



CROSSRAIL URBAN INTEGRATION

Iford Crossrail Urban Realm Study

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Date:	Organisation	Approved by:	Signature:
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ILFORD CROSSRAIL URBAN INTEGRATION STUDY

STAGE D REPORT

April 2012

BDP.

1. Introduction	2. Context	3. Site Analysis	4. Design Studies	5. Appendix
Background Previous Studies Our Approach	East London Ilford - Features	Photographic Record Movement Analysis: Vehicular Hierarchy Pedestrian Hierarchy Visual Analysis: Station Entrance / Cranbrook Road Cranbrook Road Ilford Hill York Road Town Centre Wide Land Use Existing Land Use Ilford Town Centre Area Action Plan Opportunity Sites OS03 Former Piazza Station Site Proposed Station Spatial Strategy Opportunities and Constraints Moving Forward	Main Station Entrance Cranbrook Road Western Station Entrance Masterplan Hard Landscape Strategy Planting Strategy Lighting Strategy Furniture Strategy Orientation & Wayfinding Art Strategy Preliminary Cost Estimate	Ilford Town Centre Collision Data Potential Development Setbacks New Public Access of Railway Safeguarding Area Study Urban Realm Preliminary Cost Estimate by area
				6. Stage D Drawings
				Public Realm Masterplan Main Station Entrance General Arrangement Plan



Revision Record

17.08.11	Part 1 Study Issue
19.10.11	Part 1 Study Issue Amended and Part 2 Studies Added
23.12.11	Part 1 and Part 2 Study Draft Issue
21.03.12	Part 1 and Part 2 Study Issue

INTRODUCTION

In partnership with Network Rail, London Borough of Redbridge, Design for London and Transport for London, Crossrail proposes to develop an overall design for the Interchange zone around Ilford Station, known as the 'Ilford Station Masterplan'.

To undertake this work, Hyder and BDP's Urbanism Team, were commissioned by Crossrail to develop an urban realm and interchange design for the area around Ilford station. These proposals will seek to capture the benefits associated with the extension of Crossrail to Ilford and will also address the challenges associated with integrating the new station into the existing urban environment.

This study aims to assist in the provision of a good transport interchange with comfortable/safe pedestrian movement and convenient cycle access/storage in an environment that reflects the importance of Ilford as a Metropolitan Town Centre.

This report will consolidate the various studies that will be undertaken by the Hyder BDP team, including analysis of the station's immediate context.

Background

Original proposals in the Ilford Town Centre Area Action Plan (AAP) adopted in 2008 suggested a new station building as part of the Crossrail project, accessible from York Place and Ilford Hill with a new public square and entrance on Cranbrook Road.

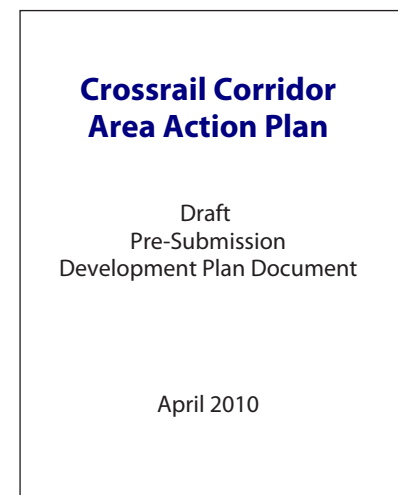
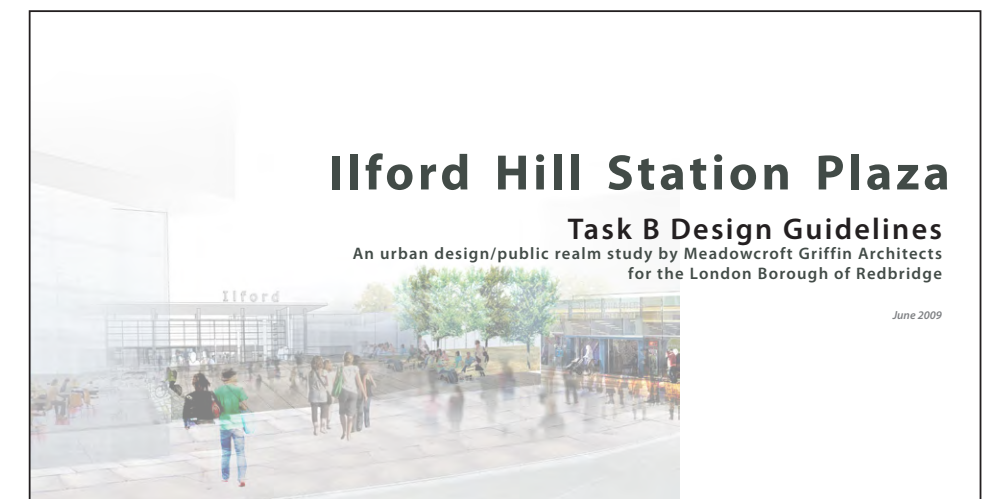
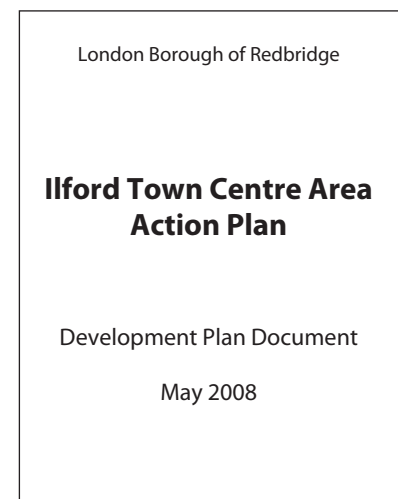
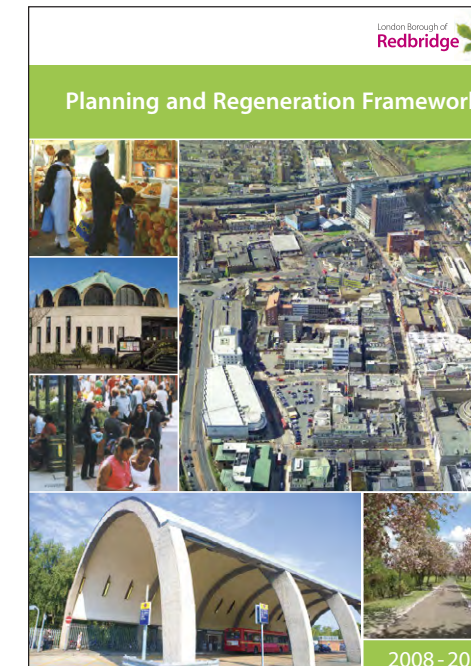
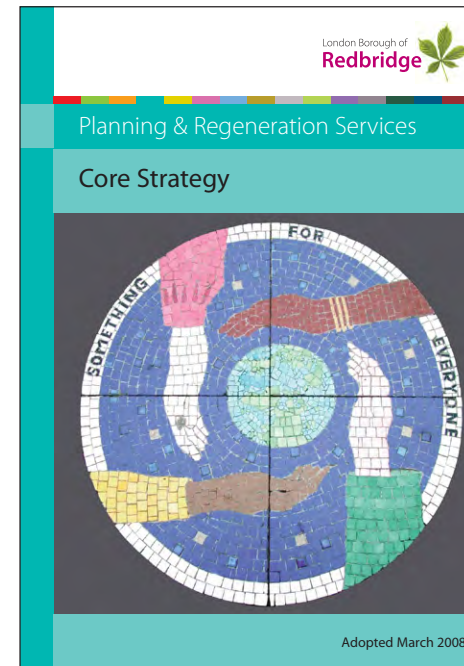
More recently the design has moved away from this 'plaza' scheme and the existing station will be re configured to serve Crossrail trains from 2019. The Station improvements will provide a new ticket hall layout with greater gateline capacity, passenger lifts, longer platforms and a realigned Station entrance and elevation to the street.

Previous Studies

A number of previous studies, current policies and proposals have been reviewed during this work, including:

- Ilford Station and adjacent land, Cranbrook Road and Ilford Hill, Ilford Draft Planning Brief, London Borough of Redbridge, June 2011
- Ilford Town Centre Area Action Plan, London Borough of Redbridge May 2008
- Affordable Housing Supplementary Planning Document, London Borough of Redbridge, March 2009

- Crossrail Corridor Area Action Plan, London Borough of Redbridge, September 2011
- Local Development Framework Borough Wide Primary Policies London Borough of Redbridge Development Plan Document, May 2008
- Core Strategy Development Plan Document, London Borough of Redbridge, March 2008
- Development Opportunity Sites Development Plan Document, London Borough of Redbridge, May 2008
- Development Sites with Housing Capacity Development Plan Document, London Borough of Redbridge, May 2008
- Gants Hill District Centre Area Action Plan Development Plan Document, London Borough of Redbridge, May 2009
- Major Development Opportunity Sites Information, London Borough of Redbridge, May 2009
- Planning and Regeneration Framework, 2008-2017, London Borough of Redbridge
- Urban Design Framework, London Borough of Redbridge, 2004
- Environment & Regeneration, Streetscape Guidance, London Borough of Redbridge, 2011
- Ilford Hill Station Plaza Task B Design Guidelines, Meadowcroft Griffin Architects, June 2009
- Major Schemes Bid 2010/12 Chapel Road Realignment & Improved Bus Facilities Ilford Town Centre. Supporting Information, January 2010
- PERS and pedestrian flow assessment, Ilford Station pedestrian interchange, TRL, June 2010
- Crossrail Transport Integration Standards and Guidelines, Crossrail / Steer Davies Gleave, April 2010
- Crossrail Transport Integration guidelines for Network Rail Surface Stations (Outer London and beyond), May 2011
- Ilford Transport Inputs Study, Transport for London, surface transport, Draft, July 2011



BDP have been commissioned to undertake an Urban Integration Study which looks at a number of areas at three different levels of detail, each placing Ilford Station at their centre.

The original study area contained in the Brief is illustrated below within the green oval. Following site visits, this study area has been expanded to a wider context which includes more sites identified by Redbridge as having development potential and which could include wider urban realm benefits to the town centre.

This study consolidates this work into a single narrative of analysis, strategic and conceptual thinking, all of which will feed into a series of design proposals for the station's public realm context including the station entrance on Cranbrook Road and the environs of Ilford Hill, York Road and Chapel Road.

PART 1. CONTEXTUAL INTEGRATION

This stage involves a review of baseline information including information identified on page 3.

The green line below and on page 5 illustrates the boundary for broad contextual analysis, including consideration of the main sites likely to come forward within the Town Centre and an assessment of the local road network and key links, particularly those assisting north - south pedestrian connectivity.

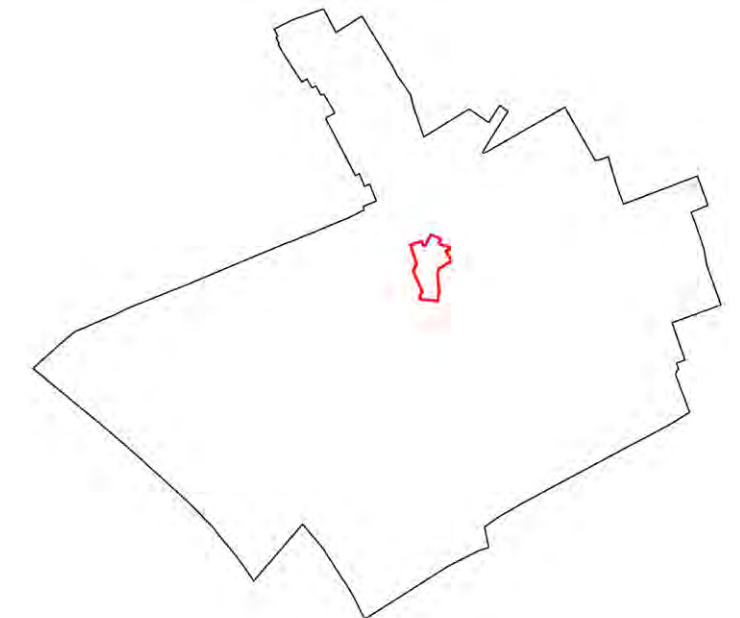
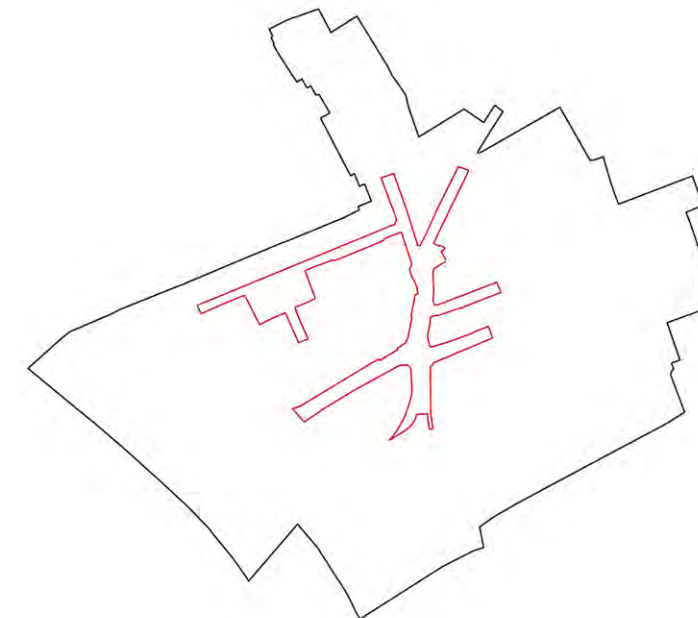
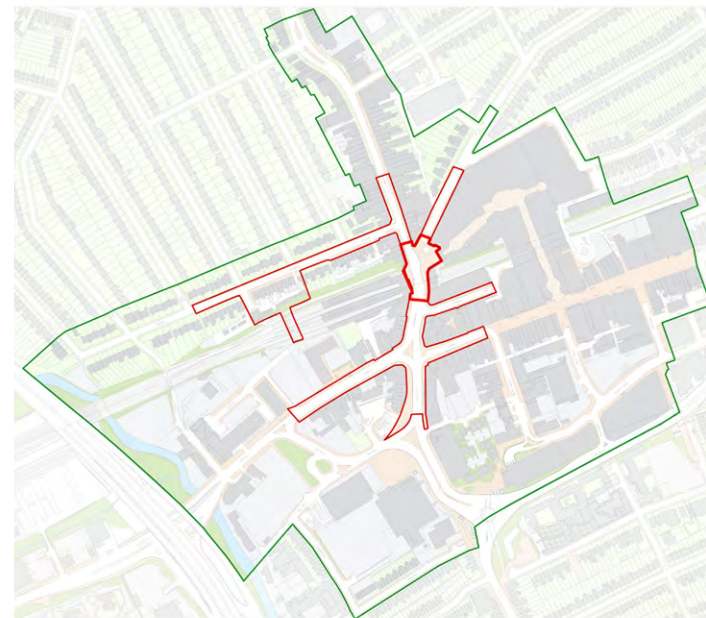
PART 2. KEY ROUTES

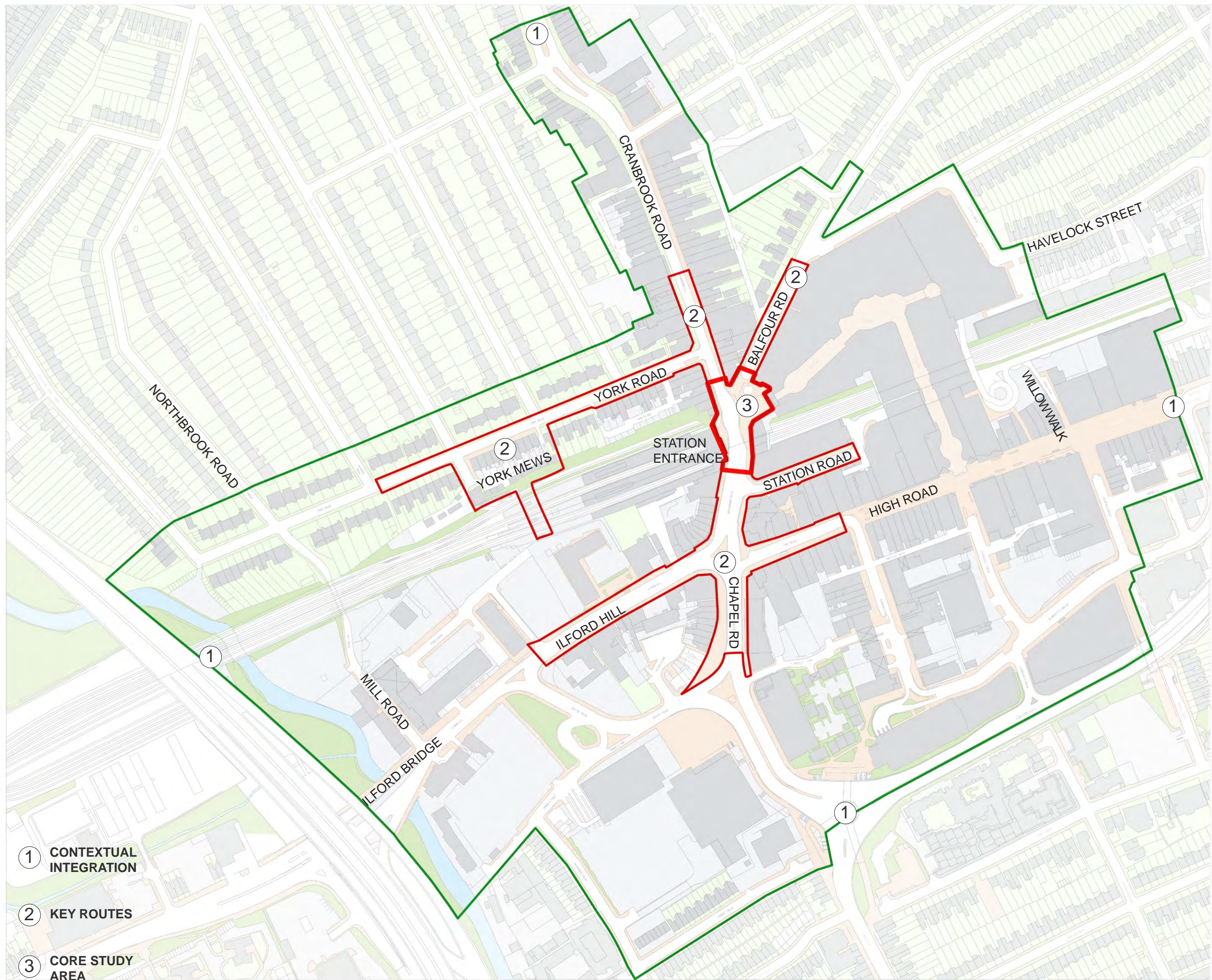
The area identified below in red was designed up to RIBA Stage C. The area includes the station entrance on Cranbrook Road, extending southwards onto Ilford Hill and Chapel Road. Public realm and landscape improvement strategies include key routes from York Road, Balfour Road, Station Road and the High Street.

PART 3. CORE STUDY AREA

This will focus on a small area outside the station entrance on Cranbrook Road and will be designed up to RIBA Stage D.

This area will be developed closely with the Network Rail team engaged to look at the improvements to the station and will include any mitigation measures required on Cranbrook Road, as identified by Network Rail and the Hyder / BDP team.





- ① CONTEXTUAL INTEGRATION
- ② KEY ROUTES
- ③ CORE STUDY AREA





ILFORD CROSSRAIL: CONTEXT

East London
Ilford - Features

CONTEXT

EAST LONDON CONTEXT

The focus of our study is Ilford station and how its planned redevelopment through Crossrail programme can positively influence its wider environs.

LOCATION

Ilford is a large cosmopolitan town in East London. It is the administrative centre of the London Borough of Redbridge and a significant commercial and shopping district surrounded by extensive residential development. Redbridge is an 'Outer London' borough with a population of approximately 270,500 (2010 mid-year estimate), having grown rapidly in the early 20th century as a residential area serving as a satellite to central London. Ilford itself is included in the London Plan as one of 12 Metropolitan Retail Centres in London and is identified as an Opportunity Area.

CONNECTIONS - ROAD

Ilford is a hub of the London Buses network with services to Central London and various suburbs. Bus route 25 to Central London operates 24 hours and there are other night bus services to a variety of destinations. Ilford Hill is a large interchange destination from bus to bus from Central London to wider parts of the borough.

The planned East London Transit (ELT) connection to Barkingside Town Centre has been cancelled by TFL for the foreseeable future with the closest connection terminating at Ilford Hill.

The A406 North Circular Road connects into Ilford Hill and providing a large volume of through traffic into the Town Centre. As a consequence, Ilford Hill, Winston Way and Cranbrook Road are busy vehicle routes, compounded by the one way gyratory of Chapel Road / Ilford Hill.

CONNECTIONS - RAIL

Located in Zone 4, Ilford Station provides an important gateway to Ilford Town Centre with good connections into Central London via mainline rail operated by National Express East Anglia. Most trains run between Liverpool Street and Romford and Shenfield.

From 2019 Crossrail Line 1 will follow the route of the High Road from Ilford Town Centre, through Seven Kings and Goodmayes, up to the borough boundary at Chadwell Heath. Development along this route will be guided by the now adopted Redbridge Crossrail Corridor Area Act Law Plan.

The route taken by Crossrail was historically formed part of the 'Roman Road' stretching from Whitechapel in London's

East End to Colchester in Essex. It remains an important east to west public transport route and road network. The area is well placed strategically, with good access to the City and Stratford. The corridor also lies within the London – Stansted – Cambridge – Peterborough (LSCP) growth area and borders the Thames Gateway growth area. Crossrail will provide increased accessibility to central London and Heathrow airport, which enhances the potential to increase commercial opportunities in the area. Gants Hill tube station is located to the north of Ilford and is served by the Central Line

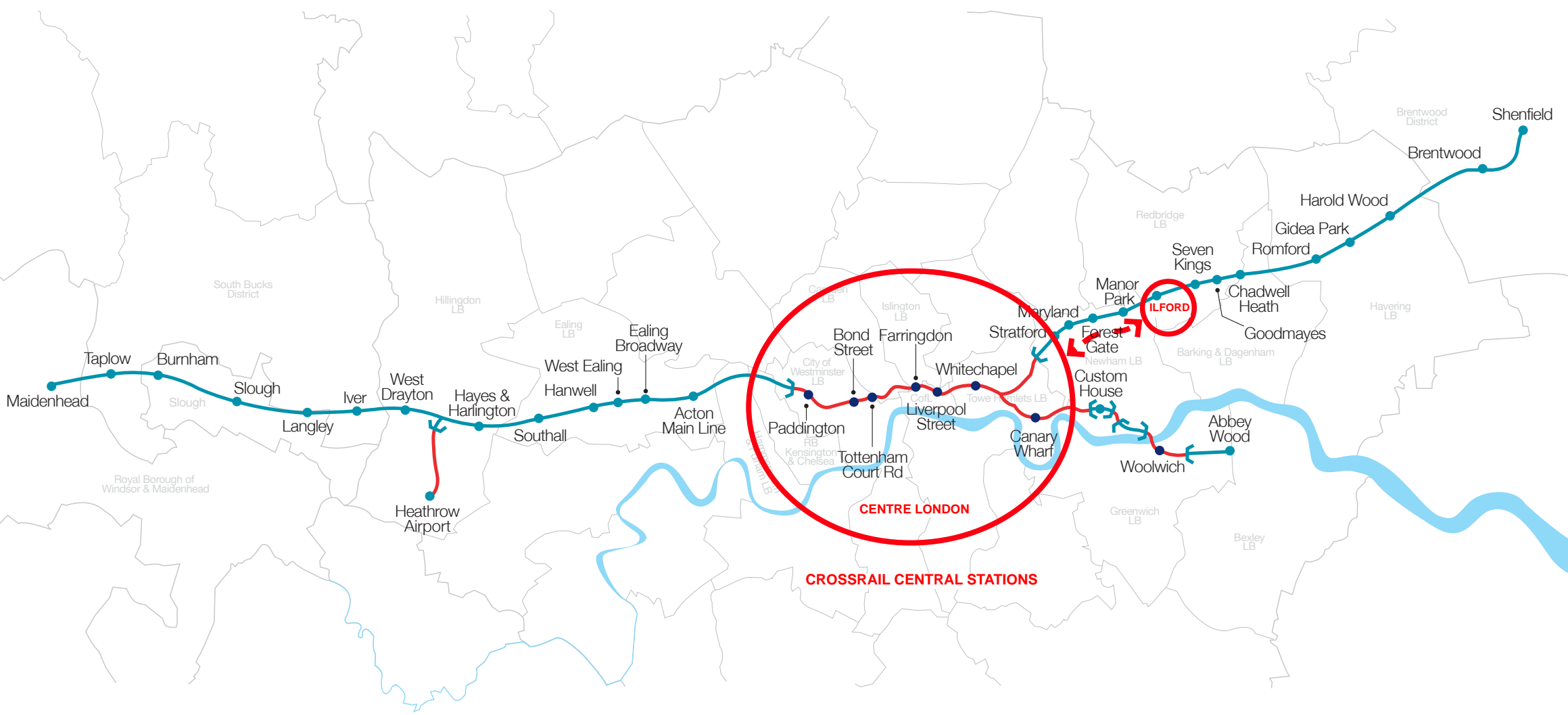
Ilford Station Classification

Ilford is one of the surface stations, extending East and West of Crossrail 'central section' stations onto parts of the existing surface railway infrastructure.

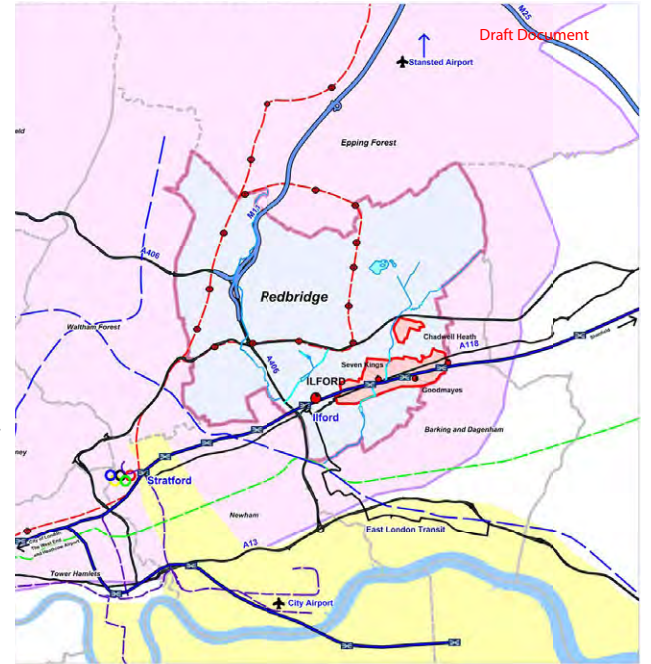
These Surface Stations have a different scale of intervention for station works to that proposed for the 'central section' stations' such as Bond Street, Farringdon and Whitechapel. Ilford Station is currently a major public transport interchange. It is classified by Crossrail as a 'Master Plan' Station, given its town centre location and the planned infrastructure changes at the existing station.

Regeneration opportunities, in terms of urban realm, transport interchange and land use development at Ilford also help classify Ilford as a Masterplan Station.

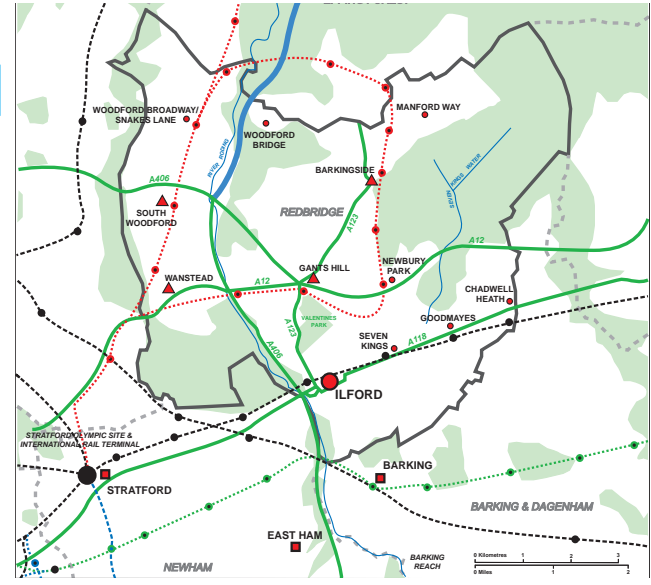




Iford in context to Central London in Crossrail Regional Map



Crossrail Corridor in London Borough of Redbridge



Iford context in London Borough of Redbridge



CONTEXT ANALYSIS

ILFORD'S FEATURES

Transport connections

One of Ilford's strengths is its good transport connections. The overland station linking Central London to Essex is in the heart of the Town Centre. There is also secondary access from York Mews to the north, via a pedestrian bridge located towards the western end of the platforms. Whilst it is not the most inviting access route (open peak hours only) it does provide valuable access from residential areas to the north and west of the station. This entrance would benefit from some improvements in terms of views, lighting, and general appearance to make it more inviting. There is an opportunity to provide access to the southern end of this bridge and there may, in the future, be an opportunity to enhance poor existing (particularly Mill Road) connections through the provision of a new bridge.

All the station land and buildings are currently owned by Network Rail.

Whilst the North Circular Road (A406) to the west of the Town Centre creates good links to the M11, A12 and A13, it does generate a significant volume of through traffic heading towards other areas of the Borough.

Ilford is also serviced by a considerable number of bus routes, linking the extended surrounding area. More information on bus activity is explained on page 18.

ARCHITECTURE

Historic buildings of note within the Study Area include the Hospital Chapel on Ilford Hill and Ilford Town Hall on the High Road. Designed by B. Woollard in an ornate Renaissance style, Ilford Town Hall was completed in 1901 and enlarged in 1927 and 1933. Elsewhere in the Town Centre, the 300,000 square foot Exchange Shopping Centre occupies a significant retail block on the High Road with a frontage onto Cranbrook Road, almost opposite the rail station. This indoor shopping mall has a 1,200 spaces car park and wide range of high street stores, including TK Maxx and Debenhams. Other buildings of note are those planned or under construction. The Town Centre has a variety of 1960/1970s purpose built office buildings ranging in height up to 18 stories. One of these, the former Peachy House Office Building on Ilford Hill has been renovated into residential. The significant Pioneer Market Site development at Winston Way is nearing completion, and will become a modern local landmark building. The future aspiration for Ilford is that this area of the town is reinforced by a new cluster of modern mixed use buildings of significant scale.

Parks and open spaces

The Town Centre is predominantly built-up and hard, although it does have several open parks in close proximity to the Town Centre. Notable spaces include Valentines Park approximately 500m to the north of the station. This popular and well served Victorian / Georgian park contains Valentines Mansion, which was built in 1696 and is Grade II listed. The park also provides many sports and leisure activities. South Park to the east of the town centre contains a large lake and sporting offer as does the Roding Valley and Wanstead Flats to the west.



Exchange Shopping Centre



Town Hall



Pioneer Market Site



Valentines Park



Valentines Park



Valentines Park



South Park



South Park



THE STATION ENTRANCE ON CRANBROOK ROAD WITH PIONEERPOINT IN THE BACKGROUND



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ILFORD CROSSRAIL: SITE ANALYSIS

Section content :

Photographic Record

Movement Analysis:

Vehicular Hierarchy

Pedestrian Hierarchy

Visual Analysis:

Station Entrance / Cranbrook Road

Cranbrook Road

Iford Hill

York Road

Town Centre Wide

Land Use

Existing Land Use

Iford Town Centre Area Action Plan Opportunity Sites

OS03 Former Piazza Station Site

Proposed Station

Spatial Strategy

Opportunities and Constraints

Moving Forward

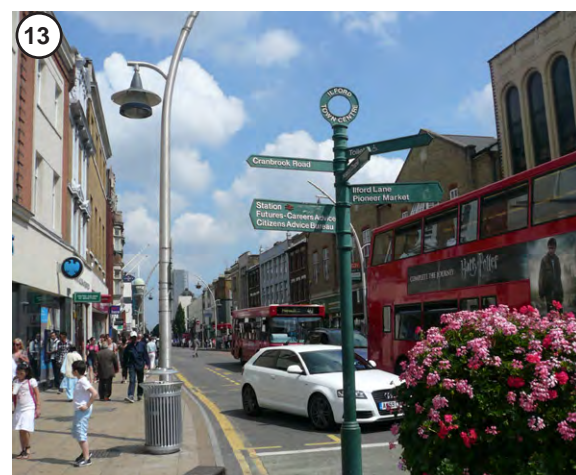
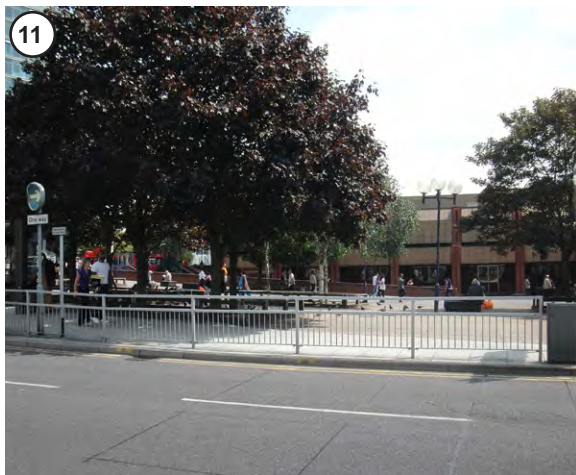
SITE ANALYSIS

PHOTOGRAPHIC RECORD



3

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MOVEMENT ANALYSIS

VEHICULAR HIERARCHY

A. CRANBROOK ROAD/ CHAPEL ROAD

The station and rail tracks act as a barrier restricting pedestrian connectivity between the residential north and the commercial south. The station entrance on Cranbrook Road is a bottleneck to both pedestrian and vehicle circulation within the core study area. Alternative access underneath the rail tracks is available through the narrow and uninviting underpass on Mill Road.

B. ILFORD HILL

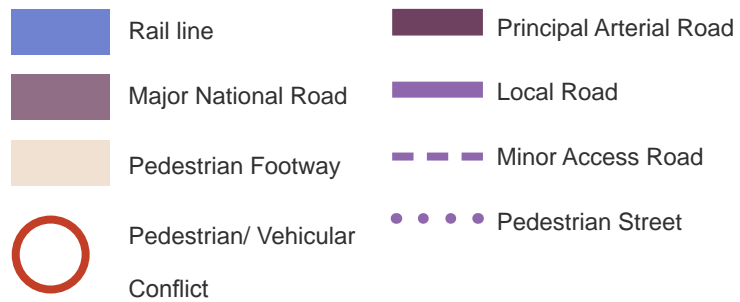
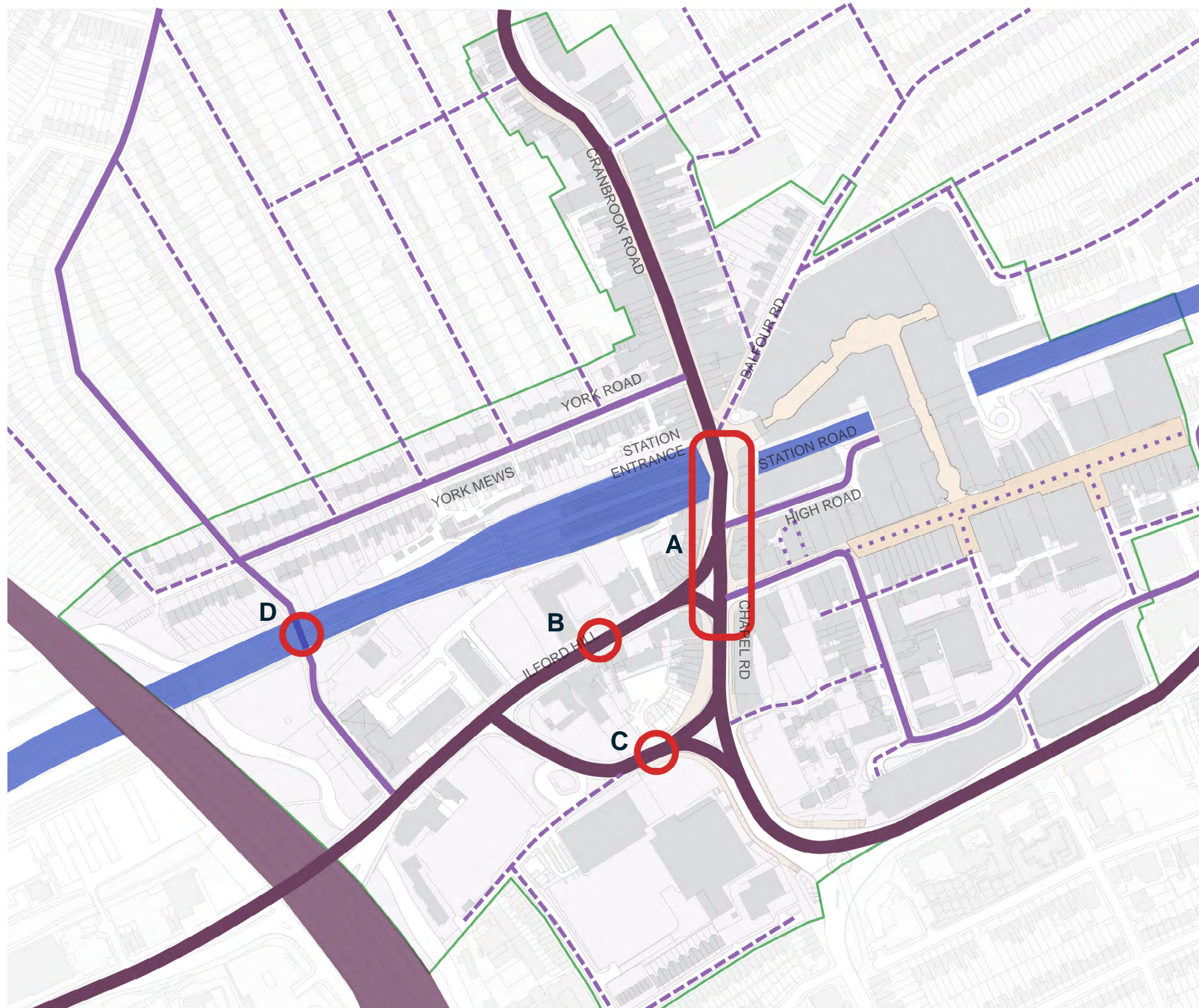
This is the major gateway to the Town Centre and the area with strong connections to the North Circular, Central London and Stratford. It also provides a physical connection between the Town Centre and the River Roding to its west. Transport functions are very dominant with a series of bus stops at the top end of Ilford Hill and vehicles branching off from the A406 North Circular Road. Ilford Hill is a barrier for north-south pedestrian movement. The lack of active frontages on both sides of the road reinforces a sense of pedestrians being secondary to vehicles.

C. CHAPEL ROAD

Similar to Ilford Hill, high vehicle speeds and volumes reduce pedestrian permeability and create an unpleasant environment. The staggered crossings at Chapel Road's junction with Winston Way causes delays and inconvenience to pedestrians and creates potential safety issues as pedestrians seek to follow desire lines or cross against the red man signal.

D. MILL ROAD

The length of the rail line and associated large block sizes presents some what of an obstacle for vehicles and pedestrians attempting to cross north south. The Mill Road underpass provides a vital connection but its narrow width and risk of flooding makes it an unappealing route. Without major engineering, this is restricted in its adaptability, although improved materials, lighting and surveillance could help to improve its pedestrian experience.



MOVEMENT ANALYSIS

VEHICULAR HIERARCHY

Iford Town Centre is situated at the junction of key north-south and east-west routes and through traffic is forced to travel through the town centre. The previous page illustrates how this has led to an environment dominated by vehicular movement. With Crossrail and the development of the Town Centre, there will be an even greater need to find ways of making the town centre more welcoming and easier to navigate for pedestrians and cyclists, whilst continuing to cater for the needs of vehicular traffic and the large volume of buses.

Collision data over the latest 3 year period to March 2011 indicates a total of 67 collisions of which 37% involved pedestrians. Whilst there were no fatalities this percentage is well above the average of 22% for 'all sites' on Borough roads in inner London. Additional details are provided in the Appendix.

A highway network study was carried out by Arup in 2004 to assess how the network will operate in Iford Town Centre over a 30 years period, and to test the effects of different growth scenarios and changes. This is reviewed as follows:

SUMMARY OF TRAFFIC MODELS BUILT FOR ILFORD TOWN CENTRE

In 2004, transport consultants Arup built a Paramics micro-simulation traffic model of Iford Town Centre and used it to test three development scenarios (Year 5 Horizon, Year 15 Horizon and Year 30 Horizon). The scenarios included proposed highway network changes, as detailed below.

