

# M25 Junction 28 Local Impact Report

LONDON BOROUGH OF HAVERING

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## 1 Guidance for the Development of the Local Impact Report

### 1.1 PINS Guidance

- 1.1.1 Guidance from the Planning Inspectorate (Advice note one: LIRs) provides a framework document for London Borough of Havering and its associated consultants to support the preparation of the LIR. PINS Guidance on LIRs is reproduced in part below.
- 1.1.2 “The report should consist of a statement of positive, neutral and negative local impacts, but it does not need to contain a balancing exercise between positives and negatives; nor does it need to take the form of a formal committee report.
- 1.1.3 The Examining Authority (ExA) will carry out a balancing exercise of relevant impacts, and these will include those local impacts specifically reported in the LIR.
- 1.1.4 By setting out clearly evaluated impacts in a structured document, local authorities will assist the ExA by identifying local issues which might not otherwise come to its attention in the examination process.
- 1.1.5 It will also be very helpful to have the local authority’s appraisal of the proposed development’s compliance with local policy and guidance. It would assist the ExA if the local authority is able to give its view on the relative importance of different social, environmental or economic issues and the impact of the scheme on them. Local authorities are well placed to appreciate the impacts of proposals, for example in terms of employment, local services, associated development, or DCO obligations under s174 of the 2008 Act.
- 1.1.6 It will be important for the ExA to have the local authority’s views on DCO articles, requirements and DCO obligations.
- 1.1.7 Where specific mitigation or compensatory measures are proposed by the applicant, by way of suggested DCO articles and requirements; or DCO obligations, these should be identified and commented upon. Local authorities should mention them explicitly.
- 1.1.8 The same applies to DCO articles; requirements; and obligations that the local authority considers ought to be included.
- 1.1.9 Parish councils, organisations and members of the public may have made representations to the local authority or directly to the applicant about the scheme (prompted, for example, by the applicant’s consultation). The LIR could include reference to these representations, but only where they are relevant to a particular local impact which the local authority itself wants to highlight.

- 1.1.10 National Policy Statements (NPSs) may be helpful to local authorities in preparing their LIRs as a guide to matters of local impact that are likely to be relevant to the determination of an application. There is, however, no need for the local authority to undertake an assessment of compliance with an NPS; this would duplicate the ExA's role.
- 1.1.11 Where a NPS is location specific, it will not be possible for all the local impacts of a development proposal to have been considered at the national policy development stage. In such instances, the LIR could assess local impacts not captured in the NPS process, for example on planning, landscape and highway matters. There may be local impacts on sensitive receptors not apparent at the NPS stage, stemming from, for example, the particular layout, design, scale and appearance, or access arrangements of the scheme. The LIR can cross refer to any Statement of Common Ground agreed between the applicant and the local authority. The ExA will encourage parties not to duplicate evidence submitted to it. It is open to the local authority to make representations to the ExA about an NSIP application separately from the LIR if it so chooses" PINS April 2012v2.

## 2 Executive Summary

### 2.1 Introduction

2.1.1 This document forms the London Borough of Havering's LIR and sets out the perceived positive, neutral and negative impacts of the scheme on the borough. It comments on the local policy compliance of the scheme and identifies issues that the scheme will create in the borough. Comments have also been made on the draft DCO itself and mitigation measures LB Havering considers would be appropriate to minimise the impact the scheme will have on the borough.

2.1.2 At the time of writing this report, not all information has been available by the applicant. Once this information does become available, LB Havering intends to inform the ExA of its views in the form of written representations through the Examination timetable.

### 2.2 Borough Context

2.2.1 Through its Corporate Plan, Havering has a 'Vision' for the borough that seeks to position Havering to take advantage of new and emerging opportunities for residents and business. The 'Vision' places Havering as a forward looking, exciting place to work, live and invest, well suited to meeting the London Mayor's agenda for 'Good Growth'.

2.2.2 The 'Vision' has four linked themes: *communities, places, opportunities and connections*. Havering has been greatly encouraged by the strong reception of its 'Vision' within and beyond the borough. The Council has welcomed the positive response from the London Mayor and it is using the 'Vision' as a strong tool in discussions with stakeholders to secure the additional investment in infrastructure improvements that it needs to deliver it.

2.2.3 Havering is located on the north eastern boundary of Greater London and is the third largest London Borough (43 square miles). Most of Havering is within the M25 with part of the east of the borough outside the M25 (Figure 1).

FIGURE 1 WIDER CONTEXT MAP

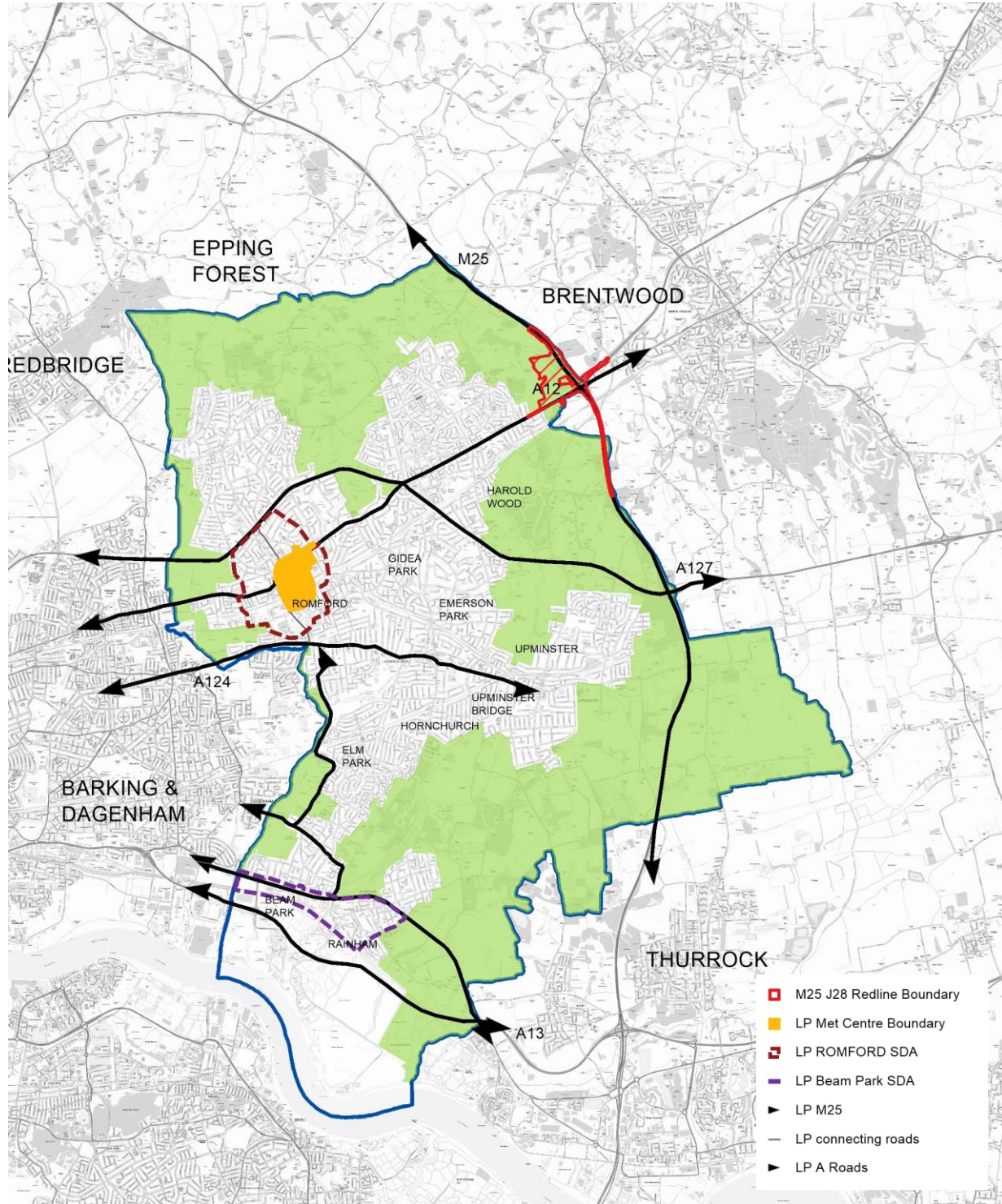


Source: Approved Local Implementation Plan 2010



2.2.4 Figure 2 shows the proposed scheme in the context of Havering. The map shows Havering's road network and Strategic Development Areas (SDA).

FIGURE 2: LOCAL CONTEXT MAP



Source Havering Local Plan

2.2.5 Havering has 18 electoral wards (Figure 3). It is mainly characterised by suburban development. Green Belt forms half of the borough.

FIGURE 3 WARD MAP



Source: Office for National Statistics (ONS); Produced by Public Health Intelligence

2.2.6 Romford is Havering’s principal town and is identified as a metropolitan centre in the London Plan. Romford is identified as an Opportunity Area in the Publication London Plan (2020).

