. The localised areas of semi-natural habitat such as Gascoigne Road Pumping Station Rough, Mayes Brook and associated watercourses and along the boundaries of the south eastern and south western parts of the site (Buzzard's-mouth Creek and Creek Mouth Open Space) support a number of priority London habitats, including reedbeds, rivers and streams, mudflat and saltmarsh, parks and urban green spaces, neutral grassland, wasteland and built structures.

It is likely that a number of ecologically significant species are present within, or immediately adjacent to the site. This includes aquatic and terrestrial invertebrates, fish, reptiles and amphibians, water vole, breeding birds such as black redstart, reed bunting and linnet, over wintering and passage birds, bats and nationally scarce plants.

The strategy for the proposed redevelopment of the masterplan area should be focused on key principles which are outlined in section 2.4. Landscape and Ecology. Key ecological opportunities for this are illustrated in Fig 30.



FIGURE 30: ECOLOGY OPPORTUNITIES

<p>Key :</p> <ul style="list-style-type: none"> Redline Boundary Barking Riverside Boundary Habitat Creation/ Enhancement Measures Habitat Creation Opportunities Habitat Enhancement Opportunities Green Roof and Green Wall Opportunities 	<ol style="list-style-type: none"> 1. Gascoigne Road Pumping Station 'Rough' 2. Mayes Brook and associated water courses 3. Extension of the Ripple Greenway & opening of culverted waterways 4. Provision of swales along east – west links 5. Provision of green roofs adjacent to the River Roding and designated sites and where new residential is proposed 6. Creation of Pocket Gardens throughout the site 7. Buzzard's-mouth Creek and Thames View Ditch 8. Creek Mouth Open Space 9. Ripple Nature Reserve 10. River Thames and tidal tributaries and River Roding
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1.8 Local Amenities and Community Infrastructure

There are existing local neighbourhood hubs, with convenience stores, cafés, restaurants, schools, play areas and so forth to both the north of Thames road in Thames View and south in the new Barking Riverside residential areas.

However as illustrated on the plan opposite very little of this kind of amenity provision within the RREA SIL area itself. This, coupled with the poor permeability of the area and unwelcoming street environment, means that there are very few convenient options for the local workforce to buy lunch, pick up stationary supplies or go to the gym, during the day. The area would clearly benefit from increased numbers of these amenities

There is one temporary school site at the East end of Thames road, currently operating as an SEN school, which is intended to remain for the foreseeable future. Nearby at no.47 Thames Road there is a hire-able community space 'The Warehouse', and a banqueting hall and several churches are operating out of industrial sheds along Thames Road. The SPD will ensure spaces for these needed activities are included.

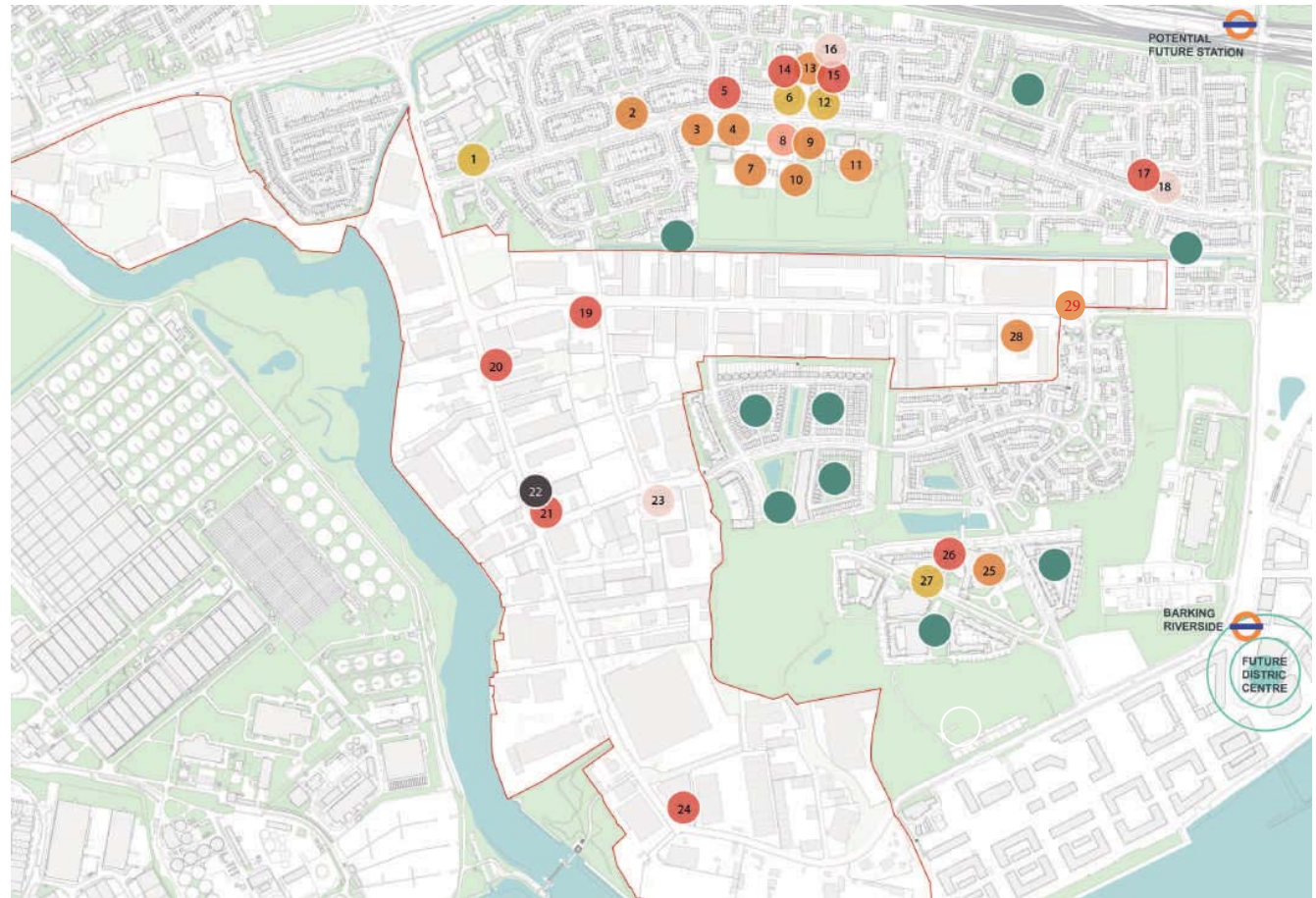


FIGURE 31: COMMUNITY INFRASTRUCTURE AND LOCAL AMENITIES

KEY

- Redline Boundary
- Essential Services
- Pubs/Restaurants/ Fastfood
- Medical
- Supermarket/ Convenience
- Community space/school
- Religion
- Play

- | | | | |
|--|---|----------------------------------|-----------------------------------|
| 1. Car Workshop | 9. Thames View Library and Sue Bramley Childrens Centre | 15. Monsoon Grill | 23. Masala Bazaar Cash and Carry |
| 2. Church | 10. Thames View Concrete Bowl Skate Park | 16. Costcutter | 24. River Takeaway |
| 3. Curzon Community Centre | 11. Thames View Infant School | 17. Royal Fish and Chips | 25. Riverlight Centre |
| 4. Thames View Community Hall | 12. Thames View Laundrette | 18. Chelmer Wines Off License | 26. Riverside Coffee Lounge |
| 5. The Lighterman Pub | 13. Thames View Muslim Association | 19. Brothers Cafe | 27. Britannia Pharmacy |
| 6. Post Office | 14. Atlantic Fish Bar | 20. Thames Cafe | 28. Riverside School |
| 7. Thames View Junior School | | 21. Daddies Cafe | 29. The Warehouse Community Space |
| 8. Britannia Pharmacy and Kalkat Doctors | | 22. Cornerstone Christian Centre | |

1.9 Key Constraints and Opportunities

The wider site area contains a unusual mix of industrial, post-industrial, riverine and residential landscapes, and consequently offers an unusual range of constraints and opportunities, illustrated on the plan opposite, which include:

- Good strategic road access: main point of road access into the site, via River Road or Renwick Road, from the two A13 junctions to the north.
- Poor public transport: limited local bus routes and poor PTAL - albeit this will be improved with the new Barking overground station in the near future, see section 1.4 on Transport.
- Poor permeability & few existing cycle routes - a key opportunity is to improve these.
- River frontages & flood risk: the western and southern sides of the site are bounded by the River Roding and the River Thames, without any road or footbridges. This also means the site is largely within flood risk zones, see section 1.10
- Protected Wharfs: there are a number of protected wharfs along the Roding and Thames edges, on which sites developments is constrained, see Appendices report on these for details.
- Beckton sewage works: large sewage processing plant across the River Roding to the southwest, producing significant odour contours as detailed in Air Quality section 1.11
- Agent of Change issues: there are a number of plots within the industrial SIL with so-called 'bad neighbour' uses, shown in brown, such as waste transfer, recycling, aggregates processing etc that generate significant noise, air pollution or smell meaning that they may present problems for new residential development adjacent. The largest and most significant of these tend to be clustered along the river edges.
- Pylons: 2 lines of large scale electricity pylons traverse the site from east to west, with associated easements.
- Plot ownership: of the hundreds of plots across the SIL only a few are controlled by LBBDD or partners and many of the remainder are in complex leasehold and freehold arrangements. This has implications for the masterplan delivery approach, as described in later sections.



Figure 32: Wharf Sites



Figure 33: Large Scale Pylons



Figure 34: Recycling and Open Use Yards



Figure 35: Beckton Sewage Works

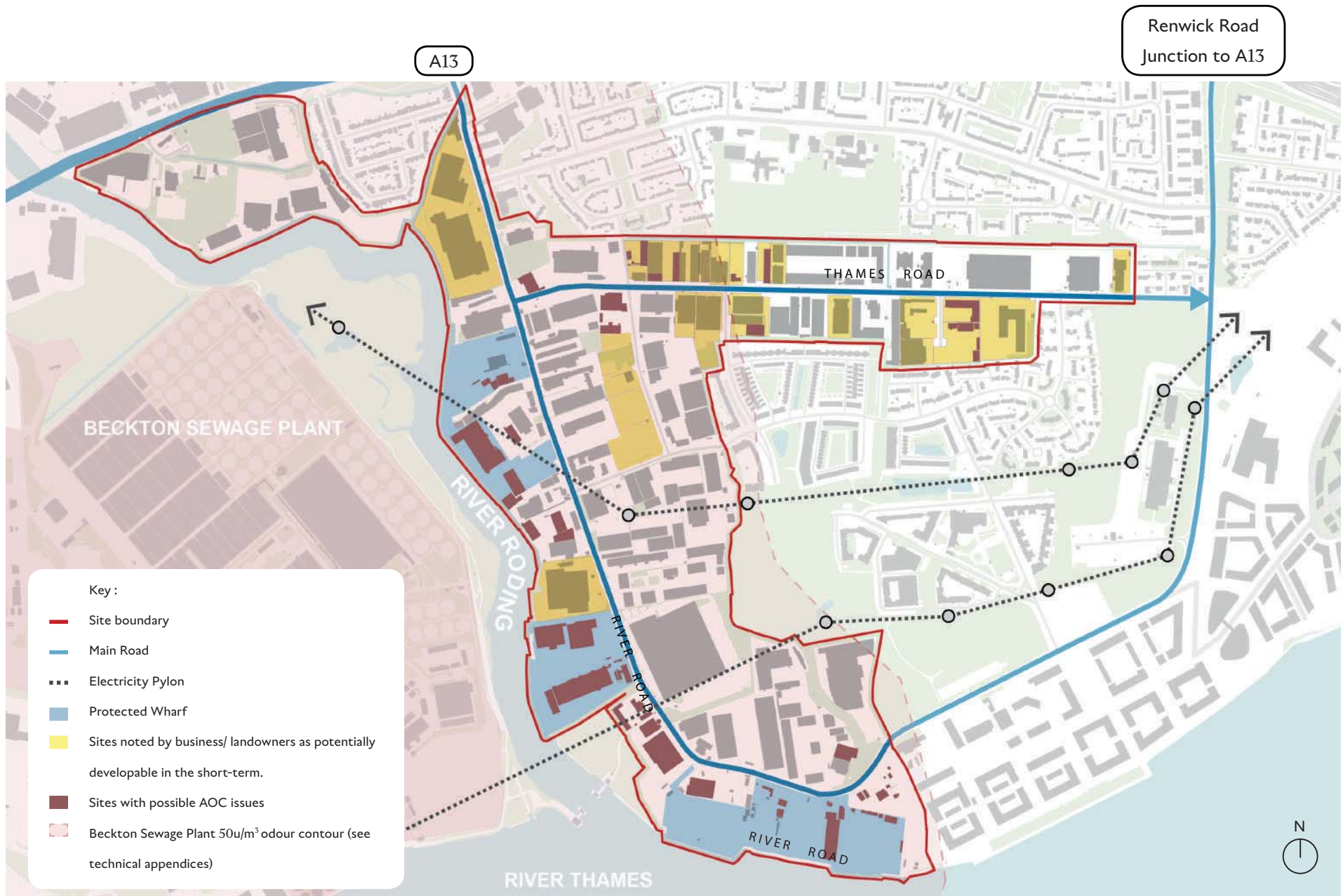


FIGURE 36: SITE CONSTRAINTS AND OPPORTUNITIES

1.10 Industrial Strategy and Evidence Base

The Borough has one of the largest quantities of industrial land in London yet one of the lowest job density and site coverage ratios given the significance of open storage, which suggests a capacity for intensification. A significant portion of the building stock was built post war and is now tertiary in nature. As London grows east there is clear potential to implement a strategy whereby the Borough's industrial areas can change to adapt to the needs of the future economy, retaining and modernising floorspace and releasing other land for housing.

BARKING AND DAGENHAM INDUSTRIAL STRATEGY(2020)

This SPD document has drawn upon both strategic and local evidence, namely the Barking and Dagenham Industrial Strategy (2020), which provides a coordinated Industrial Land Strategy for the whole of LBBD. The Barking and Dagenham Industrial Land Strategy provides an analysis of Barking and Dagenham's industrial land and buildings and notes that typically, there is an under-supply of modern buildings and spaces and that existing stock is generally old, the wrong specification and wrongly sized. In respect of the River Road Employment Area, the following is noted:

- The majority of buildings and sites are tertiary spaces, which generate inefficient uses, with some modern premises interspersed throughout the area.
- Some of the storage/warehousing units are obsolete and dilapidated and are prime for redevelopment.
- The overall area would benefit from a moderate amount of industrial release to enable a mix of uses and co-location, including residential.
- The proximity of public transport improvements at Castle Green and Barking Riverside suggests an eastern concentration of residential uses to link these areas.
- The arrival of new residents is likely to improve the remaining industrial area as a location for more modern, cleaner industrial uses.
- The area is a good industrial and logistics location with potential for intensification of such activities.
- This area is poised well to fill the gap of modern,

smaller premises for business.