SCENARIO 1 YEAR 5 HORIZON

HORIZON HIGHWAY NETWORK CHANGES

- Winston Way eastern roundabout substituted by a signalised three arm junction;
- Clements Road town centre buses use Winston Way;
- Creation of a northbound bus lane on the eastern side of the gyratory (on Chapel Road/ Cranbrook Road) allowing buses to skip the gyratory if headed to Cranbrook Road and;
- Allow buses from High Road to make a right turn into Cranbrook Road.

TRAFFIC GROWTH

The model assumed no increase in 'background traffic'. Growth from proposed developments was included in the model. The net effect was a 5 per cent increase in traffic compared to existing levels.

MODELLING RESULTS

The scale of new developments in the Town Centre leads to an increase in Town Centre traffic and a consequent worsening of overall traffic conditions (with no strategic reassignment or mode shift assumed). Bus journey times for buses diverted from Clements Road to Winston Way increase, however the ELT appears to operate effectively.

SCENARIO 2 YEAR 15 HORIZON

HORIZON HIGHWAY NETWORK CHANGES

- A 2-lane dual carriageway link inserted, connecting Winston Way and the A406. As a concept, this link provides the opportunity to remove through traffic from the gyratory;
- A signalised roundabout junction connects the new link with the A406;
- Winston Way western roundabout replaced by a four-arm signalised junction, located slightly to the west of the present roundabout;
- Winston Way eastern roundabout substituted by a signalised three arm junction;
- Clements Road Town Centre buses use Winston Way;
- Creation of a northbound bus lane on the eastern side of the gyratory (on Chapel Road/ Cranbrook Road) allowing buses to skip the gyratory if headed to Cranbrook Road; and
- Allow buses from High Road to make a right turn into Cranbrook Road.

TRAFFIC GROWTH

The model assumed that background traffic growth would reduce in this period (negative growth). Growth from proposed developments was included in the model (+5 per cent). The net effect was a level of traffic similar to that in Year 5.

MODELLING RESULTS

The model predicted a general improvement in conditions for all vehicles including a decrease in journey times for buses. This is due to the new link between Winston Way and the A406, which is predicted to reduce traffic volumes on Iford Hill by approximately 50%. However the model predicted a 20 per cent increase in journey times in the PM peak on the Iford Lane-Cranbrook Road route southbound and an eight per cent increase on the Iford Hill-Green Lane route eastbound. It is not clear from Arup's report whether the conversion of the gyratory to two way operation was modelled.

SCENARIO 3 YEAR 30 HORIZON

HORIZON HIGHWAY NETWORK CHANGES

The model network was not changed from Scenario 2.

TRAFFIC GROWTH

The model assumed negative background traffic growth (-5 per cent) and development growth at +5 per cent. The net effect was a reduction in the total number of trips compared with Year 15.

MODELLING RESULTS

The model predicted a general decrease in journey times, including a 27 per cent decrease on the Iford Lane-Cranbrook Road (northbound) route in the weekday PM peak and a 20 per cent decrease on the Iford Hill-Green Lane (westbound) route, also in the weekday PM peak. This is on the basis of an assumed reduction in car use, rather than the result of traffic schemes.

CONCLUSIONS

The Paramics model of Iford Town Centre, built by Arup in 2004, is now out of date as the baseline traffic data is too old and would not comply with TfL modelling guidelines so its results could not be relied upon for this urban realm study. It is worth noting however that the model did test the effects of introducing a new direct link between the A406 and Winston Way, which would provide an opportunity to remove through traffic from the gyratory. Although not explicitly stated in the modelling report produced by Arup, the modelling results suggest that if the gyratory were converted to two-way traffic, an enhanced highway link between the A406 and Winston Way would be required in order for the highway network to operate in a satisfactory manner.

The proposals put forward in this urban realm study are based upon the one-way system currently in operation. If the gyratory were to be converted to two-way traffic, urban realm proposals could be developed that would exploit the possibilities created by the removal of the one-way system, including an extension of the town centre westwards. It was not possible to do this as part of the present urban realm study, given that currently there are no plans to convert the gyratory and given that there isn't an up-to-date traffic model that could be used to test the effects of converting the gyratory.

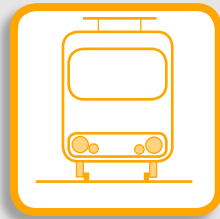
Iford Hill Gyratory (Northbound Bus Lane) as proposed from Scenario 2



MOVEMENT ANALYSIS

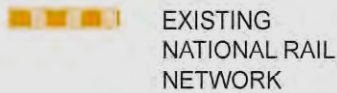
PUBLIC TRANSPORT AND CYCLES

Iford Town Centre benefits from a wide range of public transport and cycle routes. These are summarised as follows:



GREAT EASTERN MAIN LINE

Great eastern main train line (since 1860). Connects to Central London Liverpool Street (West) and Sheffield (East).

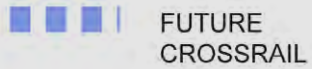


EXISTING NATIONAL RAIL NETWORK



CROSSRAIL

The focus for this study and a major driver for investment in Iford, as it will be for the other stations throughout Great London from Maidenhead to Sheffield



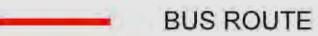
FUTURE CROSSRAIL



LONDON BUSES

Iford is serviced by a considerable number of bus routes, linking the surrounding area to the station via the Town Centre.

Buses connect Iford to the West (West End, the City, Stratford, Walthamstow, Wood Green, Tottenham), to the North (Chingford, Grange Hill, Barking) to the East (Harold Hill and Romford, Dagenham) and to the South (Thames New Estate and Barking)



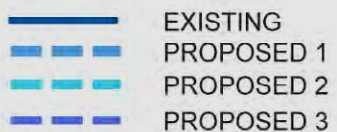
BUS ROUTE



LONDON CYCLE NETWORK / CYCLE SUPERHIGHWAY

The LCN+ is a planned 900km network of radial and orbital routes for cyclists covering the whole of London. Iford is part of this plan. Partial existing routes will be included into a larger network from 2012

CYCLE ROUTES



EXISTING
PROPOSED 1
PROPOSED 2
PROPOSED 3

B 169	G 123 145 366	K 128 145 366	M 123 128 145 150 167 179 364 366 462	Q 25 86 123 128 145 147 150 167 169 364 366 462 W19 N86
C 296 396	H 128 150 167 296 364 396 462	L 25 86 147 W19 N86	P 86 128 150 169 EL1 EL2 N86	
D 150				
F 86 169 EL1 EL2 N86		R 86 128 145 169 366 N86		

BUS STOPS AND ASSOCIATED ROUTES



3

MOVEMENT ANALYSIS

PEDESTRIAN HIERARCHY

PEDESTRIAN MOVEMENT IN AND OUT OF ILFORD STATION

The streets outside the Station and along Chapel Road and Ilford Hill are a busy bus to station and bus to bus interchange area. They are also heavily used by local shoppers and other visitors. It is important that the footways are of sufficient width to ensure comfort whilst maintaining good pedestrian movement.

In the long term enhanced rail access with increased pedestrian flows will add pressure to these already congested footways.

The adjacent diagrams, illustrate data provided by Crossrail (forecasts agreed by the Joint Sponsor Team) for 2010, 2026 and 2056, pedestrian movement to and from Ilford train station at morning peak time. These diagrams illustrate that pedestrian flows are forecast to nearly double from 2010 to 2056.

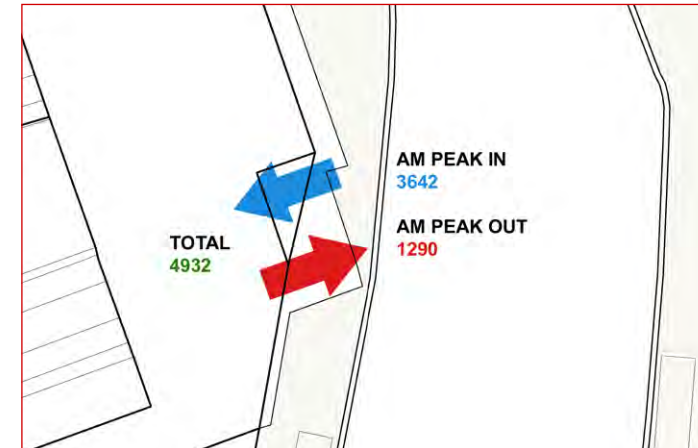
An analysis of pedestrian comfort levels of the Ilford station area will be presented later in the report (see page 44)..

Table 1 2026 and 2056 Ilford Station Forecasts with Crossrail

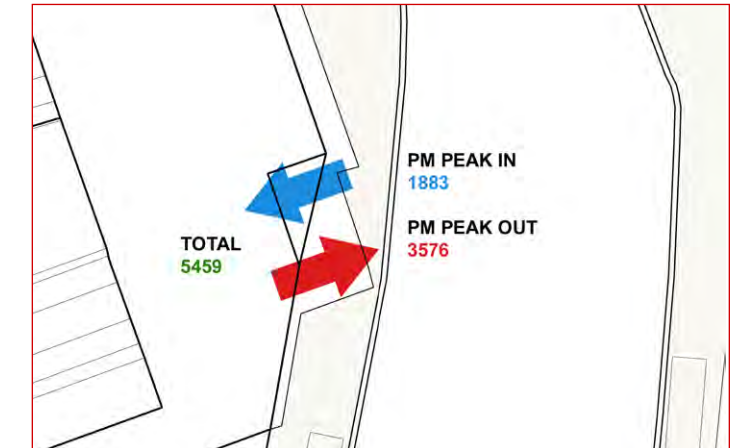
	2026			2056 (2026 + 14%)		
	Boarders	Alighters	Total	Boarders	Alighters	Total
AM (0700-1000)	6580	1920	8500	7501	2189	9690
PM (1600-1900)	1920	6580	8500	2189	7501	9690

The 2026 forecasts in the table above are from 'Crossrail Suburban Demand Forecasts' (Document No. CRL1-XRL-T3-RST-CR001-00001). The 2056 forecasts in the same table were derived for this study by adding 14 per cent to the Crossrail 2026 forecasts. The figures in the diagrams on this page come from forecasts used in a previous pedestrian comfort analysis (PCL) of Ilford Town Centre carried out by or on behalf of TfL. For consistency purposes, this study has used the forecasts used in the previous PCL analysis instead of the Crossrail forecasts. The two sets of 2026 forecasts are almost identical in the AM peak. In the PM peak, the forecasts used in the previous PCL analysis are slightly higher than the Crossrail forecasts.

PEDESTRIAN MOVEMENT IN AND OUT THE STATION : EXISTING

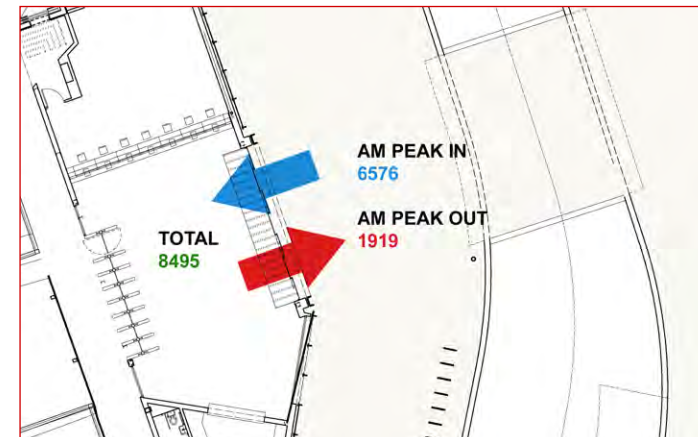


AM TOTAL = 4932

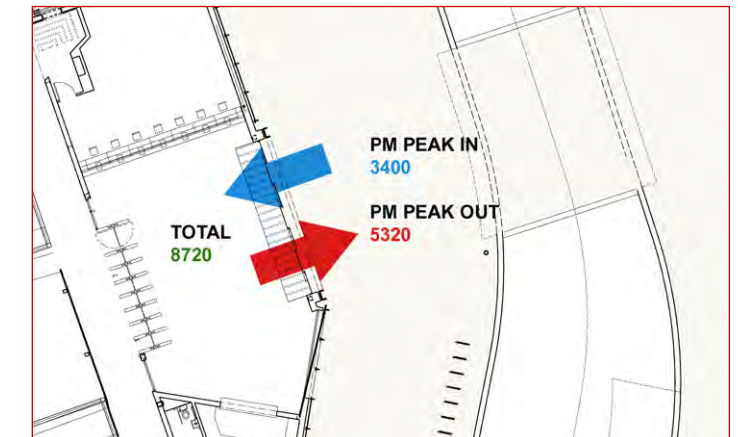


PM TOTAL = 5459

PEDESTRIAN MOVEMENT IN AND OUT THE STATION : 2026

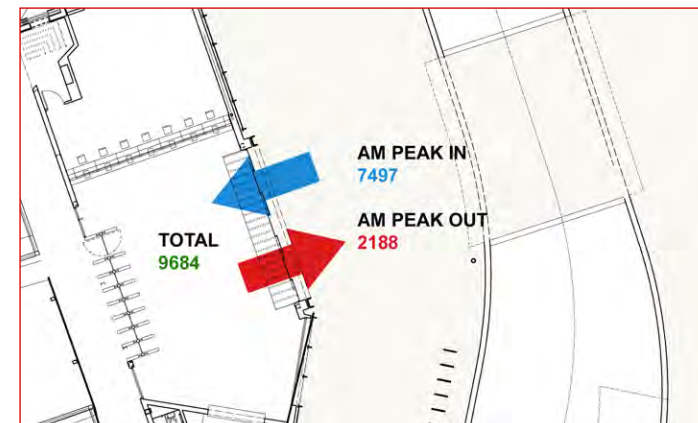


AM TOTAL = 8495

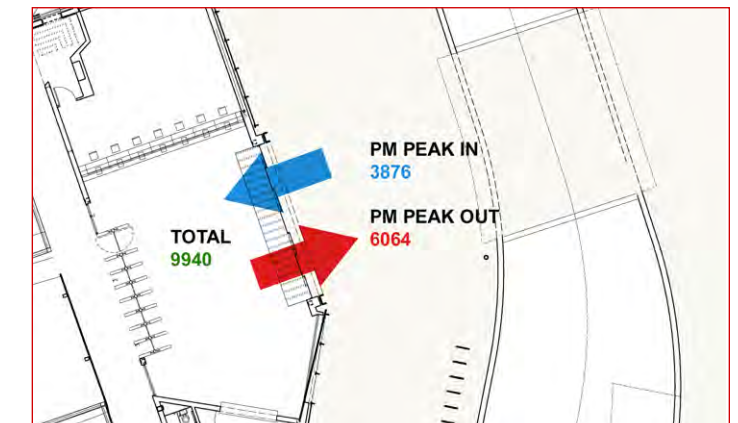


PM TOTAL = 8720

PEDESTRIAN MOVEMENT IN AND OUT THE STATION : 2056



AM TOTAL = 9684



PM TOTAL = 9940

MOVEMENT ANALYSIS

PEDESTRIAN HIERARCHY

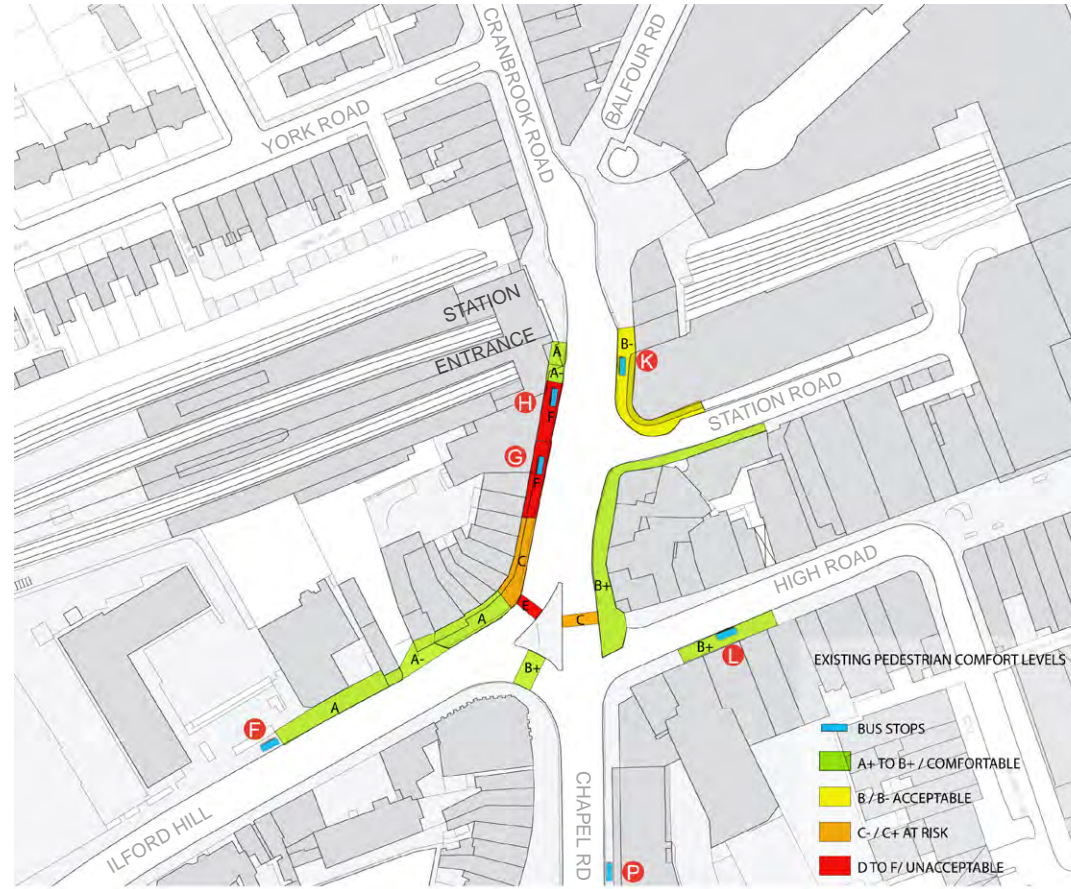
PEDESTRIAN COMFORT LEVELS AROUND THE STATION ENTRANCE

Pedestrian comfort analysis has been carried out in relation to the existing situation around the Station and of the anticipated situation in 2026. The analysis considers the amount of free area on the footway and how comfortable it is for pedestrians to navigate. Narrow footways, street clutter, obstructions and general congestion all contribute to a negative score.

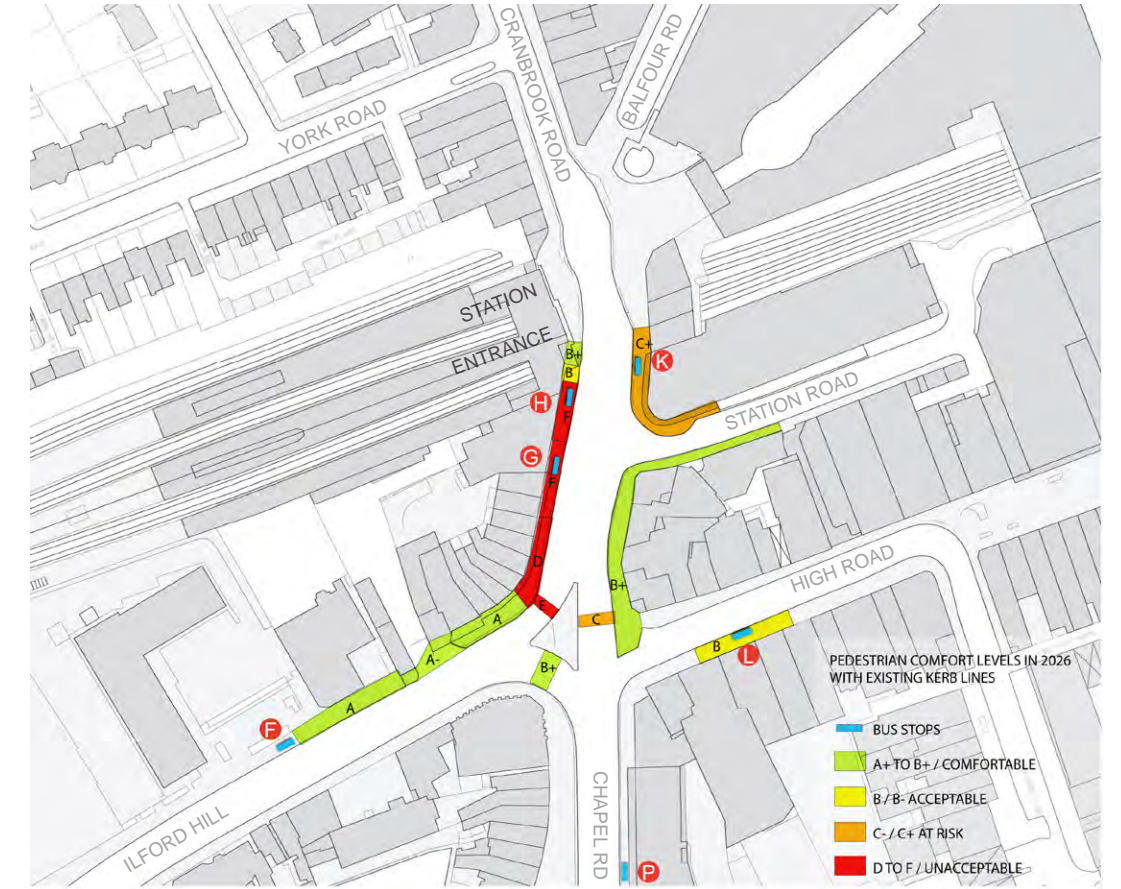
At present, the immediate entrance to the station is deemed 'comfortable', as are long stretches from the top of Ilford Hill and Cranbrook Road from Station Road towards the High Road.

The activity and quantity of people congregating around bus stops H and G combined with a narrow footway, narrow crossings, advertising signs and telephone boxes along this section of Cranbrook Road contributes to it being rated as F, reaching 'unacceptable' levels of comfort. Stop L on the High Road is also suffering from a narrow footway which becomes congested whilst people wait for one of five routes serving this stop.

It is clear that by 2026, pedestrian levels will increase around Cranbrook Road and, as a result, larger sections of footway would be downgraded in their comfort levels. The length of footway by bus stops G and H would be at an 'unacceptable' level of comfort and bus stop K would be 'at risk'. Although the immediate station entrance would maintain a 'comfortable' rating, it is clear that the first impressions of Ilford in the future would be of congested, and difficult to negotiate streets.



2010



2026



Long queues often form on the footway at bus stop L on High Road, creating a bottleneck of pedestrian movement

3

MOVEMENT ANALYSIS

PEDESTRIAN HIERARCHY

PEDESTRIAN COMFORT AND BUS ACTIVITY

Pedestrian movements on Cranbrook Road is increased further by the significant number of bus routes that serve the Town Centre. Pedestrian interchange is very high in Ilford, with the most popular bus to bus interchange between bus stop F on Ilford Hill and bus stops G and H on Cranbrook Road with an average of 200 people per hour in the AM peak. The largest rail to bus interchange is between stop F and the station with 100 people per hour in the AM peak. This equates to a high concentration of footfall on a relatively short section of the Town Centre.

Other popular bus to bus interchange is from bus stop K to L, P to G & H and P to L.

To alleviate the footway overcrowding and mitigate the risks of reducing pedestrian comfort levels in the short term, several approaches can be considered:

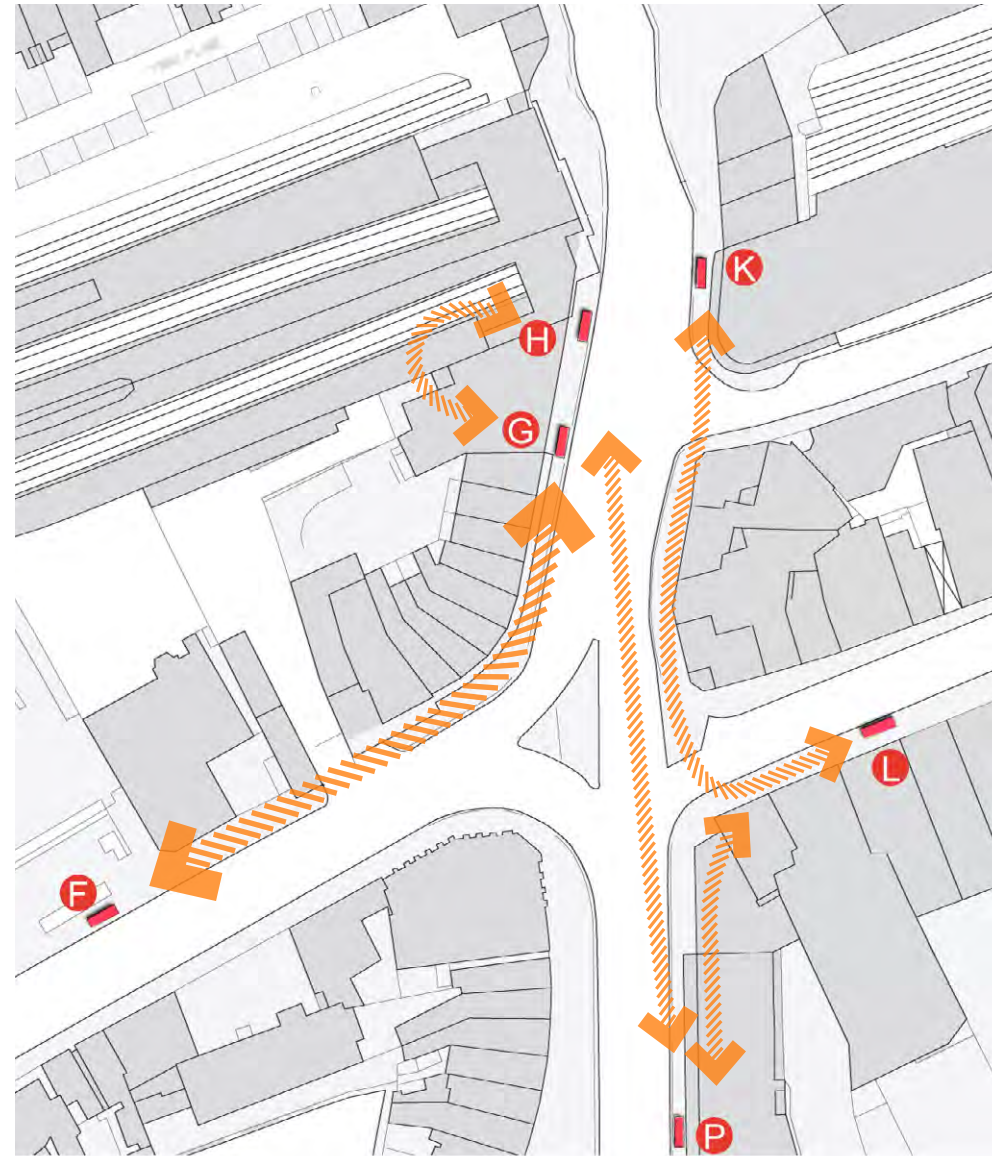
- Study ways to optimise bus to bus interchange
- Study ways to encourage a modal shift in how people use transport (for example, using a bicycle instead of the bus or train)
- Study opportunities to widen the footways

Currently a lot of congestion exists at stops G and H and the journey that people make from stop F contributes to this.



Initial investigations into the feasibility of moving bus services show that currently 11 bus routes stop at G and H. Most of these routes turn right from the High Road into Cranbrook Road. To relocate one or both of these bus stops to Ilford Hill would mean rerouting the bus services around the gyratory, which would increase journey times and potential delays.

Of all services, our analysis shows that only routes 296 and 396 from stop H could be relocated to Ilford Hill. These services are forecast to have only a 1% increase in demand as a result of Crossrail, so relocating only these would only have minimal impact in terms of reducing footway congestion.

Whilst it would seem that bus services should stay in similar groundings, there may be scope to review footway widths. There may also be scope to locally adjust the position of stands.



Main Pedestrian movement interchange between bus stops

-  Bus Stops and routes served from each stop
-  Main Bus to Bus interchanges: pedestrian movements

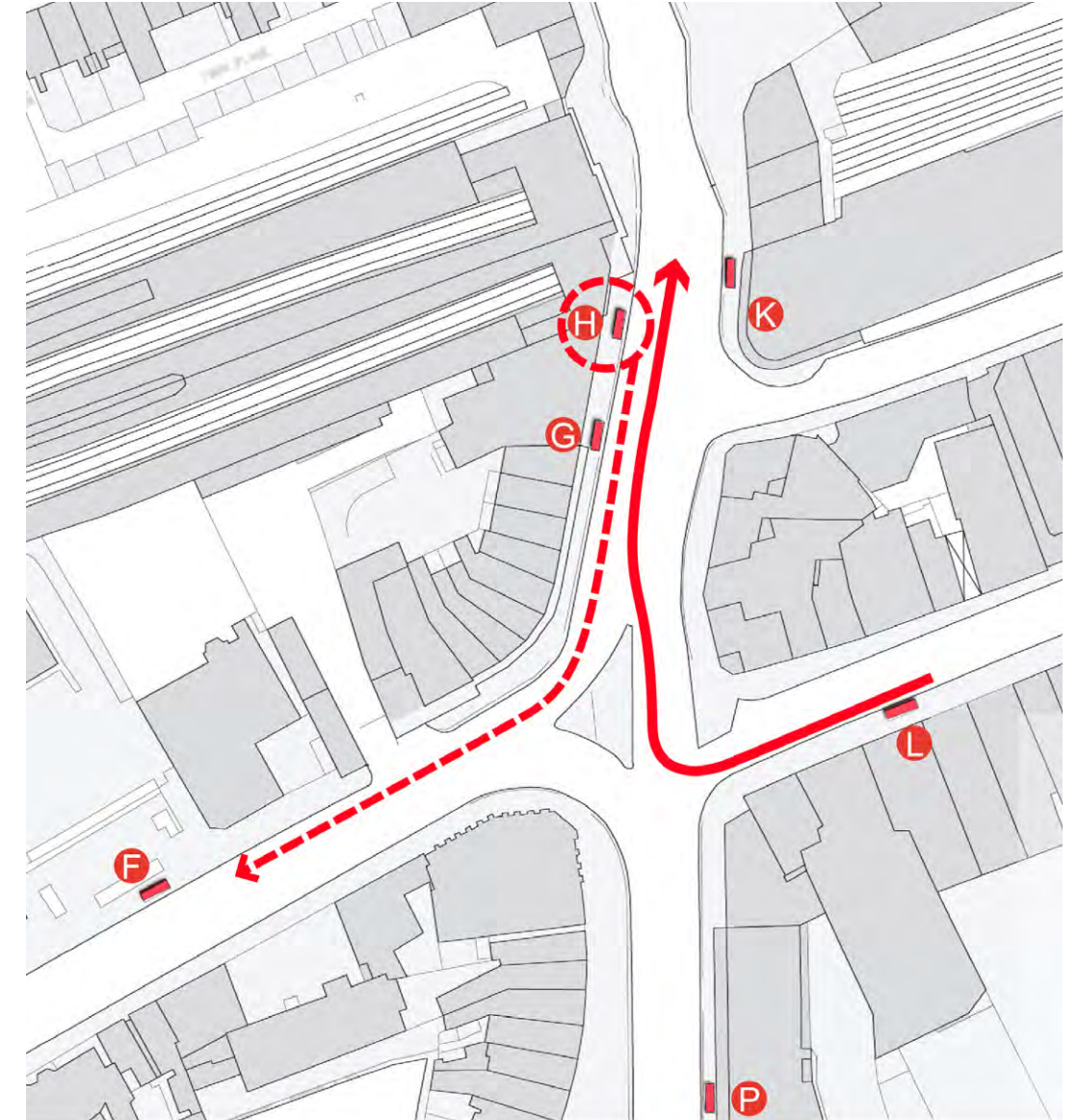




Diagram illustrating potential relocation of Stop G onto Ilford Hill

-  Bus Routes
-  Option to move a bus stop or buses from a stop to another

VISUAL ANALYSIS

STATION ENTRANCE / CRANBROOK ROAD

Pedestrian movement comfort is additionally influenced by the general arrangement of footways and the distribution of furniture or other potential obstructions.

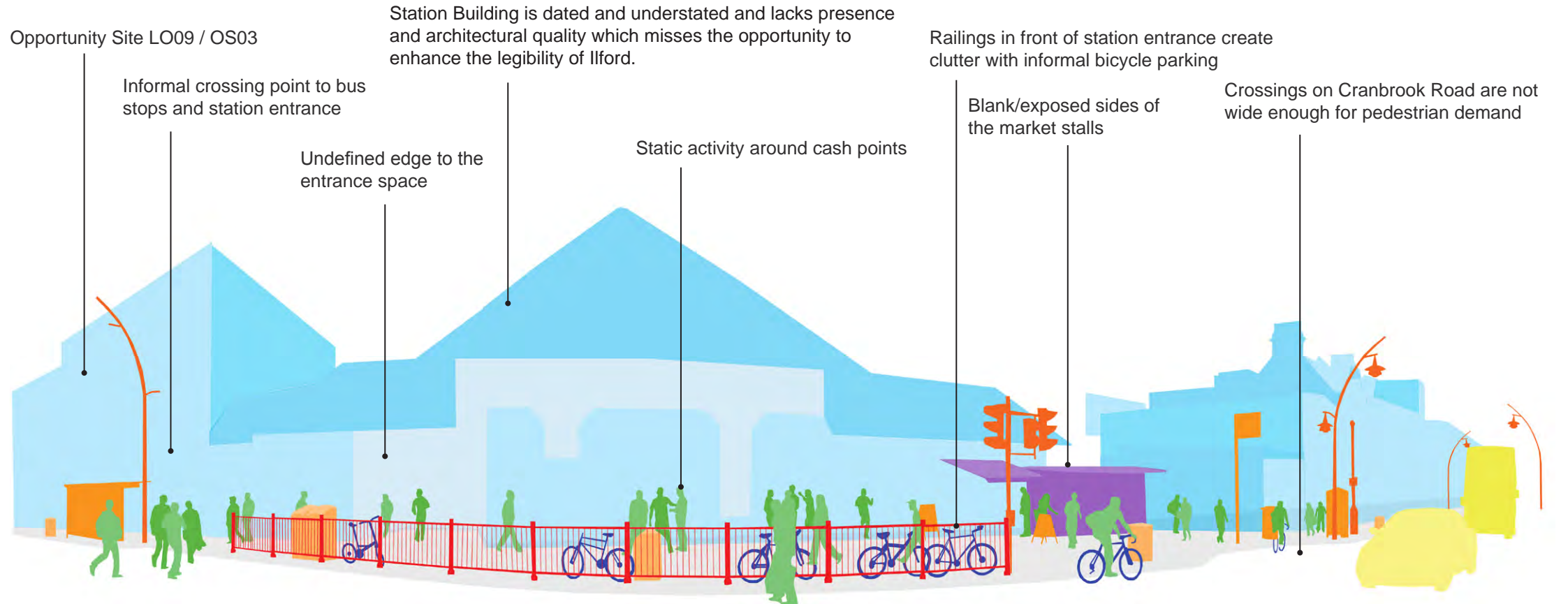
The following pages, use a series of views, to give an overview of clutter within the vicinity of the Station Entrance. Much of this could be removed or reorganised to enhance pedestrian movement.

VIEW A: ILFORD STATION ENTRANCE

The entrance to Ilford station is naturally associated with movement and acts as a both a place of interchange and an area for informal activity.

The area outside Ilford Station itself and the adjoining Cranbrook Road frontages suffer from high levels of pedestrian congestion, especially at peak hours due to constraints on the footway and very high levels of foot traffic generated by both the station and bus stops. This creates an unpleasant and sometimes hostile environment at this key transport node and entry point to Ilford Town Centre. As a consequence of this, first impressions upon arrival in Ilford are of general congestion and the abundance of street clutter that characterises the public space in front of the station and along Cranbrook Road. The last impression being the station itself with its dated and understated building lacking presence and interest to Ilford legibility.

During peak periods, people waiting to cross the road, enter the station and waiting at bus stops often come into conflict with people who are attempting to move across the street. There is also a conflict between traffic on Cranbrook Road and people attempting to cross in an East-West direction.



VISUAL ANALYSIS

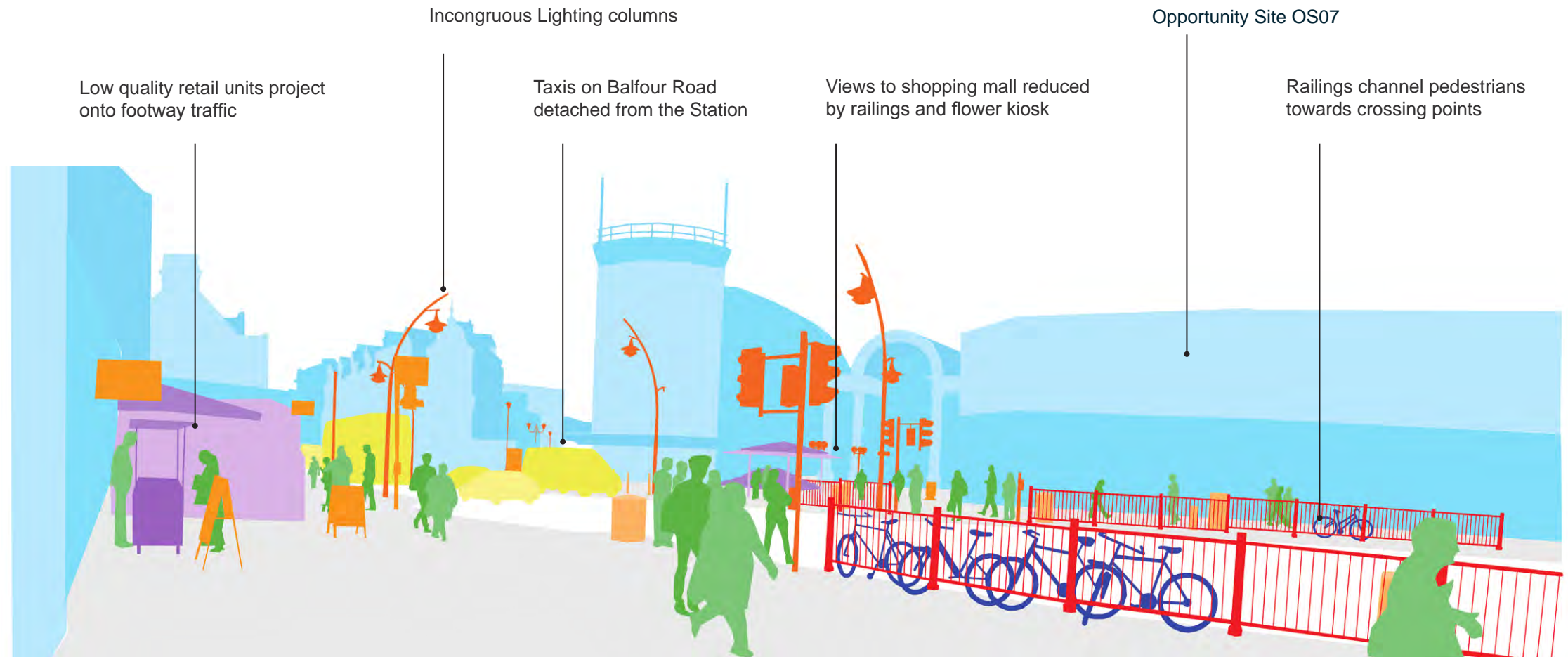
STATION ENTRANCE / CRANBROOK ROAD

VIEW B: FROM STATION ENTRANCE TOWARDS EXCHANGE SHOPPING CENTRE

Low quality stalls and kiosks reduce the available footway width and create a cluttered environment and detract visually. Whilst street trading can positively contribute to animation in the public realm. Opportunities to relocate or at least enhance stalls immediately outside the station should be discussed in liaison with the Licensing team at Redbridge.

Although the station benefits from a surplus provision of cycle stands, there is a lack of cycle spaces outside the station, in close proximity. Many cyclists use the guard railing outside the entrance to secure bicycles further contributing to the creation of a visually cluttered environment. Some cycle stands are located near Balfour Road, although these are often vacant, possibly due to being unseen and suffering from a lack on natural surveillance.

Consideration should be given to increasing provision within the street, better identifying provision within the existing railing or other attractions of clutter.