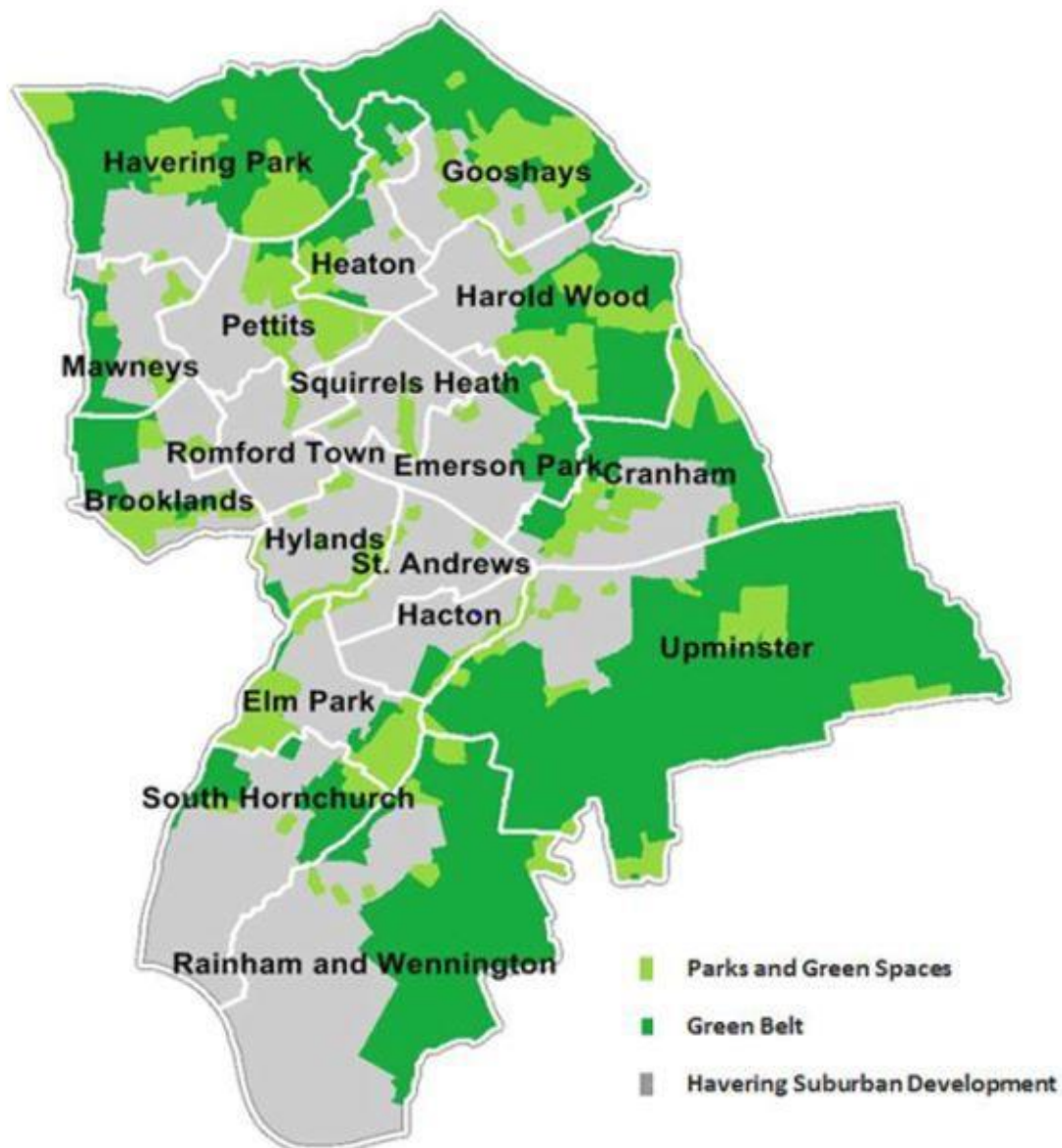
2.2.7 The emerging Local Plan identifies Romford, Rainham and Beam Park as the key areas for growth over the period of the Plan (2016-2031). The Local Plan recognizes this through the designation of two Strategic Development Areas (SDA).

2.2.8 The Romford SDA will accommodate a significant level of housing and economic growth alongside new and enhanced supporting infrastructure. Over the Local Plan period, the Council will support the delivery of 6,000 new high-quality homes in well managed residential and mixed-use schemes that provide attractive places to live and which are well integrated with the existing community.



- 2.2.9 The Rainham and Beam Park SDA provide the opportunity to establish an existing new residential neighbourhood linked to the delivery of a new railway station on the Essex Thameside Line at Beam Park. Further information on the Romford and Rainham and Beam Park SDAs can be found in Chapters 5 and 6 of the [emerging Local Plan](#).
- 2.2.10 Parts of the south of Havering are included within the London Riverside Opportunity Area (OA) and will be an area of increasing development and population change over the next two decades. OAs are London's major source of brownfield land which have significant capacity for development – such as housing or commercial use - and existing or potentially improved public transport access.
- 2.2.11 The [London Riverside Opportunity Area Planning Framework \(OAPF\)](#) (2015) identifies that the area has the capacity to provide 26,500 new homes and 16,000 new jobs across Havering and Barking and Dagenham. In Havering the focus will be on the intensification of industrial land in the Rainham Employment Area and the creation of new residential communities at Rainham and Beam Park. The scope for this comes as a result of the provision of a new rail station to be built at Beam Park and the opportunity to provide space for essential local services. Rainham and Beam Park was granted Housing Zone status by the Mayor of London in 2015 which will help accelerate residential development in the area.
- 2.2.12 The south of the borough also includes the Rainham, Wennington and Aveley Marshes which are the largest remaining expanse of wetland bordering the upper reaches of the Thames Estuary and a Site of Special Scientific Interest (SSSI) with a rich mix of wildlife habitats and species. Beyond the south of the borough is the River Thames.
- 2.2.13 Much of Havering's built up area is suburban housing and includes neighbourhoods with their own distinctive characteristics. These contribute to Havering being a popular and attractive place to live. Havering has extensive areas and buildings of historic and heritage importance.
- 2.2.14 Havering's countryside provides many informal recreation and leisure opportunities such as walking, cycling, horse riding and bird watching. Havering has an extensive green infrastructure network comprising of many natural and semi-natural spaces, parks and gardens, woodland, rivers and their corridors (Figure 3). Such facilities provide opportunities for residents to enjoy healthy and active lifestyles and engage in regular exercise and are promoted through Havering's Prevention of Obesity Strategy.