A number of papers have been prepared previously to inform the local plan and this wider industrial land strategy which include:

1. Barking & Dagenham; Economic Development Study (NLP 2014)
2. Barking and Dagenham townscape and social economic characterisation study (Allies and Morrison Urban Practitioners June 2017)
3. Industrial Floorspace Capacity Assessment (GL Hearn dated 2017)
4. The Future for Our Employment Land (Hawkins Brown June 2018)
5. Industrial Intensification Report (WeMadeThat 2020)

As part of this preparation for this SPD, the Borough have also commissioned a commercial property report by Altus Group, included within the technical appendices. A summary of key items from this is as follows

- RREA is the second largest SIL in Barking and Dagenham and is capable of delivering a wide range industrial use classes and typologies,
- The River Road and Kingsbridge area, with good direct access to the A13, are appropriate locations for the identified strong and growing demand for larger scale modern buildings in the storage, distribution, and manufacturing sector.
- Large scale, low density, noisy, messy uses such as the aggregates and recycling yards are suitable for the wharf sites, and will find it hard to find other appropriate sites in the borough. These are best away from residential.
- Demand for service uses space (media production, training activities, maintenance services etc) is likely to grow, and can be suitable for multistorey buildings
- The centre of Thames Road has the potential to serve as an exemplar location for co-located industrial, residential, and alternative uses. Smaller, cleaner premises for business.
- The eastern end of Thames Road, with its ready access to the improving public transport options at Barking Riverside with the overground extension, is appropriate location for residential and will

contribute significantly to the borough's housing targets.

SECTORS & EMPLOYMENT

The Industrial Intensification Report (WeMadeThat 2020) notes that the total number of employees working in the RREA area is estimated at 3,600. Different locations are delivering different employment density, illustrated on page 21, with high employment densities are generally concentrated around business parks and typically within smaller units. Manufacturing, Wholesale and Transport & Storage remain dominant sectors, together constituting the majority of businesses in the area (61%), and there is a significant cluster of clothing and textiles manufacturers, retailers and wholesalers.

The report concludes that

- 'Goods handling' businesses are likely to continue to be an important sector for the local economy.
- Strong demand is reported at both the largest and smallest
- Ends of the spectrum, with varying spatial needs As such the overall area needs to continue to cater to a range of industrial uses and sizes of units
- Local regeneration proposals, in particular around Thames Road, will underpin demand in protected industrial areas
- Intensified industrial buildings can help to unlock both employment and housing capacity in an emerging policy context,

1.11 Business consultation and Engagement

This SPD has been informed by a series of consultation events with landowners and businesses operating in the area. The objectives of this consultation included: understanding what growth and development plans existing and new businesses have over the plan period; what infrastructure is needed to support business growth; and what businesses and landowners thought about emerging plans. Key findings are summarised

March 2020 (WMT Business Consultation with smaller occupiers)

A more modern fit-out, desired especially by businesses who have visiting clients, with better access for large vehicles than current premises.

- Most respondents would prefer buying to renting and value autonomy over their space is wanted.
- Strong demand in the area for small units circa 250 sqm, feedback that SME units are too large “5,000sqft is a tricky size here”
- Some concerns over operating from multi-level, from eg. goods handling businesses (wholesale, distribution, storage) who may be less suited to smaller multi-level spaces.

August 2020 (BeFirst Consultation website and letterdrop)

All businesses and landowners in the area were invited to review the emerging SPD proposals in August 2020. Feedback from businesses noted:

- “It will be great to develop this River location into an attractive, modern and chic hub, as many areas in London have already done”.
- Businesses are generally keen to grow and wish to deliver modern, fit for purpose buildings to secure their future. There is growing interest from businesses in the catering industry, linked to the relocation of the city markets to the former Barking Power Station.
- Businesses welcomed the ambitious plans for greening the area and improving links to public transport nodes.
- B2/B8 businesses welcomed the planned concentration of bigger plots/buildings along River Road for its access to the A15.

A.N.D Industrial Soft Marketing Research Consultation August 2020

- Many occupiers would value design of industrial building, as opposed to standard low quality sheds with no architectural design.
- Businesses wanted a plug and play solution and did not want to spend lots of resources fitting out a space.
- Businesses in the Barking area, felt that there were a lack of facilities for workers. A good café and business centre would be a welcome addition.
- Barking-based businesses hoped that developments would lead to a better environment across the estate and improve wider issues such as public realm, in particular pavements, enhanced facilities and better overall design.
- Several occupiers in Barking were freeholders and would prefer to buy rather than rent.
- Concern from some occupiers re. access from multi-storey buildings at busy points, and

what management would happen if businesses were anti-social, particularly on issues such as yard space and blocking delivery routes.

- Many businesses prioritised functionality and basic requirements over the enhanced level of facilities within shared building.
- Of those surveyed, approximately 50% would consider moving to a multi-storey industrial building.

In Summary there is enthusiasm for growth and change in the area, particularly around public realm and services. Feelings towards multi-level space were mixed, particularly from larger businesses. There is a continuing strong demand for larger. Traditional B2/B8 uses to remain, which we are accommodating in River Road, alongside growing demand for smaller, modern industrial workspace which we are going to be accommodating along Thames Road.

WOULD YOU CONSIDER MOVING TO BARKING

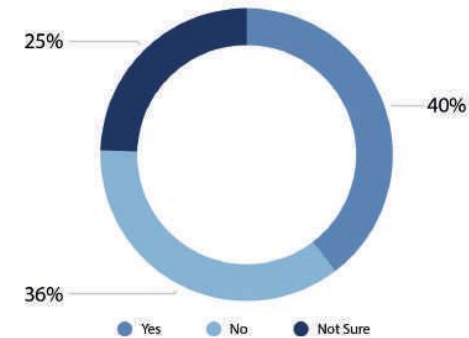


Figure 37: Survey Responses to A.N.D Soft Marketing Research

WOULD YOU CONSIDER A STACKED INDUSTRIAL PRODUCT

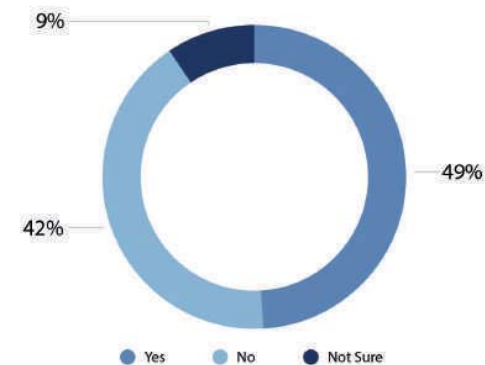


Figure 38: Survey Responses to A.N.D Soft Marketing Research

1.12 Thames Road: Plot Sizes and Development Approach

PLOT OWNERSHIP

Of the hundreds of plots across the TRRRA SIL only a few are controlled by LBBD or partners, and many of the remainder are in complex leasehold and freehold arrangements. As such, in terms of land acquisition and delivery strategy, the masterplan is intended to work as a flexible framework that will allow plots to be brought forwards either separately or in groups, by both private land owners and / or the Borough

BeFirst intend to develop sites they control quickly in order to kick start change in the area, and may purchase other plots in future, but it is not intended for the Borough to use Compulsory Purchase Orders to acquire land. Based on BeFirst's engagement with landowners along Thames Road over the last few years, there is an clear appetite to develop many of the plots, and once the process of transformation is started through catalyst plots, it is envisaged up to 50% of the remaining plots may follow over the next 5-10 years.

THAMES ROAD PLOT SIZES

As illustrated on the plan below, the sizes and proportions of plots varies significantly along the length of Thames road, with three typical types:

- Narrower 'Finger' plots, typically of around 30m wide x 90m deep, most of which are clustered at the western end of Thames road
- Squarer 'Courtyard' plots of around 60-90m wide x 90m deep, which form majority of plots
- A smaller number of 'Large' plots of 100-300m wide x 90m-120m deep

Appropriate block typologies, massing and access strategies will vary between these different plot types along Thames Road. Both the square and larger plots are suitable to accommodate urban courtyard block for either residential or co location uses. However even smaller plots are typically bigger than 2500sqm, with street frontage with direct access, and so are capable of being developed as good sized urban buildings without their neighbours being simultaneously developed.

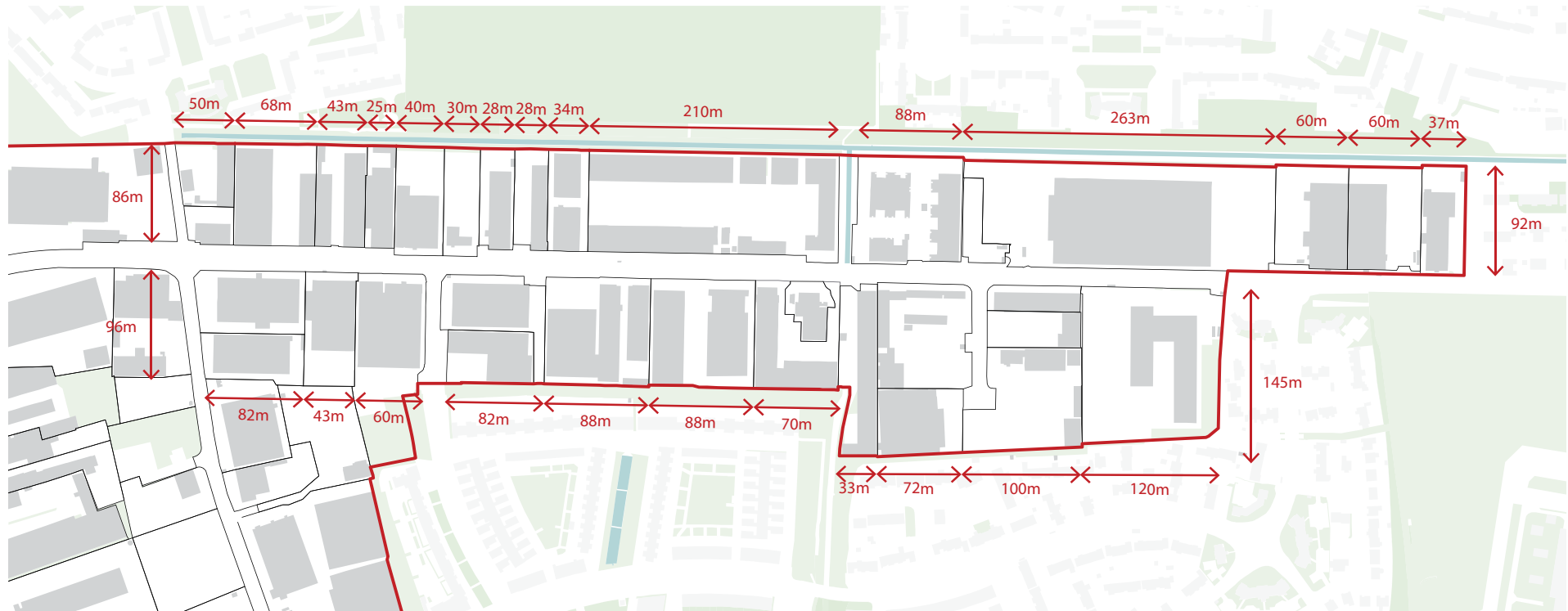


Figure 39: Plot Zoning Diagram

1.13 Flood Risk and EA Issues

The River Road Employment Area is almost entirely located within Flood Zone 3, within an area benefiting from flood defences as shown on the Flood Map for Planning, with the primary source of flood risk being the Roding, Thames and Mayes Brook. Full details of flood risk for the site and EA issues regarding safeguarded wharfs can be found in the technical appendices. However a summary of key issues is as follows:

- Any proposed developments within River Road Employment Area will require a site-specific Flood Risk Assessment to be undertaken at the planning stage, informed by consultation with key stakeholders including the Environment Agency, Lead Local Flood Authority and Local Authority Emergency Planning Department. Site specific assessments for future developments should consider the following:
- Full Masterplan Area: Any development should provide internal access to a place of safe refuge (e.g. first floor or above) which should be accompanied by a Flood Warning and Evacuation
- Plan, developed in consultation with LBBDs Emergency Planning Officer and the Emergency Services. Flood depths to be confirmed on a site-specific basis.
- Full Masterplan Area: Residential habitable space or more vulnerable uses should be avoided at ground floor and any sleeping accommodation should be located on the first floor or above.
- Residential dwellings may be acceptable at ground floor through the use of duplex units or raised ground floors, to be confirmed with the Environment Agency on a site by site basis.
- Full Masterplan Area - Basement dwellings/ vulnerable use would not comply with flood risk requirements. Less vulnerable basement development would need to demonstrate compliant, safe internal access to a level above the breach flood water level.
- Zones 1,2,5 & 6 - Mayes Brook flood extent may require further investigation/ modelling to ensure developments would not result in a loss of flood plain storage within the
- Undefined fluvial Flood Zone 3a, with potential flooding expected within Area 1 and the north of Area 2.
- Zones 1,2 & 3 River frontage sites - current day standard of flood defences protection must be maintained with sufficient space to enable maintenance/ inspection to continue and to ensure future raising is not prohibited. Where plots are being developed, options to raise and set back flood defences should be explored, in consultation with the EA.
- Zones 2 & 3 Safeguarded Wharves - any development on safeguarded wharf sites should carefully consider the commercial demand for current waterborne freight, and opportunities to consolidate of existing uses alongside introduction of any new development use classes into the plot, in line with GLA & EA guidance.

The River Road Employment Area presents a number of significant opportunities to improve flood risk and water environment. These have informed the masterplan proposals and should be encouraged on development of individual plots or areas, and include the following:

- River Roding & Thames Path - An aspirational opportunity to create public access along river frontage, creating better links to neighbouring areas to the north and south, and connecting via green link corridors into RREA. Set back and naturalisation of tidal

watercourse frontage on these sites is encourages to enhance ecological value.

- Streetscape - Improvement of streetscape with urban greening and retrofitting of SuDS should be considered, to improve water quality discharging to River Thames whilst improving biodiversity and amenity value of the public realm space.
- Thames View Dyke - De-canalising of the Thames View Dyke into a naturalised channel could be incorporated into Zones 5, 6, and 7 to improve the public realm, with added opportunity for ecological enhancements and reducing flood risk. The Thames View Dyke connection to Buzzard Mouth Creek could also be significantly improved by de-culverting, bringing further blue/ green infrastructure to the area.
- Reducing LBBD Fluvial Flood Risk - The wider area would benefit from modelling work to better understand of the interaction between the River Roding, River Thames and Mayes Brook catchments to explore opportunities to reduce flood risk within the wider borough. Over pumping from Mayes Brook into the River Roding is likely to reduce the risk of flooding within LBBD, however would need to be investigated through further hydraulic modelling to ensure it does not increase flood risk within the River Roding catchment.
- Surface Water/ Sewer Improvements - the wider area would benefit from a strategic assessment of surface water and sewer flooding being carried out, to identify opportunities to provide strategic infrastructure improvements.

1.14 Air Quality and Odour and Acoustics

A desk top review of the air quality issues was undertaken to inform the masterplan for the RREA, described in detail in the technical appendices. This identifies key potential constraints to the Masterplan Area as follows:

- The site has Air Quality Management Area designation;
- Emissions from vehicles using the A13 to the north, likely to result in high annual mean NO₂ concentrations nearby
- Odour from the Beckton STW to the southwest.

AIR QUALITY

In the absence of air quality monitoring, data provided from the LAEI provides the best source of information regarding air quality in the Masterplan Area, which shows that annual mean NO₂ concentrations in the northernmost part of the Masterplan Area in particular were a potential constraint and therefore residential development should not be located here in the masterplan. The redevelopment of the Thames Rd area to include less industrial and more residential provides an opportunity to reduce transport and operations emissions from industrial uses here, which should have a beneficial effect on local air quality. The impact of any new residential development in terms of traffic emissions should be mitigated through a variety of measures including, the implementation of Travel Plans, Car Free status, provision of electric vehicle charging points, car clubs and encouraging the uptake of sustainable modes of transport and use of public transport etc.