VISUAL ANALYSIS

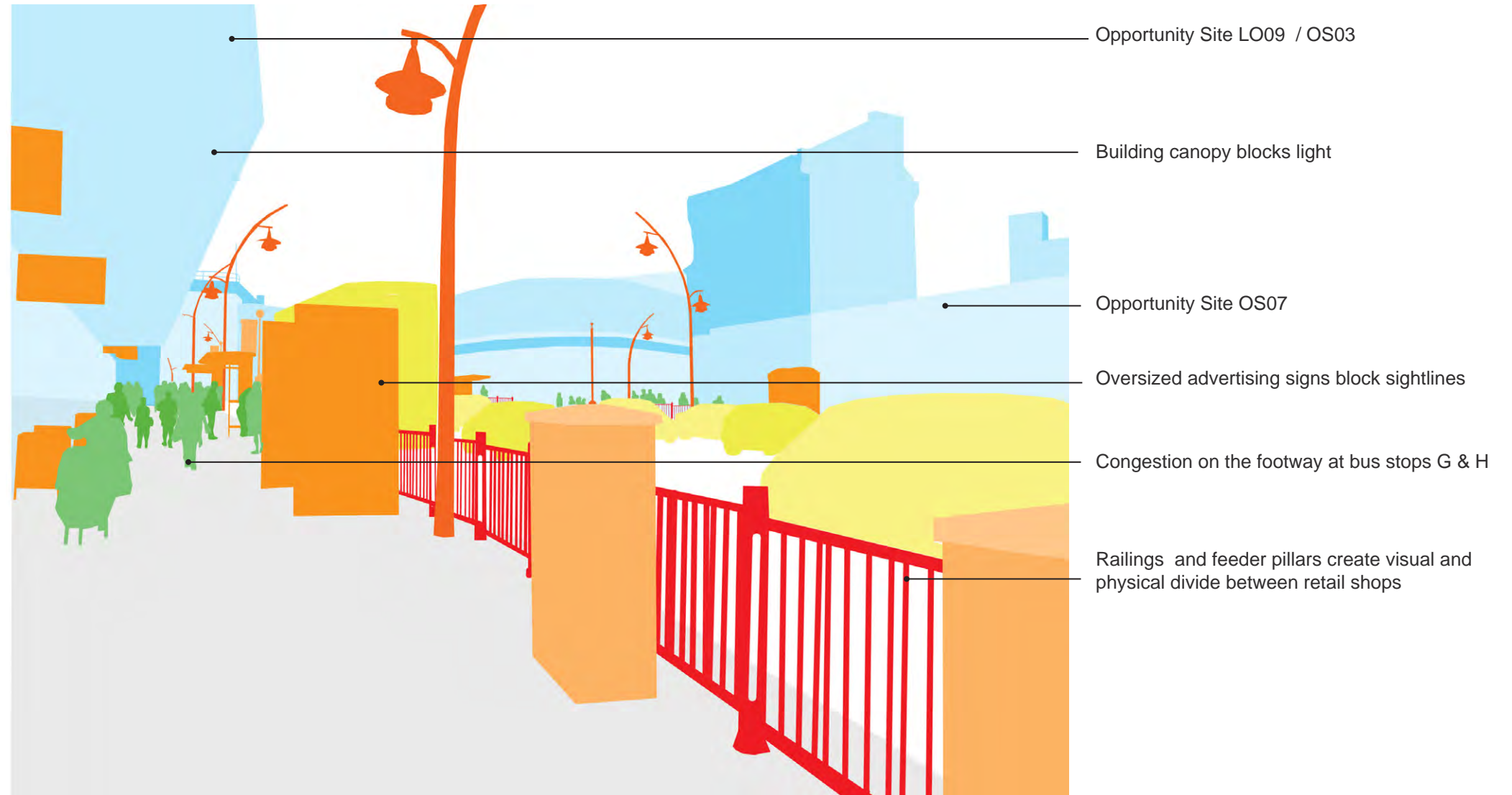
CRANBROOK ROAD

VIEW C: CRANBROOK ROAD TOWARDS ILFORD STATION

The main Station entrance fronts onto Cranbrook Road and was heavily rebuilt during the 1980s, with architecture in keeping with other buildings of that age in Ilford. The main station ticket hall and platform access is housed within a pyramidal roofed single storey building built to address Cranbrook Road.

The current elevation lacks permeability at eye level into the station and tracks beyond. The variety of signage, timetable information and bank cash points creates a cluttered, solid elevation which adds to the feeling of separation from the street. This is exaggerated by the way in which the entrance is off-set, from the crossings of Cranbrook Road and the buildings somewhat dated pyramidal roof.

At a strategic level, the station and rail tracks act as a controlled barrier limiting direct pedestrian connectivity between the residential north and the commercial south. The entrance on Cranbrook Road becomes a bottleneck of both pedestrian and vehicle circulation within the core study area. Alternative access underneath the rail tracks is available at the narrow underpass on Mill Road which is an uninviting route for pedestrians and a significant distance from the Station and its entrance on Cranbrook Road.



Opportunity Site LO09 / OS03

Building canopy blocks light

Opportunity Site OS07

Oversized advertising signs block sightlines

Congestion on the footway at bus stops G & H

Railings and feeder pillars create visual and physical divide between retail shops



VISUAL ANALYSIS

ILFORD HILL

ILFORD HILL INTERSECTION

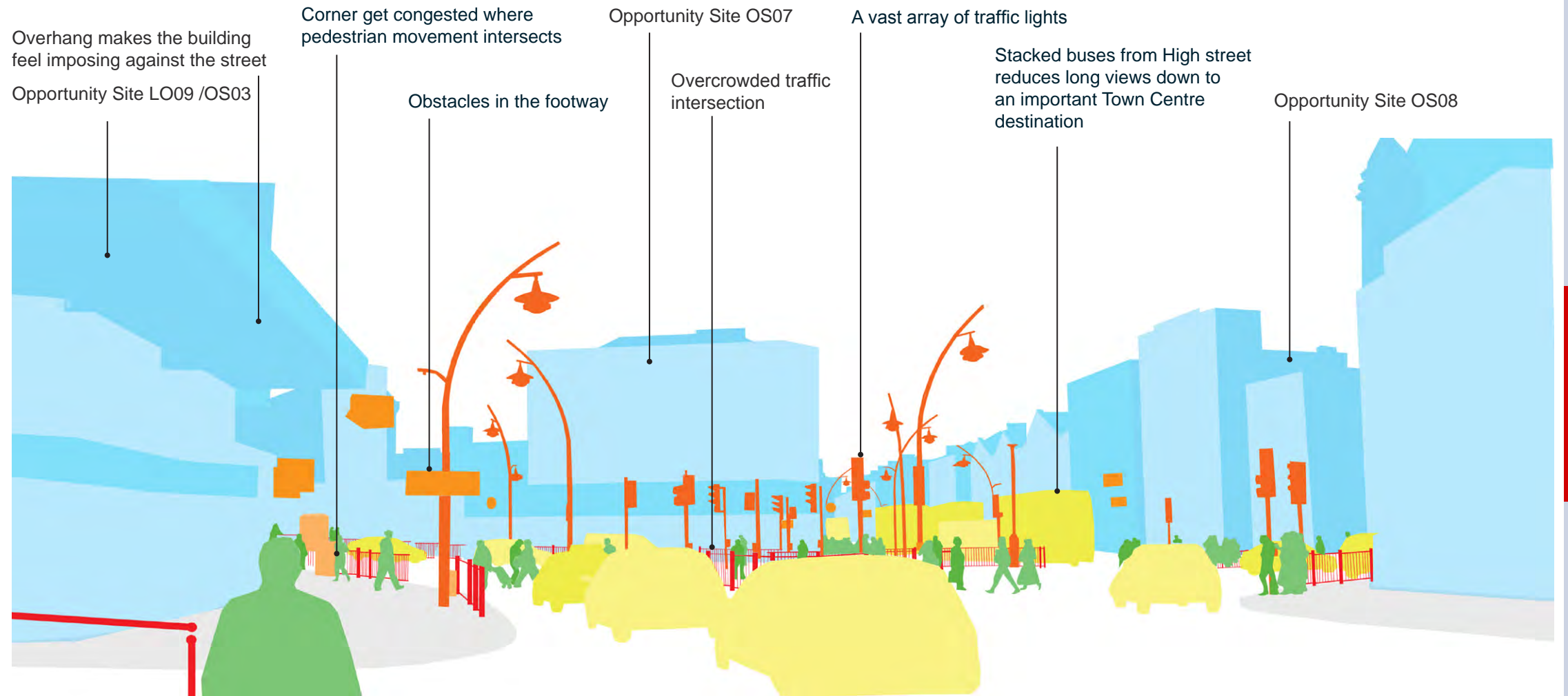
The junction of Ilford Hill and Chapel Road is an expanse of pedestrian islands, bus and cycle lanes, and crossings. All populated with a complex array of street and signage.

Views at street level are obscured by pedestrian and cyclists waiting for their turn to cross, and the seemingly impenetrable line of safety barriers that define every route.

Movement through this junction is over-complicated and hindered by the degree and range of traffic control methods at a location in the town centre where bus to bus interchange is very high.

Although bus stop maps are provided, there is a distinct lack of wayfinding.

The complex nature of navigation through this junction increases the risk of collisions between pedestrians and buses at the junction of High Road.



VISUAL ANALYSIS

TOWN CENTRE WIDE

The following images illustrate public realm issues within the Station's wider environs



Small streets and mews : uninviting environments

Many side streets and mews such as Rigby Mews, York Place, York Mews and Willow Walk, Clements Lane and Station Road are uninviting pedestrian environments.

Large block sizes surrounded by wasted spaces deter pedestrian use :

Large block sizes in the wider area including the Station/ its track and the Exchange Retail Centre limit movement opportunities through the Town Centre. This is exacerbated by the number of sites lying vacant or awaiting development.

Congested footways:

Crowded footways on Cranbrook Road and High Road (especially at bus stops) impact on the pedestrian comfort.



Street clutter and poor surfacing materials :

The Town Centre has limited co-ordination of street furniture, lighting and signage and an inconsistency in street lighting styles and light levels. There is also a variety of poor quality surfacing materials.

Predominance of carriageways :

The proportion of carriageways, the alignment of kerbs and management measures (flows, signals, guard railing) detracts from the Town Centre.

Lack of active frontages on Ilford Hill and Clements Lane :

Cycle lanes go around the edge of the Town Centre (Ilford Hill and Chapel Road) but do not extend up along Cranbrook Road to the Station and beyond. However, Cycle Superhighway 2 will be extended to Ilford after the 2012 Olympic Games providing a direct link to Aldgate.

Poor visibility and wayfinding :

In some locations there is poor wayfinding, poor legibility and a lack of visual surveillance. The planned introduction of Legible London within Ilford Town Centre will improve this and begin to co-ordinate the town centre with other areas in the Borough such as Gants Hill.

LAND USE

EXISTING LAND USES

Land use within the study area, is dominated by retail concentrated along the High Road and Cranbrook Road with office and light industry sporadically located throughout the Town Centre. Recently developed tall residential buildings also occupy the study area. Further afield the town centre is surrounded by smaller scale, traditional residential suburban streets.

Existing primary retailing is focused on the High Road and the Exchange Shopping Centre. Secondary retailing on Cranbrook Road includes banks, charity shops, estate agents and takeaways.

Whilst the large Sainsbury's acts as a major retail anchor on Winston Way, it also serves to draw some shoppers away from the High Road.

Towards the west of Chapel Road and Winston Way land use becomes more fragmented with surface car parks and a number of sites vacant or ready for future development. These sites will allow the expansion within the town centre to meet the residential, retail and leisure demand as identified in the Ilford Town Centre Area Action Plan. Major residential increases will be possible across the town centre, generally occurring in mixed use buildings with ground floor commerce or retailing, and housing on floors above.

Urban Grain

The large retail blocks to the north, and running parallel to the High Road have an adverse impact on the residential north of Ilford due to their impact on pedestrian permeability.

In the area south of the High Road, the urban grain is slightly more conducive to pedestrian movement although Winston Way and the local road network does act as barriers.

Moving forward :

Crossrail and the Ilford Town Centre Area Action Plan is likely to stimulate changes to land use within the Town Centre with significantly increased areas of retail and residential. Some of the opportunities are identified on the following pages.



Key

■ A1 Primary Retail	■ B1 Business, Offices, light industry	■ D1 Schools	■ Multi Storey Car Parking
■ A1 Secondary retail	■ B2 General industrial	■ D1 Churches	■ Train Station
■ A2 financial & Professional services	■ C3 Residential	■ D1 Police station	
■ A3 Cafes & restaurants	■ C2 Residential Institution	■ D1 Town Hall	
■ A4 Drinking Est.		■ D2 Recreation	
 A5 Hot food takeaways			

The Ilford Town Centre Area Action Plan (AAP) was adopted in May 2008. It identifies a wide range of Opportunity Sites to promote major regeneration of the town centre, delivering:

- More than 5,000 new homes in the long-term.
- Approximately 30,000m² (gross) of new and replacement High Street retail, restaurants, café, leisure and cultural uses.
- Approximately 20,000m² (gross) of other active ground floor uses (i.e. secondary retail, service/community uses, residential/office entrances).
- Approximately 45,000m² of new/replacement B1 office space.
- Approximately 8,000m² of new/replacement small scale commercial and employment uses.
- A range of social, education, health and leisure facilities to serve the existing and new populations.

These Opportunity Sites are listed here and shown on page 25. However, since the Ilford APP was adopted in 2008, some Opportunity Sites and aspirations have been overtaken by events:

- Ilford Station redevelopment has been reduced in scope;
- Future East London Transit (ELT) connection to Barkingside Town Centre. This has been cancelled by Transport for London (TfL) for the foreseeable future. ELT now terminates on Ilford Hill;
- Future Docklands Light Rail extension. Plans for this have been cancelled by TfL;
- Possible downgrading of Ilford Hill as a transport thoroughfare with the Chapel Road one-way gyratory converted (back) to two-way working. Allied to this was a proposal for a new public transport interchange on Ilford Hill with a direct connection to a rebuilt station. Subsequent traffic modelling demonstrated that conversion of the gyratory would increase bus journey times unacceptably and the option was rejected by TfL. However, the possibility of securing a more direct connection from the station to existing bus stops on the northern side of Ilford Hill remains an aspiration;
- Additional investment in the public realm in the broader town centre, such as new bins, seating and refurbished light columns has taken place;
- Cycle Superhighway Route 2 from Aldgate to Ilford (still subject consultation) has been brought forward to soon after the 2012 Olympic games with the aspiration for the route to interchange at the station and connect to local networks running north, south and east from Ilford.

Several Opportunity Sites have been completed, or under construction:

- Site **CW09** (0.23 ha), the former Pioneer Market Site at Winston Way is nearing completion; with ground and first floor retail, commercial and residential above.
- Site **LO05** the former Peachy House Office Building at 39 Ilford Hill (0.59 ha) has been partially completed in as much as the former office building has been converted to the residential icon building, providing 135 flats. The new build elements on the remainder of the site have not been taken forward and are the subject to further proposals;
- Site **OS04** (0.70 ha), former Britannia Music Site at 60-70 Roden Street. Planning permission has been granted for a mixed use development across four separate buildings including a 23 storey tower. Work has not yet commenced on site.

Other opportunity sites :

LO06

Sainsbury's. 1.96ha
Supermarket

Existing Use: Supermarket
Preferred Use: Supermarket with residential

OS01

Land between Mill Road and the Railway Line. 0.30 ha
Existing Use: Car park.
Preferred Use: Residential

OS02

Mill House. 1.04 ha
Existing Use: BT offices, depot and car parking.
Preferred Use: Employment /commercial, Ground Floor mixed use Upper floor Residential.

OS03

51-85 Ilford Hill and 1-27 Cranbrook Road.
Existing Use: Office buildings, public house and Ilford Station.
Preferred Uses: Ground floor mixed-use, Upper floor residential. New links to Ilford Station

OS05

40 Ilford Hill. 0.29ha
Existing Use: Former police station and car park.
Preferred Use: Ground floor mixed-use, Upper floor residential

OS06

22-32 Chapel Road. 0.06 ha
Existing Use: Public toilets and retail outlets with residential above.
Preferred Use: Ground floor mixed-use, Upper floor residential

OS07

Land adjacent to Cranbrook Road, High Road and the railway, incorporating Station Road. 0.80ha
Existing Use: Retail/finance/food outlets with offices on upper floors.
Preferred Use: Ground floor retail, Upper floor residential

OS08

Site bounded by Chapel Road, High Road and Clements Lane. 0.69ha
Existing Use: Ground floor retail, office above, servicing and car parking.
Preferred Use: Ground floor retail, Upper floor residential

OS09

Land adjacent to Clements Lane and Clements Road. 0.24ha
Existing Use: Offices with retail at ground floor, car park, hotel
Preferred Use: Ground floor retail, Upper floor residential

OS10

Britannia car park. 0.20ha
Existing Use: Multi-storey car park.
Preferred Use: Car parking retained/ reprovided on site
Additional residential

OS11

Land bounded by Clements Road, Chadwick Road and Postway Mews. 0.77ha
Existing Use: Royal Mail sorting office, depot, retail outlets and Church.
Preferred Use: Ground floor retail, Upper floor residential

OS12

112-114 High Road. 0.20ha
Existing Use: Retail outlets with offices above.
Preferred Use: Ground floor retail, Upper floor residential and new town square

OS13

Town Hall car park. 0.78ha
Existing Use: Private car park and small retail units.
Preferred Use: Ground floor retail, Upper floor residential and new civic space

OS14

Library service yard. 0.05ha
Existing Use: Service yard.
Preferred Use: Residential

OS15

Kenneth More Theatre. 0.78 ha
Theatre, theatre store and warehouses.
Existing Use: Ground floor mixed-use
Preferred Use: Residential

OS16

187-207 High Road 0.70ha
Existing Use: Retail units with offices above.
Preferred Use: Ground floor retail and Residential

OS17

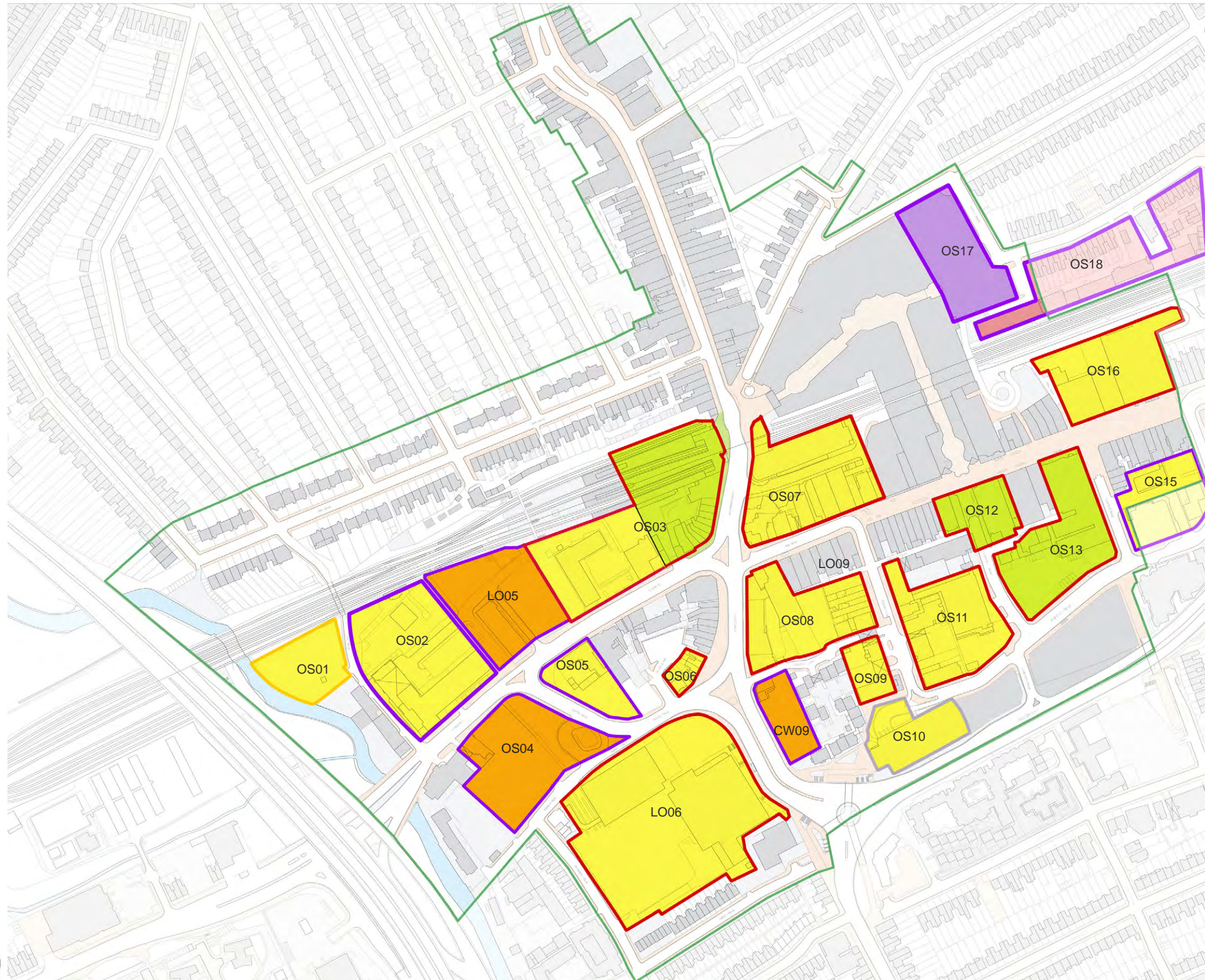
Exchange shopping centre car park. 0.50 ha
Existing Use: Multi-storey car park.
Preferred Use: New floor of mixed-use

OS18

69-126 Ley Street and Opal Mews. 0.76 ha
Existing Use: Terrace houses, vacant retail units.
Preferred Use: Employment /commercial, ground floor mixed use residential.

LAND USE

ILFORD TOWN CENTRE AREA ACTION PLAN OPPORTUNITIES SITES



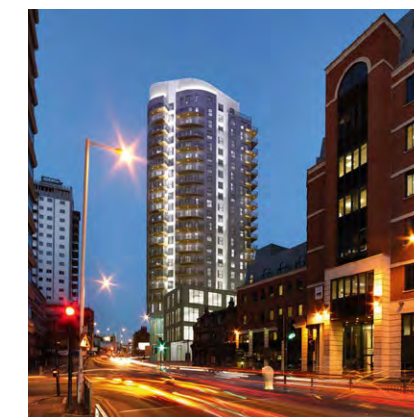
- Opportunity Site for residential use only
- Opportunity Site Ground floor retail / Upper floors residential
- Opportunity Site Ground floor retail / Upper floors residential with open space
- Opportunity Site with car parking on Ground Floor / Upper floors residential
- Opportunity Site partially complete or approved
- Opportunity Site Ground Floor mixed use / Upper Floors residential
- Opportunity mixed use
- Opportunity Site Employment /commercial, Ground Floor mixed use Residential.



Site LO05 Peachy House



Site CW09 Pioneer Market



OS04 Former Britannia Music site



LAND USE

OS03- FORMER PIAZZA STATION SITE

As described in Section 2, the future of Ilford Town Centre will be strongly linked to the arrival of Crossrail and the delivery of its forecasted development sites. One of the most emblematic development sites is OS03 which includes the station itself.

OS03 is currently occupied by a four storey commercial building that wraps around the corner of Cranbrook Road and Ilford Hill, it has various retail occupiers on the ground floor with offices above (legal, educational, public and community sector services). A mini-cab office and car park are located to its side and rear.

The borough's aspirations for this site include mixed use retail on the ground floor with residential above, and strong linkages to Ilford station. The borough first had aspiration to create a plaza in front of the new station building that would have been set back from Cranbrook Road. A new link was also to have been provided to Ilford Hill. A proposal illustrating this approach by Meadowcroft Griffin Architects (2009) is illustrated on the right.

These proposals have since been superseded with proposals (far right) now involving a reconfiguration of the existing station with a new development constructed at the junction of Cranbrook Road and Ilford Hill.

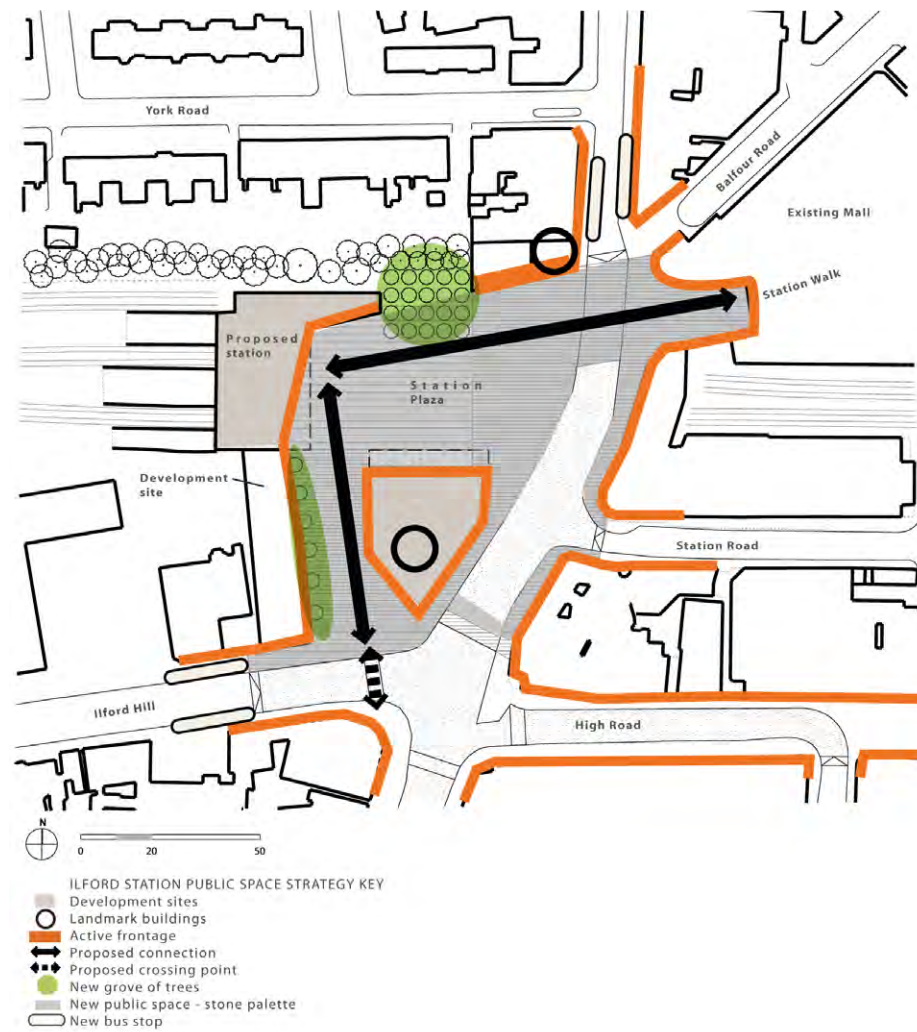
The basic aims identified by London Borough of Redbridge for OS03 remain intact. They are:

- to Maximise Development
- to Deliver a Mixed-Use Development
- to Facilitate Transport Interchange

Any development in this location needs to consider the impact of the pedestrian comfort analysis described on page 20. For this development to be successful, it should also be co-ordinated with public realm proposals to alleviate congestion on the footway, particularly around bus stops G and H. This may be achieved through footway widening, the building line being set back or through a combination of both.



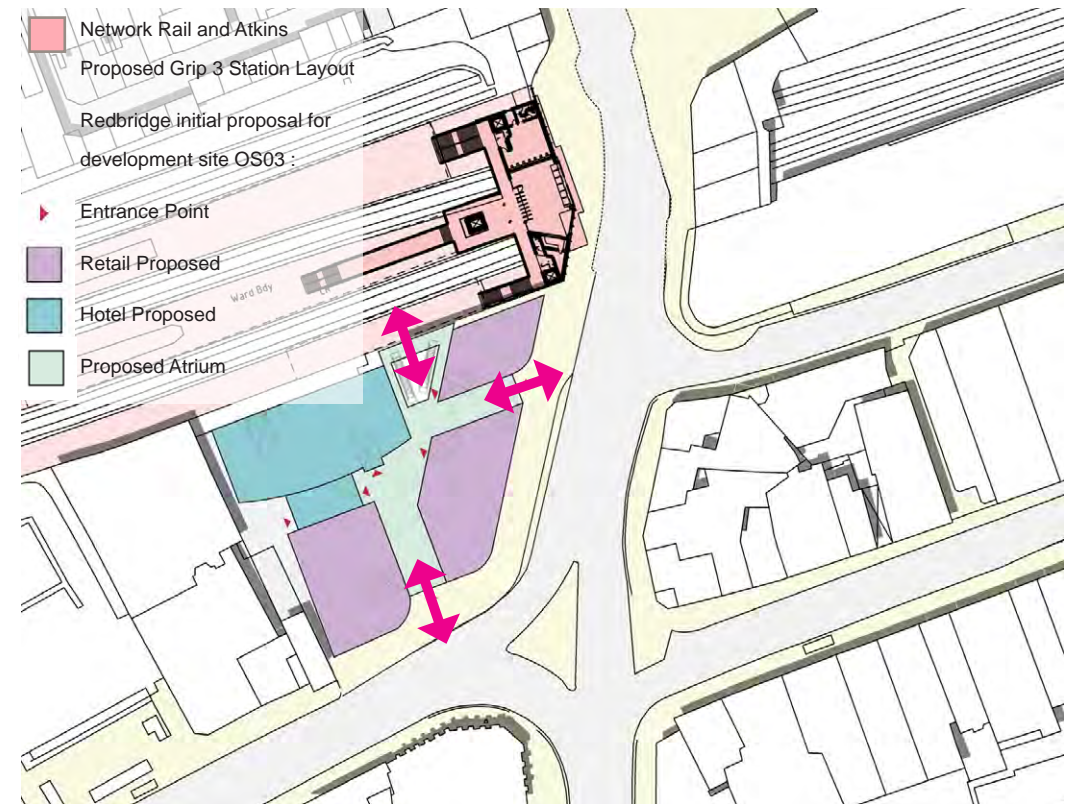
Existing commercial building wrapping around Cranbrook Road to Ilford Hill.



Proposals by Meadowcroft Griffin Architects, 2009, for the London Borough of Redbridge



Redbridge and PRP Architects OS03 development proposal including a refurbished Station



Network Rail and Atkins Grip 3 Station Layout (current design) with Redbridge and PRP Architects OS03 development proposal (initial proposal) superimposed to the new station proposition.

3

LAND USE

PROPOSED STATION

Network Rail and Atkins design (grip 4)

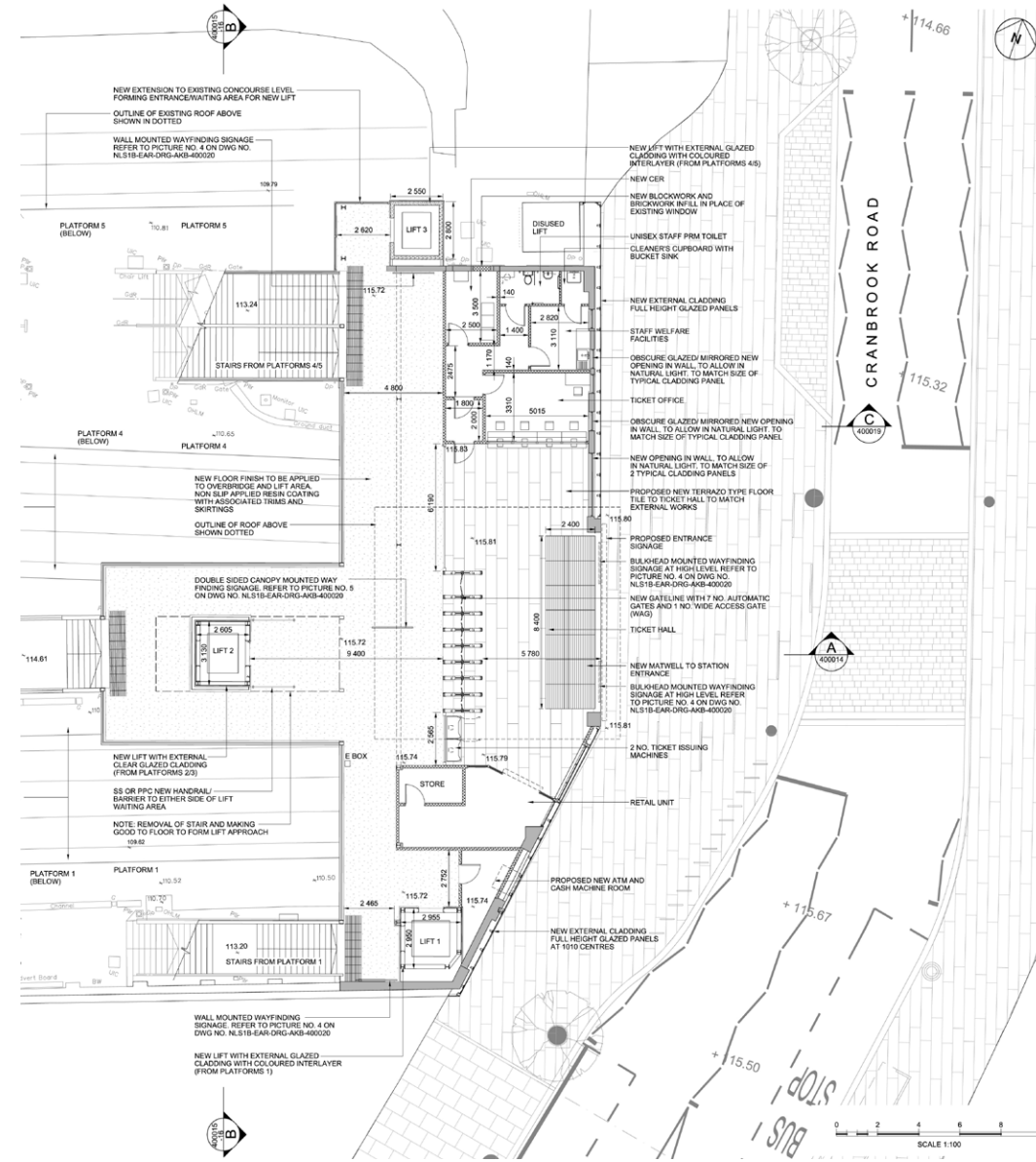
The re-configuration of Ilford Station is set to provide a new ticket hall layout with greater gateline capacity, passenger lifts, longer platforms, a realigned and enhanced station entrance and elevation to the street.

Whilst a set back station would have offered greater potential for a new open space to address existing congestion and create an inviting entry to the town centre and transport interchange, a significant enhancement can also be achieved through a refurbishment approach.

Network Rail GRIP 4 design for the station is currently under development, with consideration being given to replacing the existing pyramidal roof with a more contemporary shape.

Ongoing considerations include:

- Replacing the existing pyramidal roof. Opportunities may be taken to give the station greater visual prominence, improve environmental performance and provide an increased level of weather protection.
- Improvements to the elevation with increased glazing to improve identity, views in and out of the station and the overall perception of space at the entrance to the station.



Proposed Station Entrance Hall Layout, Grip 4 Stage (Atkins Architects for Network Rail)



Views of the proposed station entrance on Cranbrook Road (GRIP 4)

SPATIAL STRATEGY

OPPORTUNITIES AND CONSTRAINTS

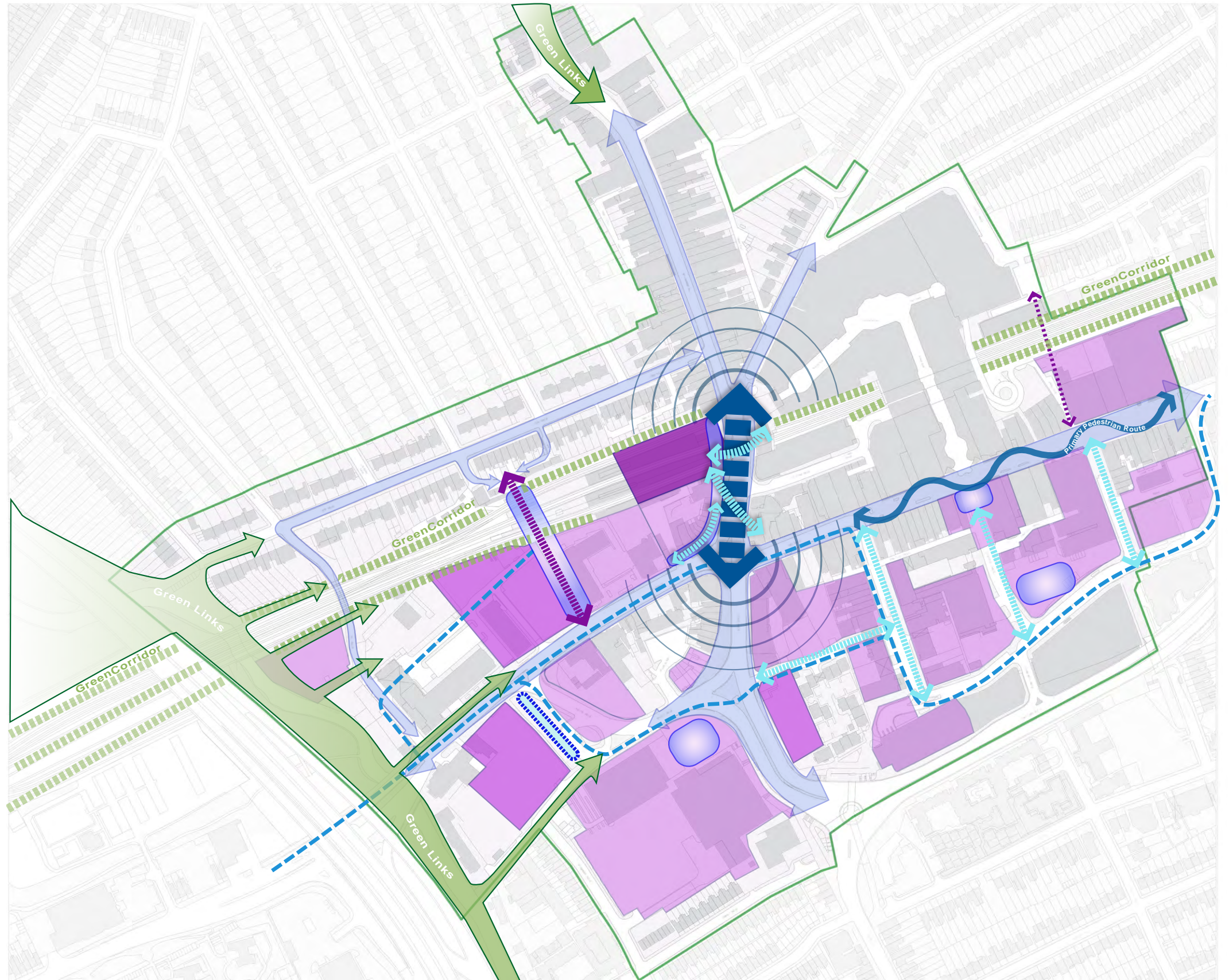
Site Opportunities

Key opportunities for the site area include the re-organisation of Cranbrook Road at the station entrance and the exploration of access improvements to the west, with the station as the crucial intersection between areas of improvement.

Iford Station and its environs are already a focus of activity, being the primary movement hub for the local community, commuters and visitors entering the Town Centre and other local destinations. There are also large bus to bus interchange movements close to the station. The station and its environs must be able to accommodate high volumes of pedestrians and allow them to make a safe and comfortable transition between different routes and modes of transport.

The revised station proposals will seek to improve efficiency, usability and legibility. They will also seek to support and be coordinated with public realm improvements to Cranbrook Road.

Within the Study Area there is little greenery, with the most significant open space being a predominantly hard space fronting Sainsbury's. There is an opportunity to increase the number of green spaces, within the town centre whilst enhancing local ecology / biodiversity.