FIGURE 4 HAVERING'S GREEN SPACES

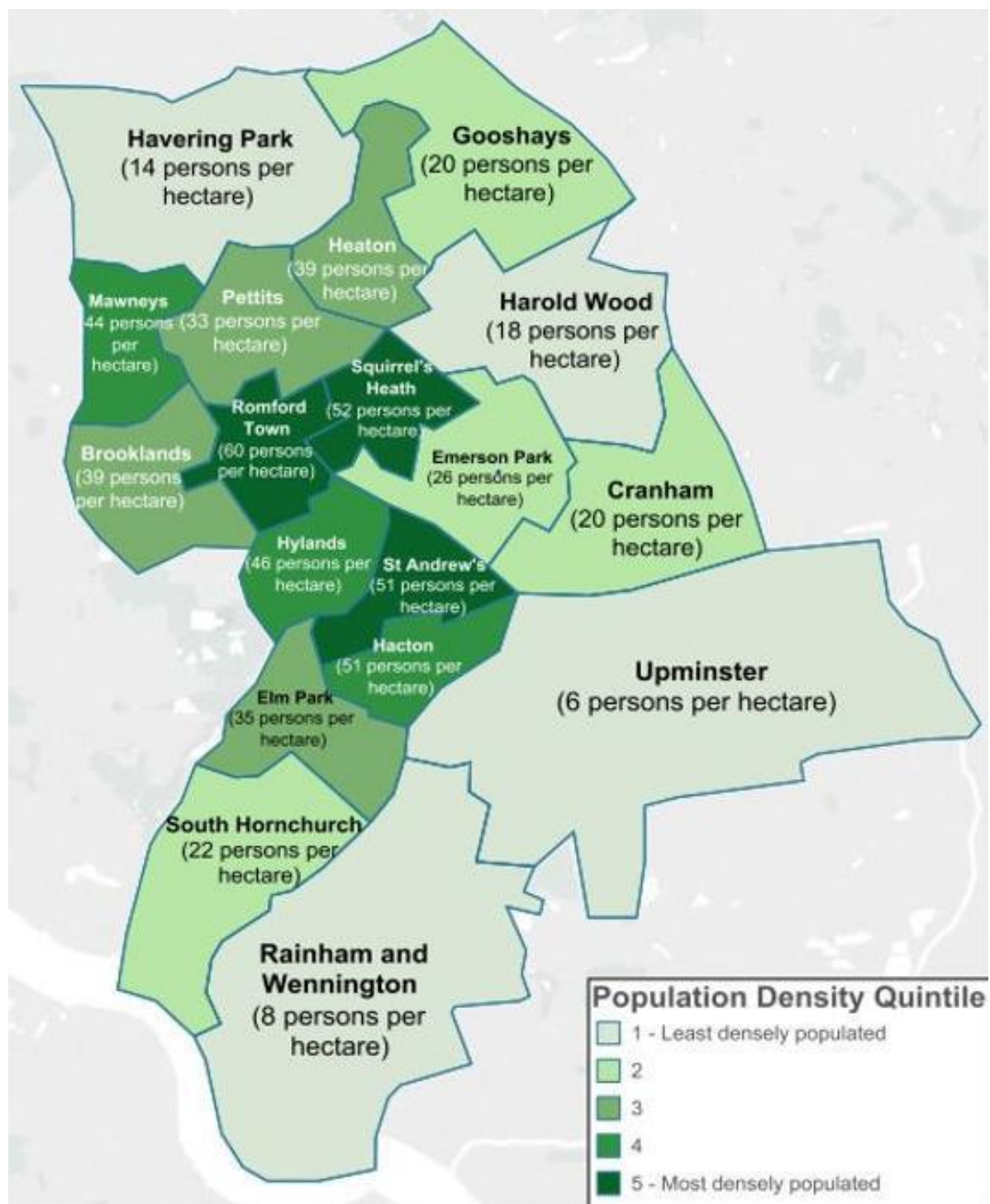


Source: Joint Strategic Needs Assessment

### 2.3 People in Havering

- 2.3.1 Havering's Joint Strategic Needs Assessment (JSNA) provides a detailed shared evidence base for commissioners of services impacting on health and wellbeing.
- 2.3.2 The JSNA sets out details on the demographics of Havering. This includes current population density by ward (Figure 4). Havering has an estimated population over 257,000.

FIGURE 5 POPULATION DENSITY IN HAVERING BY WARD



Source: Joint Strategic Needs Assessment

2.3.3 The largest increases in population growth are expected to occur in children (0 – 17 years) and older people (65 years and above), up to 2033. Table 1 sets out projected percentage population change by age group from 2018 to 2033.

**FIGURE 6 PROJECTED PERCENTAGE POPULATION CHANGE BY AGE GROUP FROM 2018 TO 2033**

<b>Age group</b>	<b>2023</b>	<b>2028</b>	<b>2033</b>
0-4	6%	9%	5%
5-10	12%	20%	19%
11-17	21%	37%	43%
18-24	1%	12%	22%
25-64	6%	10%	10%
65-84	7%	18%	26%
85+	11%	22%	54%

**Source: GLA 2016-based demographic projections – local authority population projection housing-led model; Greater London Authority (GLA); produced by Public Health Intelligence**

2.3.4 The populations in the Romford Town, Brooklands and South Hornchurch wards are expected to increase the most over the next 15 years reflecting residential development planned in the Romford and Rainham areas over the borough over that time period.

2.3.5 Key points about Havering’s population identified in the JSNA include:

- a. Havering has the oldest population in London with the median age at the time of the 2011 census of 39 years.
- b. Since 2002 the population has increased year on year with a 14.5% increase from 2002 – 2018.
- c. Havering has experienced the largest net inflow of children across all London Boroughs (4343 children) in a 7-year period (2011- 2017)
- d. Life expectancy at birth is 79.6 years for males and 84.2 years for females.
- e. Havering is one of the most ethnically homogenous places in London with 83% of its residents recorded as White British which higher than both London and England.
- f. Religion varies across Havering. In the 2011 census, 65% of residents considered themselves Christian with the second highest proportion of residents considered themselves as having no religion (22%).
- g. The latest Office for National Statistics Annual Population Survey (January 2015 – December 2015) identifies that, 19% of working age people disclosed that they have a disability or long term illness which is a similar proportion to England (20%).
- h. Havering is below the national average in terms of the percentage of children that are in low income families with 19% recorded as such in 2014 compared to the national average of England being 23%.

## 2.4 Homes in Havering

2.4.1 The 2016 London Plan set a minimum housing target for Havering of 11,701 new homes to be delivered over the period 2015- 2025. It further states that the annual average increase (1,170) should be rolled forward for the remainder of the plan period. Havering's Local Plan envisages almost 12,000 new homes delivered in the first ten years of the Local Plan in addition to bringing 234 vacant units back into use. A significant proportion of the new housing development will be delivered in the two SDAs for Romford and Rainham and Beam Park.

2.4.2 The Publication London Plan identifies that London will be need at least 66,000 new homes every year to meet its growing needs. Havering's new housing target in the Publication London Plan (2020) is 12,850 new homes over a ten-year period which equates to a minimum annual target of 1,285 units. The Council is planning to build a significant number of new homes in one of the most ambitious local authority home building programmes in the country by means of its twelve estates regeneration programme. The initial programme will deliver over 2,000 new homes.

2.4.3 Key points about households in Havering in the JSNA include:

- a. The Council Tax list (July 2019) identifies 107,933 households in Havering.
- b. Over 70% of the population are home owners which is one of the highest proportions in London.
- c. 32% of the population aged 65 years and above live in one-person households (13,449 persons).
- d. Almost half (48%) of one-person households are occupied by persons aged 65 years and over which is the highest proportion in London.
- e. Havering's housing is mainly Victorian and Edwardian and is generally large with an average of 2.8 bedrooms per household (higher than both London and England).

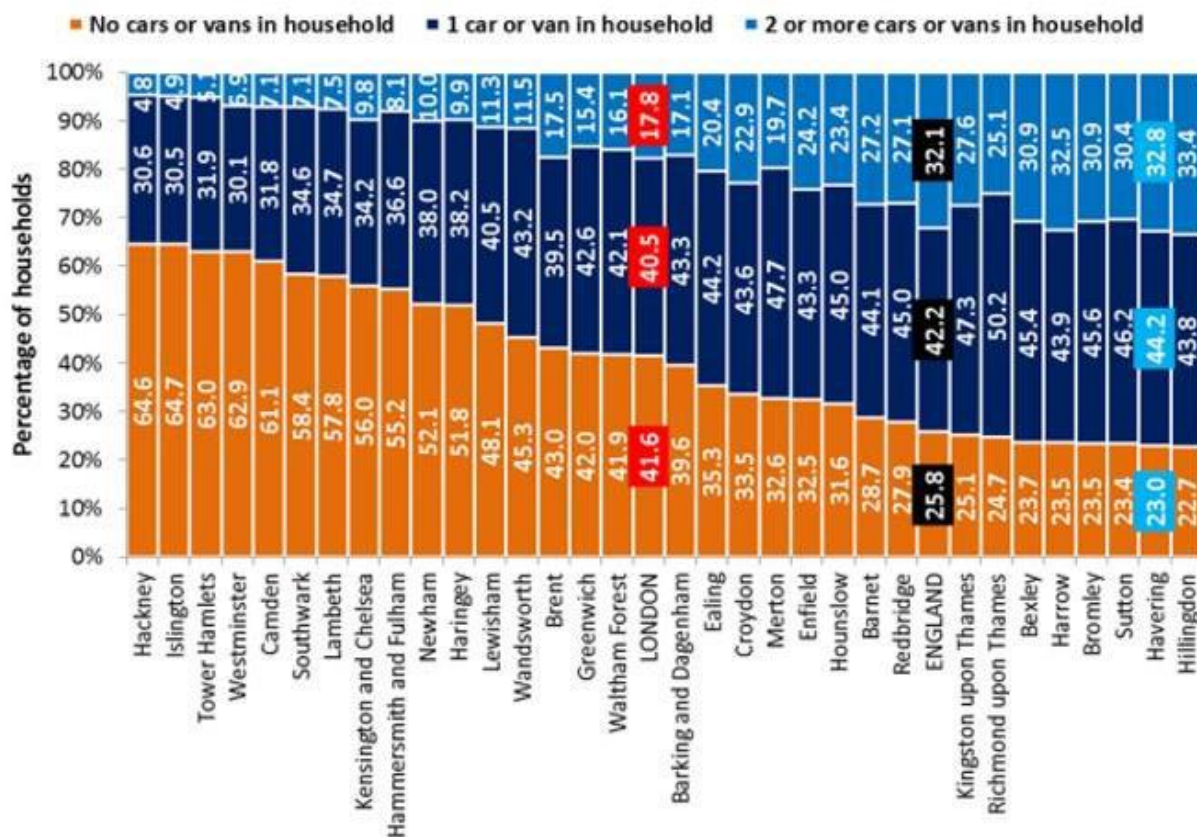
## 2.5 Economy in Havering

2.5.1 Romford is designated as a metropolitan centre in the London Plan and Hornchurch, Upminster, Elm Park, Collier Row, Rainham and Harold Hill are designated as district centres. There is also a network of local centres, shopping parades, and corner shops which serve their surrounding populations.