ODOUR

A review of information regarding odour from Beckton Sewage Treatment Works (STW), including odour modelling and complaints data, has shown that few odour complaints have been made historically by existing local residents and whilst there is the potential for odour nuisance to occur across the Masterplan Area this will be greatest on the western side of the Masterplan Area. Consequently, the masterplan should seek to focus residential development to the eastern side of the RREA, along Thames Road, further away from Beckton STW. Beckton STW is extremely important to London's sewerage and is currently being upgraded as part of the Thames Tideway infrastructure project to cater for the forecast increase in sewer flows from future population growth, received from the Thames Tideway Tunnel and the Lee Tunnel. The 25km tunnel is due for completion in 2024. In preparation for this Beckton STW has had odour abatement works installed in 2014 at a cost of £67M to upgrade the primary sedimentation tanks with the installation of odour containment covers.

AGENT OF CHANGE

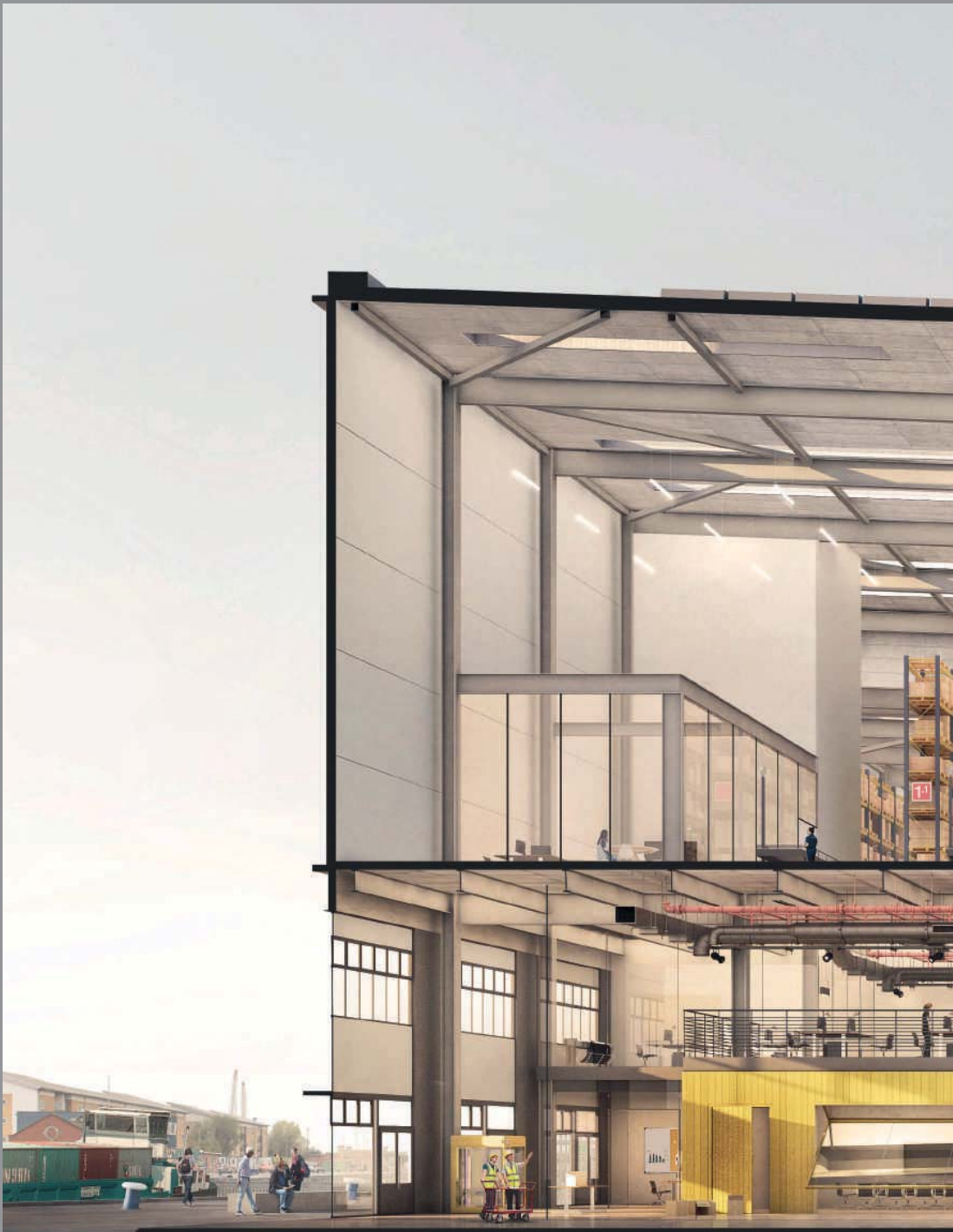
- Through the 'agent of change principal', the National Planning Policy Framework and the London Plan assign responsibility to developers to mitigate significant adverse effects on existing business, as a result of the introduction of new development. This is primarily to protect viability and potential growth of existing businesses from new nuisance complaints, including odour and noise. This means the following should apply to the masterplan, to address AOC issues.

- Location of new residential uses away from Beckton STW as above
- New industrial uses with potential to generate significant emissions to air should be located to the west, away from both existing and proposed residential dwellings.
- Cleaner industrial uses should be located in Thames Road, where they may be positioned near to proposed residential dwellings.
- Any new noise-sensitive development to be designed such that noise from nearby existing businesses are considered as part of the design.
- Strategic site layout of the masterplan should be designed to help provide acoustic separation for both existing sensitive receptors from new noise sources and new sensitive receptors from existing noise sources.
- It will help AOC issues if new industrial uses in the centre of Thames Road are proposed as planning class E (previously B1), meaning that less intensive (and less antisocially noisy) industrial uses should be directly adjacent to noise sensitive areas, and to provide buffering from the heavier/noisier industrial areas. This is a key approach within the design to manage noise at this early stage and subsequently guide compliance with Agent of Change and the new London Plan. This approach will help to reduce reliance on building sound insulation design to mitigate noise, which should be considered as the 'last-line-of-defence'.



Figure 40: Map showing odour concentration contours emanating from Beckton STW

2.0 River Road Employment Area Proposals



2.1 SPD Principles

The overall vision of the RREA SPD are to create a cohesive and sustainable mixed use district that allows the industrial working area to flourish and grow, delivers new homes for the borough and better stitches together the surrounding neighbourhoods. The guiding principles that will deliver this vision are outlined on these pages below.



Figure 41

PRINCIPLE 1

INTENSIFY INDUSTRIAL USE TO
RELEASE LAND

- Retain and increase the quantum of industrial/ employment floorspace through intensification
- Modernise the industrial base for the borough, provide a mix of sizes and types of unit to support a range of employment uses.
- Incorporate innovative typologies that intensify land use and optimise site potential, including multistorey industrial and co-located industrial and residential uses.



Figure 42

PRINCIPLE 2

DELIVER NEW HOMES

- Provide high quality, mixed tenure housing for local people and working Londoners
- Optimise use of available land to deliver maximum number of homes
- Incorporate a range of block typologies to suit the range of plots
- New massing to be designed to support improved streetscape



Figure 43

PRINCIPLE 3

CREATE A COHESIVE AND
SUSTAINABLE MIXED-USE COMMUNITY.

- New homes and new jobs to be near each other and stitched together
- Create a coherent, liveable and affordable mixed use neighbourhood
- Improve streetscape and active frontage to industrial and commercial plots
- Zoning and plot design to allow successful co-location.
- 'Bad neighbour' and agent of change issues to be mitigated.



Figure 44

PRINCIPLE 4

CONNECT LOCAL NEIGHBOURHOODS,
IMPROVE GREEN LINKS

- Promote north south connections across Thames Road to improve links between Barking Riverside and Thames View Estate / Castle Green.
- Improve connectivity from new train stations to existing and proposed residential neighbourhoods



Figure 45

PRINCIPLE 5
SUSTAINABLE TRAVEL & TRANSPORT

- Retain & improve vehicle servicing infrastructure to industrial plots
- Improve pedestrian and cyclist infrastructure
- Create a clear network of streets that support way-finding and prioritise pedestrian and cycle movement
- Support the functionality and character of industrial areas of the site with robust, hard-wearing and functional streets and spaces



Figure 46

PRINCIPLE 6
GREEN INFRASTRUCTURE & WORKING LANDSCAPE

- Create better links between existing green spaces and towards River
- Create additional pocket squares and gardens to support new mixed-use centre
- Improve Play provision, sports provision and running / walking trails
- Plant new trees and encourage vertical greening to moderate air quality and natural urban cooling and support 'plants for pollinators'
- Sustainable drainage systems
- Mimic site-specific ecology to inform new landscapes.



Figure 47

PRINCIPLE 7
ADAPTABILITY & FLEXIBILITY

- Allow plots to come forwards individually or grouped
- Provide flexible framework for growth rather than detailed design codes
- Support transformation slowly over time rather than all in one hit



Figure 48

PRINCIPLE 8
PLACEMAKING

- Create a legible identity and sense of place for Thames Road River Road area.
- Retain distinctive industrial character
- Strengthen riverside character
- Build on qualities of existing green 'post industrial' landscape to create character

2.2 Proposed Land Use and Character Areas

The proposed land zoning strategy for the masterplan is shown opposite on the facing page. Key moves that drive this are as follows

- Intensify Industrial floorspace in zone 5 in the centre of site, to release land for residential uses on Thames Road
- Thames Road re-zoned for co-location use and residential use, affording improved connectivity to existing residential areas to north and south of cross Thames Road
- This produces a gradation from heavy/ dirty industrial in the West through to cleaner/ lighter industrial and co location to residential in the East, helping to buffer and mitigate industrial traffic.
- Strengthen and create new pedestrian/ cycle routes N-S across Thames Road and the Ripple waterway to connect surrounding areas
- Co-location zone buffers residential area from industrial, creates distinct character areas with gradation along length of Thames Road
- Provide New / Improved green spaces along Thames Road
- Strengthen and create new green links E-W across River Road area, towards River Roding - supports future river edge walkway
- Retain protected wharfs and allow low density river edge uses to remain in position
- This Strategy is deliverable in phases

This zoning strategy will create 5 distinct character areas within the masterplan as follows



Figure 49



Figure 50



Figure 51

ZONES 1, 2 & 3 RIVER FRONTAGE

INDUSTRIAL

Industrial uses retained, with different frontages of the Rivers, A13 and River Road. Mainly Larger shed units. Some plots suitable for new large scale stacked industrial intensification. Protected wharfs retained for existing large scale, heavy goods, open yard uses such as batching, aggregates and recycling. In future as values increase it may be possible to develop wharf sites in Creekmouth for co-located industrial and residential use, linking to residential river front sites to the east.



Figure 52

ZONE 4 - STANDARD INDUSTRIAL

Standard industrial sheds, typically single storey estates of mid box and Big Box units. Generally there is better quality existing stock in this area. Some intensification likely to follow in later phases generally on northern plots.



Figure 53

ZONE 5 - INTENSIFIED INDUSTRIAL

CENTRE

Focus for intensification of industrial space throughstacked industrial developments, accomodating all units type including Big Box/ distribution, Mid Box, medium sized SME units, and flatted factory buildings. Some standard ground floor industrial retained.



Figure 54

ZONE 6 - CO-LOCATION ZONE

New mix of residential, industrial and commercial uses. Industrial to be smaller scale, cleaner type E uses complementary with housing. Co located, multistorey developments, with new connections to open spaces and neighbouring communities. A new neighbourhood centre is created, focused around the middle of Thames Road and the public space of the key north-south link at the east end of the colocation zone.



Figure 55

ZONE 7 - RESIDENTIAL & EDUCATION

New mainly residential zone, also incorporating education uses, community spaces, shops and other amenities. Focussed around Thames road and the key north-south route, with new connections to open spaces and neighbouring communities. Typically, multistorey development, with residential accommodation in both zone 6 & 7 likely to be predominantly apartments with accessible roof terraces and balconies. New schools may be freestanding or collocated in mixed use residential blocks.

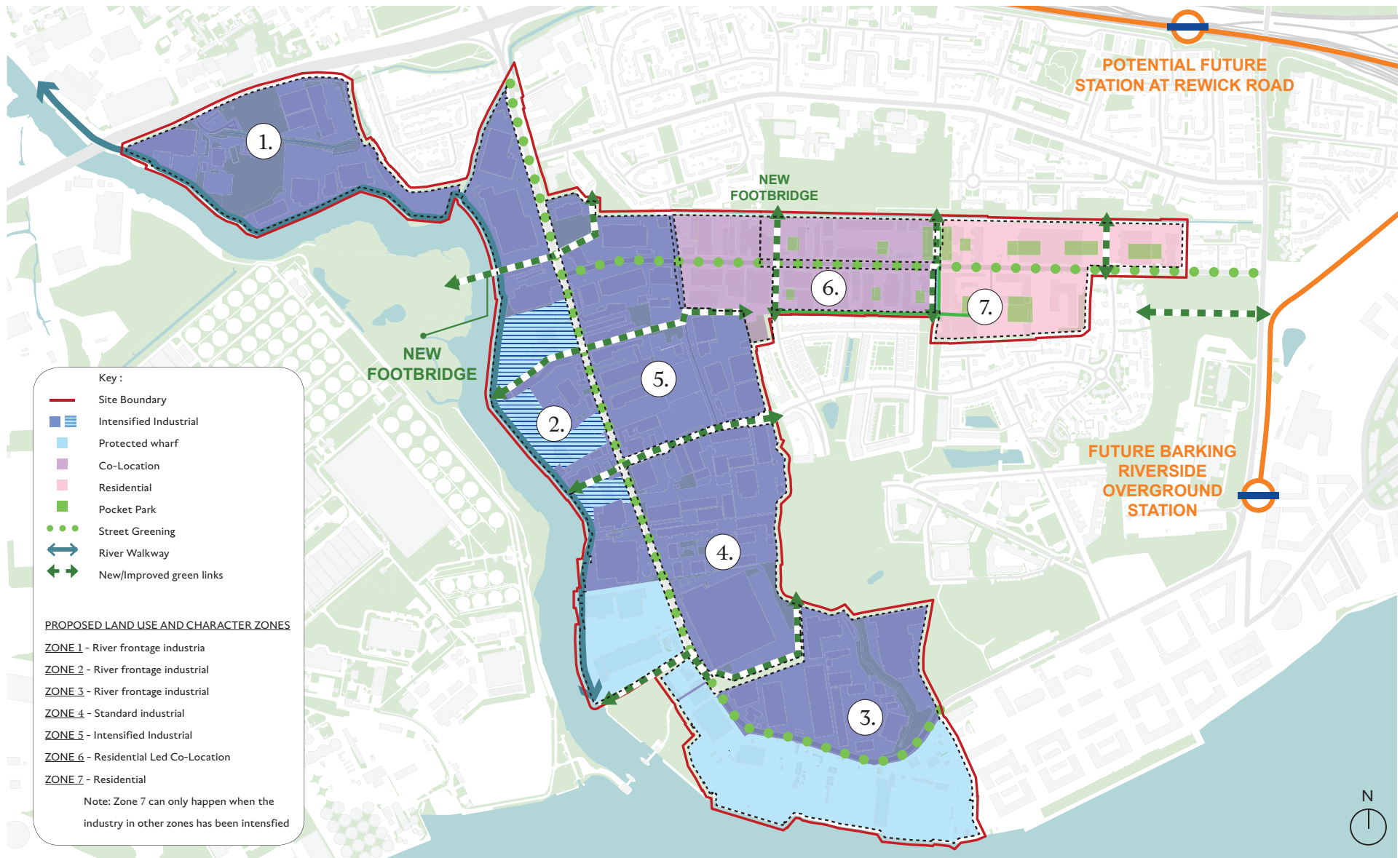


FIGURE 56: LAND USE AND CHARACTER AREAS PLAN

2.3 Industrial Floorspace Strategy and Phasing

During the masterplan feasibility stage, our floorspace and zoning schedule was used to model and quantitatively assess different land zoning and intensification scenarios, outputs from which are included within the appendices as the ‘Scenario Testing Design Development Pack’. The preferred outcome of this process is the industrial floorspace scenario shown here, which underpins the masterplan land zoning strategy, which essentially seeks to intensify industrial uses within the centre of site (shown in yellow) in order to release land for co-location uses in the centre of Thames Road (shown in purple) and residential use in the eastern part of Thames Road (shown in pink).