Key:

- Boundary of Study Area
- ⊙ Focal Point of Activity within Station environment
- Key Pedestrian Route
- Improved connections to surrounding streets
- Green Links from the Roding Valley extended through the Town Centre
- Iford Station
- Iford AAP Development Opportunity Sites partly completed or approved
- Iford AAP Listed Development Opportunity Sites
- Opportunities for new open spaces
- Opportunities for new bus stands
- - - Enhanced Cycle Routes
- - - Enhanced Pedestrian Routes
- ↔ Opportunity for new pedestrian route across the railway line
- ↕ Key North South Route













SPATIAL STRATEGY

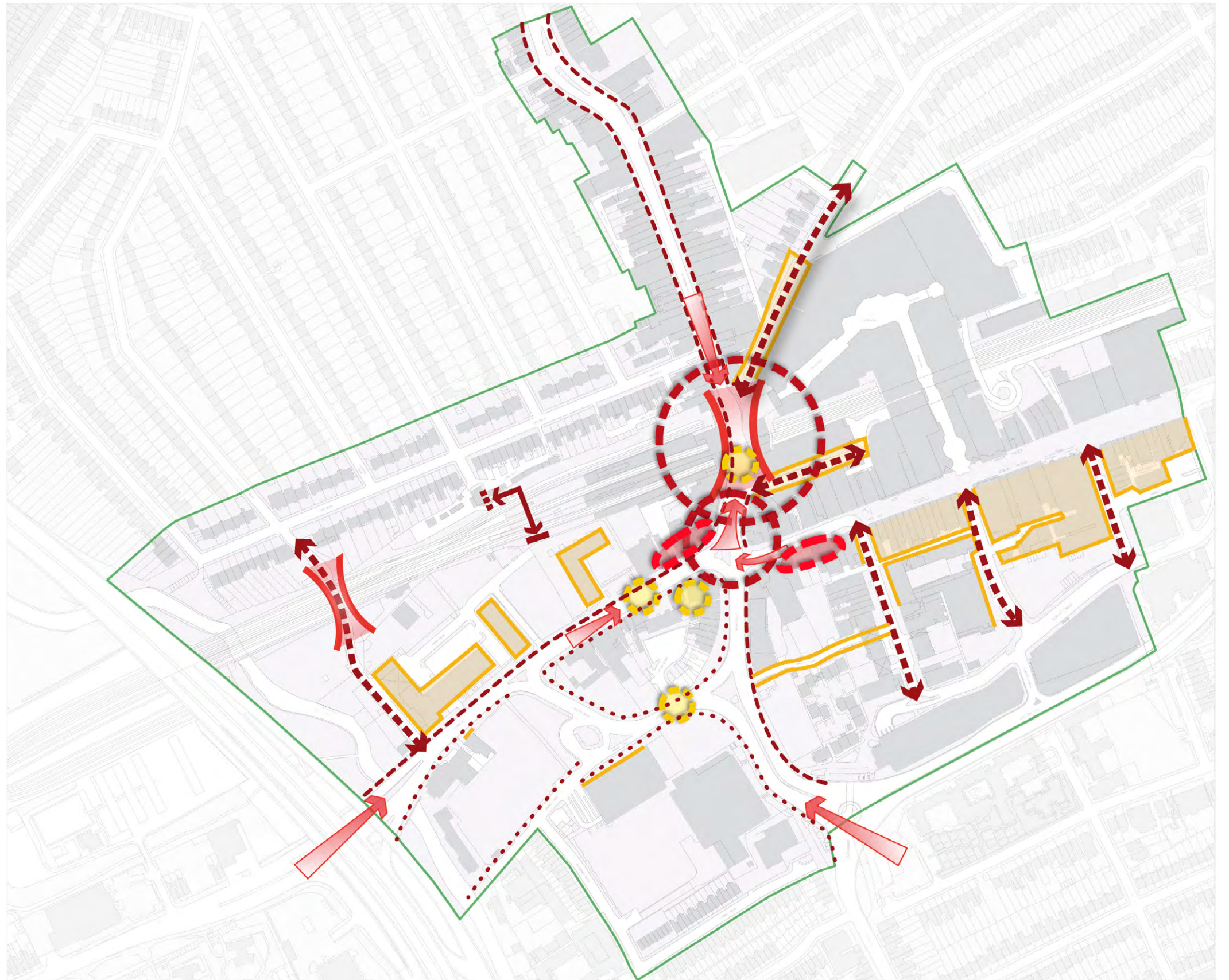
OPPORTUNITIES AND CONSTRAINTS

Site Constraints

At present, most vehicle movement is focused along Cranbrook Road, Ilford Hill and Chapel Road with the majority of pedestrian journeys restricted by the area's large block sizes, and busy carriageways. Movement North-South through the Town Centre for both pedestrians and vehicles is restricted to Cranbrook Road past the station entrance and the narrow underpass under the station tracks at Mill Road.

Key:

-  Bottleneck of both pedestrian and vehicle circulation
-  Entering Traffic Flows
-  Congested Traffic Junction
-  Congested Bus Stop
-  Informal Pedestrian Crossing
-  Blocked Pedestrian Route
-  Uninviting Pedestrian Route
-  Congested Footpath
-  Isolated Footpath
-  Dead/Passive Frontage



SPATIAL STRATEGY

MOVING FORWARD: A SUMMARY OF ACTIONS

The analysis in this section has identified important issues that need to be addressed through design studies to help ensure the successful integration of Crossrail into Ilford Town Centre.

Improving circulation and the experience of pedestrians will be crucial. It is clear that pavements are too narrow and cluttered along Cranbrook Road with significant congestion already observed at bus stops G, H, K and L. In the long term, pedestrian comfort levels associated with these bus stops are forecast to reach unacceptable levels. Congestion will only be exacerbated as the numerous development opportunities within the town centre are brought forward.

The pedestrian comfort is likely to be improved through a variety of considerations including footway widening and the rationalisation of items of street furniture such as sign posts, advertising panels and telephone boxes. The adjustment of bus stops positions could also be examined as part of a long term study in conjunction with Transport for London, although this strategy does have limitations due to the number of routes and the way in which they are required to move around the Town Centre.

Cranbrook Road does serve to constrict both pedestrian and vehicular movement and would benefit from measures that reduce the impact of conflict with vehicles passing the station entrance. This could include rationalisation of the railings and general street clutter either side of Cranbrook Road, reducing the width of carriageway and refining its alignment. The position of the pedestrian crossing to Cranbrook Road and carriageway surfacing should also be reviewed in conjunction with proposals for the station developed by Network Rail.

Iford town centre suffers from a shortage of North South links with Cranbrook Road and Mill Road being the most notable and both being particularly poor for pedestrians and cyclists.

The opportunity to enhance North South movement (probably long term) would benefit from further exploration, and there may be opportunities to be gained whilst looking to enhance station access to the West from both York Road and Ilford Hill.

The study area suffers generally from poor quality materials that have often been poorly arranged and/or poorly installed. There has been limited co-ordination or rationalisation of street furniture, lighting and signage and it is often poorly positioned. All materials should be rationalised to ensure a consistency in appearance, less clutter and the provision of a higher quality environment in which people are comfortable and encouraged to spend more time.

The analysis also illustrates that the Town Centre lacks tree and other vegetation. There is an opportunity to introduce street trees and in so doing help to enliven the public realm, add a sense of human scale and improve the environment / biodiversity.

Main Station Entrance



Cranbrook Road



Western Station Entrance



View from the southern end of NR bridge



Iford Hill, towards Western station Entrance



1. MAIN STATION ENTRANCE AREA:

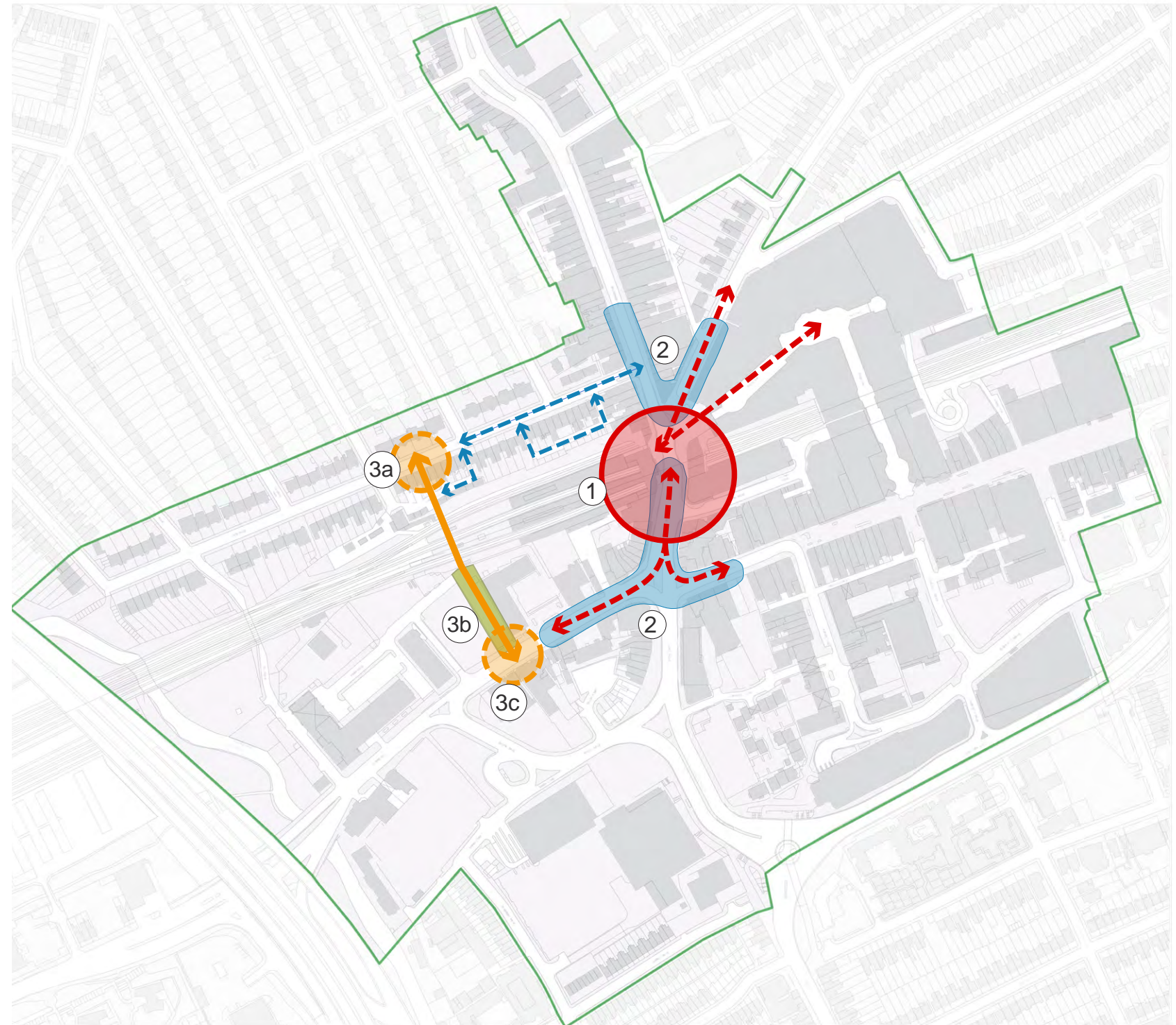
- Enhance the physical quality and appearance of the entrance space with new, robust materials that create a consistent approach from the station to the Exchange Shopping Centre;
- Improve the ability to interchange comfortably through a reduction in street clutter, with omission of unnecessary railings, bollards, signage and the relocation of street trading;
- Coordinate the position and width of the pedestrian crossing in conjunction with enhancement proposals for the Station;
- Alleviate pedestrian congestion and create a new space fronting the Station at the heart of Ilford;
- Reduce the sense of vehicle dominance.
- Improve way-finding to and from the station, including improved visibility and coordinated signage (station, Exchange Shopping Centre and taxis on Balfour Road)

2. CRANBROOK ROAD:

- Alleviate pedestrian congestion through a reduction of street clutter, exploration of footway widening and the rationalisation of bus stops;
- Enhance the physical quality and appearance of the street with new, robust materials that are consistent with enhancement proposals for the station;
- Improve connections to existing streets with less obstacles improved visibility and co-ordinated wayfinding;
- Reduce road markings whenever feasible, whilst maintaining a safe and legible carriageway operation;
- Introduce tree planting to enhance the public realm and provide a more human scale;
- Seek to ensure that public realm improvements are able to accommodate possible future development sites

3. WESTERN STATION ENTRANCE : YORK ROAD TO ILFORD HILL

- Restore the environment of York Mews whilst respecting its heritage and residential use;
- Introduce tree planting enhance the public realm and provide more human scale;
- Develop a series of sequential spaces that offer improved connections from York Road and Ilford Hill, including :
 - 3a. A pedestrian orientated space off York Road providing a welcoming entrance to both the station and York Mews.
 - 3b. A Potential green link through development sites LO05 and OS03 leading to a new southern access to Ilford Station.
 - 3c. Consideration of local opportunities on Ilford Hill to improve sightlines through to any southern station access. In the long term this may offer views to a new replacement bridge on the line of Belgrave road.
- Improve the visibility and safety of the existing pedestrian access to the station's western entrance and footbridge.
- Explore options for the removal, relocation or re use of Network Rail maintenance building fronting Belgrave Road.





ILFORD CROSSRAIL: DESIGN STUDIES

Main Station Entrance
Cranbrook Road
Western Station Entrance

Masterplan
Hard Landscape Strategy
Planting Strategy
Lighting Strategy
Furniture Strategy
Orientation & Wayfinding
Art Strategy
Preliminary Cost Estimate

MAIN STATION ENTRANCE / CRANBROOK ROAD

URBAN REALM STRATEGY

Following observations made and exposed in the previous chapters, the principal actions to the main station entrance and Cranbrook Road should be :

STATION ENTRANCE :

Remove clutter to open views between the station and both the Exchange and Balfour Road.

Seek to better align the crossing of Cranbrook Road with the station entrance.

Improve legibility to and from the station.

Seek to create a well defined and unified space in front of the station and at the heart of Ilford.

Rationalise loading , pick-up and drop-off arrangement

Improve conditions for pedestrians and cyclists

CRANBROOK ROAD :

Stops G, H & K retained on Cranbrook Road although G and H could be combined.

Adjust footway and carriageway widths to enhance pedestrian comfort levels.

Enhance pedestrian crossings (including materials and waiting time) on Cranbrook Road, Station Road and High Road.

Create high quality footways with coordinated materials, lighting and furniture.

Remove clutter

Rationalise loading

Important facade, potential landmark

Bus Stop H, moved toward the carriageway on widened footway, and potentially merged with bus stop G.

Bus Stop G, moved toward the carriageway on widened footway, and potentially merged with bus stop H.

Remove clutter








Potential landmark

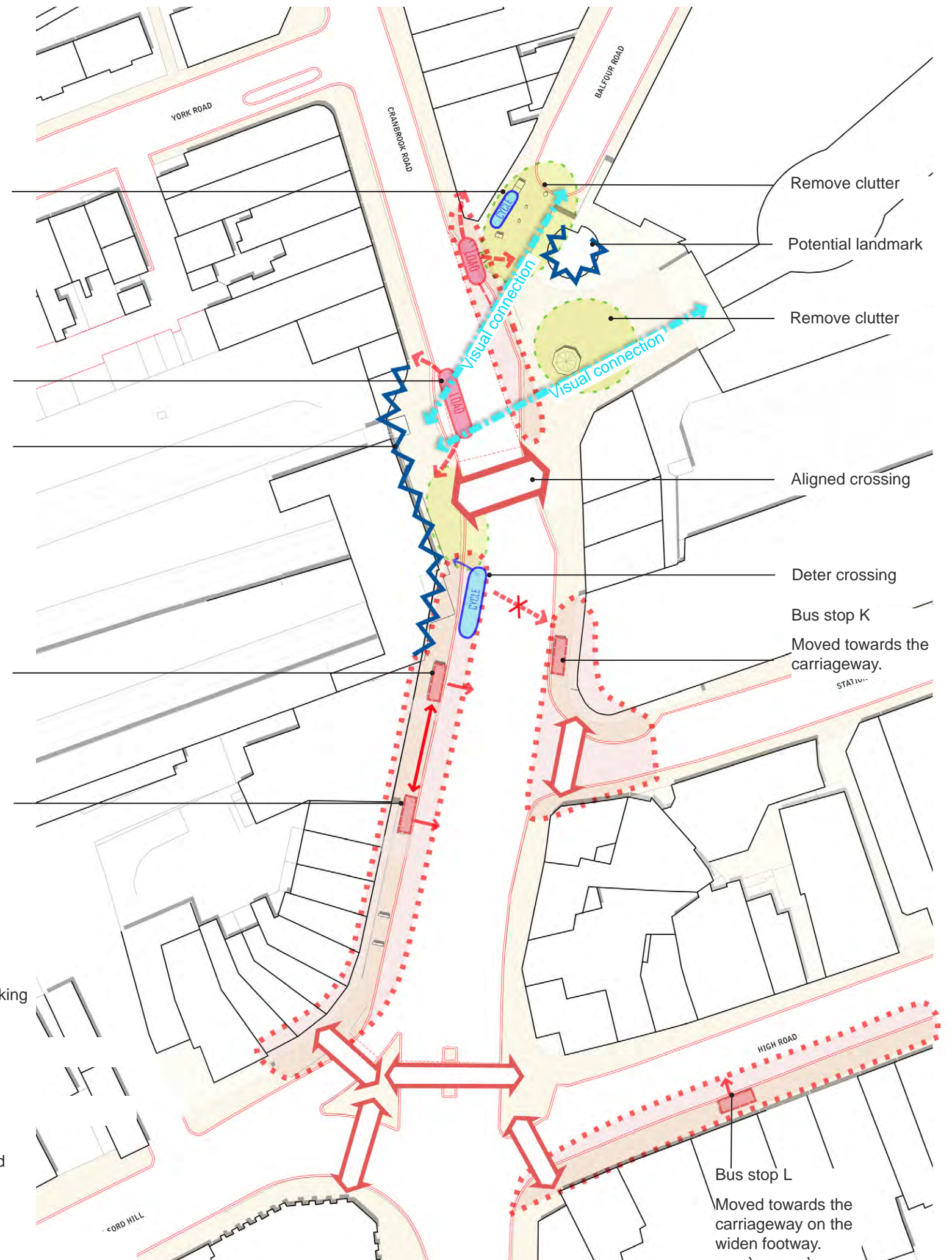
Remove clutter

Aligned crossing

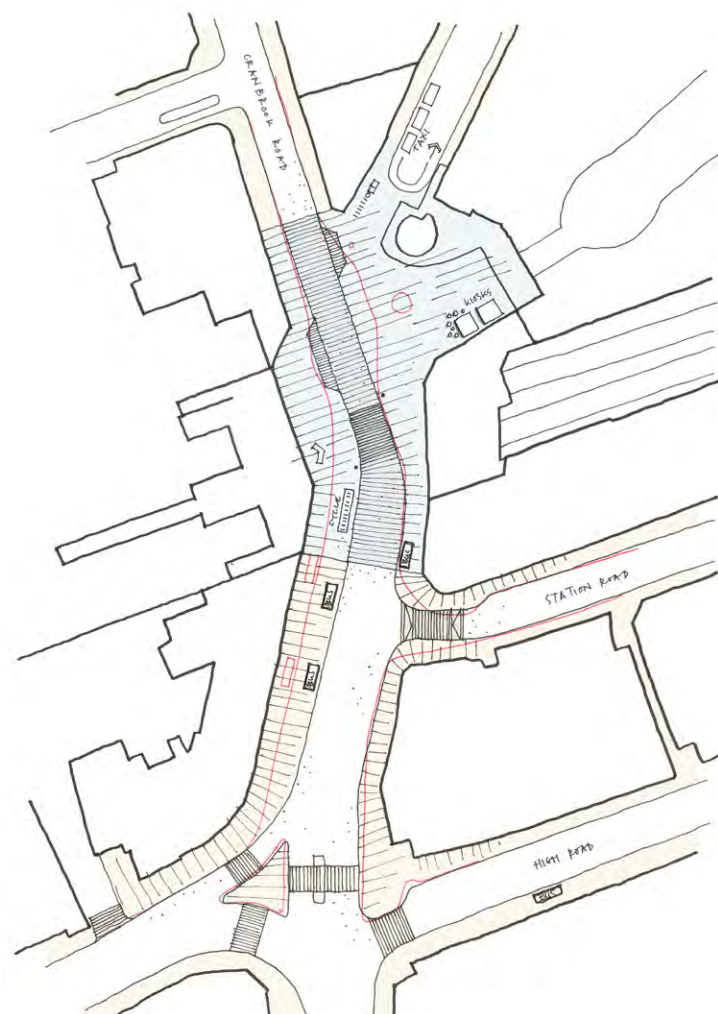
Deter crossing

Bus stop K
Moved towards the carriageway.

-  Existing bus stop potentially relocated
-  Existing rationalised loading
-  Proposed Cycle parking location
-  Improved crossings
-  Widen footways
-  Removed clutter and enhance spaces
-  Visual connection



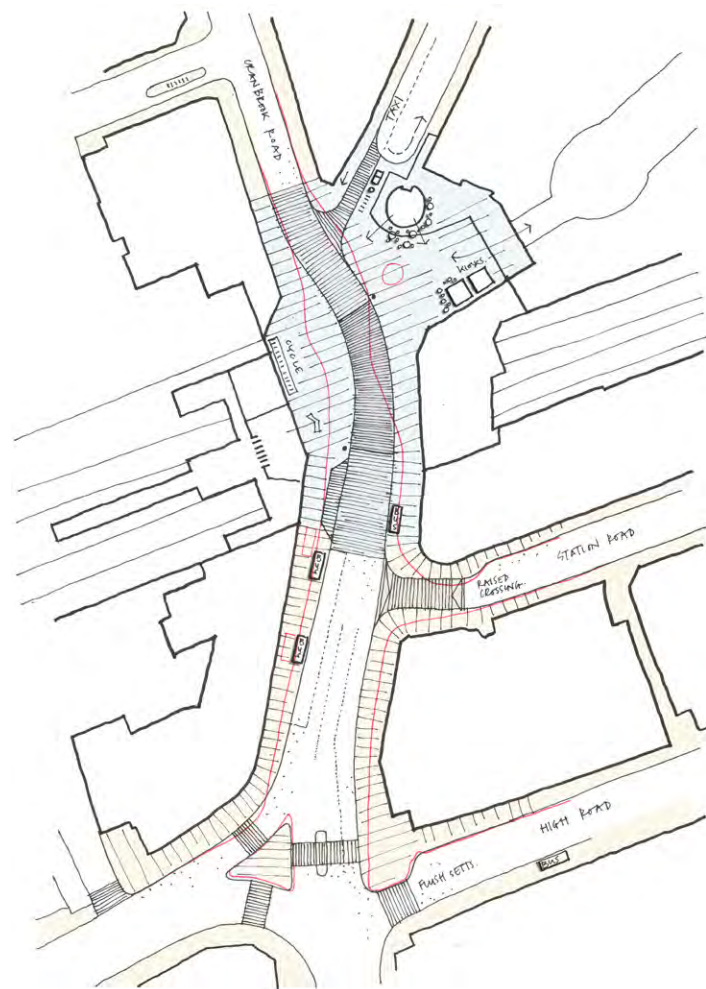
MAIN STATION ENTRANCE / CRANBROOK ROAD ALTERNATIVE APPROACHES



Sketch Approach 1 - 'Preferred Option'

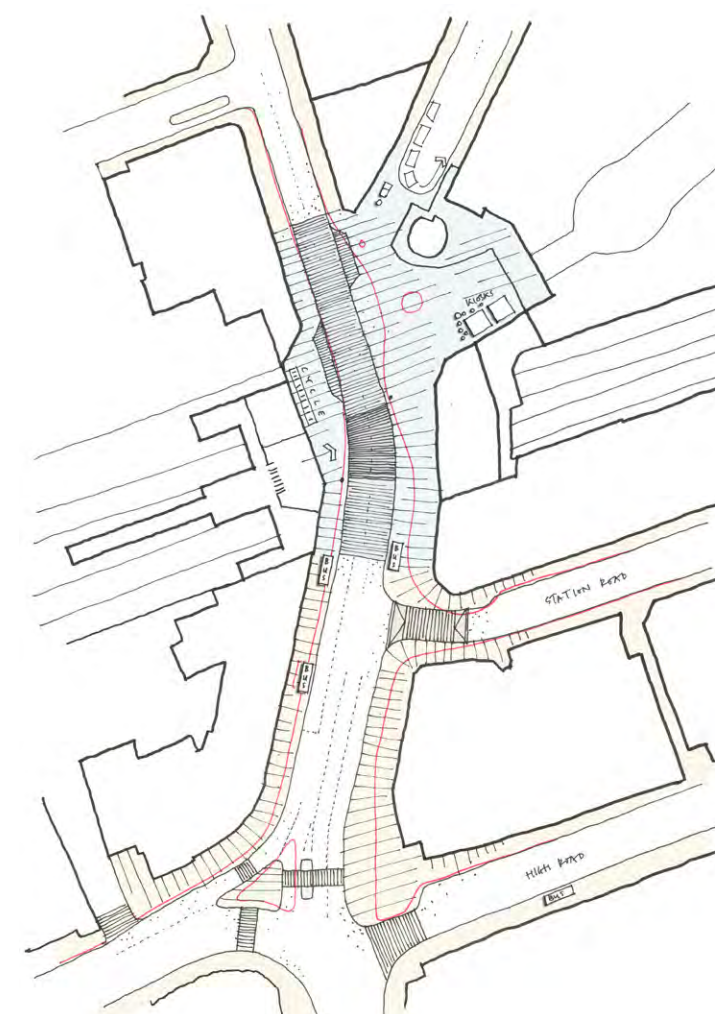
- Footway width increased to station side of Cranbrook Road to enhance pedestrian comfort levels
- 10m wide crossing provided in front of new station entrance
- Drop off /loading rationalised in existing locations
- Cycle parking provided close to station entrance

Option 1 offers the greatest enhancement of pedestrian comfort levels whilst ensuring the accommodation of all vehicular swept paths. Option 1 has been selected for further development and is tested and illustrated over the following pages.



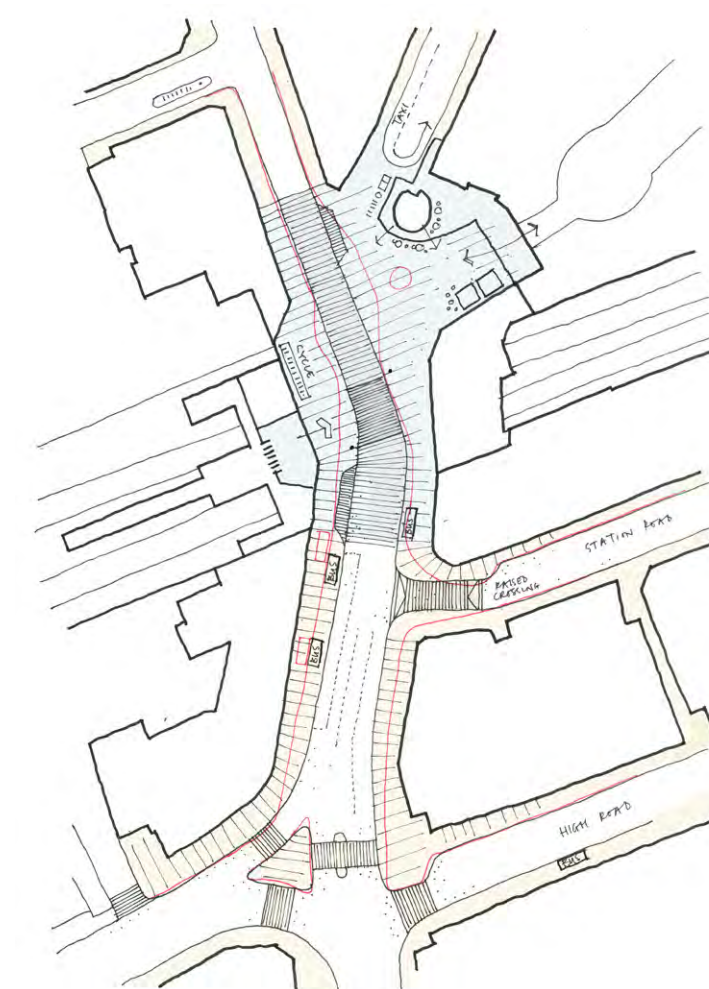
Sketch Approach 2

- Both Eastern and western footways increased in width
- 10m wide crossing provided in front of new station entrance
- Drop off / loading & cycle parking rationalised



Sketch Approach 3

- Footway width increased to eastern side of Cranbrook Road
- Minimal increase to western footway
- 10m wide crossing provided in front of new station entrance
- Drop off / loading & cycle parking rationalised



Sketch Approach 4

- Footway width increased on both sides of Cranbrook Road but mainly to station side to enhance pedestrian comfort levels close to station and bus stops H and G.
- 10m wide crossing provided in front of the new station entrance.
- Drop offloading rationalised in existing locations on the eastern footway and slightly further south on the western footway
- Cycle parking provided close to station entrance.

MAIN STATION ENTRANCE / CRANBROOK ROAD PREFERRED DESIGN OPTION TRAFFIC MODELLING SUMMARY

Traffic Assessments

A separate TRANSYT/TranEd Modelling Technical Note, report no. 5001-UA003510-LNR-01 has been issued which outlines the results of the TRANSYT/TranEd Modelling to assess the performance of the existing highway network and the proposed highway modifications for the preferred Ilford Station Urban Realm Scheme. A detailed technical report on this has been issued separately.

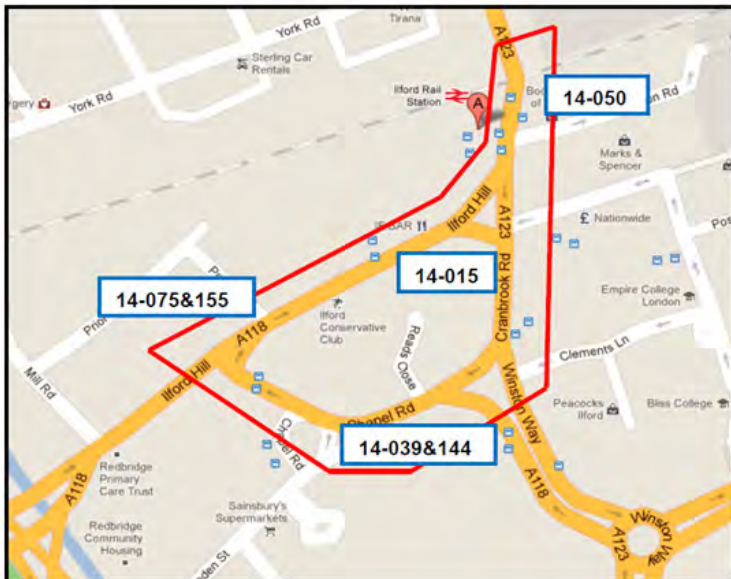
The base TRANSYT Models were provided by TFL. These include the road network, the base model, signal data, peak hours, existing signal operation, the method of control, pedestrian signal timings and the base model results. The TRANSYT model extent is shown in the illustration below.

The study network consists of the following junctions operating within UTC SCOOT signal control Group 14:

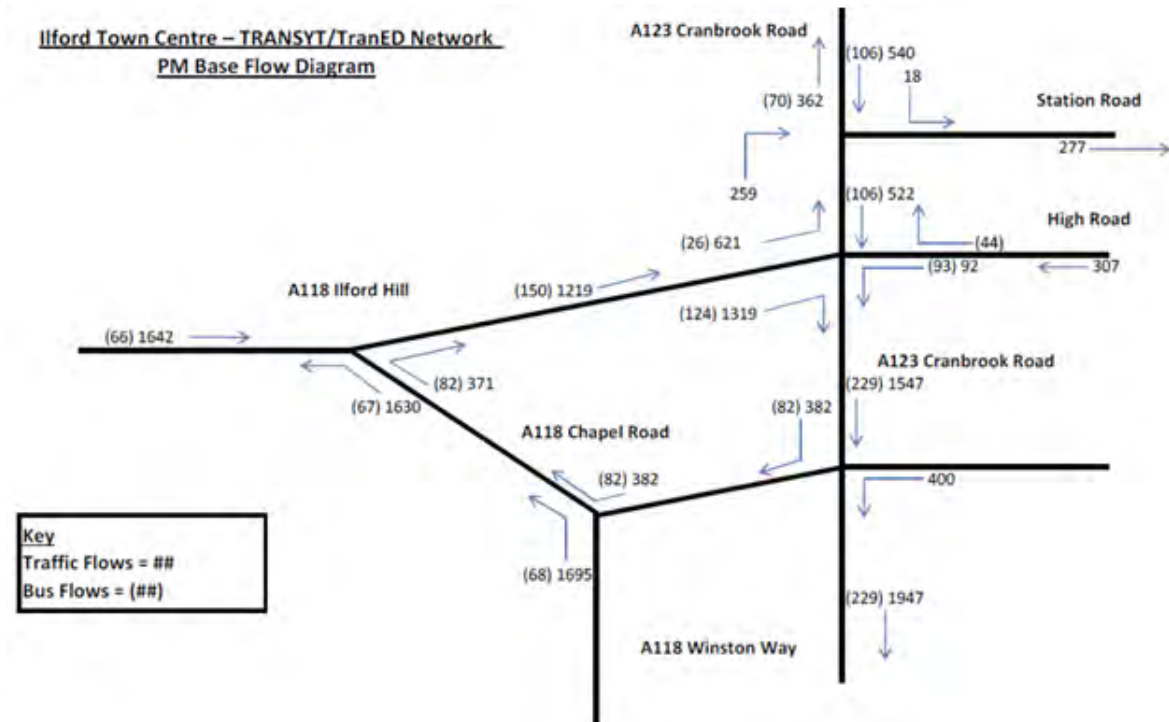
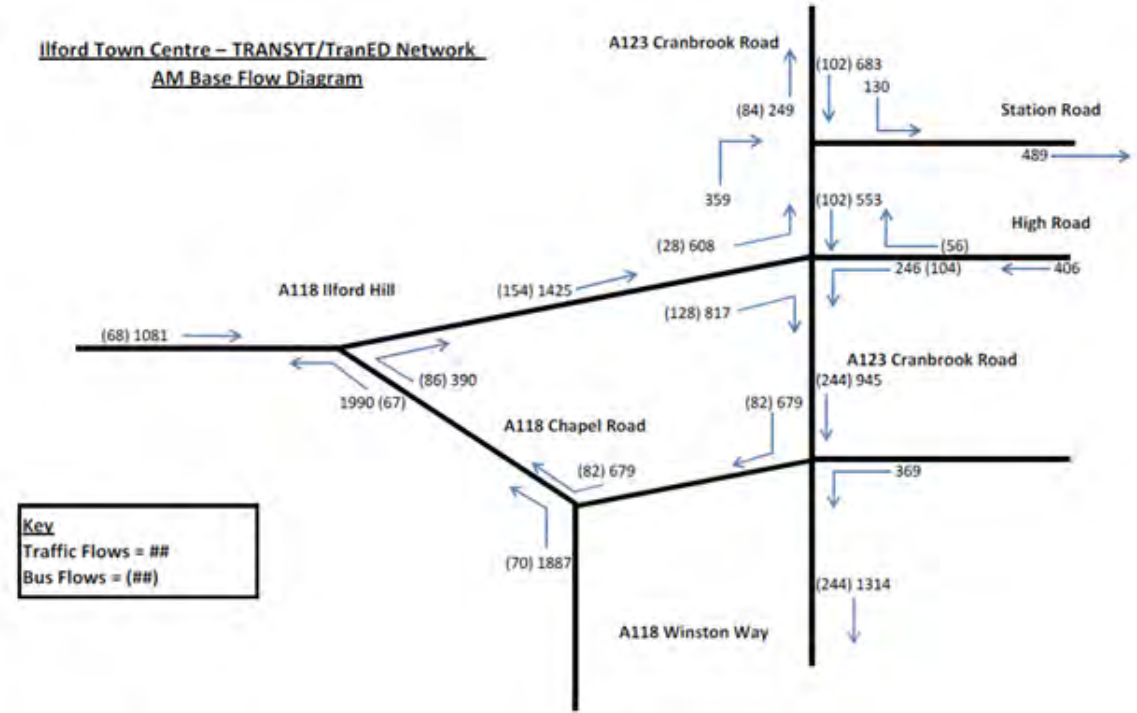
- Cranbrook Rd/High Rd/Ilford Hill (14-015)
- Chapel Rd/Winston Way (14/039&144)
- Chapel Rd/Ilford Hill (14/075&155)
- Cranbrook Rd pedestrian crossing by station (14-050)
- Cranbrook Road/Station Road (Priority junction)

The peak hours for the AM and PM peak periods are as follows:

- AM (0830-0930)
- PM (1730-1830)



Base model validation was carried out on site and included the observed degree of saturation, observed queue lengths for the AM/PM peak hour periods, measurements of signal timings and general site observations of the traffic and operation of the traffic signals at each junction. The AM and PM peak hour traffic flows are shown on the right.



MAIN STATION ENTRANCE / CRANBROOK ROAD PREFERRED DESIGN OPTION TRAFFIC MODELLING SUMMARY

The base model results are summarised in the table below.

Junction	Link Description	Link No	AM Peak		PM Peak	
			Deg of Sat (%)	Max Queue (PCU)	Deg of Sat (%)	Max Queue (PCU)
A123 Cranbrook Rd Pedestrian crossing outside the station	A123 Cranbrook Road Ahead N/B	501	33	4	43	4
	A123 Cranbrook Road Ahead S/B	502	78	10	64	7
	A123 Cranbrook Road Ahead N/B (exit)	503	19	0	24	0
	Pedestrian Crossing	504	1	0	1	0
A123 Cranbrook Road / A118 Ilford Hill / High Road	A123 Cranbrook Road Ahead S/B	151	64	17	75	16
	High Road L/T and R/T	152	63	11	74	8
	Pedestrian Crossing Northern Arm	154	0	0	0	0
	Pedestrian Crossing Eastern Arm	155	0	0	0	0
	Pedestrian Crossing Western Arm	156	0	0	0	0
	A118 Ilford Hill Eastbound R/T	157	66	20	75	35
	A118 Ilford Hill Eastbound L/T	1801	53	6	46	6
	Pedestrian Crossing Western Arm	1802	0	0	1	0
	A118 Ilford Hill Eastbound R/T	2008	21	2	14	1
	A118 Ilford Hill Eastbound R/T	5008	21	2	14	1
A118 Chapel Road / A123 Cranbrook Road / A118 Winston Way	Clements Lane S/B	393	43	4	63	11
	Pedestrian Crossing S/B Approach	394	1	0	1	0
	Pedestrian Crossing S/B Approach	395	0	0	0	0
	A123 Cranbrook Road S/B	397	49	7	63	14
	A123 Cranbrook Road S/B	2009	26	3	19	4
	A123 Cranbrook Road S/B	5009	26	3	19	4
	A118 Winston Way Ahead W/B	1442	77	23	49	24
	A118 Chapel Road Ahead W/B	1443	55	9	49	10
	Pedestrian Crossing Winston Way	1444	1	0	1	0
	A118 Cranbrook Road Ahead W/B	1445	55	9	49	10
	Cycle Crossing Winston Way	1446	28	1	40	3
	Pedestrian Crossing A118 Chapel Road	1448	0	0	0	0
	A118 Winston Way Ahead W/B	2003	77	23	49	24
	A118 Winston Way Ahead W/B	5003	77	23	49	24
Chapel Rd/Ilford Hill	A118 Ilford Hill Ahead E/B	751	70	23	77	22
	A118 Chapel Road Ahead R/T E/B	752	68	7	75	13
	Pedestrian Crossing Chapel Road R/T	753	0	0	0	0
	Pedestrian Crossing Ilford Hill	754	0	0	0	0
	A118 Chapel Road Ahead R/T E/B	2006	68	7	75	13
	A118 Chapel Road Ahead R/T E/B	5006	68	7	75	13
	Pedestrian Crossing Chapel Road L/T	1553	1	0	2	0
A118 Chapel Road L/T W/B	1557	90	24	57	11	
Station Road	A123 Cranbrook Road R/T to Station Rd	1652	62	5	42	3

The results indicate that the highway network operates under capacity throughout the AM peak period. The highest degree of saturation is 90% on link 1557 which is the westbound exit lane of the Chapel Rd/Ilford Hill junction with a corresponding maximum queue length of 24 PCU's over two lanes. The A123 Cranbrook Road right turn lane into Station Road operates with a degree of saturation of 62% with a corresponding max queue length of 5 PCU's.