- 2.5.2 Romford is Havering’s main commercial entertainment centre with a dynamic night time economy of eating and drinking venues, cinemas and clubs. Hornchurch has the Queens Theatre and Fairtykes Arts Centre and is Havering’s cultural centre with a sub-regional importance. Leisure and tourism are also important to Havering’s economy. Romford is the main centre for shopping and has had significant competition from centres such as Lakeside, Bluewater and Westfield Stratford in the past ten years.
- 2.5.3 77% of households in Havering have at least one car. Havering has the second highest proportion of households (32.8%) in London with 2 or more cars (Figure 5).

FIGURE 7. CAR OWNERSHIP LEVELS ACROSS LONDON



Source: Joint Strategic Needs Assessment

- 2.5.4 In Havering 76% of working age residents in Havering were in employment between April 2018 – March 2019 which is more than London (74.2%) and England (75.6%).

## 2.6 Transport connections

- 2.6.1 Havering has good access to the rest of London, Essex, Kent, and the rest of the South East via its strategic transport connections and routes.



- 2.6.2 Different organisations are responsible for assessing challenges, generating options, funding and identifying investment priorities in Havering and the wider sub region including:
- a. The Government (responsible for national transport policy) and its agencies such as Highways England and Network Rail for national and international networks and infrastructure.
  - b. TfL for London-wide and certain regional networks.
  - c. Havering at the local level and sub – regional level.
- 2.6.3 Further information on transport infrastructure responsibilities within Havering can be found in the [Transport Statement Position Statement Evidence Base for the Local Plan](#).

## 2.7 National and International Links

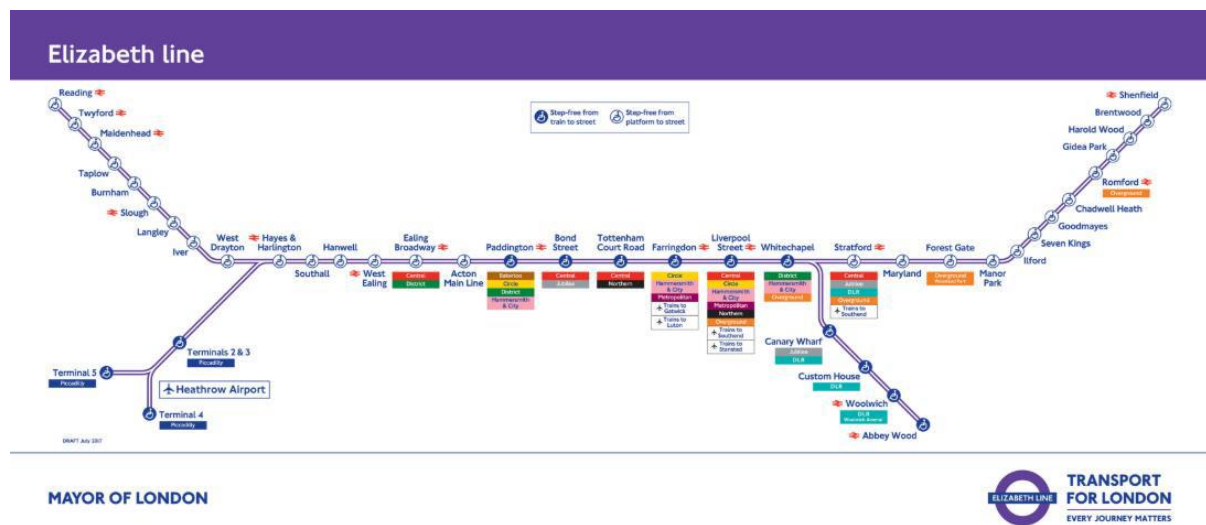
- 2.7.1 Havering has good road links to Kent and the Channel ports via the M25 and the Dartford Crossing and to the major ports of Felixstowe and Harwich which provide further links to Europe and beyond. The A13 provides access to the DP World London Gateway Port as well as Tilbury Docks.
- 2.7.2 There is good access by air to Europe and beyond through the airports at London City, London Southend and London Stansted. The extension of the Docklands Light Railway (DLR) to London City from existing DLR stations has improved the connections for Havering residents.

## 2.8 Sub-Regional and Regional Links

- 2.8.1 The M25 is part of the national strategic network and provides London-wide and regional links for Havering’s residents and businesses. It is managed by Highways England (HE).
- 2.8.2 Further road access is provided by the A12, A13 and A127 roads which are part of the Transport for London Road Network (TLRN). TLRN routes facilitate access to Havering’s business, education and residential areas from other areas of London, Essex, and Kent.
- 2.8.3 Outside London, the A12 is the responsibility of HE. The operation and maintenance of the A127 is the responsibility of Essex County Council and Southend Borough Council. Outside London, HE, Essex County Council (ECC), and also Southend and Thurrock Borough Councils (as respective unitary authorities) are responsible for specific sections of the A13.
- 2.8.4 Havering has mainline railway services on the Great Eastern Mainline (London Liverpool Street - Norwich) and the Essex Thameside Line (London Fenchurch Street – Shoeburyness).

2.8.5 Crossrail (Elizabeth line) is a new regional east-west railway line scheduled to open fully in 2022 (Figure 6). It will connect Heathrow, Reading and Maidenhead with Essex and South London by means of tunnels beneath Central London. The eastern branch (north of River Thames) will run from Shenfield in Essex through Havering's Harold Wood, Gidea Park, and Romford Stations to London Liverpool Street and beyond. The other eastern branch (south of River Thames) will run from Abbey Wood via Canary Wharf and the City on from here.

FIGURE 8 ELIZABETH LINE ROUTE



Source: TfL Website

## 2.9 Local Links

### Roads

2.9.1 Havering's public highway network comprises principal roads (36km), classified roads (126km) and unclassified roads (581km). There are approximately 1,070km of footways, 21,000 street lights, over 100 bridges and structures, 25,000 road gullies and 21,000 street trees. All these roads and facilities are managed and maintained by the Council. Several Havering's district centres are connected by Havering's Strategic Road Network (SRN). These are effectively the 'A' roads within the borough that are not part of the TLRN.

### *Rail*

- 2.9.2 London Overground provides a 'shuttle' service between Romford and Upminster via Emerson Park and is the only stand-alone section of the London Overground network. It enables passengers to travel from Havering via connection onto the London Underground District line or on National Rail on the Essex Thameside line from Upminster Station and via national rail at Romford Station.
- 2.9.3 Access to local surface level train services is provided by stations at Romford, Harold Wood, Gidea Park, Emerson Park, Upminster and Rainham. There is access to Underground services (District line) at Hornchurch, Upminster Bridge, Elm Park and Upminster providing access into central London.

### *Freight*

- 2.9.4 The road network provides the primary freight network in Havering although freight traffic also operates on both the Great Eastern Mainline and Essex Thameside line. The latter enables freight movements to/from the DP London Gateway port. There are no major road freight terminals within Havering although there are container depots in Thurrock and Dagenham located on the A13 trunk road.
- 2.9.5 Havering has two riverside wharves on the River Thames (Phoenix Wharf and Halfway Wharf). In spring 2018, the Mayor published a review on the safeguarding of wharves for public consultation. In September 2020 the Housing Minister on behalf of the Secretary of State confirmed their agreement with the recommendations as set out in the review.
- 2.9.6 It recommended that Phoenix Wharf be released from safeguarding because there is surplus capacity elsewhere in the wider sub-region, its use is less favourable than other wharves because of fixed flood defence walls and a lack of jetty infrastructure.
- 2.9.7 The review recommended that the Halfway Wharf safeguarding be retained because its cargo handling infrastructure remains in place. It recognised the potential for cargo that currently is delivered by road (such as on the A13) to be delivered by the river if the Wharf became 'active'.

## *Bus*

- 2.9.8 Rail services in Havering are complemented by bus services to the various residential, employment, education and leisure activities and key destinations. Havering is served by over 30 bus routes including several dedicated school bus routes and two night services. Buses have an important role to play in ensuring that residents in Havering can travel independently around the borough.
- 2.9.9 Romford is the major destination for buses. Most routes provide good links to its railway station to enable direct rail access into London Liverpool Street and central London, with subsequent connections to regional and national destinations beyond.
- 2.9.10 Buses also stop at Newbury Park (in the London Borough of Redbridge) to enable passengers to transfer onto the London Underground Central Line and to Upminster Station where passengers can interchange and travel onto the District line into central London or the Essex Thameside railway line.
- 2.9.11 Bus services to/from the Rainham area and Beam Park area are not as extensive as in the Strategic Development Area of Romford, with the main routes being the 103, 165, 174, 287, 365, and 372.
- 2.9.12 Havering's population is expected to grow to over 293,000 over the next 15 years. By 2031, (at the end of the 2016 -2031 Local Plan period) Havering will have seen significant levels of growth in the form of new infrastructure and high quality, well managed development. These developments will have further enhanced the borough as a highly desirable, attractive, safe and clean place to live and work, offering residents an excellent quality of life.