The industrial intensification strategy is proposed in 3 phases of notionally a decade each, illustrated here, with an increasing amount of total industrial floorspace being provided within each phase, to be achieved through the development of industrial plots in the centre of the site as new multistorey industrial buildings (plots shown in yellow). In order to achieve the plot development ratios required on the intensified industrial plots to support this overall strategy, multistorey industrial typologies will be required. There are various different types of these buildings which provide different types of industrial space, as illustrated in the examples below and in standard industry guidelines such as the Mayor’s ‘Industrial Intensification Primer’. Each type would typically achieve varying plot development ratios, ranging from around 100% for stacked ‘big box’, to 150% for stacked ‘SME’, to up to 250% for multi storey ‘flatted factory’, as compared to a typical 35-45% plot development ratio for modern single storey industrial developments. These multi-storey typologies are relatively new within the UK and currently seen as relatively risky by the majority of private investors, but are a fast growing sector that seems likely to become much more commonplace in the next 5-10 years.

Each of these phases would have an equivalent phased landscape infrastructure strategy, described in section 2.4.

MODERN LOW RISE

Single storey new build light industrial estate



Figure 57: SEGRO Park Dagenham - Plot 3 (2023)

BIG BOX

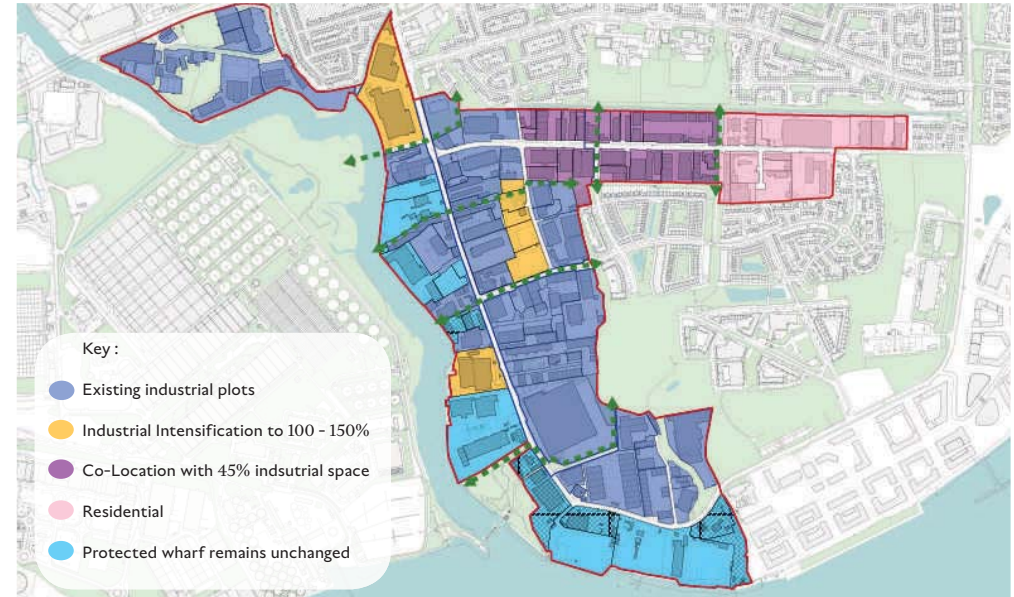
Multistorey/Distribution, with HGV ramps/raised decks



Figure 58: X2 Hatton Cross(2008), Heathrow

FIGURE 59: PHASE 1 - 2020-2030

INDUSTRIAL FLOOR SPACE = 350,000 SQM GIA “NO NET LOSS”

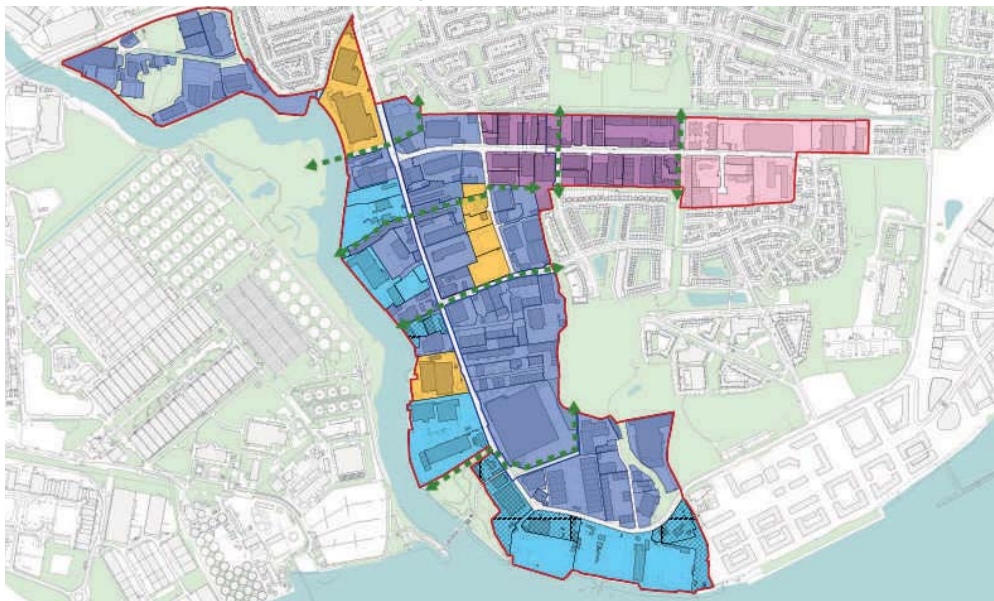


- The most significant phase to achieve, delivers ‘No Net Loss’ figure of circa 350,000sqm industrial floorspace.
- The straightforward phase to deliver, in that strategy requires only sites already owned by BeFirst in zones 1, 2 and 5 to be developed as stacked industrial.
- This scenario assumes these stacked industrial sites are developed at 100-150% plot ratio, and would deliver a mix of different sizes/types of industrial units to include Big Box, SME and flatted factory.
- Centre of Thames Road developed as Colocation at 45% industrial plot ratio
- West of Thames Road becomes residential zone, with no industrial floorspace
- Key public realm improvements delivered to support initial transformation of area.
- New Barking Riverside station comes online.

Zone	Total Existing Site Area (m ²)	Total Existing Industrial Site Area GEA (m ²)	Total Existing Industrial Floor Area GEA (m ²)	Total Proposed Industrial Floor Area GIA (m ²)	Total Proposed Residential Floor Area GIA (m ²)	Target Plot Ratio of Industrial (overall)
1	73744	62827	25249	25131	0	40%
2	184212	184212	77123	132653	0	58%
3	183133	179438	51391	53831	0	30%
4	121936	121936	53889	54871	0	45%
5a	129835	129835	47634	131133	0	50%
5b	38636	38636	18393	17000	50413	44%
6a	61723	61723	39255	27158	129343	44%
6b	85192	70330	35693	0	123827	0%
Total	878410	848937	348627	349752	303582	41%

FIGURE 60: :PHASE 2 - 2030-2040

INDUSTRIAL FLOOR SPACE =440,000 SQM GIA “INTERMEDIATE”

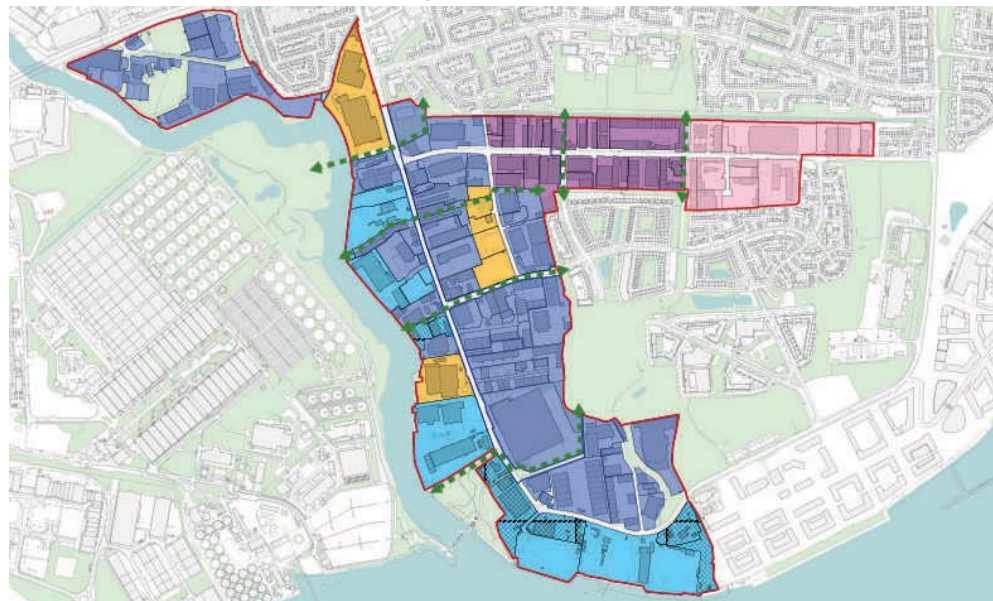


- Delivers increased area of circa 440,000sqm industrial floorspace, as more sites within central zone 5 are developed as stacked industrial
- Delivery strategy requires sites not currently owned by BeFirst to be developed as stacked industrial. Anticipated to happen organically as the London market for these types of development matures and the area improves
- New residential and colocation zones now fully established, supporting commercial growth in the area.
- This scenario assumes these stacked industrial sites are developed at 100-150% plot ratio, and would deliver a mix of different sizes/types of industrial units to include Big Box, SME and flatted factory.

Zone	Total Existing Site Area (m ²)	Total Existing Industrial Site Area GEA (m ²)	Total Proposed Industrial Floor Area GIA (m ²)	Total Proposed Residential Floor Area GIA (m ²)	Target Plot Ratio of Industrial (overall)
1	73744	62827	25131	0	40%
2	184212	184212	132633	0	72%
3	183133	179438	53831	0	30%
4	121936	121936	54871	0	45%
5a	129835	129835	131133	0	101%
5b	38636	38636	17000	50413	44%
6a	61723	61723	27158	129343	44%
6b	85192	70330	0	123827	0%
Total	878410	848937	441757	303582	52%

FIGURE 61: PHASE - 2040-2050

INDUSTRIAL FLOOR SPACE = 560,000 SQM GIA “0.65 GLA TARGET”



- Delivers increased area of circa 560,000sqm industrial floorspace, achieving the GLA aspirational 0.65 ratio for the whole SIL, as the long term vision for the area.
- All sites within central zone 5 and some adjacent sites in zones 1, 2 and 4 developed as stacked industrial.
- Anticipated that London market for these types of intensification development now well established and SIL area very significantly transformed.
- This scenario assumes these stacked industrial sites are developed at 100-150% plot ratio, and would deliver a mix of different sizes/types of industrial units to include Big Box, SME and flatted factory.

Zone	Total Existing Site Area (m ²)	Total Existing Industrial Site Area GEA (m ²)	Total Proposed Industrial Floor Area GIA (m ²)	Total Proposed Residential Floor Area GIA (m ²)	Target Plot Ratio of Industrial (overall)
1	73744	62827	55288	0	88%
2	184212	184212	130791	0	71%
3	183133	179438	53831	0	30%
4	121936	121936	97549	0	80%
5a	129835	129835	181769	0	140%
5b	38636	38636	17000	50413	44%
6a	61723	61723	27158	129343	44%
6b	85192	70330	0	123827	0%
Total	878410	848937	563385	303582	66%

2.4 Landscape and Ecology

Landscape vision principles for the masterplan are as follows:



Figure 62

CONNECTIVITY

- Create a well-connected neighbourhood which promotes walking and cycling through the delivery of a network of Green Links and pedestrian-friendly streets, to connect users with public green spaces, strategic cycle routes, and key destinations
- Links should prioritise pedestrians and cyclists to promote, sustainable transport, reduce pollution and protect wildlife.

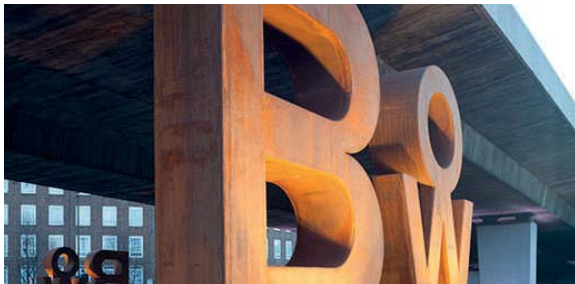


Figure 65

LANDSCAPE CHARACTER

- The landscape to promote a strong sense of place, building on the site's history and industrial character in the use of materials, furniture, signage and public art; a robust, functional materiality and scale enough to 'stand up' to the industrial setting.
- The site's history is bound with water, to be emphasised through the incorporation of water features, public art and interpretive signage.
- Soft landscape should be naturalistic, biodiverse and compliment the industrial built form



Figure 63

BIODIVERSITY AND ECOLOGY

- Protect and enhance sites of ecological importance and deliver new biodiverse landscapes. Green Links to act as wildlife corridors between existing habitats.
- Sufficient planted buffers should be created between routes and habitat areas, Lighting design should mitigate any adverse effects on wildlife
- Habitats and species that support the LBBD Biodiversity Action Plan should be prioritised.
- Where feasible, developments should incorporate biodiverse green roofs and living walls.



Figure 66

AMENITY

- The masterplan should deliver public spaces that are attractive, safe and provide opportunity for a variety of uses for a wide demographic of users.
- Amenity spaces should be well overlooked and predominantly green in character.
- Play and playable space should be provided in line with Local Authority requirements.