The existing highway network also operates under capacity during the PM peak period. The highest degree of saturation is 77% on link 751, A118 Ilford Hill eastbound ahead movement with a corresponding maximum queue length of 22 PCU's over two lanes. The A123 Cranbrook Road right turn lane into Station Road operates with a degree of saturation of 42% with a corresponding max queue length of 3 PCU's.

TRANSYT Models were prepared for the proposed urban realm scheme incorporating the future traffic demands as a result of Crossrail, footway widening on Cranbrook Road, the relocated pedestrian crossing and revised signal timings to optimise the network. The results of these assessments are summarised below.

Junction	Link Description	Link No	AM Peak		PM Peak	
			Deg of Sat (%)	Max Queue (PCU)	Deg of Sat (%)	Max Queue (PCU)
A123 Cranbrook Rd Pedestrian crossing outside the station	A123 Cranbrook Road Ahead N/B	501	35	3	44	3
	A123 Cranbrook Road Ahead S/B	502	76	10	63	7
	A123 Cranbrook Road Ahead N/B (exit)	503	21	0	26	0
	Pedestrian Crossing	504	1	0	1	0
A123 Cranbrook Road / A118 Ilford Hill / High Road	A123 Cranbrook Road Ahead S/B	151	82	16	91	16
	High Road L/T and R/T	152	79	14	79	10
	Pedestrian Crossing Northern Arm	154	1	0	0	0
	Pedestrian Crossing Eastern Arm	155	0	0	0	0
	Pedestrian Crossing Western Arm	156	0	0	0	0
	A118 Ilford Hill Eastbound R/T	157	80	18	89	30
	A118 Ilford Hill Eastbound L/T	1801	55	8	50	7
	Pedestrian Crossing Western Arm	1802	1	0	1	0
	A118 Ilford Hill Eastbound R/T	2008	25	3	17	2
	A118 Ilford Hill Eastbound R/T	5008	25	3	17	2
A118 Chapel Road / A123 Cranbrook Road / A118 Winston Way	Clements Lane S/B	393	43	4	63	11
	Pedestrian Crossing S/B Approach	394	1	0	1	0
	Pedestrian Crossing S/B Approach	395	0	0	0	0
	A123 Cranbrook Road S/B	397	49	5	63	13
	A123 Cranbrook Road S/B	2009	26	3	19	4
	A123 Cranbrook Road S/B	5009	26	3	19	4
	A118 Winston Way Ahead W/B	1442	77	23	46	21
	A118 Chapel Road Ahead W/B	1443	58	8	63	12
	Pedestrian Crossing Winston Way	1444	1	0	1	0
	A118 Cranbrook Road Ahead W/B	1445	58	8	63	12
	Cycle Crossing Winston Way	1446	28	1	48	3
	Pedestrian Crossing A118 Chapel Road	1448	0	0	0	0
	A118 Winston Way Ahead W/B	2003	77	23	46	21
	A118 Winston Way Ahead W/B	5003	77	23	46	21
Chapel Rd/Ilford Hill	A118 Ilford Hill Ahead E/B	751	70	13	79	17
	A118 Chapel Road Ahead R/T E/B	752	74	8	80	12
	Pedestrian Crossing Chapel Road R/T	753	0	0	0	0
	Pedestrian Crossing Ilford Hill	754	0	0	0	0
	A118 Chapel Road Ahead R/T E/B	2006	74	8	80	12
	A118 Chapel Road Ahead R/T E/B	5006	74	8	80	12
	Pedestrian Crossing Chapel Road L/T	1553	1	0	2	0
A118 Chapel Road L/T W/B	1557	91	27	57	12	
Station Road	A123 Cranbrook Road R/T to Station Rd	1652	64	7	43	4

The results indicate that the proposed highway network operates under capacity throughout the AM peak period. The highest degree of saturation is 91% on link 1557 which is the westbound exit lane of the Chapel Rd/Ilford Hill junction with a corresponding maximum queue length of 16 PCU's over two lanes. The A123 Cranbrook Road right turn lane into Station Road operates with a degree of saturation of 64% with a corresponding maximum queue length of 7 PCU's.

The existing highway network also operates under capacity during the PM peak period. The highest degree of saturation is 91% on link 151, A123 Cranbrook Road southbound approach to High Road with a corresponding maximum queue length of 16 PCU's over two lanes. The A123 Cranbrook Road right turn lane into Station Road operates with a degree of saturation of 43% with a corresponding maximum queue length of 4 PCU's.











The TRANSYT modelling confirms that the highway network will operate with adequate capacity based on the future traffic demands, proposed footway widening and improved pedestrian crossing layouts. The table below indicates that the optimisation of the traffic signal network as part of the urban realm improvements actually leads to a slight increase in mean journey speed in both AM and PM peak hours. Total delay for vehicles has generally decreased although there is an increase in delay of 11 seconds for vehicles travelling southbound on Cranbrook Road to Winston Way in the PM peak.

Time Period	Scenario	Mean Journey Speed (KM/H)	Total Delay per vehicle Cranbrook Rd Southbound	Total Delay per vehicle Cranbrook Rd Northbound
AM	Base	16.5	41 secs	45 secs
	Proposed	17.2	37 secs	41 secs
PM	Base	17.1	44 secs	68 secs
	Proposed	18.0	55 secs	52 secs

MAIN STATION ENTRANCE / CRANBROOK ROAD

DESIGN DEVELOPMENT OF THE PREFERRED OPTION (SKETCH APPROACH 4)

- Carriageway widths have been adjusted to enhance pedestrian comfort whilst retaining required vehicle movements. Swept path analysis confirms that revised widths are adequate for all existing vehicle movements. TRANSYT modelling (summarised in the previous pages) confirms that the highway network will operate with adequate capacity.
- The footway outside the station is increased in width by approximately 4m in front of the pedestrian crossing to Cranbrook Road.
- The western footway to Cranbrook Road is increased in width by approximately 2.5m, along its frontage to development site OS03
- The eastern footway to Cranbrook Road is increased in width by approximately 0.45m to 2.5m between bus stop K and Cranbrook Road's junction with High Road.
- Bus stops H and G are co-located to improve operation and reduce visual obstruction
- The pedestrian crossing by the station is increased in width to 10m and aligned with the new station entrance.
- Crossings at Cranbrook Road's junction with Station Road, Ilford Hill, and High Road would be enhanced.
- Street trees are proposed in Cranbrook Road, Ilford Hill and at the entrance to Balfour Road.
- Focal trees are proposed within an enhanced space fronting the Exchange Shopping Centre defined space at heart of Ilford.
- Cycle parking is proposed by the station entrance and entrance to Balfour Road.
- Loading / setting down space would be incorporated within pads to rationalise kerb alignments and increase the area of useable public space.
- Highway lighting would be rationalised and feature lighting incorporated within the main central space.
- Street furniture would be co-ordinated and used sparingly. Seats and cycle racks are proposed in a location that deters pedestrians from crossing Cranbrook Road in a potentially unsafe location.

-  Rectangular granite units to central space
-  Granite setts to loading pads 150x250x150 fine picked 3 colour light mix
-  Granite setts to crossings 150x250x150 fine picked 3 colour dark mix
-  Concrete paving slabs to general pavements (consistent with the ELT paving material used on Chapel Road and Ilford Hill). 600x900mm laid stretcher bond
-  Lighting columns type 2
Consistent with existing columns in York Road
-  Lighting columns type 1
Consistent with existing columns on Ilford Hill
-  Feature lighting columns
-  Feature lighting integrated to pavement
-  Proposed feature trees to plaza
-  Proposed street trees to Cranbrook Road



MAIN STATION ENTRANCE / CRANBROOK ROAD PROPOSED VIEW FROM STATION TOWARDS THE EXCHANGE SHOPPING CENTRE / BALFOUR ROAD



CRANBROOK ROAD

EXISTING AND PROPOSED CARRIAGEWAY COMPARISON

EXISTING AND PROPOSED PEDESTRIAN COMFORT LEVELS AROUND THE STATION ENTRANCE IN 2026 AND 2056

To address existing crowding and the projected increase in pedestrian flows a widening of the most congested footways has been proposed.

The proposal increases the width of footways and reduces carriageway widths. Transyt modelling demonstrates that this can be achieved whilst ensuring that all vehicular movements are appropriately accommodated. The adjacent plan illustrates how the proposed adjustments would allow footways to be increased in width in locations exhibiting low levels of pedestrian comfort (refer Section 8 p20):

Notable locations include::

- On the western side of Cranbrook Road, by bus stops H and G,
- On the eastern side of Cranbrook Road, by bus stop K.
- On the southern side of High Road, by bus stop L.

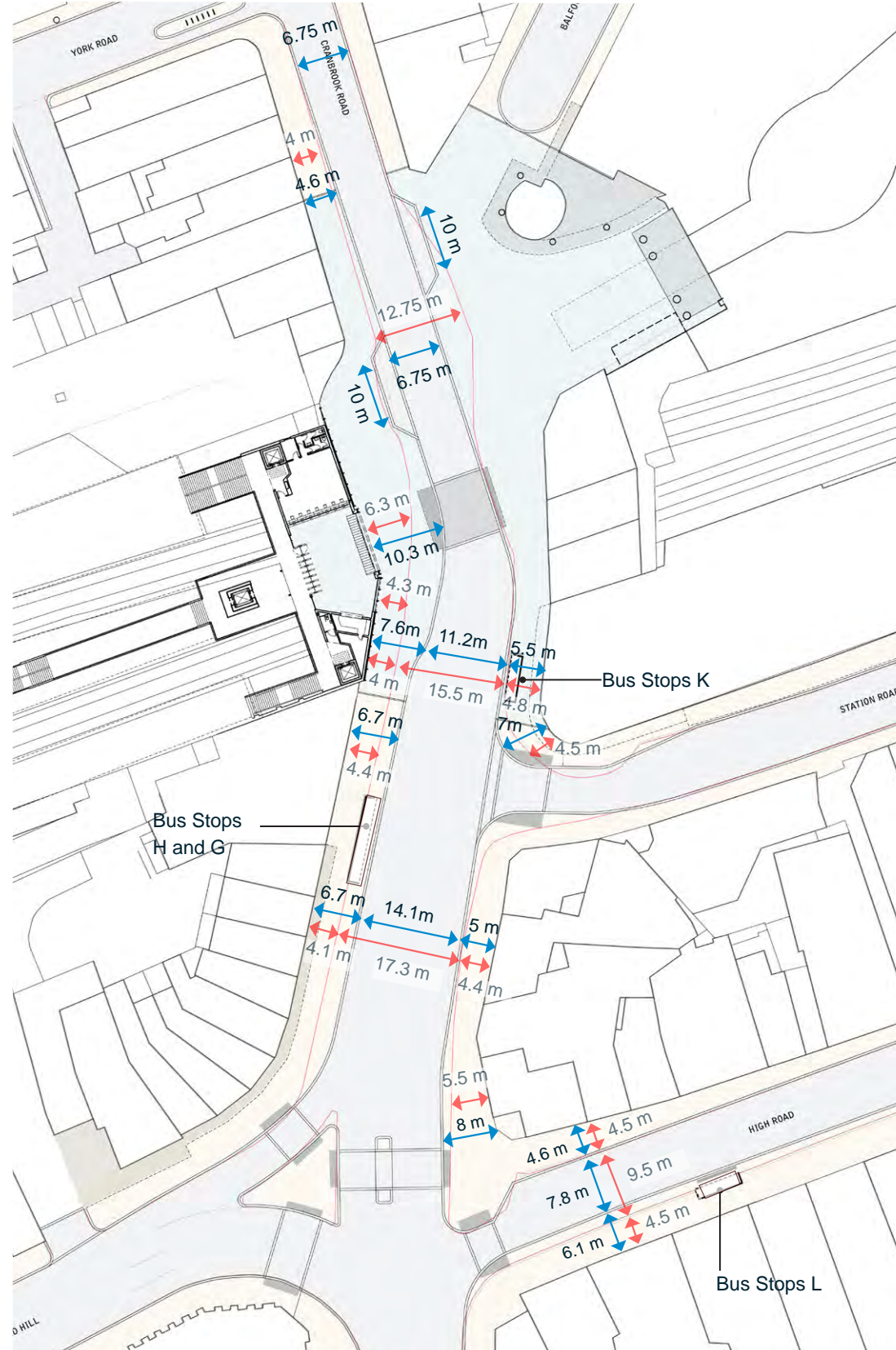
Pedestrian comfort analysis of the anticipated position in both 2026 and 2056 has been carried out on the footways around the Station. The analysis considers the amount of free area on the footway and how comfortable it would be for pedestrians to navigate. Wider and uncluttered streets and footways, all contribute to a positive score.

Comparison with existing comfort levels (refer to Section 3, p20) shows that the proposed width adjustments make a significant improvement to footways to either side of Cranbrook Road.

A longer term option would be to gain further space for the footway by introducing a setback with the new developments along Cranbrook Road (refer to Chapter 5 Appendix Potential Development Setbacks).

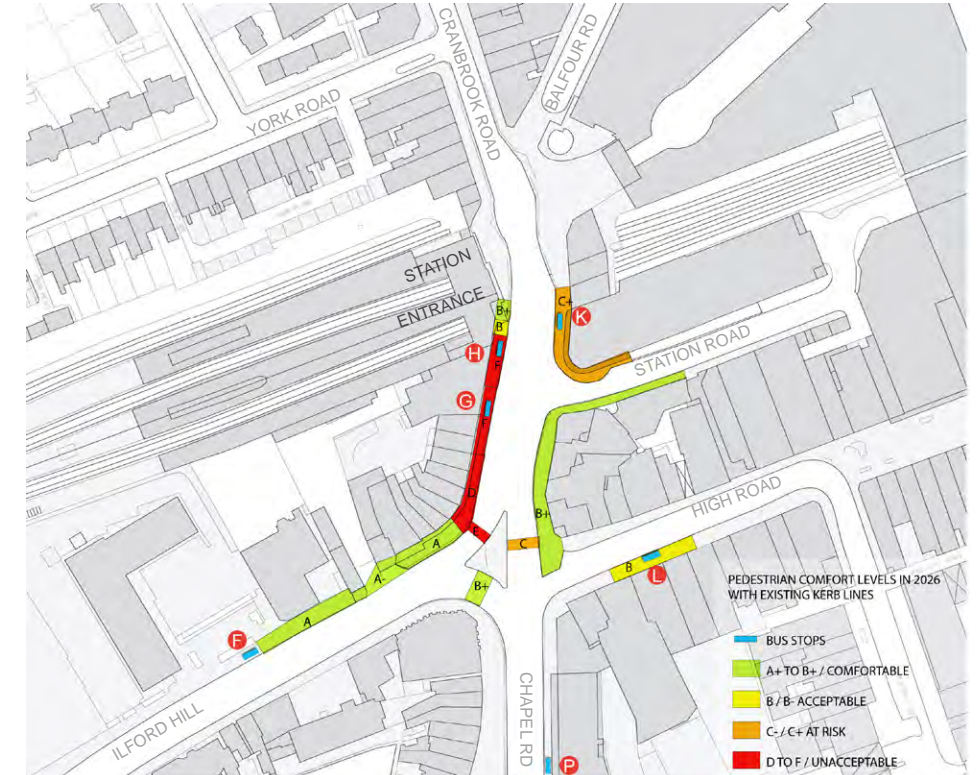
Other variables to pedestrian comfort relate to the precise nature and position of elements including bus shelters (refer to Section 4, p47).

As they are aligned with the bus shelters and the other elements of furniture, the trees shouldn't impact on the pedestrian comfort levels.

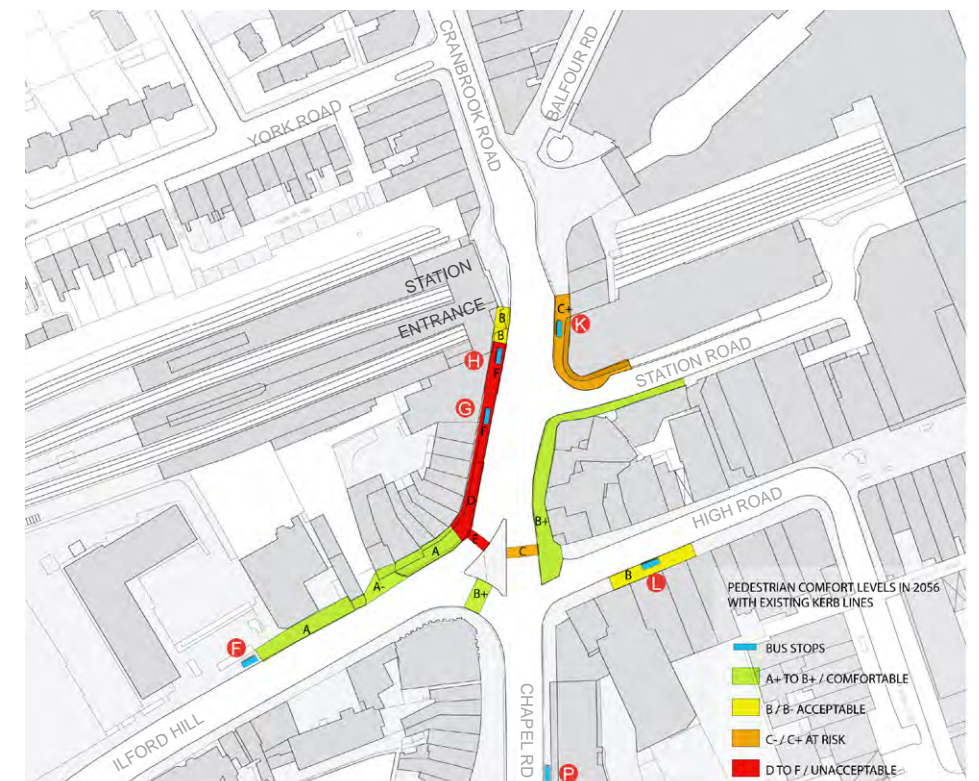


Existing Widths
Proposed Widths

Existing and proposed footway widths



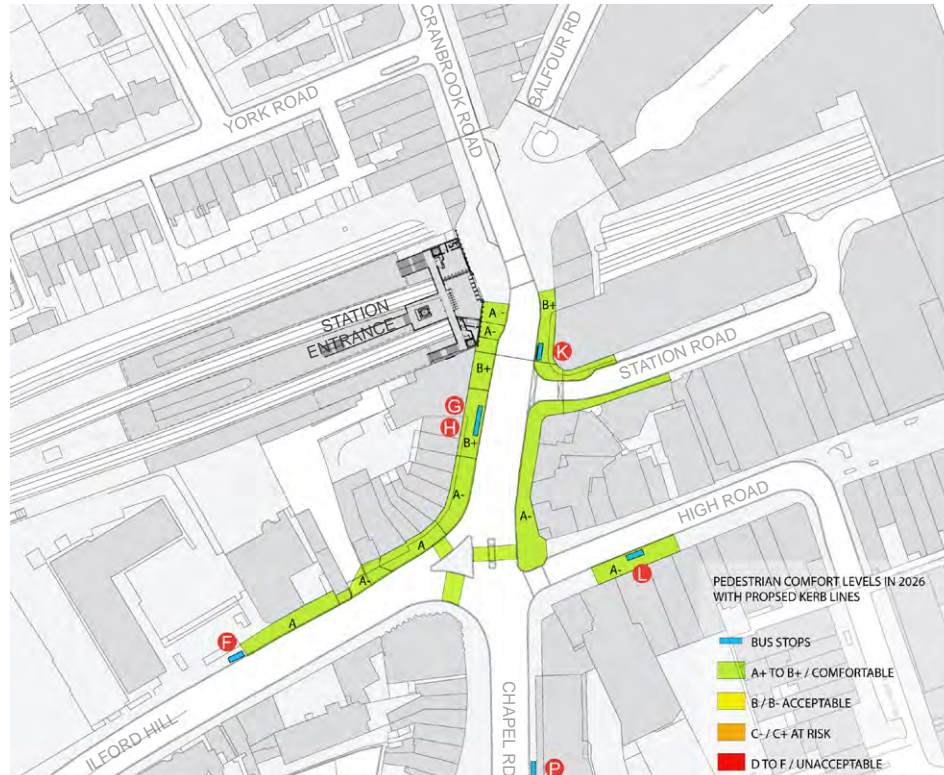
Pedestrian comfort levels in 2026 if existing footway widths and two bus stops facing the footway are retained



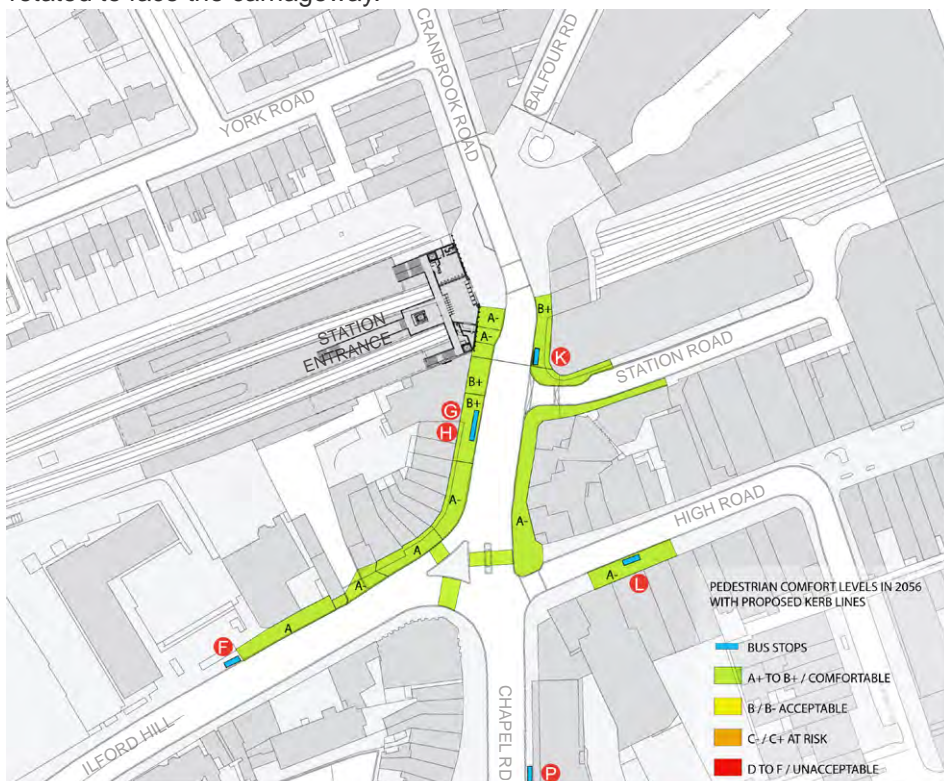
Pedestrian comfort levels in 2056 if existing footway widths and two bus stops facing the footway are retained

CRANBROOK ROAD

EXISTING AND PROPOSED CARRIAGEWAY COMPARISON



Pedestrian comfort levels in 2026 if footway widths are increased as proposed, bus stops G and H are replaced by a combined shelter and all bus stops are rotated to face the carriageway.



Pedestrian comfort levels in 2056 if footway widths are increased as proposed, bus stops G and H are replaced by a combined shelter and all bus stops are rotated to face the carriageway.



EXISTING SOUTHERN FOOTWAY TO HIGH ROAD



PROPOSED SOUTHERN FOOTWAY TO HIGH ROAD WITH ITS WIDTH INCREASED

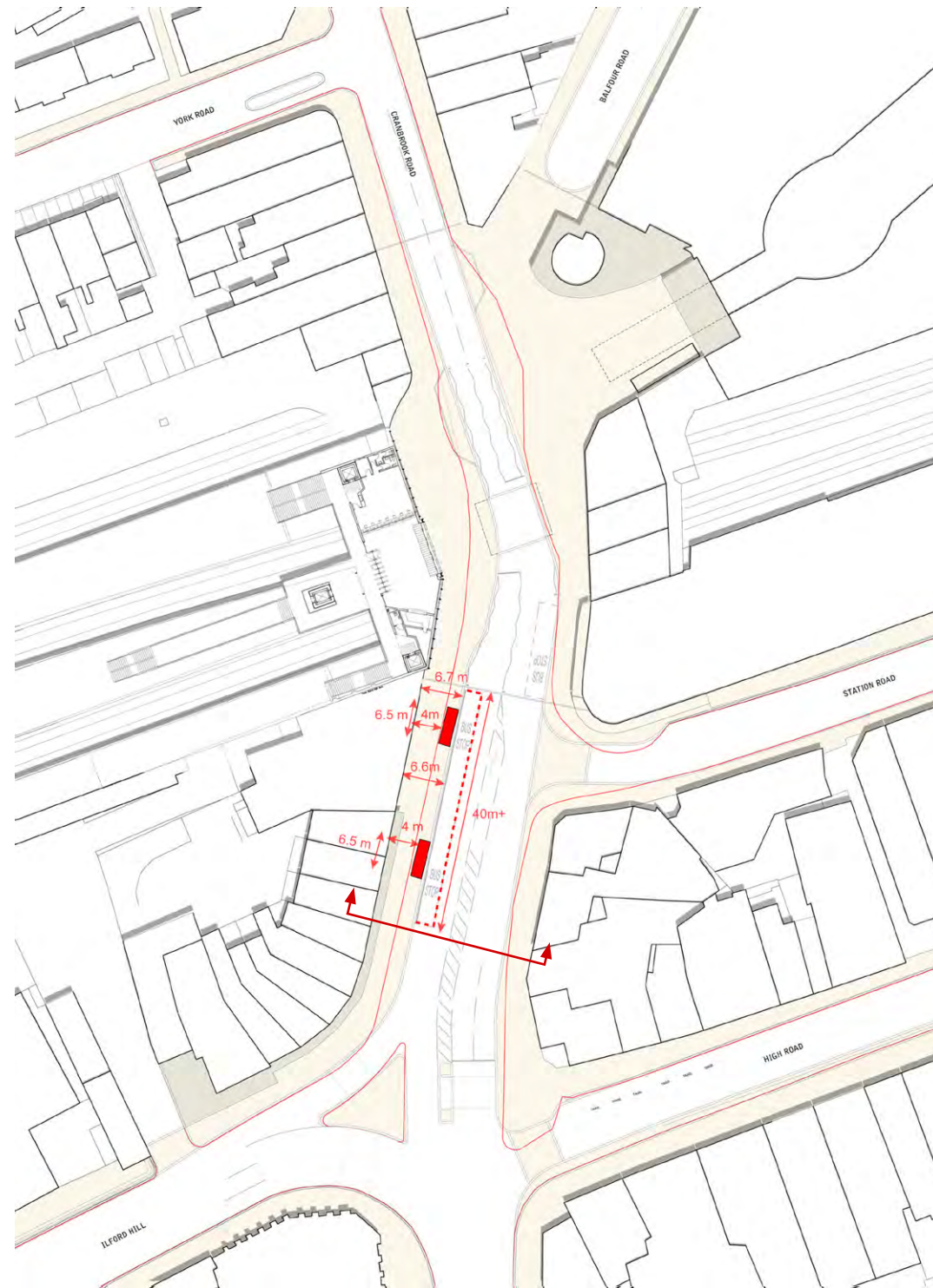
CRANBROOK ROAD

OPTIONAL APPROACHES FOR BUS STOPS H AND G

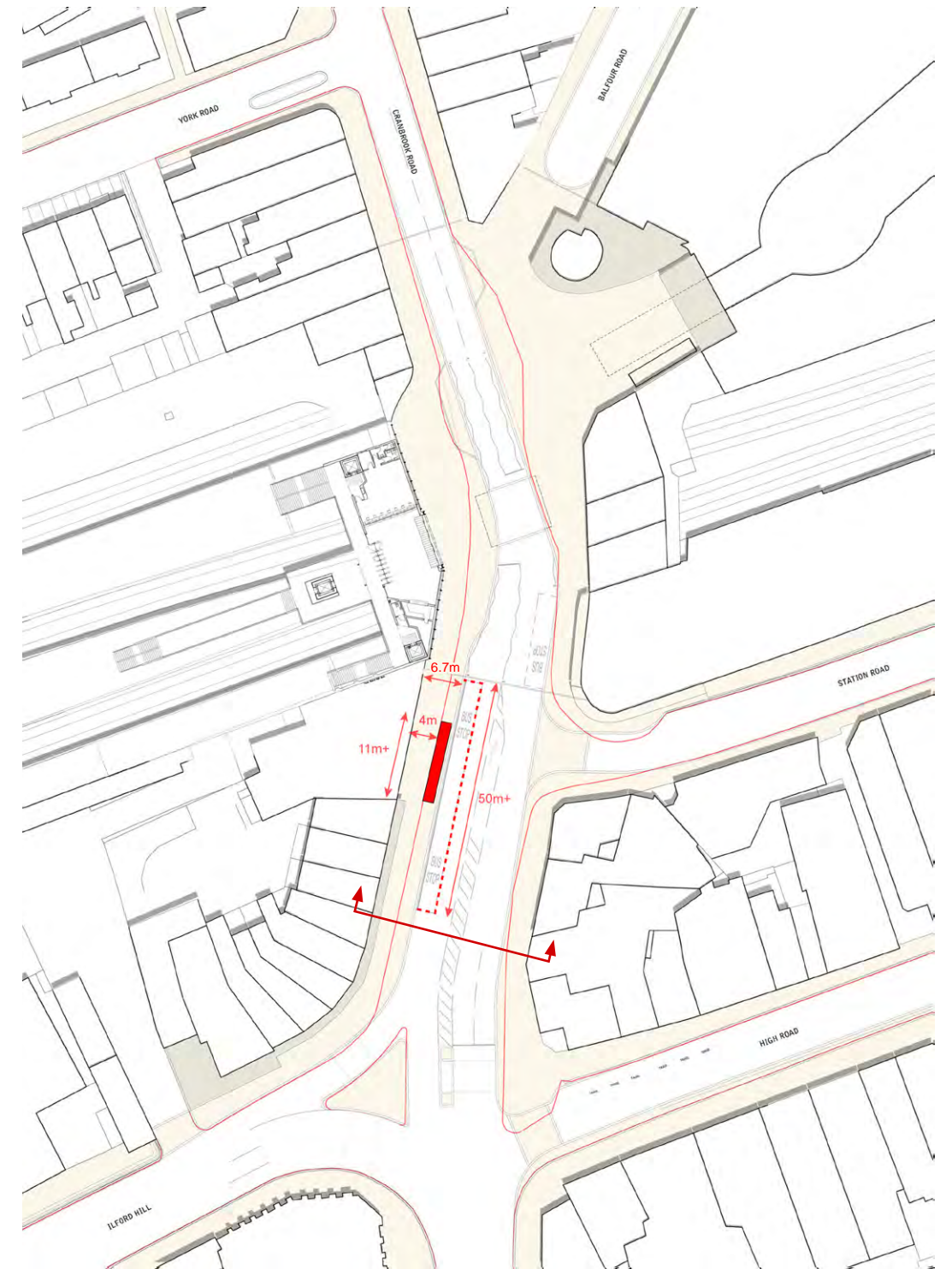
There are two principal options for bus stops G and H that can be considered as the project moves forward. One option retains separate shelters and the other involves utilising a single shelter positioned adjacent to a single stop.

Variables to these two options include adjusting precise position of shelters or adjusting their orientation.

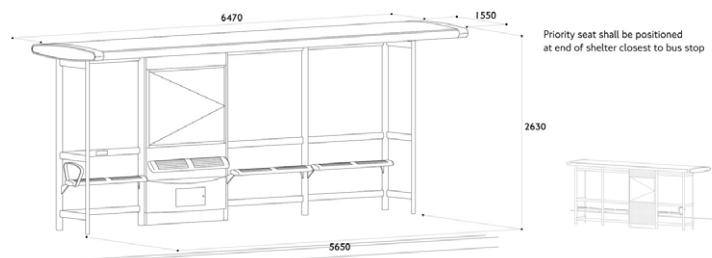
The favoured approach is for a single shelter orientated towards the carriageway and positioned towards the northern end of a single stop.



Plan illustrating retention of two 4 bay bus shelters with separate stops



Plan illustrating single 8 bay bus shelter with combined stops



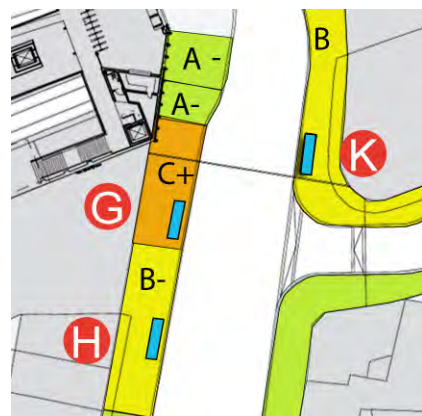
Typical 4 bay Shelter bus stop,
Existing configuration for bus stops G and H



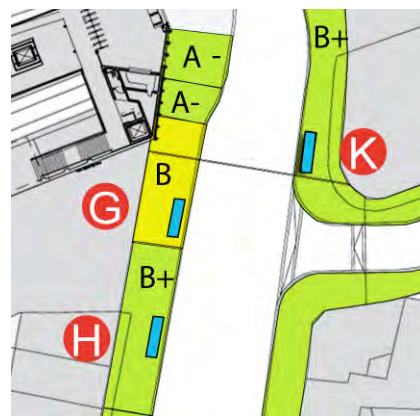
Typical 8 bay Shelter bus stop,

CRANBROOK ROAD BUS STOPS G + H

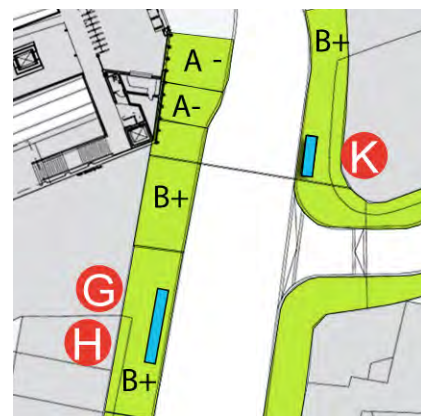
IMPACT OF G AND H BUS SHELTER POSSIBLE POSITIONS ON THE PEDESTRIAN COMFORT LEVELS IN 2026



Bus shelters facing the footway
Existing position

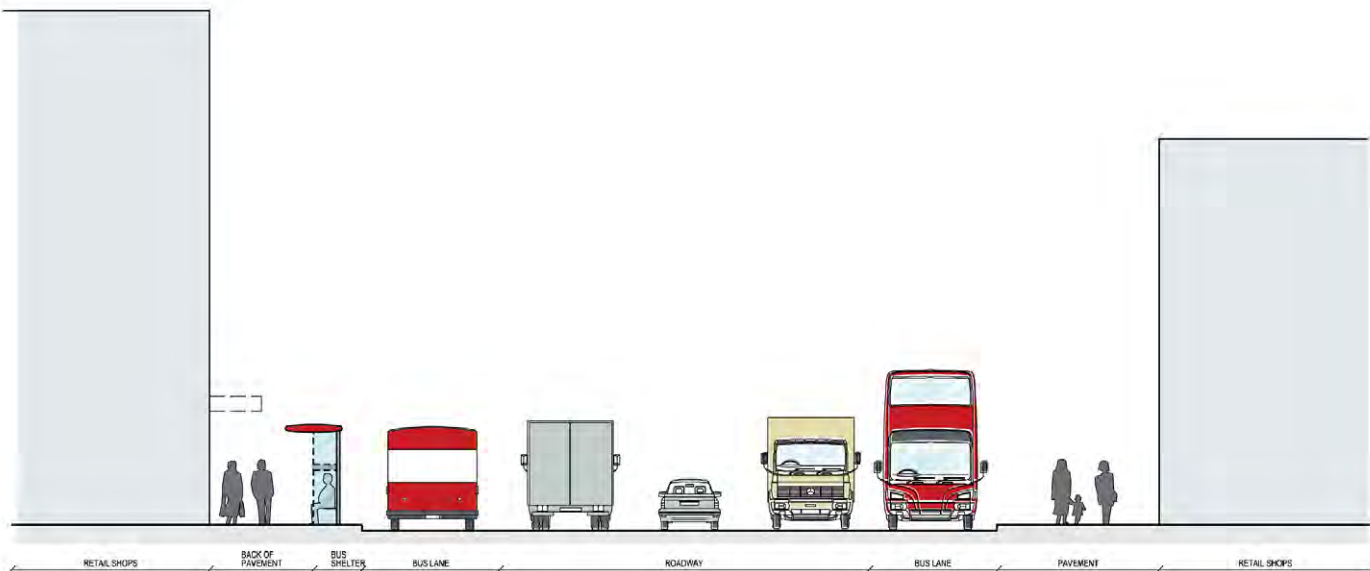


Bus shelters facing the carriageway



Bus shelters facing the carriageway
and one combined bus shelter for
stops G and H

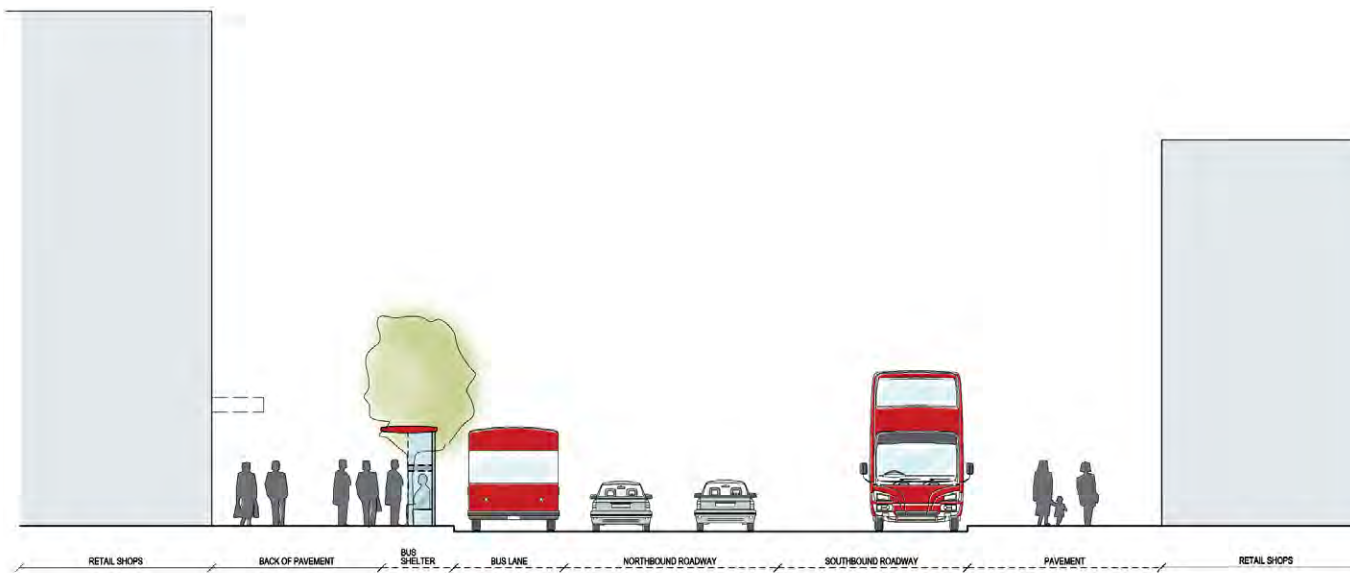
EXISTING BUS SHELTER ARRANGEMENT



Existing Section through Cranbrook Road, looking North towards bus stops G and H :
Bus shelter facing a narrow footway with footway congested at peak times

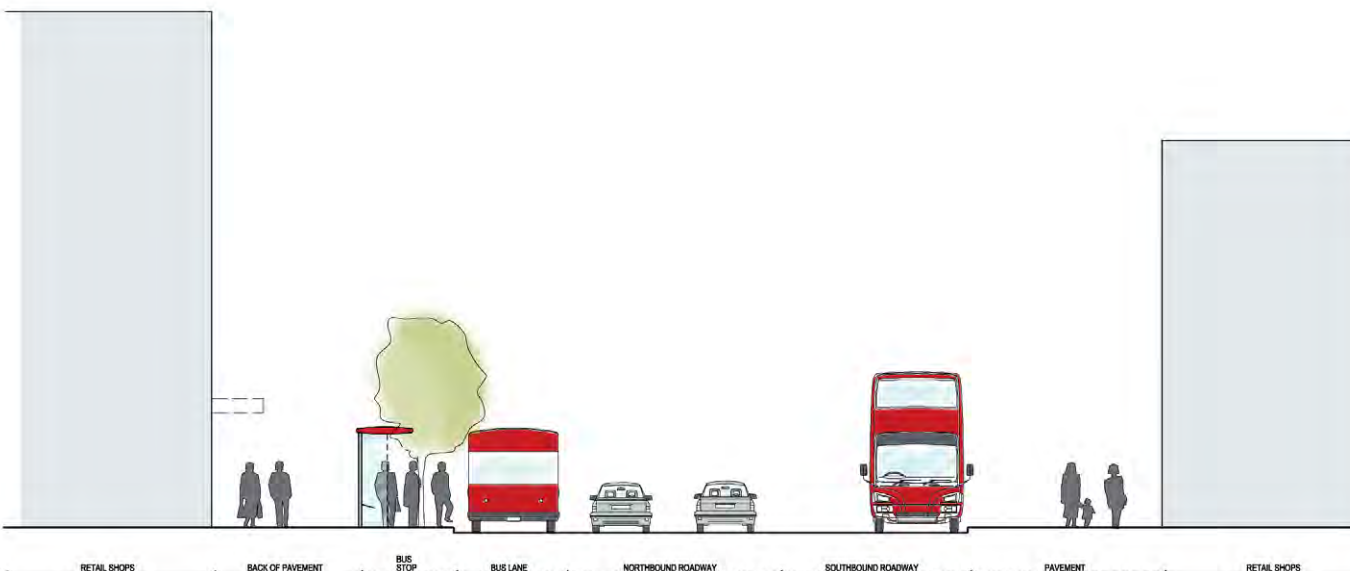


OPTION WITH SHELTER FACING PAVEMENT



Section through Cranbrook Road, looking North towards bus stops G and H
Bus shelter facing a wider footway with a risk of some localised congestion

OPTION WITH SHELTER FACING CARRIAGEWAY



Section through Cranbrook Road, looking North towards bus stops G and H
Bus shelter facing carriageway with an associated reduced risk of congestion.