### 3 M25/28 Capacity Improvement Scheme

#### 3.1 Scheme Background

- 3.1.1 The scheme being promoted by Highways England aims to increase capacity of junction 28 of the M25 by providing a new dedicated link between the M25 and the A12.
- 3.1.2 The scheme involves the creation of a two lane loop road with a hard shoulder, for traffic travelling from the M25/Northbound carriageway onto the A12 eastbound carriageway.
- 3.1.3 The scheme works also include the realignment of the existing A12 eastbound exit road to accommodate the new loop road, as well as new bridges and an underpass to accommodate the new loop road.
- 3.1.4 The scheme will also deliver alterations to the existing northbound carriageway of the M25, the M25 northbound off-slip and the realignment of the existing M25 northbound on-slip from the Brook Street roundabout (M25/J28).

#### 3.2 Delivery Timescales

- 3.2.1 Should the DCO be granted by the Secretary of State, Highways England anticipate that construction will commence in spring 2022 and that the scheme will be open in autumn 2024. Highways England also state that landscape aftercare provision will last a further 5 years and management and monitoring will last up to a further 20 years.

#### 3.3 London Borough of Havering Scheme Position

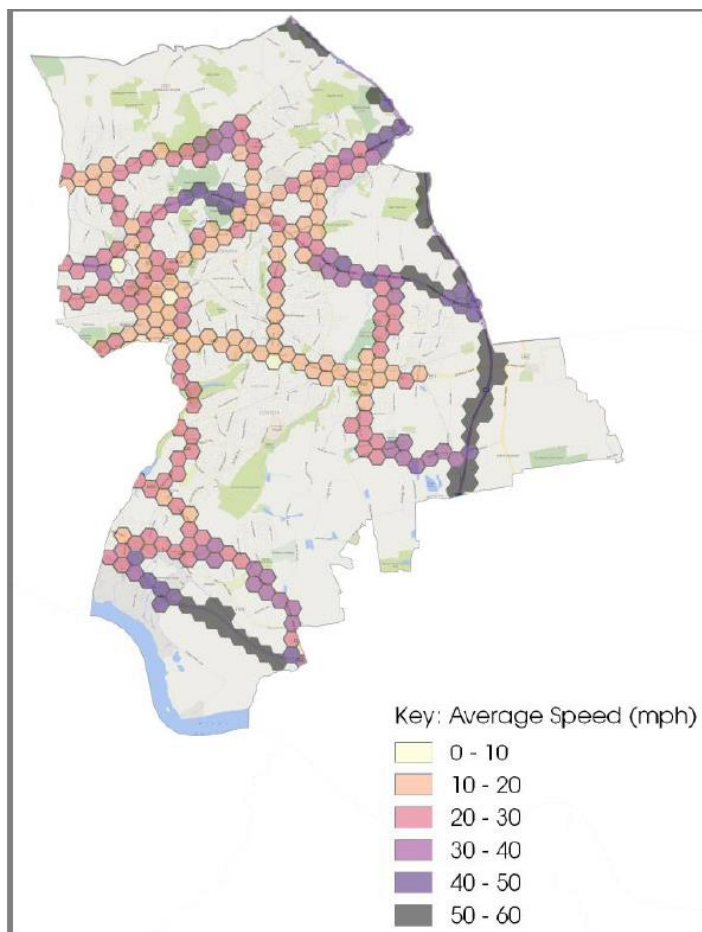
- 3.3.1 The Council is supportive of this scheme in principle. The Council acknowledges that Junction 28 of the M25 (also known as the Brook Street interchange) ("the Junction") is a collision 'hotspot' as well as a junction that currently experiences significant levels of congestion. The operation of the Junction impacts the journey times of residents of Havering.
- 3.3.2 The Council recognises that traffic volumes at the Junction are expected to increase significantly over the next 15/20 years and improvements to the Junction are required either through additional capacity improvements or through other forms of demand management to manage future increases.
- 3.3.3 The Council welcomes further infrastructure investment within Havering, especially where this will provide for safe and convenient movement and will complement wider investment and growth in the borough.

## 4 Traffic Issues in the Borough

### 4.1 Traffic levels Havering

- 4.1.1 Data from the Department for Transport (DfT) traffic statistics, together with Havering's own traffic count data shows that traffic volumes across the borough are increasing each year. This is to be expected given the lack of alternative public transport options for many internal journeys in the borough. Havering carries out Automated Traffic Counts (ATCs) at 69 locations across the borough and data between 2011 and 2016 showed an overall increase in average weekday traffic volumes across Havering of 3.5%. In addition, the average traffic speed across the borough wide network had decreased by 0.2 mph between 2011 and 2016.
- 4.1.2 Figure 9 demonstrates the average speeds across Havering's road network. The lowest average speed can be seen along the A124. This east to west route is often used by commuters travelling into Havering, parking and using the rail network to access central London resulting in heavy congestion and lower speeds.

**FIGURE 9 AVERAGE VEHICLE SPEED ACROSS HAVERING'S STRATEGIC ROAD NETWORK (MPH)**



Source: TfL Cityplanner



## 5 Road Safety

### 5.1 Vision Zero

- 5.1.1 In 2018 the Mayor launched his Vision Zero Action Plan which sets out a series of specific actions to tackle the sources of road danger with a shift in emphasis from tackling historic casualty reduction trends, to a holistic approach of targeting road danger.
- 5.1.2 The Mayor's Vision Zero programme is set out within the Mayor's Transport Strategy (MTS). The aim of Vision Zero is the elimination of all deaths and serious injuries on London's Transport system. The MTS contains a clear policy commitment from the Mayor in this regard:

*Policy 3: "The Mayor, through TfL and the boroughs, and working with stakeholders, will adopt Vision Zero for road danger in London. The Mayor's aim is for no one to be killed in or by a London bus by 2030, and for all deaths and serious injuries from road collisions to be eliminated from London's streets by 2041".*

### 5.2 KSI reduction Targets

- 5.2.1 The MTS emphasises the importance of minimising road danger in order to create streets where people feel safe when walking, cycling or using public transport. The MTS further states that road danger disproportionately affects those that travel by foot, cycle or motorcycle, with 80% of all those killed or seriously injured on London's roads travelling by those modes. It further states that safety concerns are the main reason people give for not cycling more, and for being unwilling to let their children walk unaccompanied.
- 5.2.2 A series of intermediate outcome indicators have been set by TfL to monitor progress over the long term period, and ensure Vision Zero can be achieved by 2041. These are:
- Short term - a 65 per cent reduction in the number of KSIs on London's streets by 2022 (against 2005-09 levels).
  - Medium term - a 70 per cent reduction in the number of KSIs on London's streets by 2030 (against 2010-14 levels).
  - Long term - zero deaths and injuries from road collisions by 2041.
- 5.2.3 To work towards delivering these targets, the MTS sets out five key areas of focus to reduce casualty rates:
- Safe Speeds* – lowering speeds is fundamental to reducing road danger because a person is five times less likely to be fatally injured if hit at 20 mph than at 30 mph.