Figure 64

BLUE INFRASTRUCTURE AND SUDS

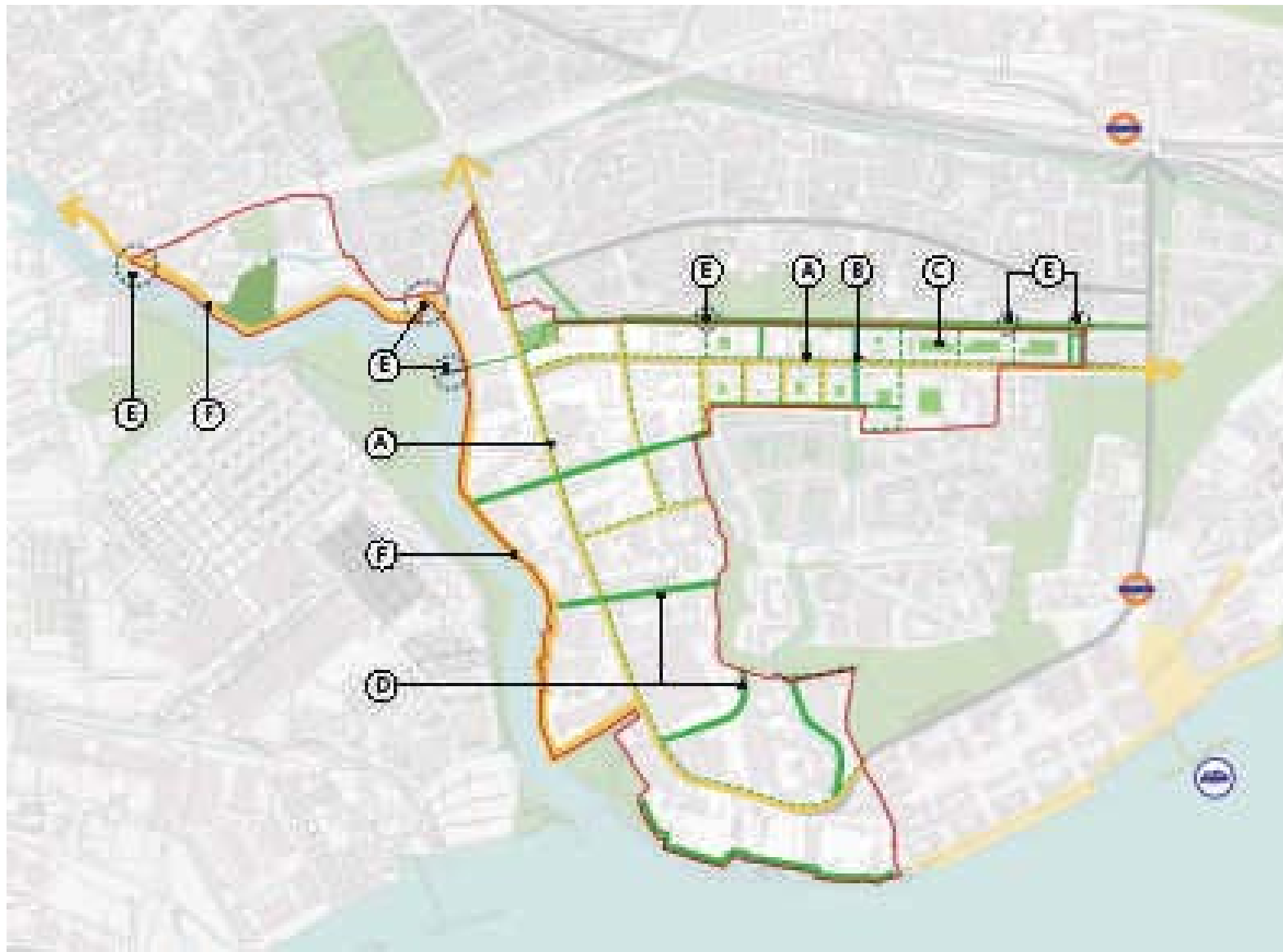
- Existing watercourses, tributaries and ditches should be protected and enhanced, and should inform the layout Green Links where possible.
- Where feasible developments should prioritise Sustainable Drainage Systems (SuDS) in landscaped areas.
- Where existing watercourses or ditches are culverted or buried, opportunities should be sought to naturalise these through de-culverting and 'daylighting'.



Figure 67

PHASING AND DELIVERY

- Landscape infrastructure should be prioritised within early phasing and delivery to signify change
- Elements within Council ownership should be prioritised and fast-tracked where feasible and be aligned with forthcoming development.
- Meanwhile uses and temporary landscapes to be considered to provide enhancement and community interaction during construction.



KEY

- Redline Boundary
- Streets / River Walk
- Green Links
- Footbridge / water crossing

Landscape Vision Categories

Refer to the following pages for specific proposals/opportunities and phasing

- A Existing Infrastructure Enhancements: street greening, improved footways, surfacing/junctions. Designated cycle lanes on Thames Road and River Road
- B New Connections: network of new streets and green links promoting sustainable travel modes
- C Green Space and Public Realm: a variety of new public spaces for play, recreation and amenity. Some provision may be required within plot ownership boundary's, to be agreed at plot planning stages
- D Green Infrastructure: new green links and wildlife corridors to connect parks and ecological areas. Links should facilitate pedestrian and cycle movement but prioritise ecology and habitat creation
- E Bridge Links and Gateways: new footbridges to facilitate wider connectivity and overcome movement barriers. Enhancements to gateways such as underpasses and key junctions / way-finding
- F Strategic Links / River Walk: explore opportunities to open up public access to the River Roding, with potential to create a continual river walk from Creekmouth to Barking town centre. Requires negotiations with land owners and Port of London Authority regarding Safeguarded Wharves

FIGURE 68: LANDSCAPE INFRASTRUCTURE VISION PLAN

2.5 Landscape Infrastructure Phasing

Improvements to Landscape and public realm are also envisaged to be delivered in a phased approach, with the most urgent or simpler items first, and the longer term, more complex or aspirational elements to follow in future years.

Placement of new green links, features and spaces are shown in the preferred locations to suit the overall spatial vision of the masterplan, however it is understood that in delivery some of these may have to move or flex to suit local design conditions, plot availability, sequence of development and other constraints that become apparent over time. The intention is that the masterplan is not reliant on any one individual move but that the quality and permeability of the area will build incrementally as these are added over the next 20-30 years.

Proposals for each landscape phase are as listed here beneath each plan:



FIGURE 69: LANDSCAPE INFRASTRUCTURE: PHASE ONE

- ① Enhancements to Thames Road: removed/reduced on-street parking, designated cycle lanes, improved footways and surfacing, street trees / greening
- ② New north-south green links and streets: promote north-south connectivity between Thames View, Ripple Greenway, Thames Road and Barking Riverside, prioritising pedestrian and cyclists. New footbridges over the 'Thames View Ditch'
- ③ Enhancements to River Road (northern section): removed/reduced on-street parking, designated cycle lanes, improved footways and surfacing, street trees / greening
- ④ Enhancements to Long Reach Road / Creek Road / Crossness Road: reduced on-street parking, designated cycle lanes, improved footways,, street trees / greening
- ⑤ Public route and access to the River Roding at the Welbeck Wharf development site. Potential public amenity space with river views
- ⑥ Public route and access to the River Roding at the early-phase development site. Potential public amenity space with river views
- ⑦ New public green spaces brought forward as part of residential and co-location development plots. Provision of amenity, play, biodiversity and SuDS where appropriate
- ⑧ East-west link offering alternative to route Thames Road with pedestrian/cycle priority. Biodiversity enhancements to existing planted buffer to the north of Barking Riverside

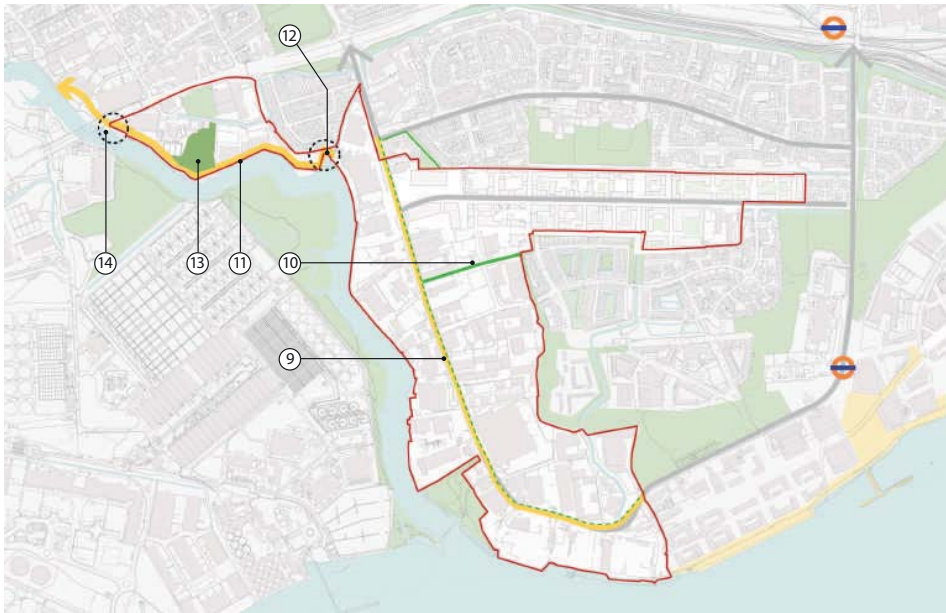


FIGURE 70: LANDSCAPE INFRASTRUCTURE: PHASE TWO

- ⑨ Enhancements to River Road (Central and Southern sections): removed/reduced on-street parking, designated cycle lanes, improved footways and surfacing, street trees / greening
- ⑩ New east-west green link connecting River Road to Lawes Way
- ⑪ Riverside Walk (northern section): a publicly accessible river walk connecting Thames Road / River Road to Barking Town Centre, linking with the existing riverside walk west of the A13 underpass
- ⑫ New Footbridge over the Mayes Brook, connecting to Riverside Walk (North) and Welbeck Wharf site
- ⑬ Protect, enhance and expand Gascoigne Road Pumping Station SINC. Ecological and habitat enhancements with improved maintenance. Potential for southern / expanded tip to provide public green space along riverside walk with south-facing aspect
- ⑭ Improved access, public realm, lighting and way-finding to the A13 underpass, linking to existing riverside walk to the west

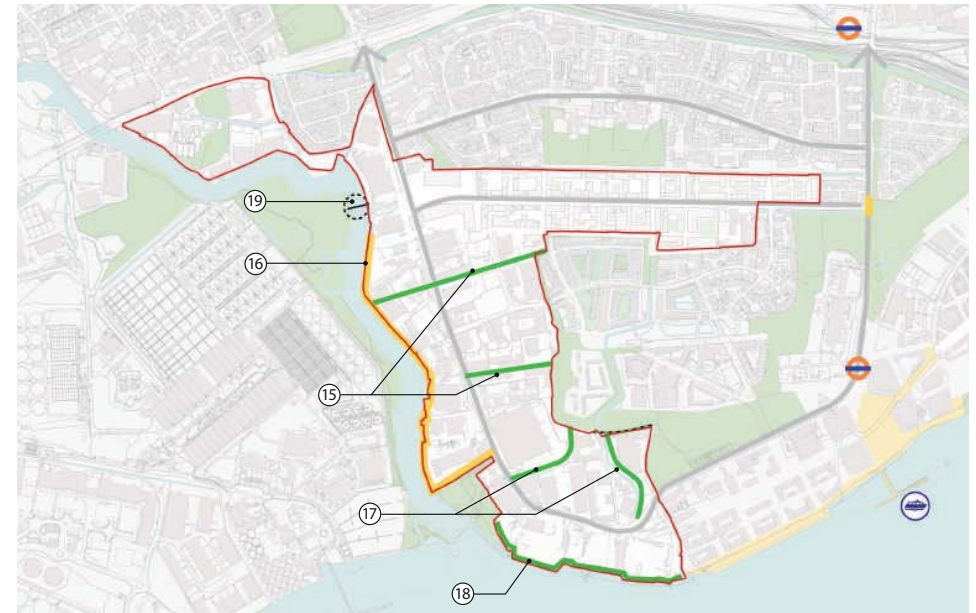


FIGURE 71: LANDSCAPE INFRASTRUCTURE: PHASE THREE

- ⑮ East-west green links connecting Barking Riverside green spaces and Buzzard's Mouth Creek SINC to the River Roding. Wildlife corridor and pedestrian/cycle route.
- ⑯ Riverside Walk (central section): a publicly accessible river walk connecting Thames Road / River Road to Barking Town Centre, linking riverside walk sections delivered in earlier phases
- ⑰ North-south green links connecting Barking Riverside green spaces to River Road. Ecological enhancements to Buzzard's Mouth Creek SINC. Wildlife corridors and pedestrian/cycle route
- ⑱ Ecological enhancements to the riverside edge at Creekmouth. Potential to create continual pedestrian / cycle link between Barking Riverside waterfront, River Roding Walk and Barking town centre
- ⑲ New footbridge across the River Roding, providing access to Beckton Creekside Nature Reserve and areas / facilities to the southern edge of the Roding

2.6 Transport and Movement

One of the key aims of the masterplan in the short and longer term is to improve permeability, connectivity and legibility, particularly for sustainable transport modes. North-South links in particular are proposed to be improved as described in the landscape infrastructure strategy. These are proposed to be primarily pedestrian and cycle priority, and will give better connectivity between Thames View, Thames Road and Barking Riverside. Thames View forms a local district centre to the north, whilst Barking Riverside to the south will form a major new destination with London Overground Rail station, retail, parks, leisure amenities and access to the River Thames. Thames Road will form a key link between these destinations, whilst forming a new piece of neighbourhood in its own right. Alongside River Road and Renwick Road, Thames Road provides a main vehicle artery through the area, acting as a servicing road for industrial plots with a high level of HGV activity. The masterplan proposes to strike a balance between such industrial servicing requirements and an improved pedestrian / cycling experience that is more in-keeping with a residential neighbourhood. This is described in more detail in section 5.

The creation of more sustainable living and working opportunities are reflected in the Mayor's Transport Strategy 2018 through seven key transport principles of Good Growth. Detail on how the RREA masterplan aims to deliver these is given in the transport note in the technical appendices, a summary of key strategic moves is as follows:

- **Cycle Routes:** Cycle lanes are to be introduced on River Road and Thames Road. These designated cycle lanes should link with existing cycle lanes on Renwick Road to the east, and potential future cycle lanes on River Road to the west. In addition to segregated cycle lanes, informal designated cycle links will be encouraged along streets and green links, providing alternative routes throughout the area away from busy roads. An existing TfL Cycleway connecting Barking to Ilford is located along a section of Thames Road between the Ripple Greenway bridge and Marine Drive. The masterplan movement framework should be delivered to align with this strategically important Cycleway route.
- **Street Greening:** Currently there is very limited street greening. Street trees are proposed to be provided within public highway land where constraints allow on Thames Road, River Road, Creek Road and Longreach Road. Where

not feasible within public highway, street greening and street trees should be provided as part of plot development to improve air quality and visual amenity.