CRANBROOK ROAD

BUS SHELTER OPTION 1 :
VIEW ILLUSTRATING TWO BUS STOPS (G & H) FACING THE CARRIAGEWAY



4

CRANBROOK ROAD

PREFERRED OPTION

BUS SHELTER OPTION 2 ;

VIEW ILLUSTRATING A SINGLE BUS STOP (G&H), FACING THE CARRIAGEWAY



WESTERN STATION ENTRANCE YORK ROAD

A western entrance to Ilford station is currently gained from York Road. Access is gained via a bridge that leads to the immediate East of a single storey Network Rail storage building.

Access is discrete and restricted to peak hours.

As the adjacent photographs indicate, Fairly remote, this entrance to the station is currently poorly indicated and apart from a historical but closed National Rail building, nothing in the adjacent mews or the relatively desolated open space to its frontage helps to indicate that access is possible.

Important opportunities include

- Extending opening hours
- Improve the space connecting York Road to the station
- Improve the environment of York Mews
- Provide clear wayfinding
- Provide facilities for cyclists
- Provide places to dwell and meet
- Improve lighting to the spaces, the mews and the passageway itself

In the longer term to remove Network Rail building, increase visibility to the station and beyond, and potentially to provide more direct, obvious and convenient access from York Road to Ilford Hill.



View from York Road.



Passageway to the bridge



View towards the entrance from the bridge

WESTERN STATION ENTRANCE

Existing access

Summary :

- Controlled access route, with access at peak time only
- Access to platforms via ramp, bridge and stairs
- No access possible from Ilford Hill.

Enhanced western access : PHASE 1

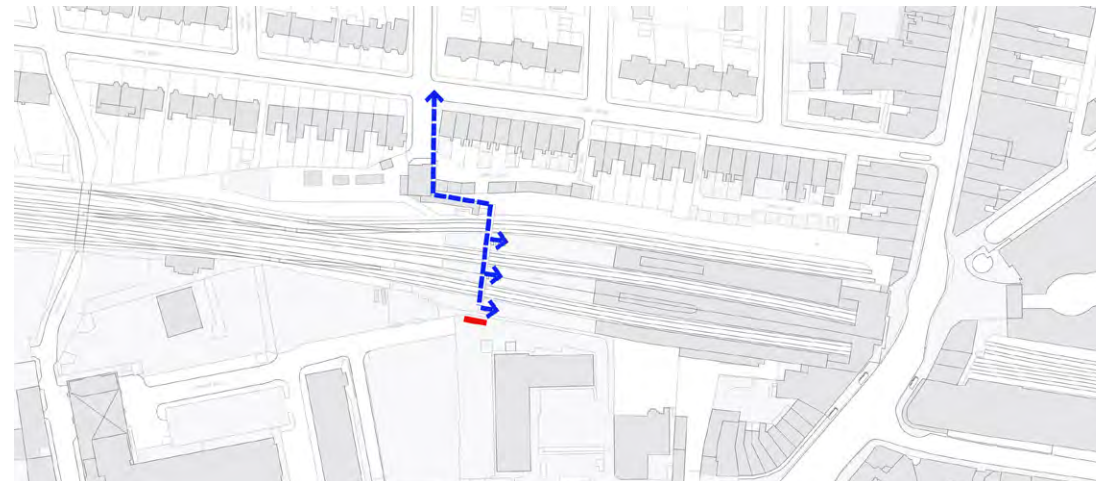
Phase one would provide a southern access to the station through the addition of a new stair to the existing railway bridge (likely to be owned and maintained by of Network Rail). Consideration could be given to the incorporation of lifts.

Summary :

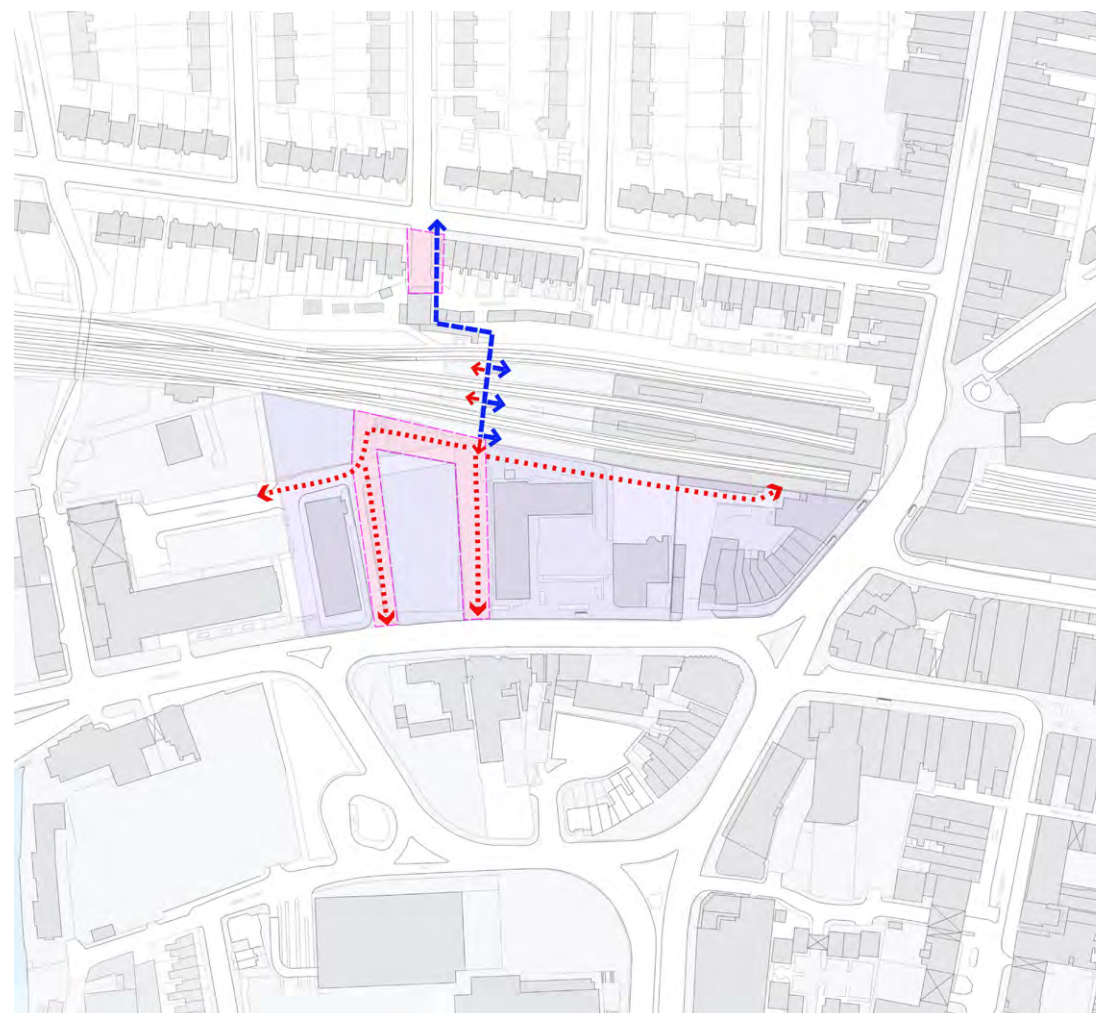
- Existing Network Rail building retained
- Existing bridge retained with addition of stairs to its southern end giving access to Ilford Hill.
- Opportunity for an enhanced public space fronting York Road.
- Opportunity for an enhanced public route connecting bridge to Ilford Hill and associated commercial development.
- Public access across Rail Bridge subject to agreement with Network Rail.
- Potential for lifts subject to general Network Rail improvements.

The GRIP4 static pedestrian flow analysis confirms that the existing footbridge meets the required width to accommodate the future passenger demand with Crossrail. Further analysis would need to be undertaken to assess the suitability of the footbridge to accommodate both public 'through access' across the rail lines and passenger flows to and from the station. This analysis would require an estimate of the number of passengers that would use the extended footbridge instead of the station entrance on Cranbrook Road as well as an estimate of the number of pedestrians that would change their route to use the footbridge instead."

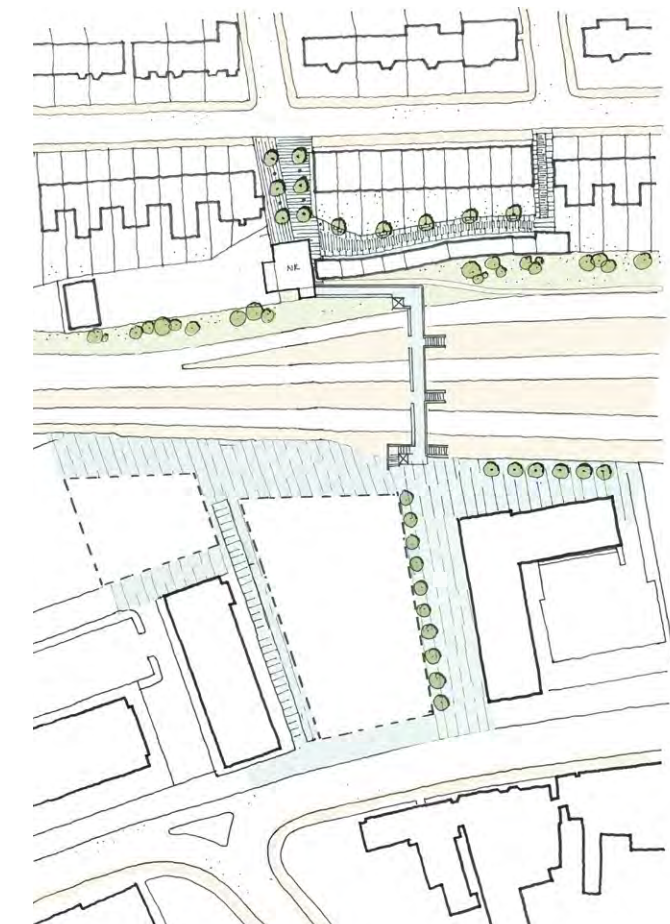
It should be noted that at present it is considered unlikely that the existing footbridge structure would be capable of accommodating the additional demand given the physical constraints and the current operational requirements



Existing southern end of the bridge, with no link to the town centre.



Potential public realm enhancements through Option 1



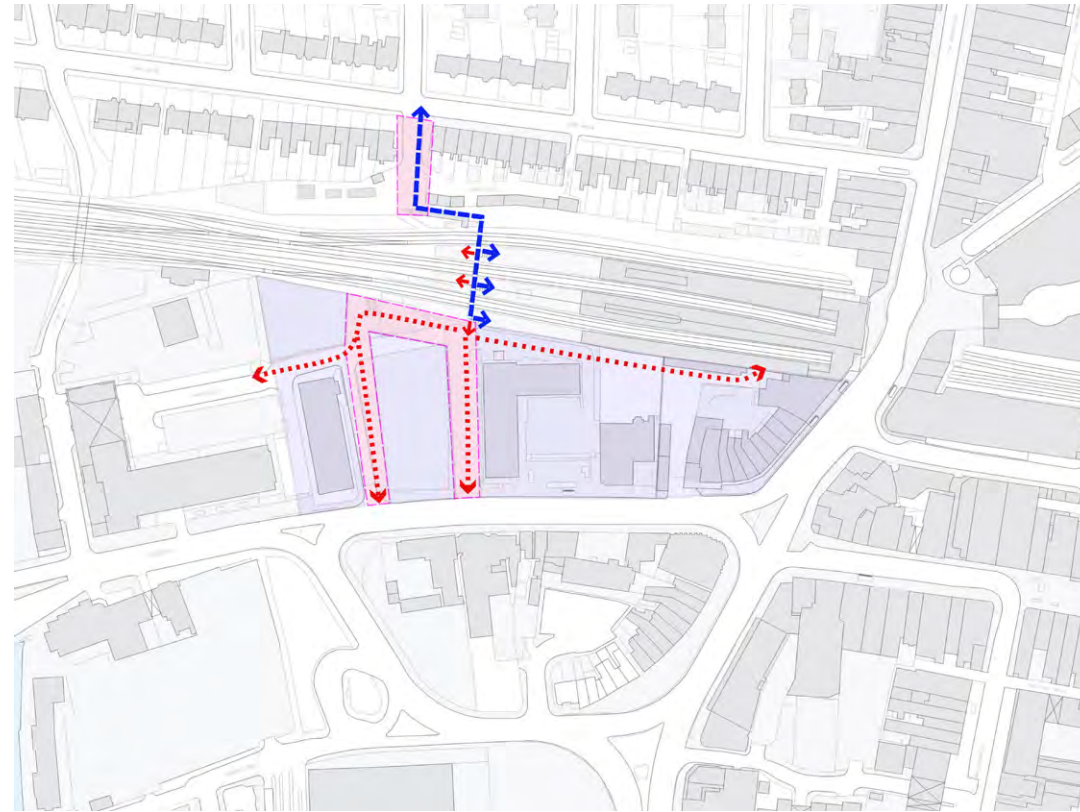
WESTERN STATION ENTRANCE

Enhanced western access : PHASE 2

Phase two would build upon phase one by removing the existing Network Rail building fronting York Road to enhance access and provide visual connection.

Summary :

- The potential removal of the Network Rail building facing York Road would provide the opportunity to create a larger public space with enhanced facilities for pedestrians and cyclists.
- The removal of this building would make the station more visible. It would also partially open views to Ilford Hill and the town centre beyond.
- The existing bridge would be retained with stairs (and potentially lifts) to each platform and to external entrances. Width restrictions and capacity would need to be agreed with Network Rail.
- The potential to create an enhanced public route connecting the bridge to Ilford Hill .
- Potential provision of public access across the railway, subject to the structural, operational and capacity issues highlighted for Phase 1, and with the agreement of Network Rail



Potential public realm enhancements through Option 2



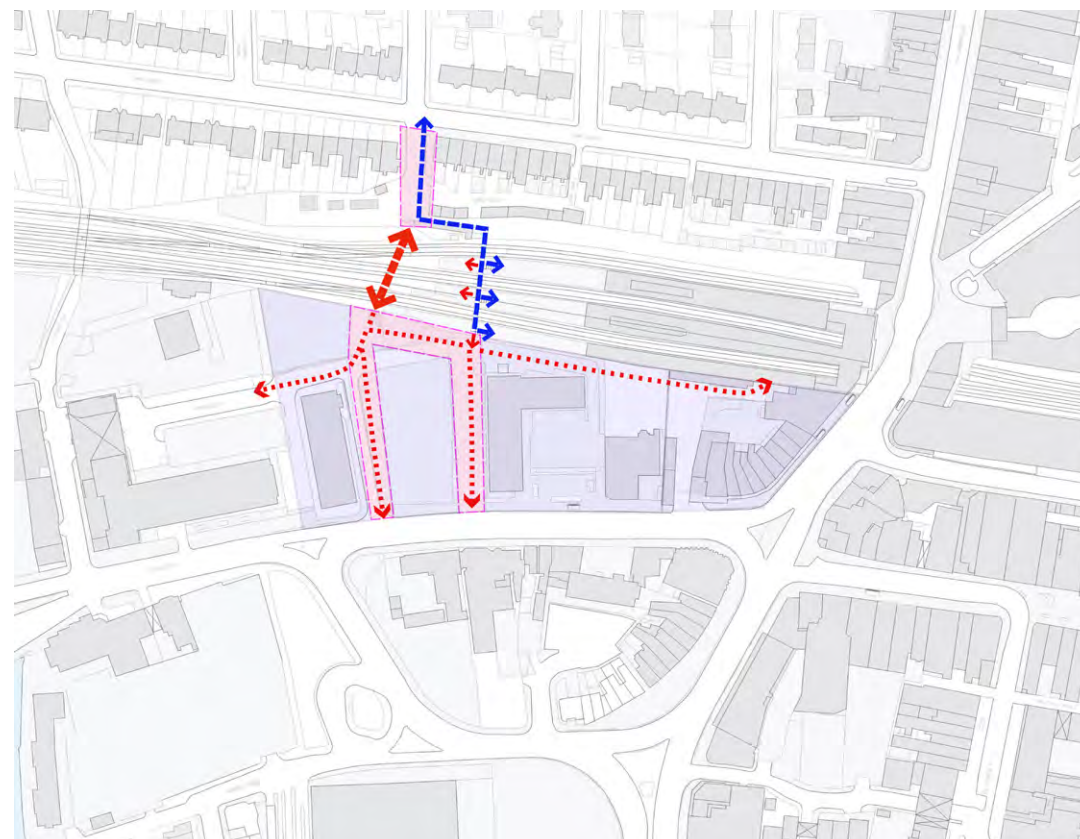
- Existing Link
- Possible Additional access the station platforms
- Potential New Links
- Potential Public Access Area
- Opportunity Site
- Potential positions for Lifts

Enhanced western access : PHASE 3

Phase three would build upon phase two by introducing a new independent public bridge providing direct public access from York Road to Ilford Hill.

Summary :

- Provision of an independant public route with associated DDA access providing direct connections from residential areas north of the station to Ilford Hill.
- Long term this bridge could also be viewed as a replacement to the existing Network Rail bridge providing direct access to extended platforms (planned lengthening of platforms through Crossrail would help facilitate this connection).



Potential public realm enhancements through Option 3



- Existing Link
- Possible Additional Public Route
- Possible Additional access the station platforms
- Potential New Links
- Potential Public Access Area
- Opportunity Site
- Potential positions for Lifts










Refer to the Appendix, pages 74-75 for Safeguarding area study.

WESTERN STATION ENTRANCE GENERAL ARRANGEMENT

Design development of Phase 1

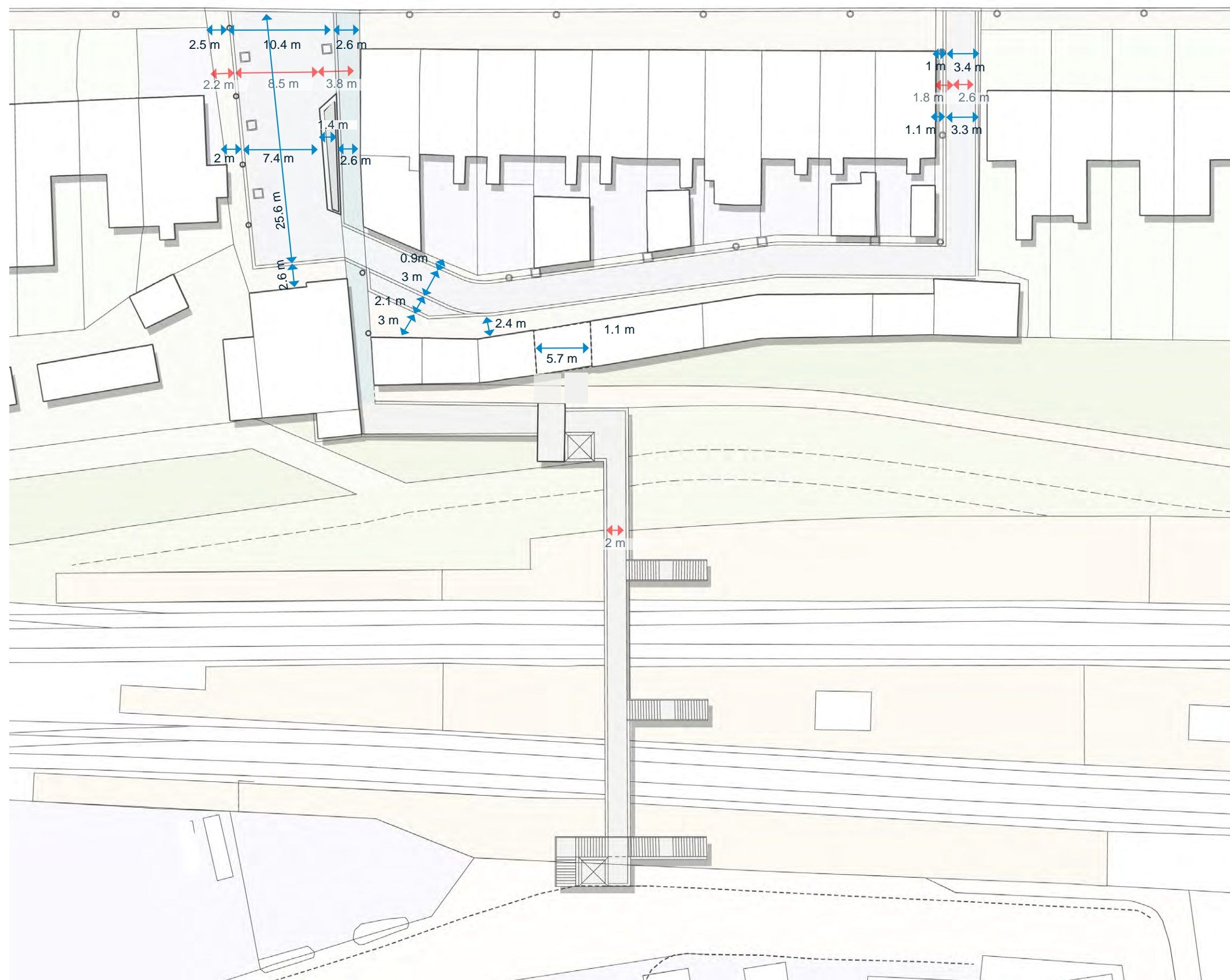
Phase one is seen as the first step in improving access to the station from both York Road and Ilford Hill. This phase can be developed further in time with the potential to create an enlarged space to the North with clear lines of sight and a new bridge with more direct convenient and obvious access to, and across, the railway.



- Existing Network Rail building retained
- New forecourt to station from York Road with new surfacing, trees, lights, facilities for cyclists and places to dwell
- Existing bridge retained with addition of stairs to its southern end giving access to Ilford Hill.
- Provision of lifts (public / access to platform 1) to be confirmed in the context of station proposals generally.

-  Granite setts 150x250x150 fine picked 3 colour light mix
-  Rectangular granite units to western entrance
-  Concrete paving slabs to general pavements (consistent with the ELT paving material used on Chapel Road and Ilford Hill). 600x900mm laid stretcher bond
-  Lighting columns type 2
Consistent with existing columns in York Road
-  Feature lighting columns
-  Feature lighting integrated to pavement
-  Proposed feature trees to plaza
-  Proposed street trees to York Road and York Mews
-  Raised planter, with granite seating wall.



WESTERN STATION ENTRANCE DIMENSIONS

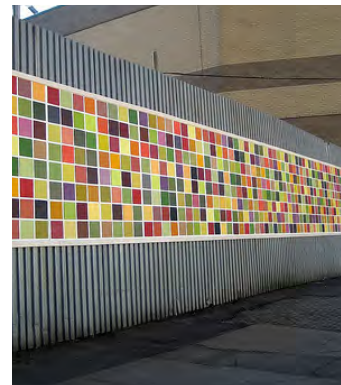
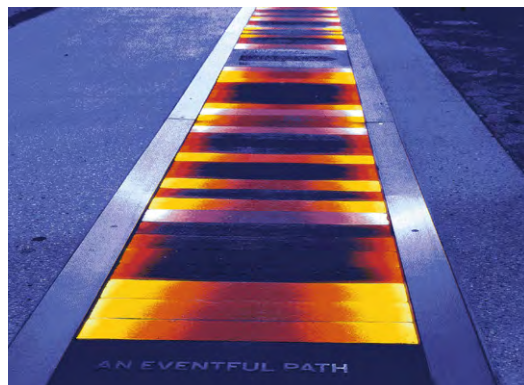


 Existing Widths
 Proposed Widths

WESTERN STATION ENTRANCE ILLUSTRATIONS



PHASE 1 : View showing western access to station from York Road



WESTERN STATION ENTRANCE

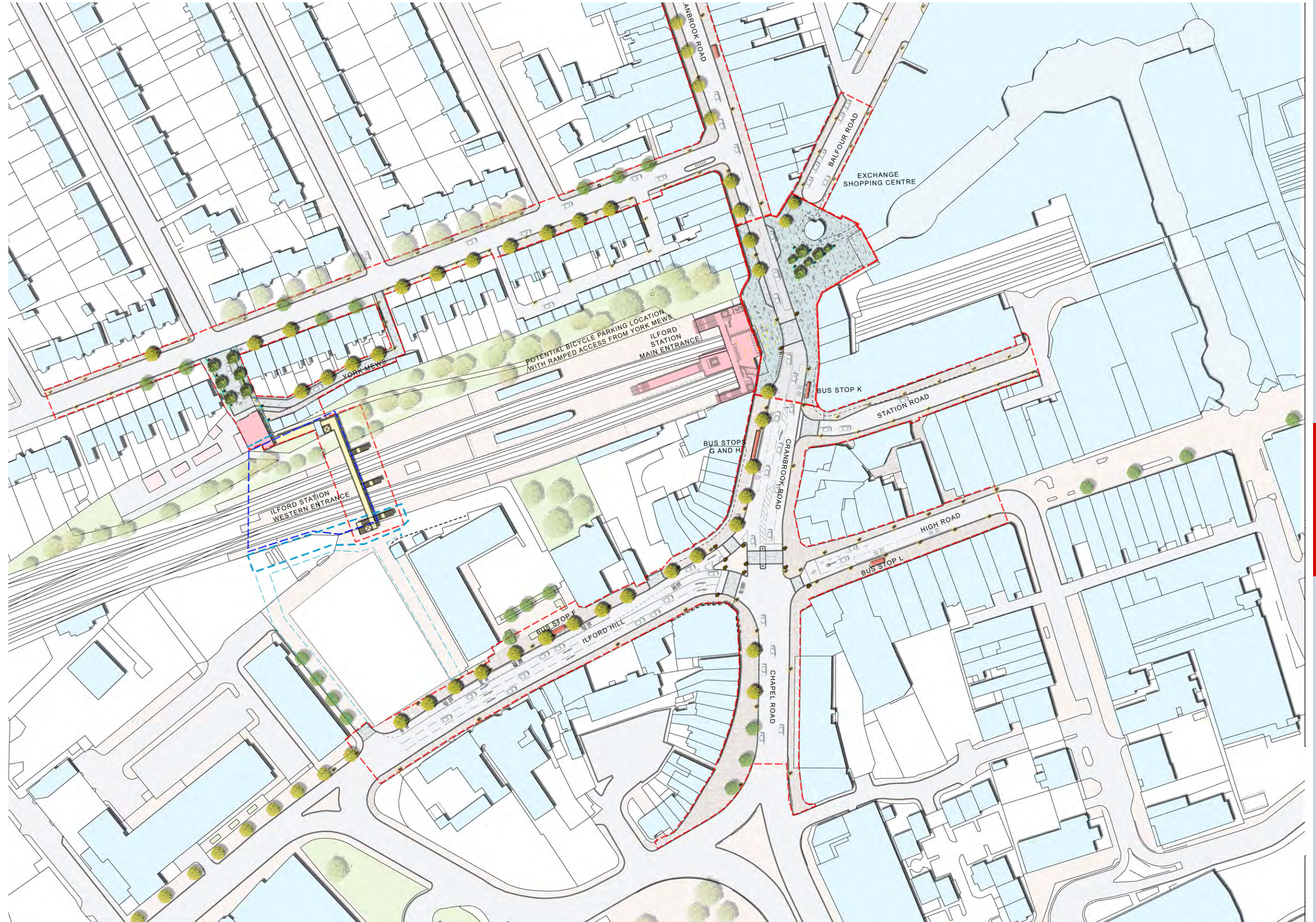
VIEW ILLUSTRATING POTENTIAL LONG TERM REMOVAL OF EXISTING NETWORK RAIL BUILDING



View illustrating potential new forecourt to western station access from York Road with Network Rail building removed and a new bridge constructed.



MASTERPLAN



- - - Stage C Boundary
- - - Stage D Boundary
- Zone reserved for potential new public route over railway
- Zone free of obstacles, reserved for landing of potential new bridge and access along the railway
- Zone reserved for public access to bridge(s) over railway (potentially shared surfaces).
- Rectangular Granite Units to central space and approach to western entrance
- Granite setts to loading / setting down pads
- Concrete paving slabs in continuity with ELT paving material
- Asphalt to carriageways
- Existing trees in private and public green spaces
- Existing street trees
- Proposed feature trees to station plazas
- Proposed street trees
- Potential proposed street trees outside the study area for long term streets enhancements
- Traffic lights
- Proposed lighting columns
- Proposed feature lighting to plazas
- Bus Stops

HARD LANDSCAPE STRATEGY

The design, construction and maintenance of ground surfacing materials will be instrumental in defining the character of Ilford's streets and spaces.

The general aspiration is for surfacing in the study area to be formed from a combination of:

- granite pavements to the station entrance plaza and York Mews
- 600x900 concrete paving slabs to other widened footways,
- granite kerbs, granite tactile paving and granite setted crossings.

Carriageways will be constructed from hot rolled asphalt or stone mastic asphalt.

Extensive surveys will be required to determine below ground constraints (structure, bearing capacity, utilities, etc).



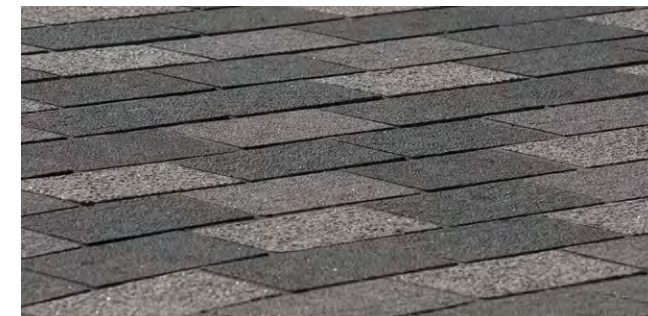
Rectangular granite units to central space and approach to western entrance



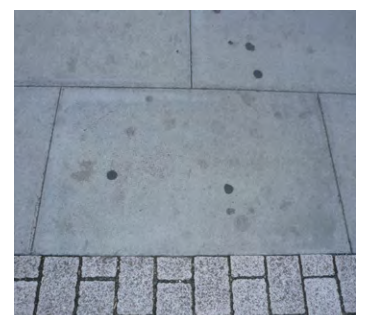
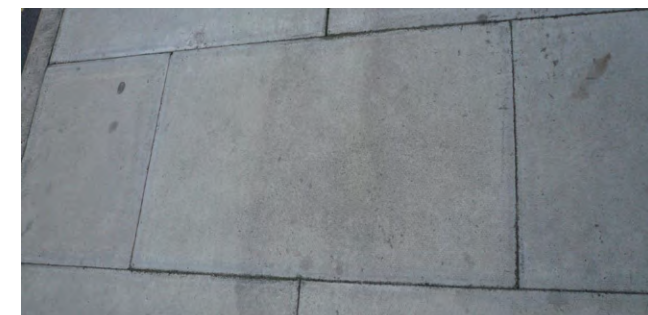
Granite setts to loading / setting down pads
150x250x150 fine picked 3 colour light mix



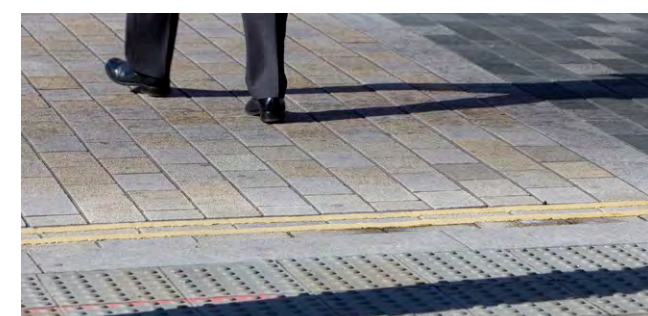
Granite setts to pedestrian crossings, York Mews, and in the arrival space from York Mews
150x250x180 fine picked 3 colour dark mix



Concrete paving slabs to general pavements (consistent with the ELT paving material used on Chapel Road and Ilford Hill).
600x900mm laid stretcher bond



Granite kerbs channels and tactile paving (tooled granite in contrasting tone) to general pavements



HARD LANDSCAPE STRATEGY



- Rectangular granite units
- Granite setts in light 3 colour mix
- Granite setts in 3 colour dark mix
- Granite kerbs / Channels
- Rectangular concrete paving slabs, in continuity with the ELT paving material used in Ilford.
- Tactile paving - tooled granite in a contrasting tone
- Asphalt carriageway
- Granite seating wall to planting
- Tree pits

PLANTING STRATEGY

EXISTING PLANTING

Iflord Town Centre has a very hard environment with limited notable vegetation and little evidence of any strategic placement.

Planting within the study area is generally :

PRIVATE:

- In individual private gardens to the north of the station
- Within a garden to the rear of the "If Bar"
- Within an inaccessible corridor along the railway itself

PUBLIC / UNUSED :

- The green space on the western section of Chapel Road

PUBLIC / MAINLY HARD :

- Adjacent to the main entrance to Sainsbury's
- Open space by bus stop F on Ilford Hill



- EXISTING TREES IN PUBLIC SPACES
- EXISTING TREES IN PRIVATE SPACES
- EXISTING PUBLIC GREEN SPACES
- EXISTING PROTECTED GREEN SPACES

PLANTING STRATEGY

PROPOSED PLANTING

Three categories of planting are proposed within Ilford Town Centre, street trees, feature trees, and green spaces:

STREET TREES

1. Large / medium scale trees selected to enhance views, protect sight lines, ensure effective pedestrian movement and keep bus lanes free of overhanging branches.
2. Small / medium scale trees to residential and secondary streets with a high clear stem to ensure open views for pedestrians and prevent the obstruction of footways.

FEATURE TREES :

The central space by the main station entrance and a new space at the western entrance from York Road are two locations that would benefit from the introduction of trees.

These two locations will require different characteristics:

1. The central space by main station entrance on Cranbrook Road would require trees with high clear stems and light foliage ensuring open views to and from the station, the Exchange Shopping Centre and Balfour Road.
2. The space fronting the western entrance from York Road would benefit from small to medium trees providing shade and a distinctive character.

GREEN SPACES :

Opportunities for new green spaces are identified by the western entrances to the station. One of these may be as an extension of the entrance space from York Road and another may be through the creation of a space to the South of the existing (or a new) rail bridge.

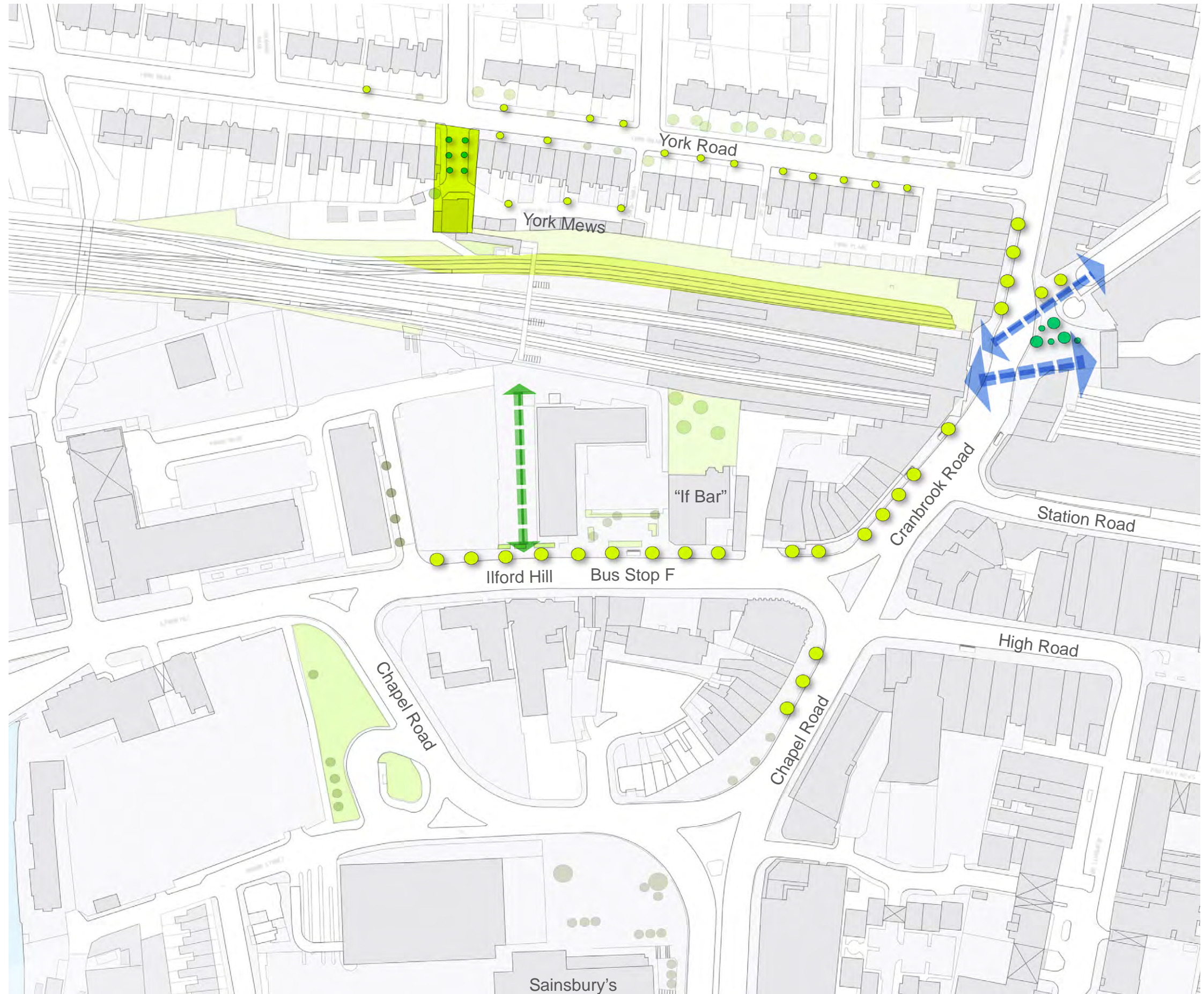
This southern space could be extended further South in association with development proposals and could potentially link through to the western section of Chapel Road.

Modification to the urban realm, and addition of trees in the streets, may impact on utilities, structures and CCTV coverage. Detailed investigation will be required into technical and maintenance issues (pigeons, etc) as proposals are developed..