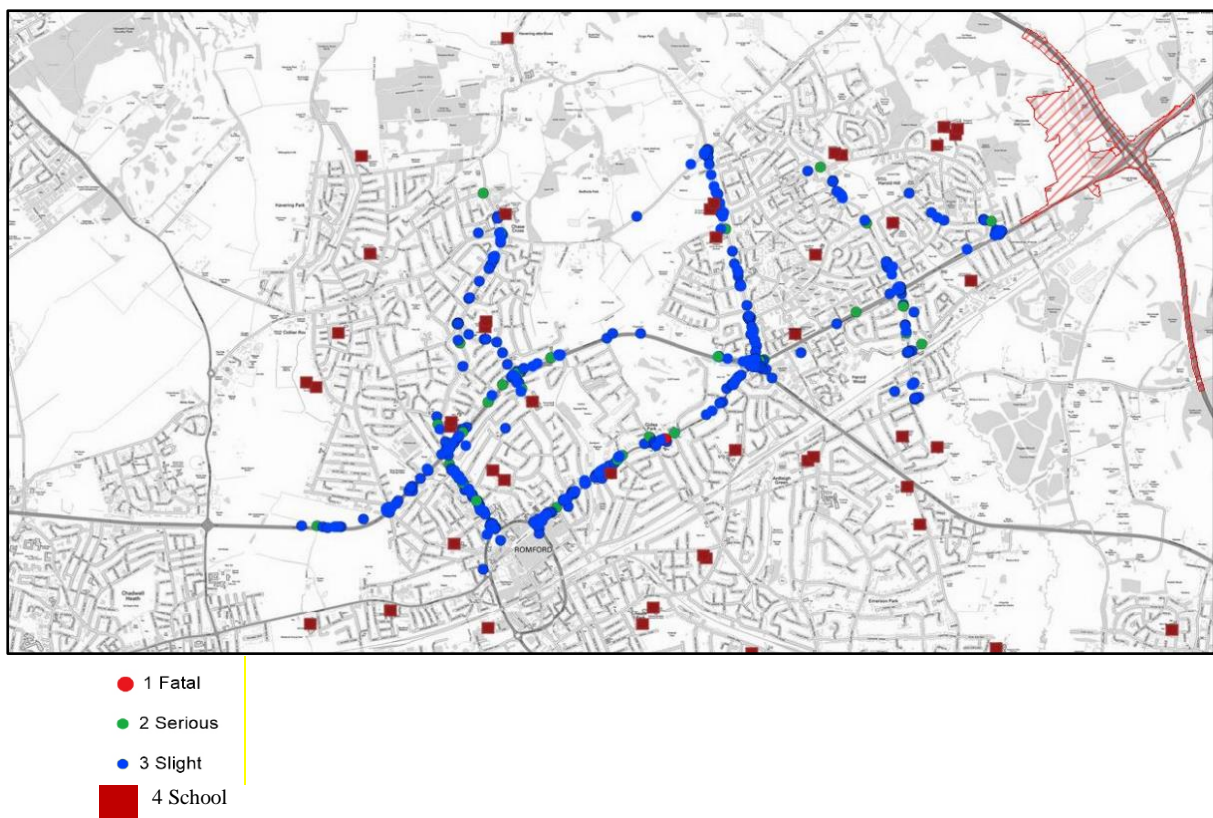
- b. *Safe Street design* - ensuring all transport infrastructure projects in London contribute to reducing road danger; attention will focus particularly on areas of highest risk such as busy junctions and roundabouts.
- c. *Safe vehicles* – making sure those vehicles that need to use London’s streets are as safe as possible.
- d. *Safe behaviours* – improving the behaviours of all road users, especially drivers of motorised vehicles and, in particular, drivers of large vehicles that can do the most harm, will help make the city a safer place and encourage more people to walk and cycle.
- e. *Post collision* - reducing the severity of injuries when a collision occurs through timely emergency responses, supporting victims of road crime and holding those responsible to account, and developing a clearer picture of how and why collisions occur.

### 5.3 Delivering Vision Zero in Havering

- 5.3.1 Havering’s Local Implementation Plan (LIP3) reaffirms the Council’s long term commitment to make the Borough’s roads safer for all road users by supporting the Vision Zero approach of working towards eliminating all road deaths or serious injuries on the roads by 2041.
- 5.3.2 During the 2019/20 financial year Havering committed a significant proportion of the funding it receives from the Mayor to deliver casualty reduction measures and road safety education initiatives. This includes delivering road safety initiatives across schools (including the successful Safe Drive Stay Alive event), encourage safe use of roads and encouraging pupils, parents and guardians to make ‘smarter’ choices when travelling to and from school.
- 5.3.3 Through TfL funding Havering continues to work to improve safety at collision hot spots especially for vulnerable road users through its Casualty Reduction Programme, Havering also takes a proactive approach to reducing casualties by delivering measures to prevent accidents taking place as opposed to simply reacting to them. This includes working with schools through their School Travel Plans to address safety concerns and create safe streets for active travel, something that the Council will be doing in the 2020/21 financial year in the vicinity of Mead School where a 20 mph zone will be delivered.
- 5.3.4 Road safety related measures feature prominently in Havering’s 2020/21 funding programme. These include a casualty reduction programme which includes some measures to tackle KSI rates at locations across Havering such as 20 mph zones and other speed restraint measures.

5.3.5 The Council also takes its commitment to improving air quality seriously within its Local Implementation Programme. In 2020/21 this includes funding to support the delivery of measures the contribution towards the Council's Adopted Air Quality Action Plan (AQAP). In order to support the continued delivered of the AQAP in the future, the impact of the M25/J28 scheme on the local area from an air quality perspective will need to be monitored and will be considered as part of any future submission to the Mayor for funding.

**FIGURE 10 OVERVIEW OF ALL COLLISIONS FROM 2015 – 2019**



**Source: London Borough of Havering**

5.3.6 The above map sets out the geographical locations of KSI's in the central and north parts of Havering over a five year period. It also shows the schools in the local area.

5.3.7 There are a number of schools in the vicinity of the M25/J28 scheme, including Drapers Pyrgo, Drapers Academy, Drapers Maylands Primary School, Forest Approach Academy, and Harold Wood Primary. In addition, Lime Academy is located very close to the A12 just east of Gallows Corner.

5.3.8 The table below shows the number of collisions for the latest available five years of data.

**FIGURE 11 COLLISION DATA –**

<b>Severity</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Total</b>	<b>Percentage</b>
Fatal	1	1	0	0	2	4	1%
Serious	9	12	12	11	11	55	11%
Slight	116	100	73	85	80	454	88%
<b>Total</b>	<b>126</b>	<b>113</b>	<b>85</b>	<b>96</b>	<b>82</b>	<b>513</b>	<b>100%</b>

**Source: TfL Collision data**

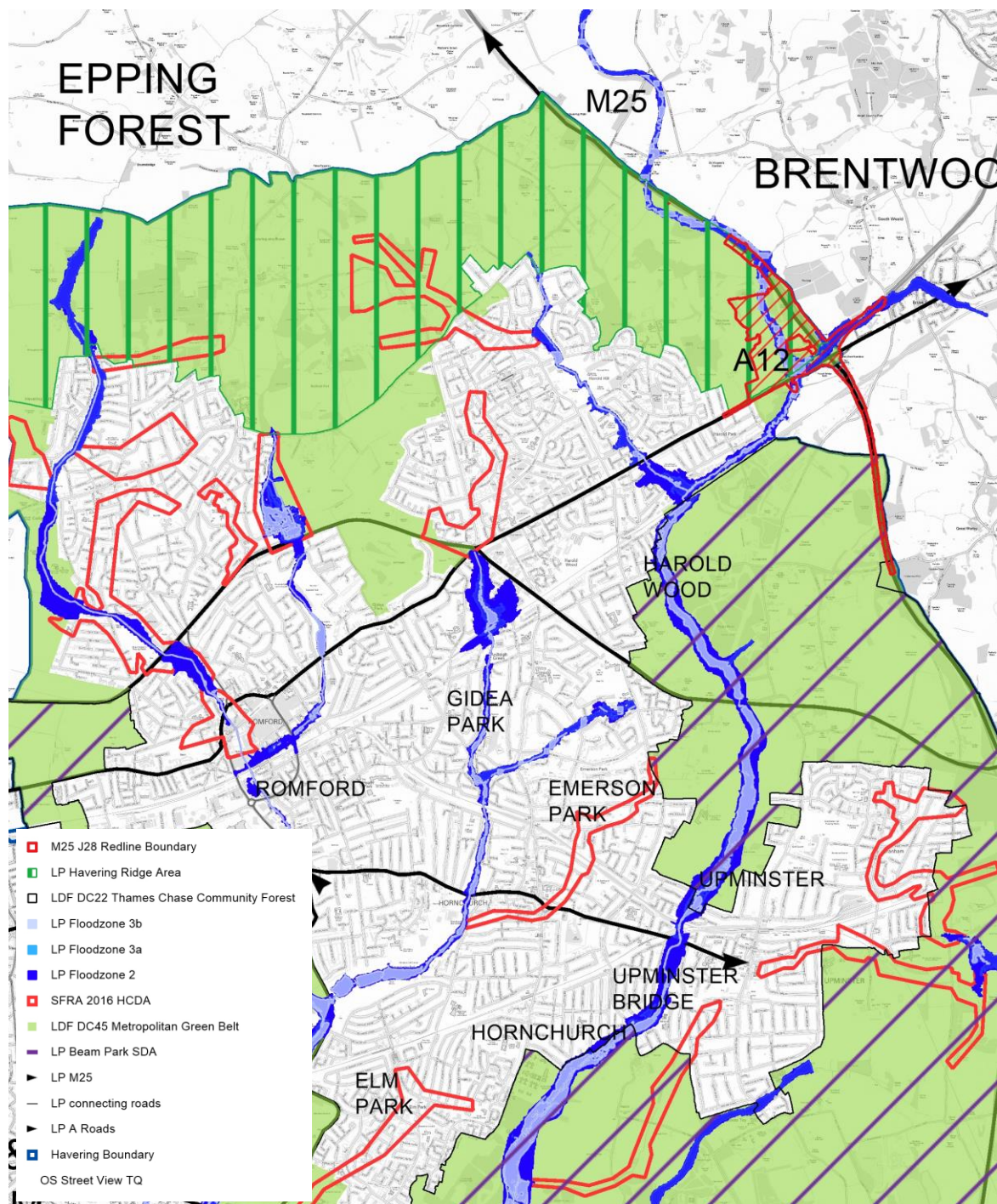


## 6 Borough Constraints Maps

### 6.1 Constraints Map 1

6.1.1 The following constraint maps show the flood zones, greenbelt, and landscape, which serve as constraints in the vicinity of the proposed scheme.