- **Road Widths:** Carriageway widths are to be reduced from circa 9.5m width to circa 7.3m on Thames Road and River Road to support the street greening and reallocation of highway space towards more active modes. The junction between Thames Road / Renwick Road is to be improved to promote better east-west movement between Thames Road and Pylon Park (to be delivered as part of Barking Riverside)
- **Car Parking:** On street parking is proposed to be removed or greatly reduced on Thames Road, River Road, Creek Road and Longreach Road with the use of new Controlled Parking Zones where required.
- **New Residential developments** are to be principally 'Car-lite', with a maximum provision of c 0.3 spaces per dwelling inclusive of accessible parking. Car parking for industrial developments should adhere to the Intend to Publish London Plan and provide within plot.
- **To support the transition** from the existing car-heavy condition to a greener future, a temporary multi storey car park is proposed to be located on a council owned site on Thames Road.
- **Accessible Design:** Accessible car and cycle parking is to be provided in accordance with ITP London Plan requirements. Cycle parking facilities and access will be designed in accordance with the London Cycle Design Standards. All new elements of the masterplan will be wheelchair accessible at ground level, with lifts providing connections to all other floors.
- **Efficient Freight:** Anticipated servicing and delivery vehicles have been accounted for in the design of sites and infrastructure along River Road and Thames Road whilst on-plot space will ensure that appropriate space and facilities have been provided for freight. Retention of all Safeguarded Wharves within the area will ensure that freight by river is maximised. In any case a detailed Delivery and Servicing Plan will be produced for each individual site as it comes forward.

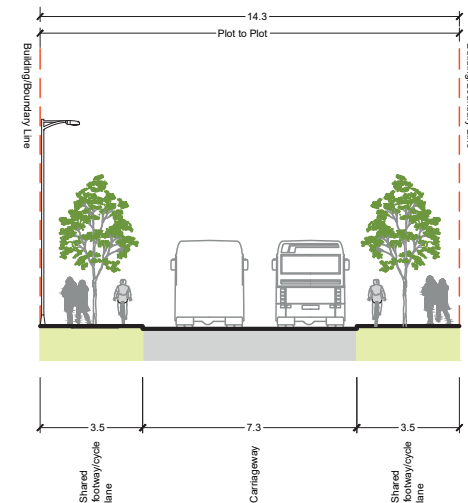


Figure 72: Thames Road: Future Improvements

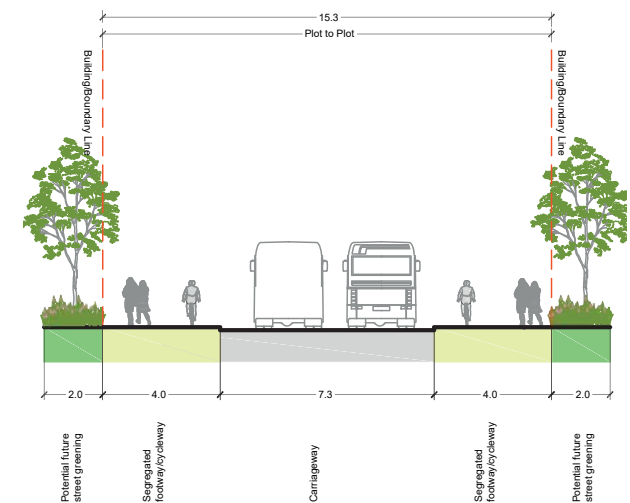


Figure 73: River Road: Proposed Section



FIGURE 74: MOVEMENT: EXISTING, PROPOSED, AND FUTURE OPPORTUNITIES

3.0 Thames Road Master Plan Proposals

3.1 Thames Road Zoning and Character Areas

The area proposed to undergo the most radical, wholesale transformation within the RREA is Thames Road itself, and as such this third chapter of the SPD report focusses on a more detailed masterplan strategy for Thames Road and the blocks immediately adjacent. Thames Road will remain the main service artery to serve this central section of the masterplan, and the move towards ultimately making its eastern end purely residential and the western end purely industrial will result in 3 distinct Character Areas along Thames Road, each of approximately 500-600m long. The three Character Areas will comprise, a new intensified industrial zone adjacent to River Road; a central section of co-located industrial and residential use, and a purely residential area towards Renwick Road in the east.

The character of the central section of Thames Road with the proposed co-location of residential and industrial space was viewed as potentially quite challenging, with the need to define the type of industrial space offer; organize and manage vehicular and pedestrian flows and establish the main infrastructure moves. Key to this, and to the resulting character of this section of Thames Road is the nature of the industrial offer, in terms of space provided and the level of servicing required.

The total quantum of existing industrial floorspace to be provided in the central Thames Road section is c.58,000m². In order to intensify and co-locate to approach this target area, the industrial space needs to be accommodated over 2 levels. Two main options for the central co-location section emerged and were studied in detail; the first was led by the type of industrial offer which followed the lines of the current B2 general industrial offer and user group, which requires heavier vehicle servicing and access with large support yards. The second option was led more by the requirements of the residential uses to make a viable residential neighbourhood and moved away from B2 to provide more cleaner B1 type space (new Use Class E) with lighter servicing requirements and lighter vehicle servicing and access.

Plot testing and logistics studies demonstrated that it would be extremely difficult to create a credible residential neighbourhood without a move towards cleaner industrial uses more compatible with residential use. It would also prevent Thames Road having cycle ways and improved greening due to the dominance of HGV traffic and large open yard areas required by B2 Use Class for general industrial uses. The urban scale and grain of the unit sizes in the B2 Use Class is also larger, and not totally compatible with being on more than one level. The quantum of industrial space required would demand much of the ground floor area, putting pressure on residential amenity space and compromising the location of residential entrances.

The masterplan therefore recommends adopting an industrial strategy more compatible with residential uses for the central co-location zone on Thames Road, and proposes changing the scale and nature of the existing industrial space to cater for mainly B1-type cleaner uses throughout, which under the new Use Class Order will be covered by Class E, Commercial, Business and Service, which will sit better alongside residential uses. The reduction in space appropriate for B2/B8 industrial/warehouse uses on Thames Road will over time be re-allocated to other zones within the SIL area so that overall these uses are still adequately provided for. In order to allow some flexibility in the residential infrastructure and allow for pocket parks and

other residential based amenity spaces, the masterplan zoning also allows for a slight reduction in industrial space in this central co-located section from the existing c.58,000m² to c.44,000 sqm, and this c.14,000 sqm difference will be made up in the more intensely developed central industrial sections of the masterplan, to deliver no net loss overall.

This transition to cleaner industrial and residential co-location will be implemented incrementally and evolve over time, starting with an immediate improvement in controlled carparking and a move away from HGV's in the short-medium term (5-10 years) to smaller vehicles in the medium longer term (10-20 years). The move to cleaner industrial uses will allow a transformation in character along Thames Road; lighter, van-based servicing with smaller service yards will enable the carriageway width to be reduced, to allow the introduction of designated cycleways and street greening. The eventual character will be closer to that of a mixed-use urban neighbourhood such as say Clerkenwell or Hackney, with residential entrances interspersed with other street fronting activities such as studios, shops and making spaces.

The new courtyard spaces within co-location and residential blocks will have the ability to act as shared general street spaces with enhanced landscaping and greening, improving permeability and presenting views deeper into blocks. There will be clear but subtle transition zones between each Character Area, expressed in the architecture and reinforced by the landscape crossing points, so that there is a rich evolution of the building types along the journey down Thames Road; from a purely employment district at River Road, through a mixed-use employment and residential area, into a purely residential neighbourhood connecting with Renwick Road.

COMMUNITY INFRASTRUCTURE

The following community infrastructure spaces are proposed to be provided within the Thames Road masterplan area:

- Existing City Farm school site, currently in use as SEN school, retained as education use
- New school sites (potentially 1x3FE primary school and 1x10FE secondary school) to be located in eastern end of residential zone, on north side Thames Road close to existing footbridge link to Ripple Green space, to allow safe and easy access to this as play space. Sites and numbers not yet defined.
- New shops, dentists, gyms, nurseries, offices etc to be accommodated within smaller commercial units facing onto Thames Road and key north south public routes.
- New temporary Multi Storey Car Park on LBBB owned site south of Thames Rd, serving business and residential needs.
- Existing community space 'The Warehouse' retained and rehoused within same plot, as part of redeveloped mixed use block.
- Existing churches currently operating out of industrial units to re-accommodated in new spaces, if feasible, as part of mixed-use blocks within co-location zone. Ideally these hall spaces should be shared and double up for hireable community uses when not in active use by church.


The new masterplan zoning creates 3 distinct character areas along the length of Thames road, as shown on the illustrative plan below. Note that all plans in this part of the report are illustrative only and show a possible layout to illustrate the principles of the masterplan, rather than a fixed design proposal for any given plot.

1. INTENSIFIED INDUSTRIAL ZONE 

At the west end of Thames road, from the junction with River road to the junction with Creek road. This zone houses taller, multi-storey industrial buildings, with heights up to 20-40m where appropriate, with varied typologies aimed at providing a balance of smaller, medium and large industrial units to suit different users.

2. CO-LOCATION ZONE 

In the centre of Thames road, with a mixture of residential and industrial uses combined either within single blocks, or side by side and incorporating both podium and shared yard landscaping strategies to suit plot constraints. Industrial uses will typically be cleaner, class E type, with smaller unit sizes, to suit co-location, and arranged over ground and first floors to achieve floorspace requirements on each plot. This zone also houses a temporary multi-storey car park.

3. RESIDENTIAL ZONE 

At the east end of Thames road. Blocks of primarily residential use with some commercial and community spaces at ground/first floor, with green landscaped amenity. This zone would also accommodate any new schools required for the new neighbourhood - final sites and numbers for new schools are not yet fixed, but may include one 3FE primary school and one 10FE secondary school in addition to the existing City Farm SEN school site.

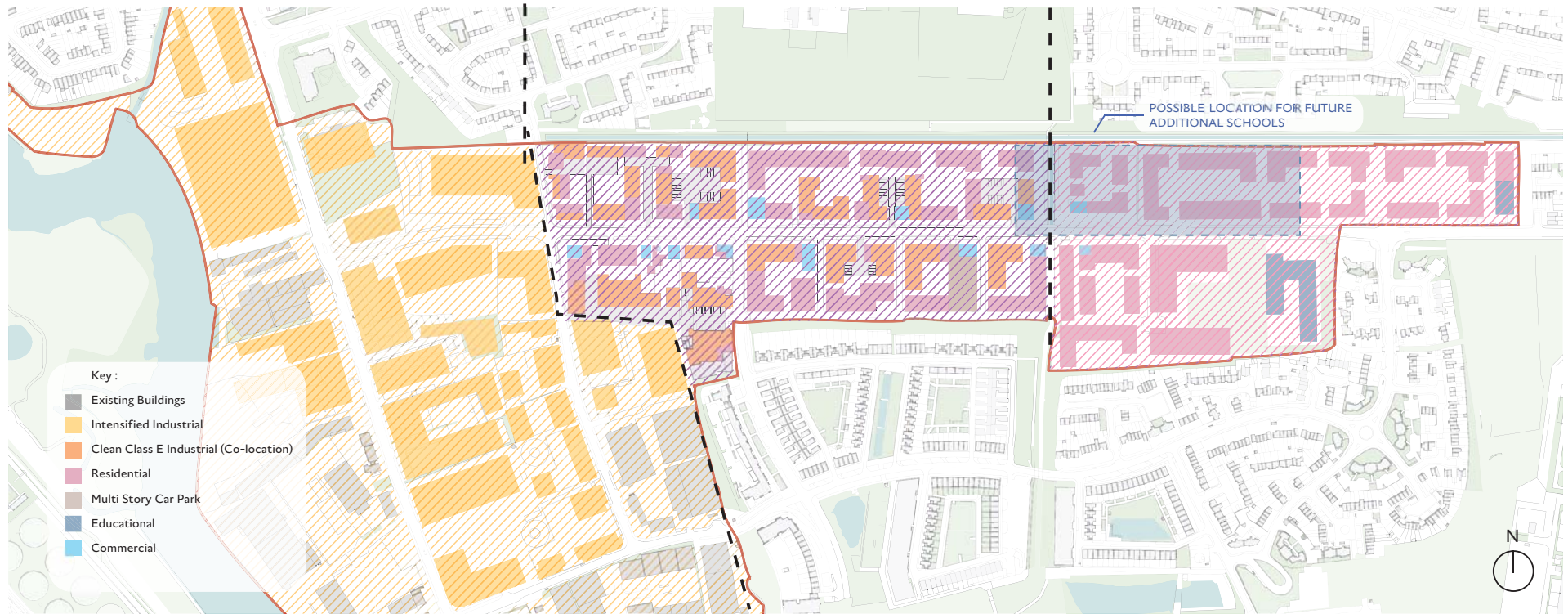


FIGURE 75: THAMES ROAD ZONING AND CHARACTER AREAS DIAGRAM

3.2 Routes and Active Frontages

In order to support the transformation of the character of Thames Road, the masterplan aims to maximise active frontage on key routes, and the following design guidance should be applied to plots being developed:

- All new developments should have active frontage with high quality facades onto Thames Road itself, and onto other main public routes such as the key north-south links across the Ripple. This also applies to central blocks in the co-location zone, on north side of Thames Road, where the northern facades facing onto the Ripple Green Space should be active and of high quality addressing the large green space.
- This active frontage should provide interest, animation and overlooking and should include windows, pedestrian entrances, commercial and industrial 'front of house' spaces, good quality signage. This applies primarily to ground and first floors, but also to floors above in terms of quality, windows, animation of facades
- Within the co-location section developments are encouraged to have a variety of uses fronting onto Thames Road, including residential, commercial and industrial.
- Both collocation and residential block designs are encouraged to minimise servicing elements (eg vehicular yards, parking, service entrances, refuse stores etc) on Thames road and locate these onto side streets or within blocks.
- It is acknowledged some co-location plots may require limited commercial servicing bays on Thames road to maintain separation of commercial vehicles and residential landscape.
- Building facades on Thames road should typically be set back 3-4m from back of pavement as per the existing condition. This frontage zone should be open to Thames Road, so that security line is provided by building frontage rather than fencing. It should be landscaped to a high quality, and where possible incorporate features such as trees or soft planting to provide street greening, permeable surface to support suds, small public spaces with benches to sit or pause, cycle parking, disabled/taxi drop off bays and/or limited commercial loading bays, if required.