↔ OPEN VIEW

↕ POTENTIAL GREEN LINK

- PROPOSED LARGE / MEDIUM SCALE TREES
- PROPOSED SMALL / MEDIUM SCALE TREES
- PROPOSED ORNAMENTAL / FOCAL TREES
- POTENTIAL GREEN SPACE
- EXISTING TREES IN PUBLIC SPACES
- EXISTING TREES IN PRIVATE SPACES
- EXISTING PUBLIC GREEN SPACES
- EXISTING PROTECTED GREEN SPACES



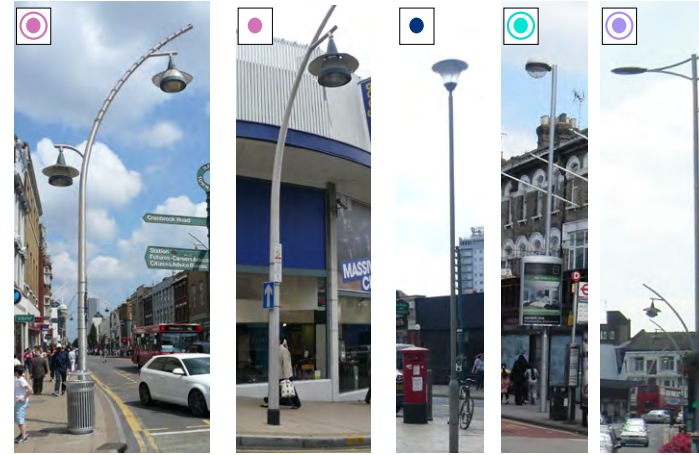
LIGHTING STRATEGY

EXISTING

The existing arrangement is inconsistent in style typology and levels of illumination.

The different types of light and approximate locations are illustrated in the adjacent photographs and plan.

HIGHWAY LIGHTING TO CRANBROOK ROAD



Arched Lamp Post
2 suspended lights

Arched Post
1 suspended light

Various straight posts on the
North part of Cranbrook Rd

HIGHWAY LIGHTING TO ILFORD HILL CRANBROOK AND CHAPEL ROAD

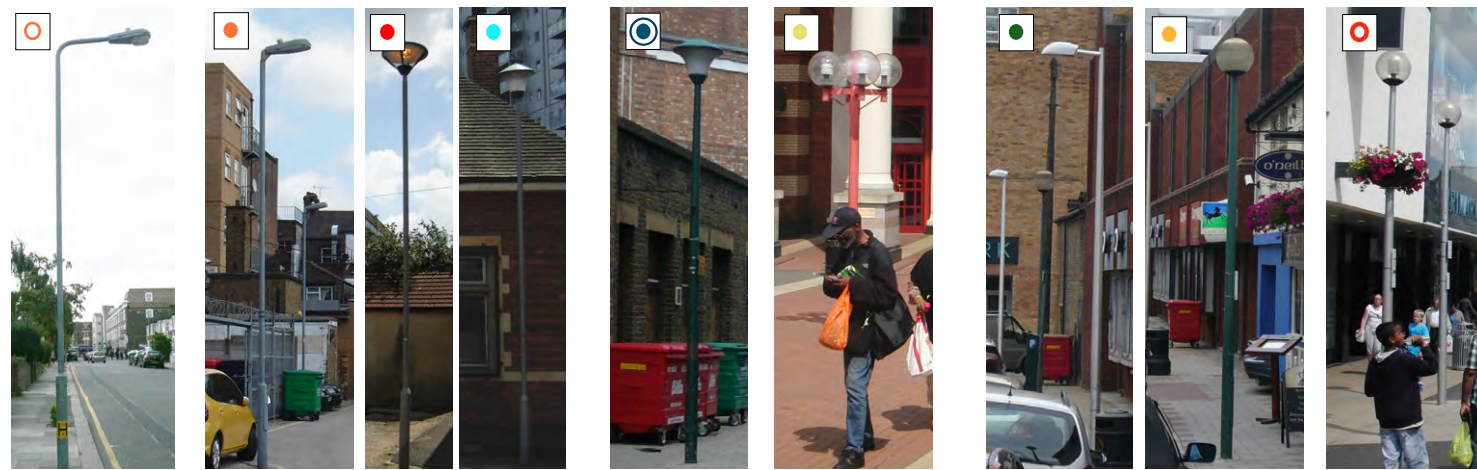


Ilford Hill
Chapel Road

Ilford Hill
Chapel Road

Chapel Road

RESIDENTIAL / SECONDARY STREET LIGHTING TO YORK ROAD, BALFOUR ROAD, STATION ROAD, EXCHANGE ENTRANCE PLAZA,



York Road

York Place

York Mews

Balfour Road

Exchange Entrance

Station Road

High Road 1



Existing lighting column locations and types

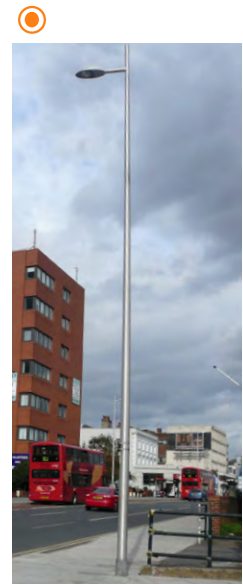
LIGHTING STRATEGY

PROPOSED

Our approach to lighting focuses on the requirement of daily users including residents, retailers, workers and visitors. It seeks to ensure the creation of a coherent pleasant and safe lit environment that is sensitive to its context and accommodates the requirements of vehicular traffic.

Our proposal seek to :

- Creating a strong visual identity.
- Improving the quality of lighting throughout the town centre whilst creating a distinctive and memorable night time landscape.
- Add richness by highlighting selected architectural features and places.
- Minimising the quantity of lighting equipment installed in order to avoid clutter, both in terms of impeding pedestrian flow and also visual impact. Key to this will be selecting appropriate columns (simple and relatively timeless) from the existing broad range.
- Assisting navigation and promoting accessibility for all.
- Identifying and illuminating pedestrian routes to secure the health and safety of pedestrians and vehicles throughout the hours of darkness. Sufficient lighting should be provided for a safe environment, that minimises crime, but that also gives due consideration to limiting light pollution and preventing spill and ingress into adjacent windows. Areas of higher risk, such as entrance ways, should be identified and illuminated to an appropriate level and quality.
- Providing a lighting system that makes effective use of new lamp source technology (eg potentially allowing lights to be dimmed or switched at particular times).
- Achieving a sustainable and energy efficient system, that minimises continuing operational costs. Lamps should be selected for their efficacy, colour rendition, longevity, and with regard to the character, function, maintenance requirements and the location of each desired lighting effect.



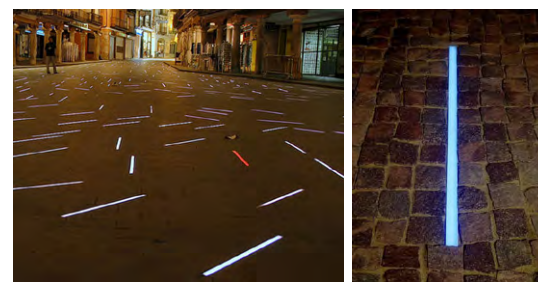
Existing Highway lighting columns
Type 1 LP(1)
on Ilford Hill and Chapel Road could be extended along primary streets.



Existing Lighting columns
Type 2 LP(2)
on York Road could be extended along secondary streets.



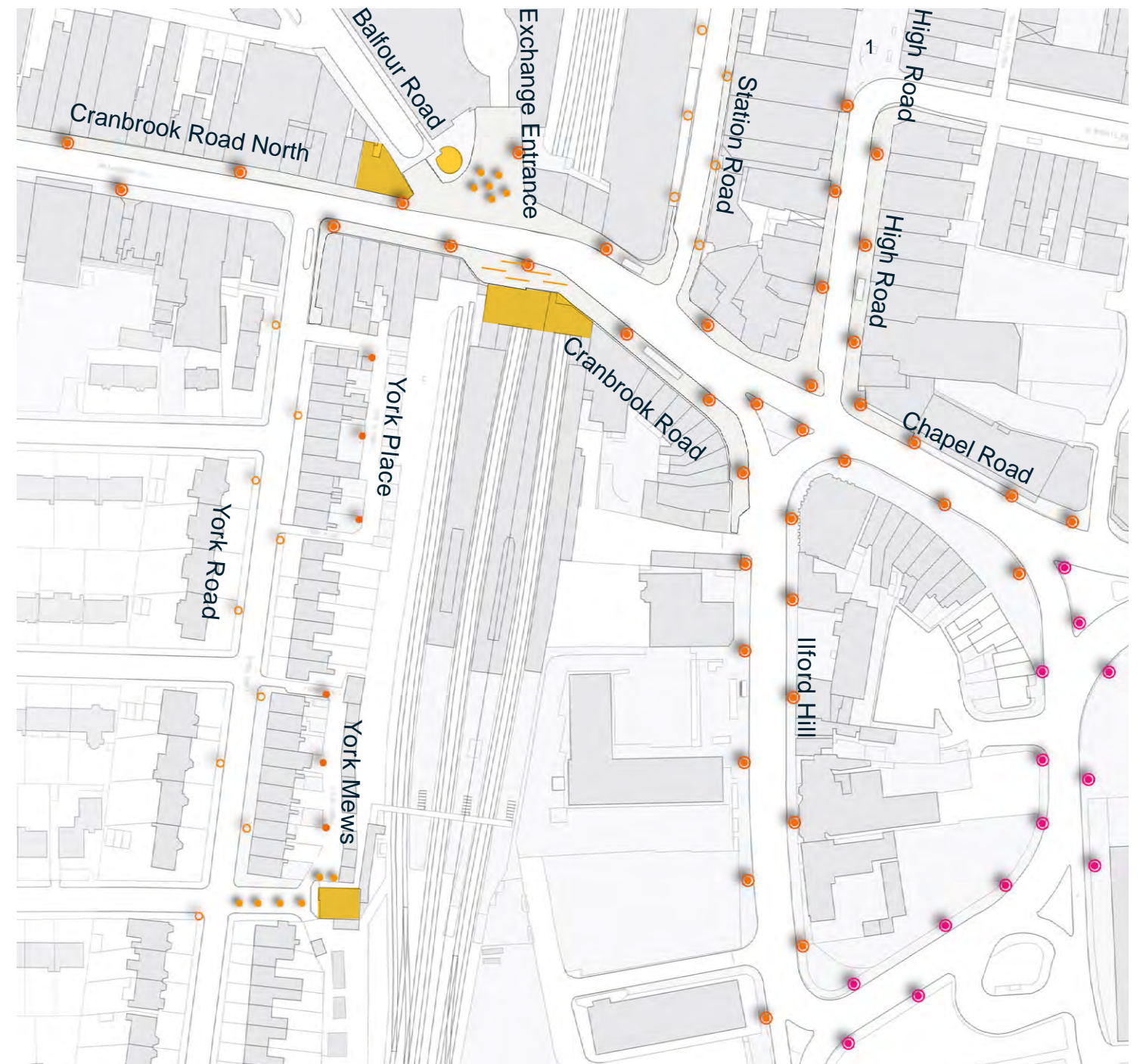
Potential feature lighting to Station Entrances (Cranbrook Road and York Road).



Feature lighting to Station Piazza



Architectural lighting Opportunities to existing buildings.



Proposed Lighting column locations and types

FURNITURE STRATEGY

Our approach to street furniture seeks to :

- Avoid the installation of unnecessary street furniture.
- Respond contextually to the siting and design of all street furniture, to ensure that street furnishings are viewed as a single coordinated palette.
- Locate furniture (and trading pitches) intelligently so that each item relates to the function of the building and spaces it serves (e.g. consider the role of seating in enhancing surveillance, its impact on congregation and the likelihood of furniture being misused).
- Locate furniture so that it may benefit from overlooking from passers by or adjacent buildings.
- Ensure that design considerations are balanced within functionality and future maintenance requirements.

Cycle parking requirements :

TFL standards recommend that one cycle space is provided for every 200 daily entrants to the station.

Using this figure, by 2026, 29 additional spaces should be added to the 20 cycle spaces currently provided at Ilford Station (8 on the platform and 12 on Cranbrook Road).

It is proposed that additional cycle spaces for rail use be located along Platform 1 and that consideration be given to providing additional cycle facilities along Platform 5 (refer to page 53 for access). The number of spaces would be reviewed and could be increased further if occupancy after the opening of Crossrail exceeds 80%.

Regardless of this rail related provision, cycle facilities are also proposed within the central space to support town centre uses and people accessing bus transport.

The proposal currently removes 6 stands and provides new stands as follows:

- 9 stands (18 spaces) on the western side of Cranbrook Road, closer to the station entrance and bus stops G and H.
- 6 stands (12 spaces) at the western end of Balfour Road.

STREET FURNITURE ELEMENTS



Litter Bins

selected according to LBR guidance

LBR Street Guidance extract :

The style of litter bins used throughout LBR varies considerably at present. It is intended to ream line this to a standard type. Stainless steel



Cycle racks

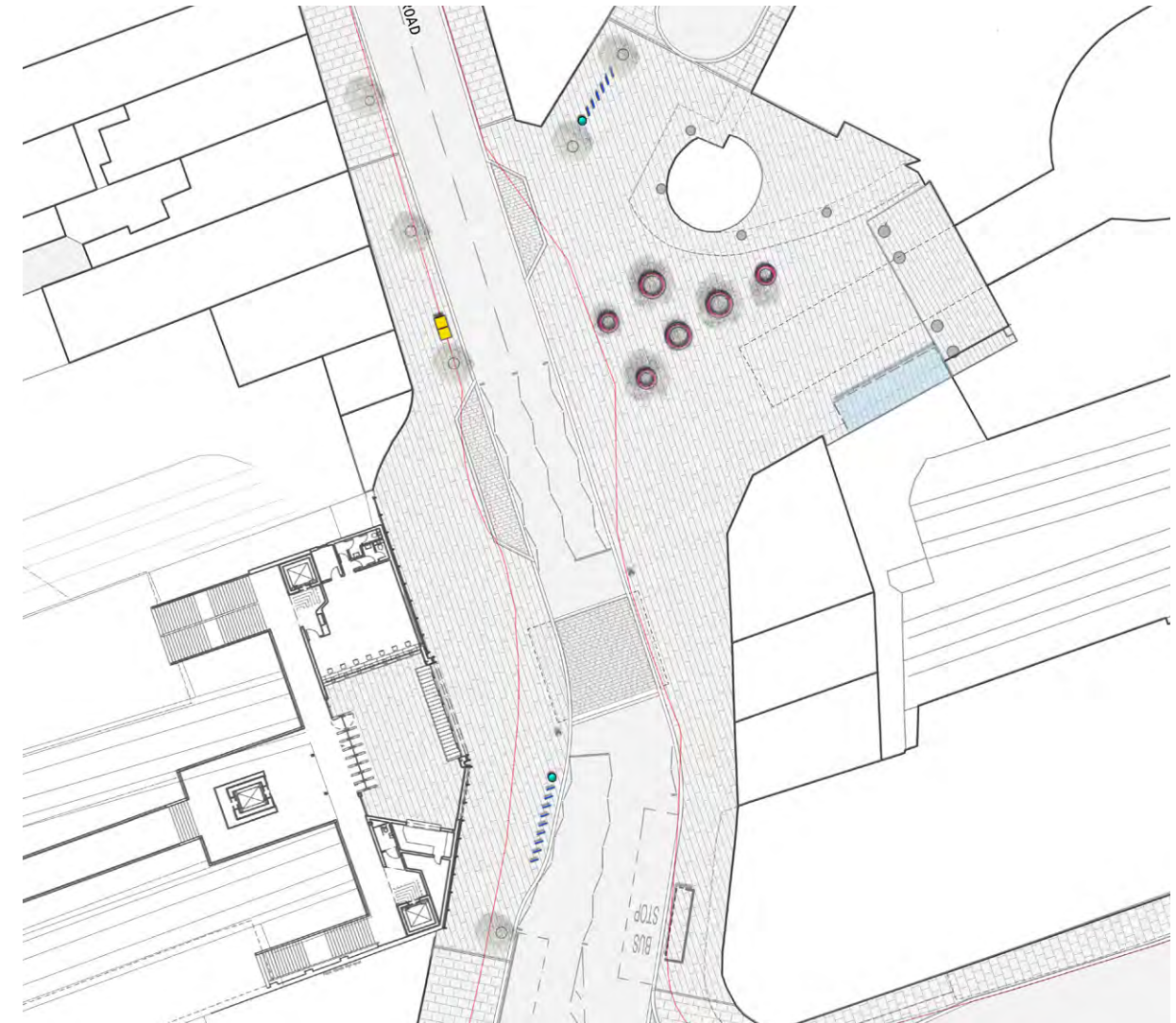
selected according to LBR guidance

LBR Street Guidance extract :

A single type of cycle rack will be used across the borough. Sheffield Stand or similar, with stainless steel



Granite seating walls to planting areas



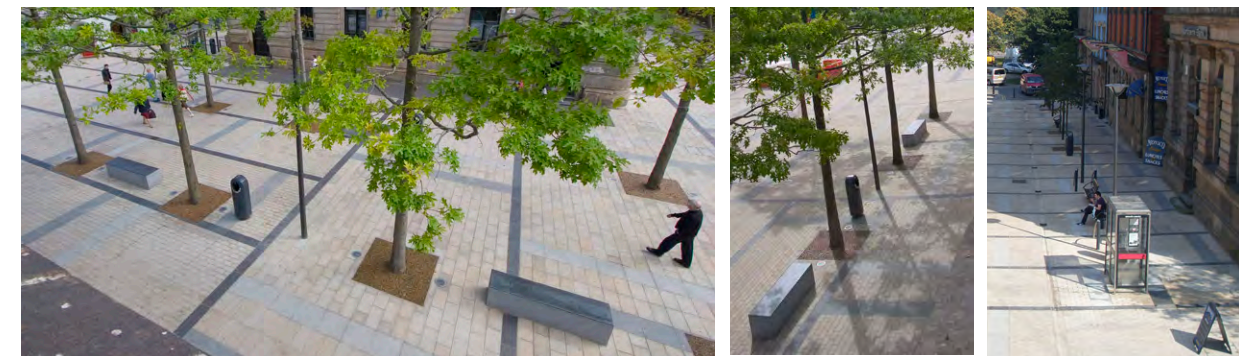
FURNITURE ELEMENTS ON STATION ENTRANCE PIAZZA



Street lighting and Feature lighting

Wayfinding

Public Art



STREET FURNITURE ELEMENTS ALIGNMENT PRINCIPLE

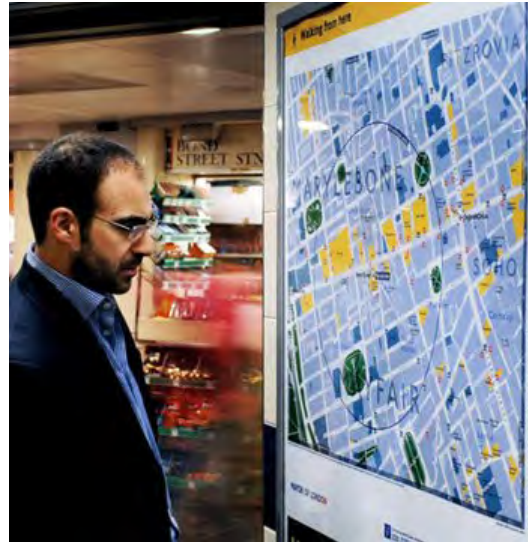
ORIENTATION AND WAYFINDING

Our premise is that orientation starts with the creation of a legible environment in which people are able to develop recognition (e.g. through distinct districts, landmarks, views, vistas, spaces and routes) and intuitively organise what they see into a coherent pattern. This is then supported through the introduction of coordinated and well designed signage that is sensitively placed within, without adding unnecessary clutter to, the public realm. Signage is to be provided on the basis of having as few signs as possible and only as many as are necessary.

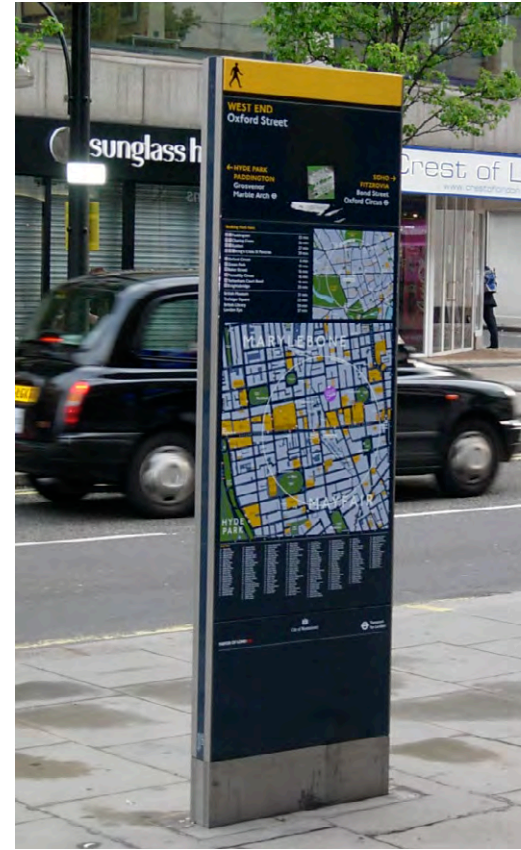
Signage within the project area is being developed by LBR as part of a wider scheme for Ilford Town Centre that will also link through Valentine Park to Ilford Hill. A co-ordinated wayfinding strategy will capture these destinations and embrace the 'Legible London' strategy being implemented by the GLA.

The Legible London system is composed of different supporting sign types:

1. Node supporters, wide fixed signs containing more planning information than other signs and helping to disperse people from busy transport hubs.
2. Monoliths (area supporters), wide fixed signs containing wayfinding information located at more spacious decision points to provide simplified street maps showing the relative position of surrounding areas and information about key destinations and places of public importance;
3. Miniliths, narrow fixed signs providing reassurance and continuity along routes.
4. Homing Beacons are posts that are positioned close to major destinations to show average walking time from that point. They are considered to be effective where major destinations are hidden from view.



1. Legible London maps at bus stops and the station



2. Legible London Monolith potential use at Station Entrance and High Road Junction



3. Legible London Minilith potential use on Ilford Hill and York Mews



4. Homing Beacons - Finger posts at main pedestrian intersections

ART STRATEGY

There is potential for the use of public art to enhance the public realm of Ilford and benefit the everyday experience of those who work, visit and reside in the area. Public art can enhance the quality of streets and spaces, assist in interpretation and orientation and can be instrumental in generating or reinforcing a sense of local distinctiveness.

Potential locations for public art within the study area include:

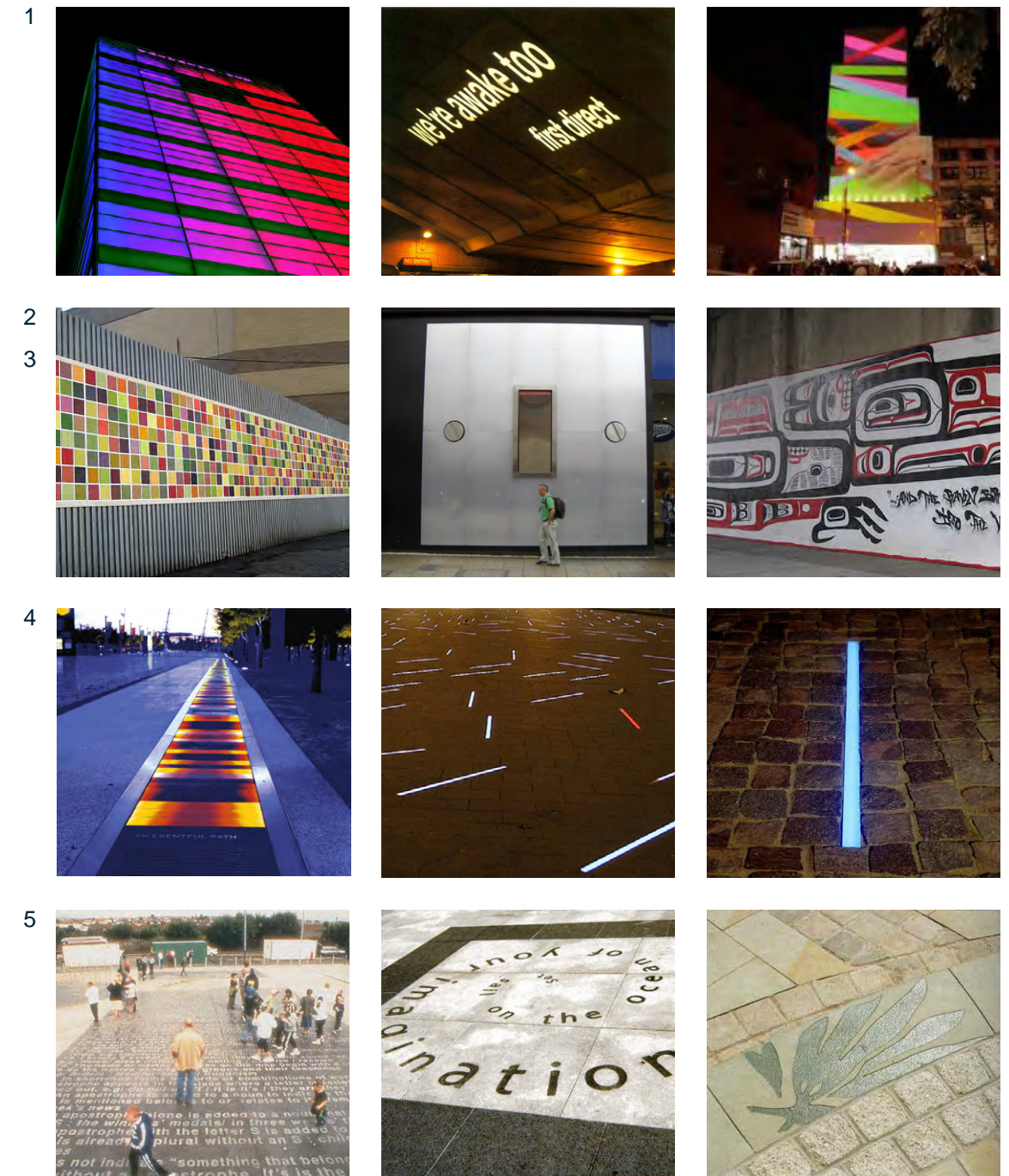
The communal facade immediately to the North of the of the entrance to the Exchange Shopping Centre could be developed as a major focal element in Ilford.

Walls adjacent to the western entrance from York Road could be animated by artists.

Construction hoardings could be decorated by artists.

Feature lighting could be incorporated into the central space or the space fronting the entrance from York Road. Lighting integrated to the pavement of both entrances would help to give a safer and more welcoming feeling to Ilford town centre at night. York Road is narrow and the dark alleyway to the bridge could feel safer and could provide a more stimulating gateway to the station.

Art could be integrated within surfacing materials at the Station Entrance on Cranbrook Road. Due to the high level of pedestrian footfall, any work here would need to be flush with adjacent paving. Opportunities exist to create a theme that ties into the history of Ilford or the station itself.



PRELIMINARY COST ESTIMATE

These estimates are based on the delivery of similar schemes and have been established for the purposes of agreeing budgets for public realm / landscape schemes. They are based on a general understanding of the area, and it is noted that no surveys, site investigations or details are currently available for consideration.

The good quality materials specified within this document have been included for within these costs, and estimated on the base of similar schemes deliveries.

An allowance has been made for lighting, feature lighting and artworks which we believe may be appropriate to the area. This excludes any work to buildings.

Cost have been identified for 10 areas with work potentially implemented at different times.

SHORT TERM : 1 - 2 - 8

(Highlighted in pink on the adjacent plan)

Stations Entrances (1 and 8) with the southern section of Cranbrook Road (2).

Please note that work on the footway widening of area 1 to Area 2 would needs to be done at the same time.

MEDIUM TERM : 4 - 6 - 7

High Road footway widening at bus stop L (6) to enhance pedestrian comfort levels.

York Road (7) help to connect both stations entrances.

Balfour Road (4).

LONG TERM : 3 - 5 - 6 - 9 - 10

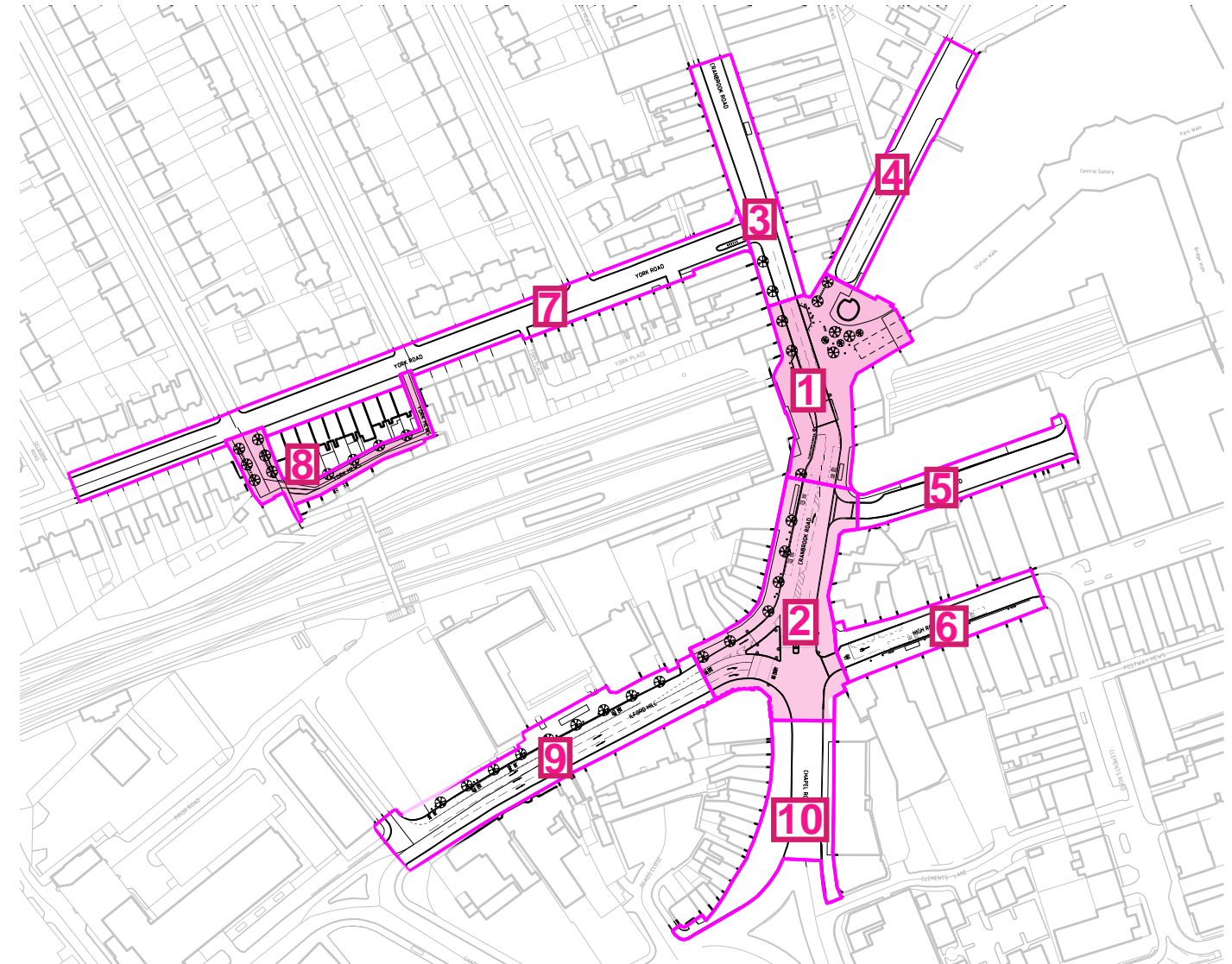
The northern part of Cranbrook Road, Station Road, Chapel Road and Ilford Hill.

These estimates include a 15% contingency allowance and exclude the following:

- Unforeseen ground conditions
- Archeological work
- Extensive contaminated
- Extensive groundworks and drainage
- Works / diversions to utility services
- CCTV
- Price inflation
- Local authority fees and charges
- Value added tax
- Design fees

It is additionally noted :

- 1 - That a new bridge from York Road would cost :
c. £2,8 Million.
- 2 - Lifts are estimated to cost: c. £150-200 K each.
- 3 - That stairs at the southern end of the existing Network Rail bridge might cost : c. £150 K.
- 4 - Ramped cycle access to Network Rail cycle parking on Platform 1 c. £45,000



LOCATION	AREA (m2)	PRICE	PRICE / m2
1 - Cranbrook Road Station Entrance piazza	2685	£1,139,493.60	424
2 - Cranbrook Road South	3377	£867,450.75	257
3 - Cranbrook Road North	1647	£350,492.40	213
4 - Balfour Road	1512	£221,200.20	146
5 - Station Road	1302	£314,391.60	241
6 - High Road	1469	£340,735.80	232
7 - York Road (area may change)	3790	£456,393.60	120
8 - York Mews	940	£493,053.30	525
9 - Ilford Hill	3040	£588,585.87	194
10 - Chapel Road	1997	£377,485.20	189
TOTAL	21756	£5,149,485.20	254

CONCLUSION AND NEXT STEPS



The urban realm scheme design contained in this report seeks to deliver a high quality pedestrian experience that integrates Ilford Station with its wider surroundings and the town centre as a whole. The design has been developed in full cooperation with Network Rail and Crossrail, who are responsible for the improvements to the station itself. The work has been supervised by the Urban Realm Steering Group led by CRL. The next stages of design are likely to be led or coordinated by LB Redbridge.

The main feature of this masterplan, a more generous decluttered and pedestrian friendly space along Cranbrook Road, aims to create a simple, uncluttered and continuous new streetscape. The proposed design would reinforce Ilford's perception both as a destination, with its lively town centre, and as a gateway, through an enhanced and improved Interchange with its many transport links.

This design has been reviewed by Urban Design London / TfL panel on 9 Feb 2012. The scheme has received positive comments on the collaborative approach, in line with Crossrail's Memorandum of Understanding, and captures the opportunity to create a high quality new piece of urban improvement from the existing situation. In light of the large consensus among all parties around the masterplan proposals, it is envisaged that these will form the basis for any further detailed design.

CDM documentation has been produced in the form of a risk register and a Pre-construction Information Pack, in line with CRL's CDM process. These documents have been issued separately and will be handed over to LB Redbridge in due course.

As part of the continuing design development to detail, stakeholder discussions will need to be maintained to identify funding opportunities, implementation considerations and a phasing strategy.



ILFORD CROSSRAIL: APPENDIX

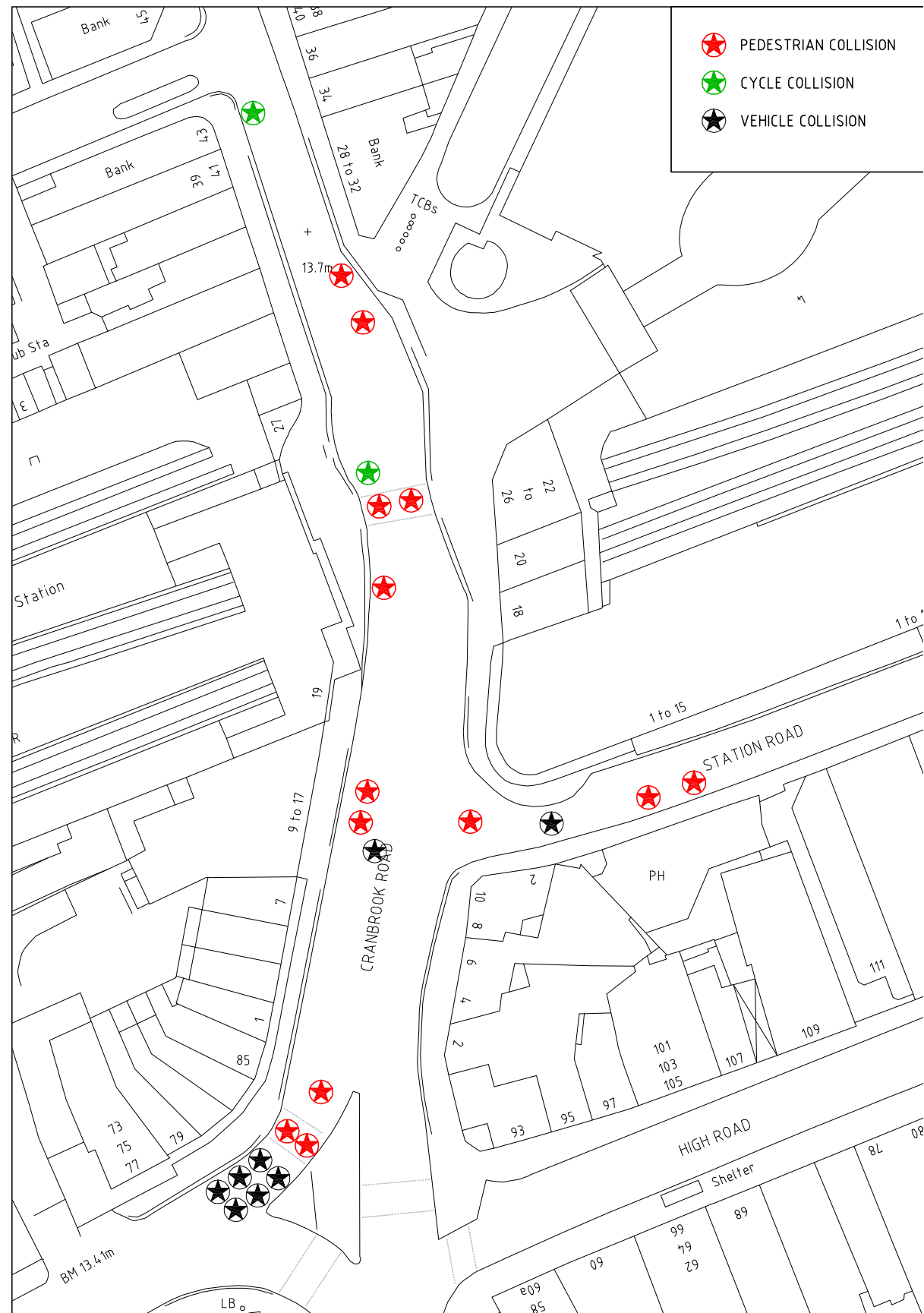
Ilford Town Centre Collision data.

Potential Development Setbacks

Urban Realm Preliminary Cost Estimate by
area

Stage D Drawings

ILFORD TOWN CENTRE COLLISION DATA



Collision data for the latest three year period to March 2011 was obtained from TfL. A total of 65 collisions were recorded in the wider study area around Ilford Station and these are summarised in the table below

Accident Type	Fatal	Serious	Slight	Total	%
Pedestrian	0	4	21	25	38%
Cyclist	0	0	4	4	6%
Bus Passenger	0	0	4	4	6%
Wet	0	3	9	12	18%
Dark	0	2	17	19	29%
TOTAL	0	4	61	65	

Pedestrians were involved in 37% of these collisions which is above the average of 22% for "all sites" on borough roads in outer London. No fatal collisions were recorded over the last three years although 4 of the collisions were classed as serious, all involving pedestrians.

24 of the collisions occurred in the section of Cranbrook Road between Ilford Hill and York Road in the immediate vicinity of the station. The location of these accidents has been plotted on the adjacent plan. 13 of these collisions involved pedestrians and these were recorded at the following locations:

- 2 collisions at the existing pelican crossing by the station entrance
- 4 collisions in the section of Cranbrook Road to the south of the pelican crossing
- 3 collisions in the section of Cranbrook Road to the north of the pelican crossing
- 2 collisions at the junction with Ilford Hill
- 2 collisions in Station Road, both caused by reversing vehicles

A cluster of shunt accidents was also recorded on the eastbound Ilford Hill approach to the Cranbrook Road junction. 2 cycle accidents were also recorded on Cranbrook Road to the north of the existing pelican crossing.

Collision data for the last three years was also obtained for the junction of Clements Road and High Road. Whilst this location is outside the study area, it was highlighted as having a road safety issue in an internal TfL note. Three collisions were recorded at this location, including a 'serious' collision. Two out of the three collisions involved injury to a pedestrian and were as a result of a bus hitting a pedestrian.

The proposed scheme is expected to reduce the level of accidents involving pedestrians by the reduction in carriageway width, relocation of pedestrian crossing to the pedestrian desire line and improved pedestrian crossing signal timings at all controlled crossings. Traffic signal visibility can be improved to reduce shunt accidents on the Ilford Hill eastbound approach to Cranbrook Road.