FIGURE 12 BOROUGH CONSTRAINTS MAP – 1



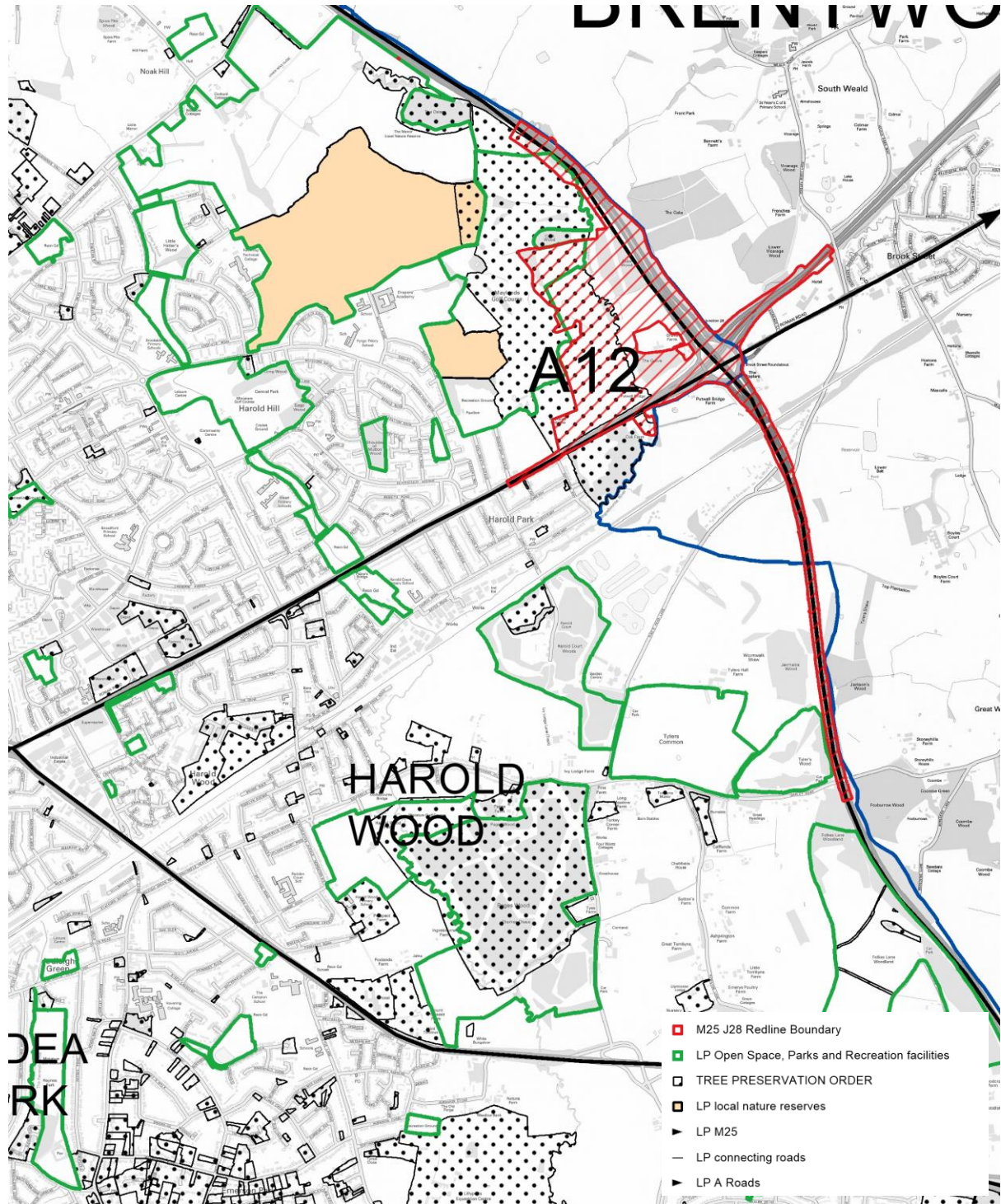
Source: London Borough of Havering



## 6.2 Constraints Map 2

6.2.1 The constraints map below sets out Open Space, tree preservation, local nature reserves which serve as constraints in the vicinity of the proposed scheme.

FIGURE 13 BOROUGH CONSTRAINTS MAP – 2

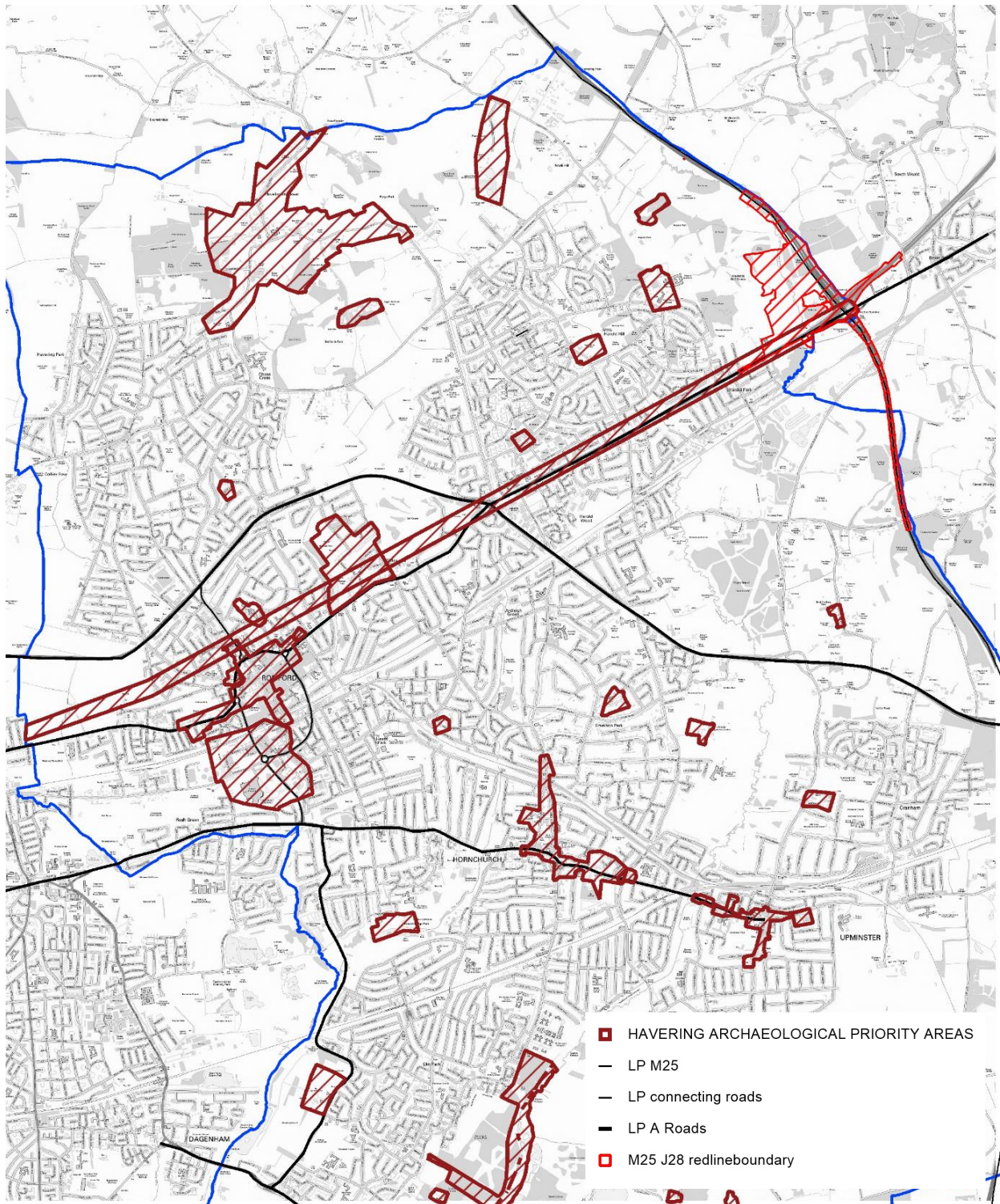


Source: London Borough of Havering



**FIGURE 14 CONSTRAINTS MAP 3**

6.2.2 The constraints map below sets out the Archaeology Priority Areas for the borough in the vicinity of the proposed scheme.