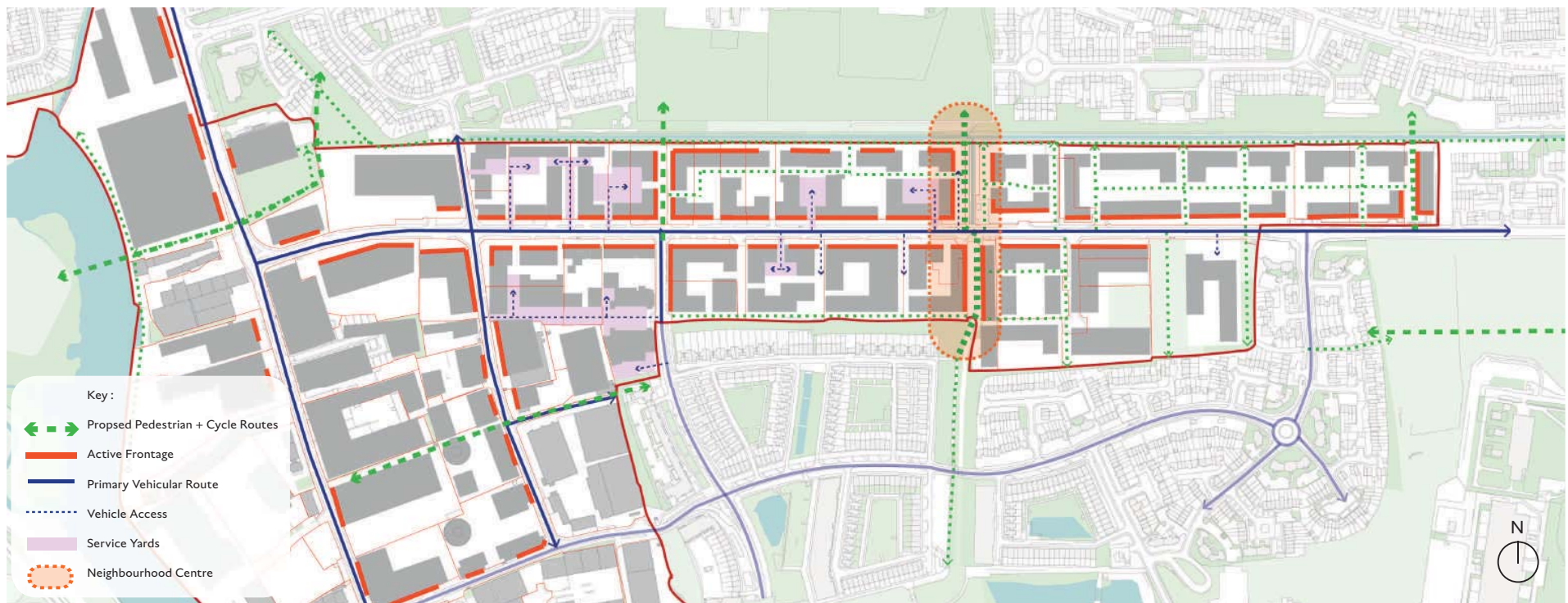


FIGURE 76: ACTIVE FRONTAGES AND KEY ROUTES DIAGRAM

3.3 Servicing and Routes



FIGURE 77: ACCESS AND SERVICING DIAGRAM

KEY

- Redline Boundary
- Existing:
- Primary Road
 - Secondary road forming part of key movement framework
 - Shared foot/cycle route (cycling not designated)
 - Designated cycle route
 - Route with cycle enhancements proposed as part of TfL 'Ilford to Barking' link
 - TfL works as part of 'Ilford to Barking' cycle improvements link
 - Existing road bridge over 'Thames View Ditch' waterway. Cycle / pedestrian access only (vehicular through-route restricted by bollards)
 - Existing foot/cycle bridge over Thames View Ditch / Ripple Greenway
- Proposed:
- Designated cycle route
 - Proposed improvements to facilitate safer cycling where no designated cycle route. To potentially include:
 - Removed, reduced or re-designed on-street parking
 - Improvements to junctions
 - Traffic calming
 - Improved surfacing
 - Proposed Secondary road - Pedestrian and cycling access permitted (cycling not designated)
 - Shared foot/cycle way with Vehicular service access for refuse/ maintenance to be accommodated as required (pedestrian-priority)
 - Foot/cycle bridge
 - Raised table / improved pedestrian crossing to junction of Thames Road / Renwick Road / Pylon Road
 - Industrial traffic loop

3.4 Landscape, Public Realm and Streetscape

The landscape proposals for the Thames Road seek to transform the area through improved connectivity, street greening and provision of improved public realm. The current condition of Thames Road is poor, with very limited public realm and restricted connectivity due to large expanses of privately-owned land.

The Ripple Greenway to the north of Thames Road and Buzzard’s Mouth Creek to the south provide vital access to green space and play provision. The masterplan public realm proposals seek to link these positive assets as part of a wider movement strategy, with new or improved North-South routes across the Ripple waterway and south to the green corridor, to improve pedestrian and cycling connectivity between Thames View, Thames Road and Barking Riverside. These routes will be enhanced by linear avenues of trees, other planting and rain gardens where feasible to encourage pedestrian links amongst plots whilst providing street greening and SuDS.

New developments should incorporate provide new public realm and amenity spaces for residents and workers, and allow east west permeability, to create a series of connected landscape and garden spaces set amongst plot courtyards. These amenity spaces should be primarily green in character, particularly in the western residential zone, with abundant naturalistic planting and natural play features set within the landscape for a variety of age ranges. In the central colocation zone, as well as this green space, some courtyards will need to service industrial, commercial and residential premises together, and in these case are encouraged to be shared surface yards combining more hard landscape and vehicles along with pedestrian routes. Where required and feasible, opportunities for SuDS should be incorporated within all plots, which may include swales or detention basins which occasionally store stormwater but also provide usable area in order to maximise both amenity space and SuDS capacity.

Public realm and landscape amenity spaces should be publicly accessible to improve connectivity, encourage resident interaction and sense of community. All public spaces should be well-overlooked with positive frontage and good natural surveillance. Improved street lighting and street furniture and signage should be considered to support the general transformative upgrade of Thames Road as a public space, further enhanced by improved pavement surfaces and cycleways. The landscape plan below illustrates how this may look in the future fully transformed state, but does not prescribe design for any given plot.

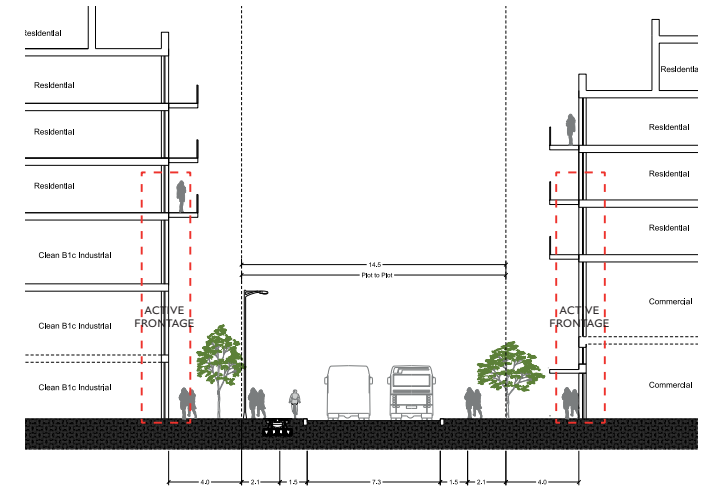


Figure 78: Thames Road Illustrative Street Section in colocation zone



FIGURE 79: THAMES ROAD ILLUSTRATIVE LANDSCAPE PLAN

3.5 Illustrative Masterplan - Cross Section

The masterplan seeks to improve the Character of Thames Road through the control of on-street parking, introduction of traffic calming and cycle ways, urban greening, improved active frontages, and improved street lighting, street furniture, and landscape. The central section of Thames Road provides a genuine mixed-use community of workers and residents, with residential entrances interspersed with active workspace frontages facing onto the street, and residential accommodation sitting over this 2 storey base of employment space.

However Thames Road will remain a busy vehicular route, and so the masterplan aims to create a secondary layer of quieter, pedestrianised routes and spaces set back within the block depth, parallel to the main road. Courtyards within blocks can be shared or designated as single use industrial or residential, depending on the particular plot. On some of the larger plots it will be possible to have a wide range of space use in the ground floor public realm areas including pocket parks; on some of the smaller sites it will be more restricted but the general condition is that once off Thames Road the public realm is permeable and attractive to pedestrian and cycle movement, and that a minimum of 45% plot ratio is given over to employment space.

At the northern end of the Thames Road cross section the masterplan takes advantage of the existing green amenity space of the Rippleway, with potential for a high quality, landscaped pedestrian zone adjacent to the waterway. Similarly at the southern end, new residential blocks will face onto a new public landscaped route alongside the existing green embankment, connecting through at both ends into Barking Riverside landscaping. In both locations the residential accommodation can be brought down to ground level, and there is the possibility to introduce maisonette or mews type accommodation. New blocks will be set well back from existing residential buildings and typically buffered by trees, landscape and level changes, and as such can be quite tall without adverse impact on neighbours

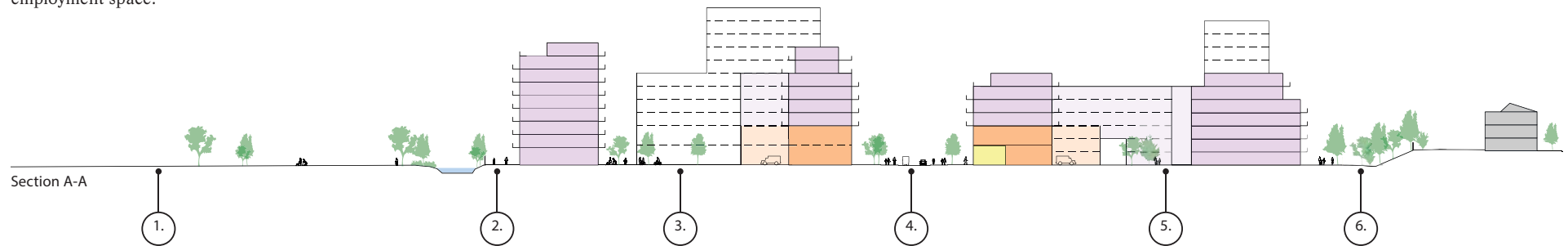


Figure 80: Section AA Diagram

1. Open public green space north of the Ripple waterway

2. New pedestrian route south of Ripple waterway

3. Residential street zone and shared vehicle/ pedestrian courtyard within block

4. Thames Road with improved landscaping / active frontages/ cycle and pedestrian routes

5. Residential courtyard block

6. New residential street next to green bank



Figure 81: Green Space North of Ripple Waterway



Figure 82: Hackney Wick

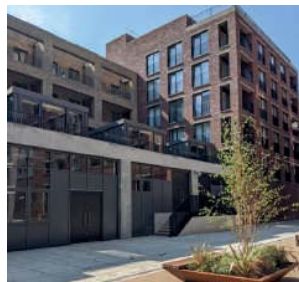


Figure 83: Fish Island, Hackney Wick



Figure 84: Clerkenwell



Figure 85: Coin Street



Figure 86: Residential Street

3.6 Block Typologies

There are various different established block typologies for both co-location and residential/mixed-use blocks which are appropriate for the area, and which are likely to suit different sizes and shapes of plot. Examples of each typology are shown here, by way of illustration. As well as all of the normal design considerations for developments, Agent of Change issues should be paid particular consideration as a key issue specific to this area. This means for example that any new noise-sensitive developments (such as residential uses) should not introduce undue restrictions on the viability and potential growth of existing noise-generating businesses. As such the following recommendations are made to support this:

- Block layout planning proposed co-location plots exploits the commercial parts to provide screening and separation of residential parts from noisier industrial elements and nearby road traffic.
- Proposed outdoor amenity areas, particularly those which will be within the co-location zone or immediately adjacent to industrial neighbours should be designed to benefit from screening from buildings. In some instances the use landscaped podiums to cover vehicle yards or provide buffering from existing uses, and to provide residential amenity, may be appropriate.
- Detailed surveys of noise and vibration from existing businesses in the locality should be undertaken at the earliest opportunity to identify risks and inform a suitably robust design development. This exercise should be undertaken in collaboration with existing businesses wherever possible, in order to ease the planning process.
- Alternative ventilation strategies such as MVHR or the inclusion of acoustic glazing for noise-sensitive receptors is likely to be required in some instances, but should be considered as a 'last line of defence' option and not as primary mitigation strategy, to comply with relevant planning policy including Agent of Change.

RESIDENTIAL FINGER PLOTS

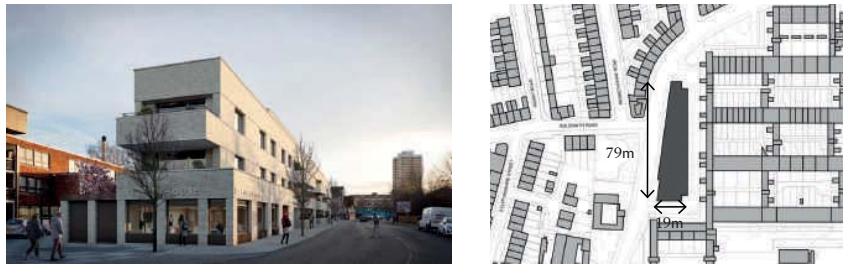


Figure 87 and 88: Meeting House Lane, Peckham, Photo and Plan Diagram

RESIDENTIAL COURTYARD BLOCKS



Figure 89 and 90: Kings Crescent Estate, Stoke Newington Photo and Plan Diagram



Figure 91 and 92: 351, Caledonian Road, Barnsbury, Photo and Plan Diagram



Figure 93 and 94: Fish Island Village, Stratford Photo and Plan Diagram

- Various typologies suitable for narrow plots 30-40m wide, including linear blocks, small towers, terraces and mews
- Typically linear access road for servicing, fire, refuse etc down one long side of block, with smaller set back from boundary on other side
- Likely to suit lower massing typically, with potential taller elements to front or rear of plot, to avoid overshadowing / daylight issues to adjacent plots

- Well suited to typical 90m x 90m square plots or larger plots along Thames Road
- Can deliver very good densities at 6-7 storeys without need for taller elements.
- Active frontage possible onto all 4 sides, although typically focussed on Thames Rd frontage with side streets being narrower & somewhat more service oriented
- Internal courtyards may be either green landscaped amenity, harder shared surface, or combination of both.
- Openings through or between blocks used to create secondary public routes for pedestrians
- On some of the larger plots ground floor public realm areas may include pocket parks

CO-LOCATION, SHARED YARD / STREET SERVICING

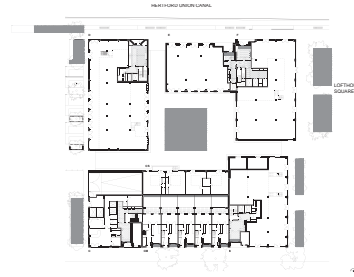


Figure 95 and 96: Fish Island, Stratford, Photo and Plan Diagram

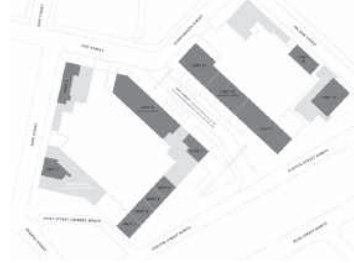


Figure 99 and 100: Caxton Works, Photo and Plan Diagram

- Suitable for both narrower plots and larger / courtyard plots
- Cleaner Class E Industrial workspace on ground and first floors with residential stacked above or alongside
- Servicing to industrial via loading bays on streets or open ground floor shared yards with goods lifts to upper levels.
- Courtyards acting as shared surface, combining industrial servicing alongside some residential parking / amenity / green space
- Openings through or between blocks used to create secondary public routes for pedestrians

CO-LOCATION, COVERED YARD / PODIUM

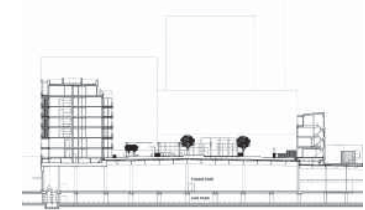


Figure 97 and 98: Hallsville Quarter, Canning Town, Photo and Section Diagram

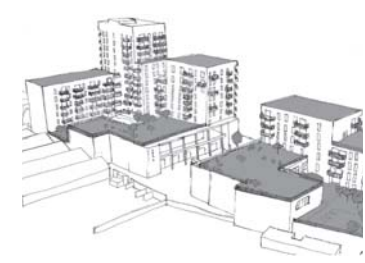


Figure 101 and 102: 12 Thames Road, Barking, Photo and Section Axo

- More suited to larger, deeper plots such as 12 Thames Rd
- Industrial space on ground & first floor, serviced directly via loading bays onto ground floor vehicle yards, with residential accommodation provided
- Residential amenity provided fully or partially on landscaped podium, which can cover vehicle yards
- More separation of yards so more scope to accommodate noisier/vehicular serviced industrial.
- Higher infrastructure costs of podium deck, with deep structure to span yards without compromising turning circles, and support landscape above.