POTENTIAL DEVELOPMENT SETBACKS

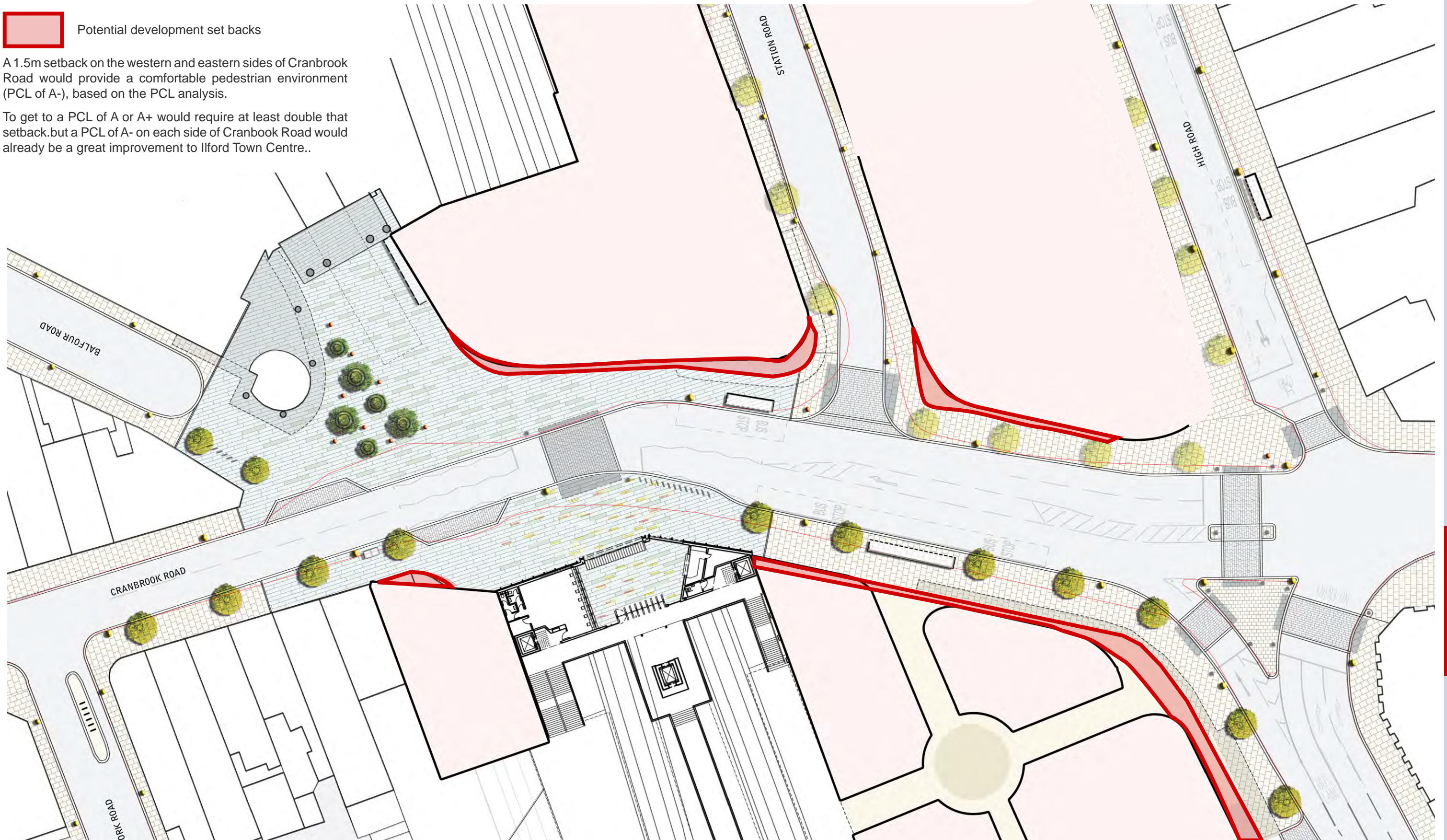
PRELIMINARY



Potential development set backs

A 1.5m setback on the western and eastern sides of Cranbrook Road would provide a comfortable pedestrian environment (PCL of A-), based on the PCL analysis.

To get to a PCL of A or A+ would require at least double that setback, but a PCL of A- on each side of Cranbrook Road would already be a great improvement to Ilford Town Centre.



SAFEGUARDING STUDY

ACCESS TO EXISTING AND POTENTIAL FOOTBRIDGES OVER THE RAIL CORRIDOR

This section illustrates a more detailed study to establish safeguarding zones for access to new potential public routes over the rail tracks between Ilford Hill and York Mews.

The findings of this study should inform LB Redbridge's discussions with developers for sites in this area as well as help identify local opportunities and constraints.

As shown on the adjacent plan, in order to safeguard access an area of approximately 5m wide alongside platform 1 (red dotted line) should be kept free of obstacles to allow for the construction of the any future landing structures. The plan shows the existing footbridge in red, with a new landing structure; a new built footbridge is shown indicatively in blue although the exact configuration and orientation of such bridge may vary as indicated by the width of the light blue area.

The new footbridge could be orientated either towards the Icon building, 39 Ilford Hill, or towards Valentine House.

All solutions should carefully consider the connections to Chapel Road, Ilford Hill, as well as to Ilford Town centre and the new residential tower on the former Pioneer Market site.

The potential new bridge landing should:

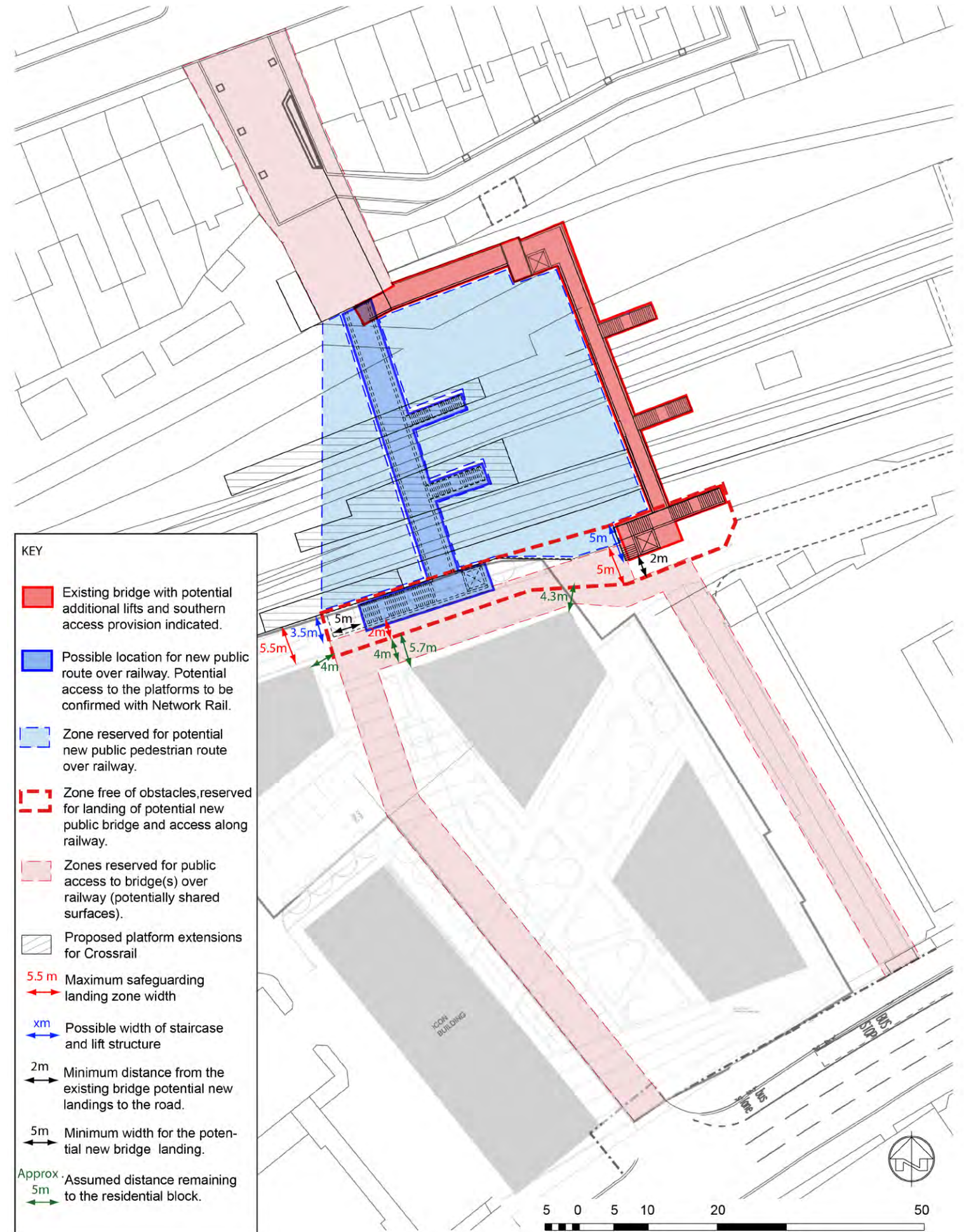
- Avoid pinch point with adjacent buildings.
- Allow for a vehicular access form Mill Road to Valentine House
- Allow for a pedestrian landing area, at the bottom of the stairs and lifts.

The links and areas highlighted in pink should be protected in order to safeguard safe pedestrian access with clear visibility of the new public routes.

It is suggested that these could potentially be treated as shared surfaces with restricted vehicular access (i.e. servicing and resident access only).

The following page shows the existing and assumed levels of the bridges, platforms and landings.

Please refer to pages 50 to 56 of the report for the overall approach to the new public route options.



SAFEGUARDING STUDY

ACCESS TO EXISTING AND POTENTIAL FOOTBRIDGES OVER THE RAIL CORRIDOR



KEY

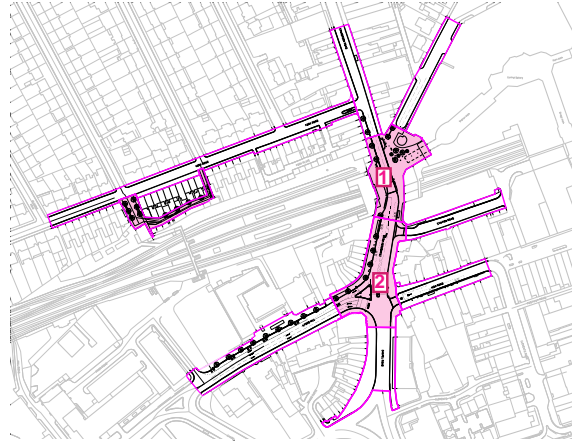
111.51 x Existing Level

110.53 x Assumed future bridge and platforms levels

OFFICES

PRELIMINARY COST ESTIMATE

COST ESTIMATE FOR EACH AREA

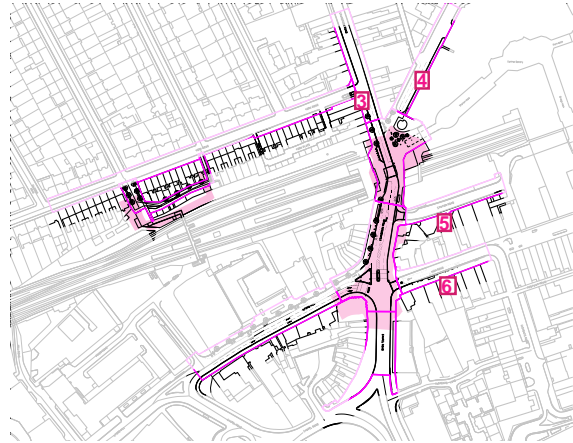


AREA 1 CRANBROOK ROAD STATION ENTRANCE	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance, Excavations and Filling				
Site clearance	2685	m2	£45.00	£120,825.00
Hard Paving				
Level surfaces, works to achieve design levels	2685	m2	£5.00	£13,425.00
Supply and install new granite paving to footways on mortar bed and concrete foundation	1940	m2	£190.00	£368,600.00
Supply and install new granite setts to loading bays on mortar bed and concrete foundation	52	m2	£150.00	£7,800.00
Supply and install new granite setts to crossings on mortar bed and concrete foundation	60	m2	£150.00	£9,000.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	199	l/m	£130.00	£25,870.00
Works to Asphalt carriageway	541	m2	£50.00	£27,050.00
Allowance for road line markings	1	item	£5,000.00	£5,000.00
Allowance for adapting existing drainage	1	item	£33,500.00	£33,500.00
Softworks				
Tree planting - supply 30-35cm girth trees, prepare pits, underground anchoring, tree pit drainage, planting in hard landscape, resin bound gravel surface	11	unit	£2,000.00	£22,000.00
Furniture				
Granite circular seating walls diameter 2400mm	3	unit	£4,000.00	£12,000.00
Granite circular seating walls diameter 1800mm	3	unit	£3,500.00	£10,500.00
Litter bin	3	unit	£450.00	£1,350.00
Cycle Racks	19	unit	£200.00	£3,800.00
Legible London monolith sign	1	unit	£7,000.00	£7,000.00
Relocated existing public phone	2	unit	£1,000.00	£2,000.00
Street Art	1	item	£10,000.00	£10,000.00
Lighting				
New lighting columns to LBR spec for highway (type 1)	4	unit	£8,000.00	£32,000.00
New feature small lighting columns to Piazza	8	unit	£3,000.00	£24,000.00
New feature lighting fitted to Piazza pavement	1	item	£20,000.00	£20,000.00
EDF Connections, ducting, cabling and jointing	1	unit	£20,000.00	£20,000.00
Miscellaneous	1	unit	£10,000.00	£10,000.00
New traffic signal (and removal of existing) at new crossing	1	item	£40,000.00	£40,000.00
TOTAL FOR WORKS				£825,720.00
Contractors prelims / overheads 20%		item		£165,144.00
On site contingency 10%		item		£99,086.40
Design contingency 5%		item		£49,543.20
Grand Total - implementation				£1,139,493.60

AREA 2 CRANBROOK ROAD SOUTH	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance				
Site clearance	3377	m2	£45.00	£151,965.00
Hard Paving				
Level surfaces, works to achieve design levels	3377	m2	£5.00	£16,885.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	1303.1	m2	£75.00	£97,732.50
Supply and install new granite setts to crossings on mortar bed and concrete foundation	218.5	m2	£150.00	£32,775.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	346	l/m	£130.00	£44,980.00
Works to Asphalt carriageway	1720	m2	£50.00	£86,000.00
Allowance for road line markings	1	item	£5,000.00	£5,000.00
Allowance for adapting existing drainage	1	item	£60,000.00	£60,000.00
Softworks				
Tree planting - supply 30-35cm girth trees, prepare pits,	6	unit	£2,000.00	£12,000.00
Furniture				
Litter bin	5	unit	£450.00	£2,250.00
Legible London monolith sign	1	unit	£7,000.00	£7,000.00
Relocated existing public phone	2	unit	£1,000.00	£2,000.00
New Bus Shelter 4 bay to TFL spec	1	unit	£15,000.00	£15,000.00
New Bus shelter 8 bay (including removal of 2 existing) to TLF spec.	1	item	£30,000.00	£30,000.00
Lighting				
New lighting columns to LBR spec for highway (type 1)	8	unit	£5,000.00	£40,000.00
EDF Connections, ducting, cabling and jointing	1	unit	£20,000.00	£20,000.00
Relocation of traffic signal (and removal of existing) at new crossing	1	item	£5,000.00	£5,000.00
TOTAL FOR WORKS				£628,587.50
Contractors prelims / overheads 20%		1 item		£125,717.50
On site contingency 10%		1 item		£75,430.50
Design contingency 5%		1 item		£37,715.25
Grand Total - implementation				£867,450.75

PRELIMINARY COST ESTIMATE

COST ESTIMATE FOR EACH AREA



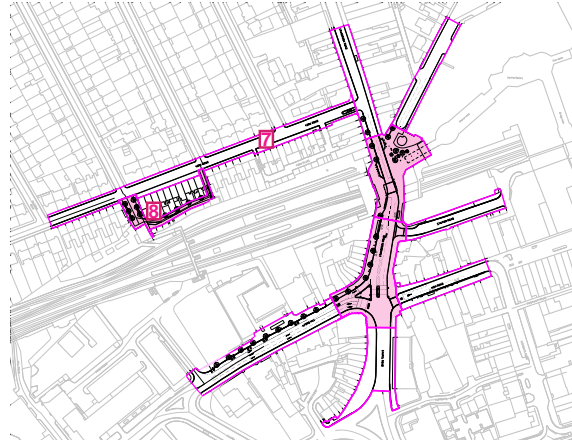
AREA 3 CRANBROOK ROAD NORTH	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance				
Site clearance	1647	m2	£35.00	£57,645.00
Hard Paving				
Level surfaces, works to achieve design levels	1647	m2	£5.00	£8,235.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	764	m2	£75.00	£57,300.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	200	l/m	£130.00	£26,000.00
Works to Asphalt carriageway	820	m2	£50.00	£41,000.00
Allowance for road line markings	1	item	£4,000.00	£4,000.00
Allowance for adapting existing drainage	1	item	£5,000.00	£5,000.00
Softworks				
Tree planting - supply 30-35cm girth trees, prepare pits, underground anchoring, tree pit drainage, planting in hard landscape, resin bound gravel surface	7	unit	£2,000.00	£14,000.00
Lighting				
New lighting columns to LBR spec for highway (type 1)	5	unit	£5,000.00	£25,000.00
EDF Connections, disconnections, ducting, cabling and jointing	1	unit	£10,000.00	£10,000.00
Furniture				
Litter bin	4	unit	£450.00	£1,800.00
Finger post signage	2	item	£2,000.00	£4,000.00
TOTAL FOR WORKS				
				£253,980.00
Contractors prelims / overheads 20%	1	item		£50,796.00
On site contingency 10%	1	item		£30,477.60
Design contingency 5%	1	item		£15,238.80
Grand Total - implementation				
				£350,492.40
AREA 4 BALFOUR ROAD				
QUANTITY	UNIT	£ RATE	£ TOTAL	
Site Clearance, Excavations and Filling				
Site clearance	1000	m2	£25.00	£25,000.00
Hard Paving				
Level surfaces, works to achieve design levels	1512	m2	£5.00	£7,560.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	449	m2	£75.00	£33,675.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	98.5	l/m	£130.00	£12,805.00
Works to Asphalt carriageway	1045	m2	£50.00	£52,250.00
Allowance for road line markings	1	item	£1,000.00	£1,000.00
Allowance for adapting existing drainage	1	item	£5,000.00	£5,000.00
Lighting				
New lighting columns to LBR spec for highway (type 2)	6	unit	£3,000.00	£18,000.00
EDF Connections, disconnections, ducting, cabling and jointing	1	unit	£5,000.00	£5,000.00
TOTAL FOR WORKS				
				£160,290.00
Contractors prelims / overheads 20%	1	item		£32,058.00
On site contingency 10%	1	item		£19,234.80
Design contingency 5%	1	item		£9,617.40
Grand Total - implementation				
				£221,200.20

AREA 5 STATION ROAD	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance, Excavations and Filling				
Site clearance	1302	m2	£45.00	£58,590.00
Hard Paving				
Level surfaces, works to achieve design levels	1302	m2	£5.00	£6,510.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	538	m2	£75.00	£40,350.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	189	l/m	£130.00	£24,570.00
Works to Asphalt carriageway	706	m2	£50.00	£35,300.00
Allowance for road line markings	1	item	£1,000.00	£1,000.00
Allowance for adapting existing drainage	1	item	£16,500.00	£16,500.00
Lighting				
New lighting columns to LBR spec for highway (type 2)	10	unit	£3,000.00	£30,000.00
EDF Connections, disconnections, ducting, cabling and jointing	1	unit	£15,000.00	£15,000.00
TOTAL FOR WORKS				
				£227,820.00
Contractors prelims / overheads 20%	1	item		£45,564.00
On site contingency 10%	1	item		£27,338.40
Design contingency 5%	1	item		£13,669.20
Grand Total - implementation				
				£314,391.60

AREA 6 HIGH ROAD	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance, Excavations and Filling				
Site clearance	1469	m2	£35.00	£51,415.00
Hard Paving				
Level surfaces, works to achieve design levels	1469	m2	£5.00	£7,345.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	754	m2	£75.00	£56,550.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	170	l/m	£130.00	£22,100.00
Works to Asphalt carriageway	663	m2	£50.00	£33,150.00
Allowance for road line markings	1	item	£3,000.00	£3,000.00
Allowance for adapting existing drainage	1	item	£18,000.00	£18,000.00
Furniture				
Litter bin	3	unit	£450.00	£1,350.00
Signage	2	item	£2,000.00	£4,000.00
Bus Shelter 4 bay to TFL spec	1	item	£15,000.00	£15,000.00
Lighting				
New lighting columns to LBR spec for highway (type 1)	4	unit	£5,000.00	£20,000.00
EDF Connections, ducting, cabling and jointing	1	unit	£15,000.00	£15,000.00
TOTAL FOR WORKS				
				£246,910.00
Contractors prelims / overheads 20%	1	item		£49,382.00
On site contingency 10%	1	item		£29,629.20
Design contingency 5%	1	item		£14,814.60
Grand Total - implementation				
				£340,735.80

PRELIMINARY COST ESTIMATE

COST ESTIMATE FOR EACH AREA

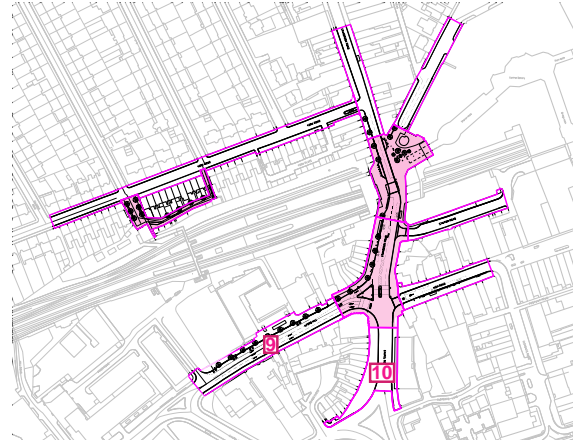


AREA 7 YORK ROAD	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance	3790	m2	£5.00	£18,950.00
Hard Paving				
Level surfaces, works to achieve design levels	3790	m2	£5.00	£18,950.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	1314	m2	£75.00	£98,550.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	535	l/m	£130.00	£69,550.00
Localised repair and improvement works to asphalt carriageway	2356	m2	£20.00	£47,120.00
Allowance for road line markings	1	item	£2,000.00	£2,000.00
Allowance for adapting existing drainage	1	item	£5,000.00	£5,000.00
Softworks				
Tree planting - supply 30-35cm girth trees, prepare pits, underground anchoring, tree pit drainage, planting in hard landscape, resin bound gravel surface	13	unit	£1,500.00	£19,500.00
Furniture				
Litter bin	2	unit	£450.00	£900.00
Relocated Cycle Racks	6	unit	£200.00	£1,200.00
Finger post Signage	2	item	£2,000.00	£4,000.00
Lighting				
New lighting columns to LBK spec for residential street (type 2)	10	unit	£3,000.00	£30,000.00
EDF Connections, ducting, cabling and jointing	1	unit	£15,000.00	£15,000.00
Feature Elements				
TOTAL FOR WORKS				£330,720.00
Contractors prelims / overheads 20%	1	item		£66,144.00
On site contingency 10%	1	item		£39,686.40
Design contingency 5%	1	item		£19,843.20
Grand Total - implementation				£456,393.60

AREA 8 YORK MEWS	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance				
Site clearance	940	m2	£45.00	£42,300.00
Hard Paving				
Level surfaces, works to achieve design levels	940	m2	£5.00	£4,700.00
Supply and install new granite setts to plaza shared footways / carriageway on mortar bed and concrete foundation	426	m2	£150.00	£63,900.00
Supply and install new granite setts to mews shared footways / carriageway on mortar bed and concrete foundation	514	m2	£150.00	£77,100.00
Supply and install new granite setts to mews shared footways / carriageway on mortar bed and concrete foundation				
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	251.5	l/m	£130.00	£32,695.00
Allowance for adapting existing drainage	1	item	£12,000.00	£12,000.00
Softworks				
Tree planting - supply 30-35cm girth trees, prepare pits, underground anchoring, tree pit drainage, planting in hard landscape, resin bound gravel surface	10	unit	£2,000.00	£20,000.00
Soft landscape preparation	28	m3	£10.00	£280.00
Shrub planting	28	m2	£40.00	£1,120.00
Mulch	28	m2	£5.00	£140.00
Topsoil	30	m3	£35.00	£1,050.00
Furniture				
Granite cube seating	3	unit	£1,000.00	£3,000.00
Granite seating walls	42	unit	£550.00	£23,100.00
Litter bin	2	unit	£450.00	£900.00
Cycle Racks	15	unit	£200.00	£3,000.00
Street Art	1	item	£10,000.00	£10,000.00
Finger post Signage	2	item	£2,000.00	£4,000.00
Lighting				
New lighting columns to Piazza	9	unit	£3,000.00	£27,000.00
EDF Connections, disconnections, ducting, cabling and jointing	1	unit	£7,000.00	£7,000.00
New feature lighting fitted to Piazza pavement	1	item	£15,000.00	£15,000.00
TOTAL FOR WORKS				£348,285.00
Contractors prelims / overheads 20%	1	item		£69,657.00
On site contingency 10%	1	item		£41,794.20
Design contingency 5%	1	item		£20,897.10
Grand Total - implementation				£480,633.30

PRELIMINARY COST ESTIMATE

COST ESTIMATE FOR EACH AREA



AREA 9 ILFORD HILL	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance, Excavations and Filling				
Site clearance	3040	m2	£25.00	£76,000.00
Hard Paving				
Level surfaces, works to achieve design levels	3040	m2	£5.00	£15,200.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	1215.3	m2	£75.00	£91,147.50
Supply and install new concrete setts to crossings on sand bed and hardcore foundation	93.6	m2	£70.00	£6,552.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	287.4	l/m	£130.00	£37,362.00
Works to Asphalt carriageway	1680	m2	£50.00	£84,000.00
Allowance for road line markings	1	item	£2,000.00	£2,000.00
Allowance for adapting existing drainage	1	item	£10,000.00	£10,000.00
Softworks				
Tree planting - supply 30-35cm girth trees, prepare pits, underground anchoring, tree pit drainage, planting in hard landscape, resin bound gravel surface	9	unit	£2,000.00	£18,000.00
Furniture				
Litter bin	5	unit	£450.00	£2,250.00
Finger post Signage	2	item	£2,000.00	£4,000.00
Bus Shelter 4 bay to TFL spec	1	item	£15,000.00	£15,000.00
Lighting				
New lighting columns to LBR spec for highway	8	unit	£5,000.00	£40,000.00
EDF Connections, disconnections, ducting, cabling and jointing	1	unit	£15,000.00	£15,000.00
TOTAL FOR WORKS				£416,511.50
Contractors prelims / overheads 20%	1	item		£83,302.30
On site contingency 10%	1	item		£49,981.38
Design contingency 5%	1	item		£24,990.69
Grand Total - implementation				£574,785.87

AREA 10 CHAPEL ROAD	QUANTITY	UNIT	£ RATE	£ TOTAL
Site Clearance, Excavations and Filling				
Site clearance	1997	m2	£25.00	£49,925.00
Hard Paving				
Level surfaces, works to achieve design levels	1997	m2	£5.00	£9,985.00
Supply and install new concrete paving to footways on sand bed and hard core sub base	1253	m2	£75.00	£93,975.00
Supply and install new granite kerb 300 x 900 x 200mm units, silver grey colour	188.5	l/m	£130.00	£24,505.00
Works to Asphalt carriageway	534	m2	£50.00	£26,700.00
Allowance for road line markings	1	item	£2,000.00	£2,000.00
Allowance for adapting existing drainage	1	item	£10,000.00	£10,000.00
Softworks				
Tree planting - supply 30-35cm girth trees, prepare pits, underground anchoring, tree pit drainage, planting in hard landscape, resin bound gravel surface	3	unit	£2,000.00	£6,000.00
Furniture				
Litter bin	1	unit	£450.00	£450.00
Finger post Signage	0	item	£2,000.00	£0.00
Lighting				
New lighting columns to LBR spec for highway	7	unit	£5,000.00	£35,000.00
EDF Connections, disconnections, ducting, cabling and jointing	1	unit	£15,000.00	£15,000.00
TOTAL FOR WORKS				£273,540.00
Contractors prelims / overheads 20%	1	item		£54,708.00
On site contingency 10%	1	item		£32,824.80
Design contingency 5%	1	item		£16,412.40
Grand Total - implementation				£377,485.20



ILFORD CROSSRAIL: STAGE D DRAWINGS

Public Realm Masterplan

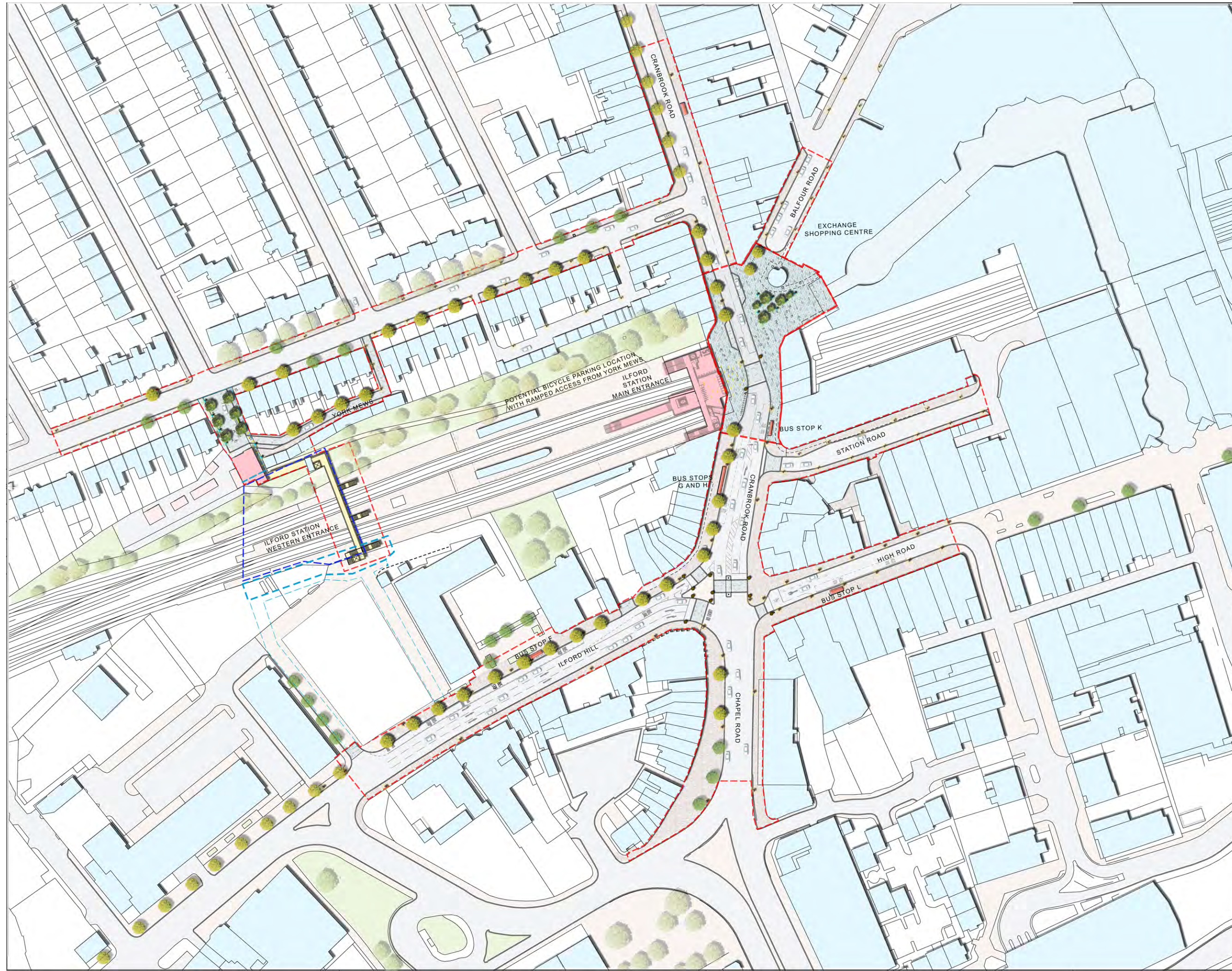
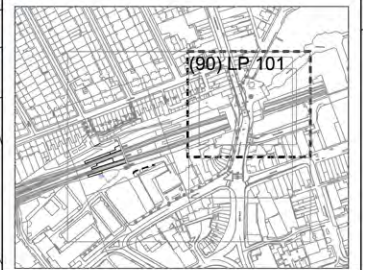
Main Station Entrance General
Arrangement Plan

BUILDING DESIGN PARTNERSHIP SHALL HAVE NO RESPONSIBILITY FOR ANY USE MADE OF THIS DOCUMENT OTHER THAN FOR THAT WHICH IT WAS PREPARED AND ISSUED.
 ALL DIMENSIONS SHOULD BE CHECKED ON SITE.
 DO NOT SCALE FROM THIS DRAWING.
 ANY DRAWING ERRORS OR DIVERGENCES SHOULD BE BROUGHT TO THE ATTENTION OF BUILDING DESIGN PARTNERSHIP AT THE ADDRESS SHOWN BELOW.

NOTES

- Stage C Boundary
- Stage D Boundary
- Zone reserved for potential new public route over railway
- Zone free of obstacles, reserved for landing of potential new bridge and access along the railway
- Zone reserved for public access to bridge(s) over railway (potentially shared surfaces).
- Rectangular Granite Units to central space and approach to western entrance
- Granite setts to loading / setting down pads
- Concrete paving slabs in continuity with ELT paving material
- Asphalt to carriageways
- Existing trees in private and public green spaces
- Existing street trees
- Proposed feature trees to station plazas
- Proposed street trees
- Potential proposed street trees outside the study area for long term streets enhancements
- Traffic lights
- Proposed lighting columns
- Proposed feature lighting to plazas
- Bus Stops

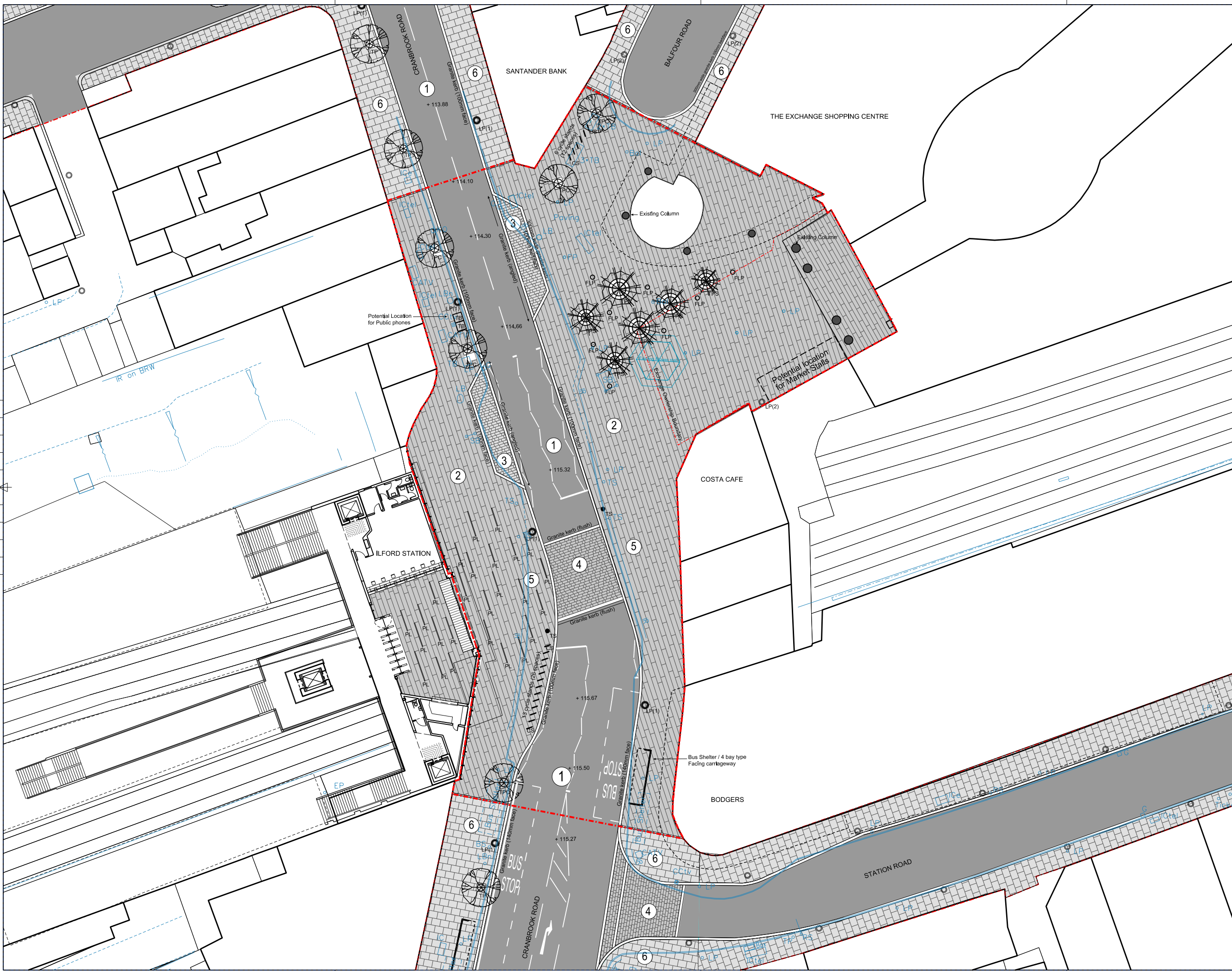
REVISION B	PRG	NE	09/03/12
REVISION A	PRG	NE	09/02/12
FIRST ISSUE	PRG	NE	23/12/11



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ILFORD CROSSRAIL URBAN INTEGRATION STUDY	
PUBLIC REALM MASTERPLAN	SCALE @ A1 1:750
DATE 23.12.11	REVISION B
PROJECT NUMBER P2004687	PROJECT TITLE (90)LP100

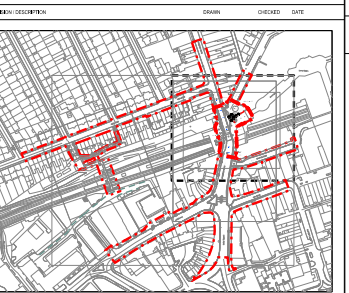


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 DO NOT SCALE FROM THIS DRAWING.
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NOTES

- To be read in conjunction with drawings:
 (90)LP100 Public Realm Masterplan
 (90)LP101 Main Station Entrance Plaza General Arrangement Plan
- Legend
- - - Stage C Boundary
 - - - Stage D Boundary
 - - - Ownership Boundary (to be verified)
 - Existing kerb line and existing furniture removed or relocated
 - Existing levels retained
- +114.10 Existing levels retained
- 1 Asphalt Carriageway
 - 2 Rectangular granite sets to central space, 150mm wide, random lengths, and depth to be confirmed c. 75 to 100mm. Fine polished top, sawn sides. 3 colour mix of dark grey, 6mm joints.
 - 3 Granite Sets to loading / setting down pads, 150mm wide x 250mm x 150mm. Fine polished top, sawn sides. 3 colour mix of light grey, 6mm joints.
 - 4 Granite Sets to pedestrian crossings, 150mm x 250mm x 180mm. Fine polished top, sawn sides. 3 colour mix of dark grey, 6mm joints.
 - 5 Tactile paving. Tooled granite in a contrasting tone.
 - 6 Concrete paving slabs, as per Ilford Hill and Chapel Road.
 - 7 Low shrub and ground cover planting to feature trees, circular tree pits.
 - 8 Proposed Street tree. Large medium scale. 30-35cm girth min 2.2m clear stem.
 - 9 Proposed Feature tree. Large medium scale. Feature tree. 30-35cm girth min 2.2m clear stem.
- GENERAL NOTES
 All road kerbs to be granite, typically 300 x 200 x 90mm, silver grey colour. Heights illustrated on plan.
- Telephone Box
 CS Cycle Stand
 TP Tree Pit
 TFS Tree Pit Seat
 TPC Tree Pit Circular
 LB Litter Bin
 LP(1) Lamp Post (Type 1)
 LP(2) Lamp Post (Type 2)
 FLP Feature Lighting Post
 PL Pavement Lighting
 TS Traffic Light

REVISION A ISSUE/ Stage D PRG NE 09/02/11
 FIRST ISSUE/ Stage D Issue PRG NE 23/12/11



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PROJECT FILE
**ILFORD CROSSRAIL
 URBAN INTEGRATION STUDY**
 MAIN STATION ENTRANCE
 GENERAL ARRANGEMENT
 PLAN
 P2003638 (90)LP101 A

SCALE: @ A1
 1:200
 DATE: 23.12.11