3.7 Intermediate Condition and Character Precedents

The Masterplan has been designed to allow for incremental change over time and envisages three 10 year time periods from 2020 to 2050 for complete implementation to take place. There are complex land ownerships and a variety of other constraints such as protected wharfs, and potential Agent of Change issues that will need careful navigation. Some of the masterplan area is characterized by large blocks, with a mix of large-footprint industrial buildings (warehouses, manufacturing facilities, etc.) and large paved areas. The river front areas include marine loading and moorage facilities. They also include large areas devoted to yards, and consist mainly of a hard scape of buildings and paved site area, although some of the riverbank areas are vegetated. The masterplan has tried to make sense of this mix of scale and function, and is designed to work flexibly with the existing conditions, introducing transitional change through mixed-use elements and residential uses where appropriate and intensifying, the existing industrial use in other areas.

Existing urban areas such as the DogPatch in San Francisco, the Pearl District in Portland, or Hackney Wick in London that provide good examples of slow incremental urban change and regeneration, where existing uses remain alongside new development and where catalyst infrastructure, such as the improvement of roads and services, initiates the framework for change in the public realm whilst working around those sites that will be slow to change. These districts are generally located in close proximity to industrial areas, to which their street systems are closely integrated, a characteristic that also defines the Thames Road masterplan area.

The Masterplan aims to establish guidelines to allow this to happen, and begins to define the physical character of the place by establishing a clear block structure, plot pattern and street form, proposed street and neighbourhood character, and appropriate scale of building. Importantly it defines the building type and use for each zone. It defines the key elements of street design, the configuration of elements within the street such as roadways, pavements, cycleways, street trees and landscaping which all play a key role in how places are seen and experienced. Within these guides it acknowledges that sites will be developed at different rates with a range of different ownerships all bringing forward different designers and proposals. The plan below illustrates a potential intermediate condition where approximately 50% of Thames Rd is developed.

This approach is the opposite of single vision masterplanning, being designed to celebrate and make the most of collision and juxtaposition in urban form, to allow for flexibility and changes of direction and to respond to economic and social drivers that will inevitably evolve over time. The introduction of meanwhile uses or the short-term conversion of redundant spaces to community uses adds to the sense of slow transformation over time, and enables the district to experiment and finds its own identity at its own pace.

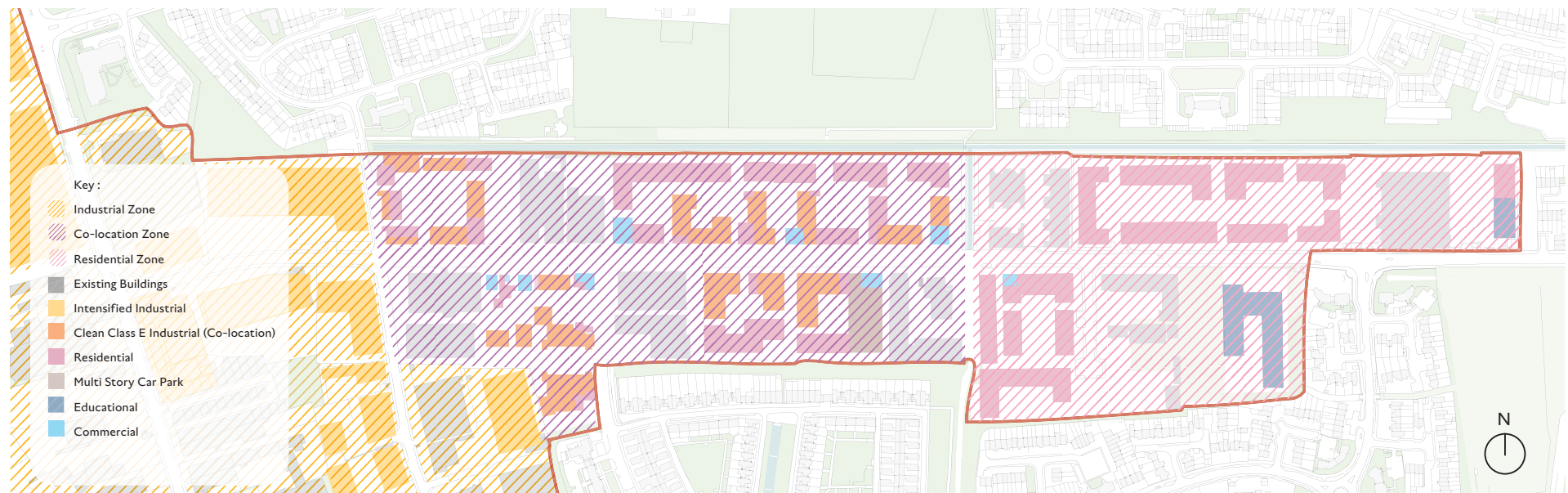


FIGURE 103: ILLUSTRATIVE PLAN SHOWING INTERMEDIATE CONDITION

DOGPATCH, SAN FRANCISCO



Figure 104, 105 and 106: Images of Dogpatch, San Francisco

- Long straight roads for primary vehicle servicing, layering of uses back from 3rd street
- Industrial land undergoing slow & uneven transformation
- Combination of large scale industrial / residential / retail / logistics uses, new clean businesses (Uber), pedestrian friendly zones
- Imperfect and changing, part of area's appeal
- Combination of retained existing buildings and new build

BATTERSEA DESIGN & TECH QUARTER, LONDON



Figure 107, 108 and 109: Images of Battersea

- Designated SIL area
- Mixture of uses and typologies - sheds, arches, multistorey industrial
- Planned transformation to cleaner industrial/ tech uses
- Varied and tighter street gain, overlapping pedestrian and vehicle servicing

CLERKENWELL ROAD, LONDON



Figure 110, 111 and 112: Images of Clerkenwell

- Varied building heights and styles
- Mix of building uses - commercial/ office and residential above
- Active frontages along length
- Lots of traffic

FISH ISLAND VILLAGE, LONDON



Figure 113, 114 and 115: Images of Fish Island

- Mixed Use courtyard blocks
- Residential above clean industrial / commercial workspaces below
- Hard shared surfaces/ yards, pedestrianised canal edge
- Mix of pedestrians and vehicles in public spaces
- 6-8 storey datum provides cohesion and density

3.8 Height and Massing

Controlling heights and massing along Thames Road is considered less critical than improving the public realm, streetscape and ground plane, given that a reasonable degree of density is desirable to generate residential unit numbers and activity within the new district, and that good massing will to some extent follow naturally as a consequence of design parameters and constraints being applied individual plots by design teams as the area develops over time. The following massing design guidelines are proposed within the Thames Road area, shown as an example final condition on the illustrative massing plan below. It is envisaged that the result of these rules being applied is a gradual increase in height and density in the area over time, that may be uneven or piecemeal. Once fully developed, Thames Road should display a fairly consistent datum height, but is likely to contain moments of considerable variety in height, form and appearance between adjacent blocks, in the manner of the precedent areas such as Clerkenwell illustrated in section 3.6.

- General height datum of 6-7 storeys is appropriate and generally blocks should aim for this as a maximum height. However there is scope for well-designed taller elements within plots of 10-14 storeys, to support commercial viability & increase density, where this can be justified in townscape terms such as to mark significant corners, on key north south cross routes, nearer to taller industrial plots at west end of road
- The northern edges of central plots north of Thames Road should address, overlook & provide positive frontage to Ripple Green space. Heights of 7-9 are storeys appropriate here
- Where perimeters of plots meets existing 2-4 storey residential buildings, stepped massing and set backs should be incorporated in plot design to avoid ‘cliff edges’
- Frontages on Thames road should be set back 3-4m from the rear edge of pavement to generate a typical façade to facade distance across Thames road of around 22-23m.
- The north face of buildings on central plots to north of Thames road, opposite the open Ripple Green space, should be set back min 7-8m from plot boundary to allow public pedestrian & cycle access route, and scope for servicing vehicles, along this edge adjacent to the Ripple waterway.
- The south face of buildings on central plots to south of Thames road, be set back min 7-8m from plot boundary to allow public pedestrian & cycle access route, and scope for servicing vehicles, along this edge adjacent to the green corridor/embankment
- Applying an average height of 5 storeys to all buildings in this illustrative block layout generates approx 200,000sqm GIA of residential floorspace. This equates to approx 3000 new residential units, using net:gross of 0.75 and assuming average unit size 80sqm NLA. This equates to an overall mean average residential density for the co-location and residential zones of approximately 160 units/ha

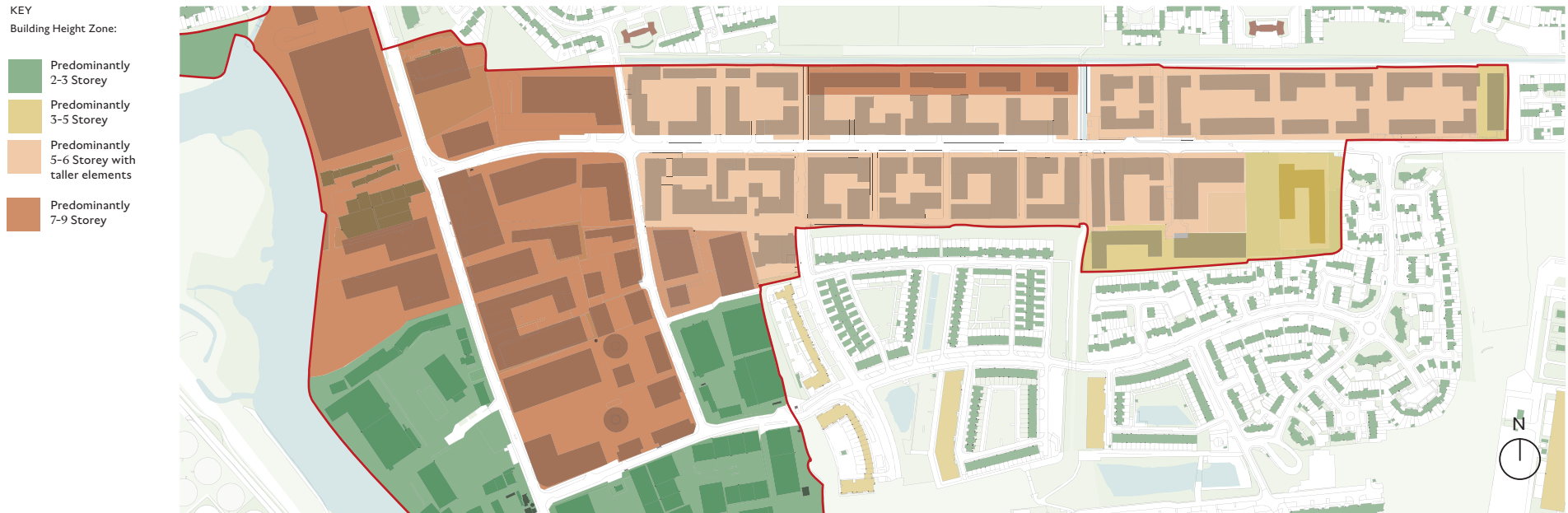
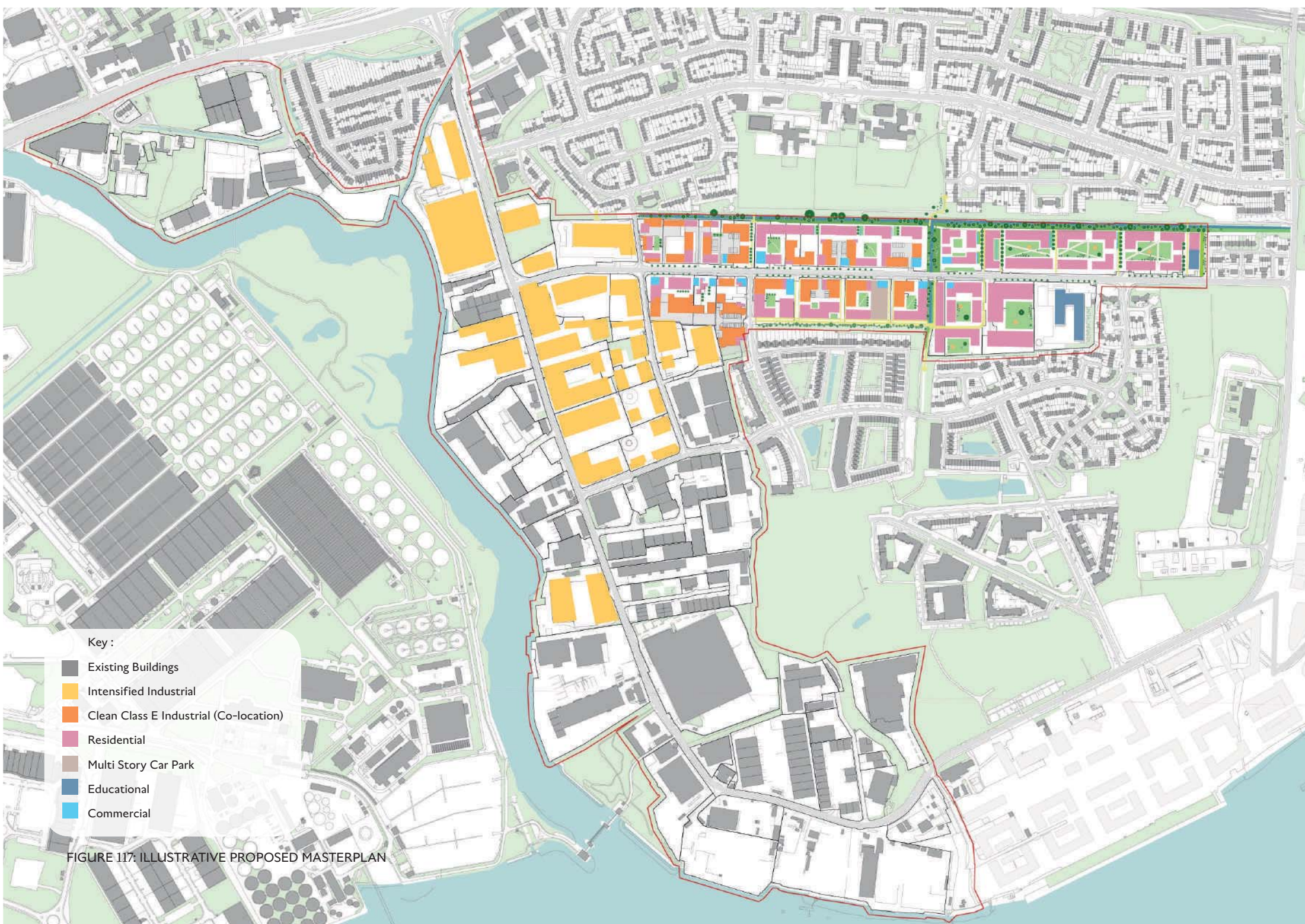


FIGURE 116: ILLUSTRATIVE PROPOSED HEIGHTS PLAN



Key :

- Existing Buildings
- Intensified Industrial
- Clean Class E Industrial (Co-location)
- Residential
- Multi Story Car Park
- Educational
- Commercial

FIGURE 117: ILLUSTRATIVE PROPOSED MASTERPLAN