Source: London Borough of Havering

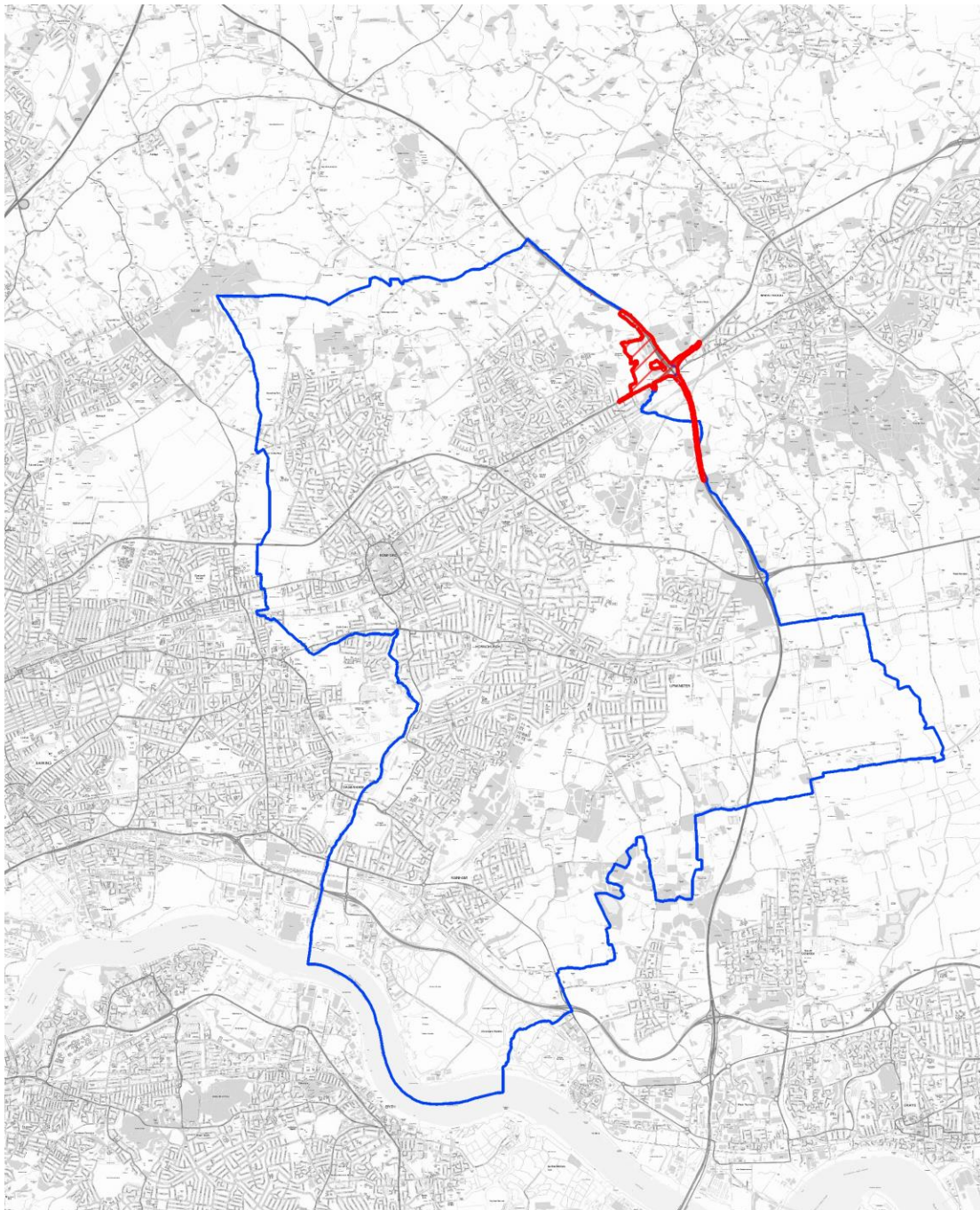


## 7 Details of the proposal relevant to the London Borough of Havering

### 7.1 Scheme Location

7.1.1 Figure 14 shows the scheme location in context with the rest of the London Borough of Havering.

**FIGURE 15 LOCATION MAP**



Source: London Borough of Havering

## 7.2 Scheme Description

- 7.2.1 The Scheme is located between Brentwood and Romford. This junction is one of the major improvement projects planned for the southeast region and will provide better access towards Essex and London, as well as connecting Brentwood, Chelmsford, Colchester and Suffolk with London and other key destinations.
- 7.2.2 The key components of the Scheme include the creation of a new two lane loop road with hard shoulder, for traffic travelling from the M25 northbound carriageway onto the A12 eastbound carriageway, including the provision of three new bridges (Alder Wood bridge, Duck Wood bridge and Grove bridge) and an underpass (Grove Farm underpass) to carry the new loop road over a proposed access track (Work Plan No. 14). – Realignment of the existing A12 eastbound exit (off-slip) road (Work Plan No. 2) will take place to accommodate the new loop road including the provision of a new bridge (Maylands Bridge) and the extension of the existing Grove culvert.
- 7.2.3 Improvements are proposed to the existing A12 eastbound and westbound carriageways and A12 eastbound entry (on-slip) road (Work Plan Nos. 1, 3 and 4).
- 7.2.4 No properties apart from Grove Farm have accesses affected by the scheme. An underpass will be provided carrying the Grove Farm access road below the M25 anti-clockwise off-slip loop road.
- 7.2.5 The diversion of a high-pressure gas main will affect the Gardens of Peace Cemetery situated in Havering (Work Plan No 29). There is also a diversion and undergrounding of a section of UKPN high voltage overhead line (Work Plan No 30).

## 7.3 Proposed Changes

- 7.3.1 It should be noted that Highways England has submitted an additional submission - Notification of intention to make a request for changes to the scheme (accepted by ExA 7 December) setting out four proposed changes to the scheme. These are:
- a. Change 1 – Removal of surplus construction materials deposit to the west of Weald Brook (work plan No 17).
  - b. Change 2 – Amendment to the surplus construction materials deposit (work plan no 18) situated to the north of work plan No 19b to form an environmental bund.
  - c. Change 3 – Refinement of golf course accommodation works (work plan no 32).
  - d. Change 4 – Amendment to the lateral limits of deviation for the Cadent gas pipeline diversion – southern connection (work plan No 29).

7.3.2 These proposed changes have not been considered as part of this LIR because of submission time constraints, and LB Havering will be making a separate written representation to the ExA on the implications of the changes for the borough.

## 8 Relevant Planning History and Any Issues Arising

### 8.1 Planning History

8.1.1 The following sites have been identified as having relevant planning history that should be taken into account when considering the proposed scheme.

### 8.2 Gardens of Peace Cemetery

8.3 APP/B5480/W/15/3132860 APPEAL MADE BY GARDENS OF PEACE, LAND AT OAK FARM, MAYLANDS FIELDS, ROMFORD RM3 OAW (APPLICATION REF: P1742.14). Permission granted on appeal.

8.3.1 Application for planning permission and then successful appeal, for the change of use of land to burial grounds including removal of existing agricultural buildings and erection of two pavilion buildings for associated usage, hard and soft landscaping, new access to A12 and internal roads and paths, parking, and workshop area for storage of associated equipment, tools and materials, in accordance with application ref: P1742.14, dated 17 December 2014.

8.3.2 The resulting decision continued the designation of the site as a SINC (Site of Importance for Nature Conservation), construction works within the hours of 08:00 and 18:00 Monday to Friday (M-F), 08:00-13:00 Saturday; and public access to the site to be maintained during operational hours.

8.3.3 The scheme would impact on the Gardens of Peace Cemetery due to the temporary land take to facilitate the proposed diversion of the Cadent Gas pipeline. Havering understand that HE and the owners of the Gardens of Peace Cemetery have been in discussions and that the owners are satisfied that the temporary land take will not detrimentally affect the day to day operational requirements of the cemetery. At the time of written this LIR, LB Havering is awaiting further information from Highways England confirming this position with the landowner.

8.3.4 The proposals will result in adverse impacts on the SINC - Ingrebourne Valley Site of Metropolitan Importance for Nature Conservation (SMI). Satisfactory mitigation has been secured to compensate for this detrimental impact and the SMI will also be enhanced as a result of the proposals.

8.3.5 Havering is satisfied that HE have been thorough in ensuring impacts on this SINC are minimised with measures embedded into the design to reduce these potential effects as well as fully compensating for impacts and agreeing to enhancements too.

#### 8.4 Putwell Bridge Travellers Site

*22 March 2011 – Enforcement notice quashed and planning permission granted to use site for the use of the land and buildings at the former Brook Street Service Station, Colchester Road, Romford, RM3 0AZ, as shown on the plan attached to the notice, for residential purposes, including the stationing of a mobile home, subject to the following conditions:*

- 1) The site shall not be occupied by any persons other than gypsies and travellers as defined in paragraph 15 of ODPM Circular 01/2006.*
- 2) The use hereby permitted shall be carried on only by Mr Johnnie O'Donoghue, his daughter Holly O'Donoghue and her son, and by Mr Francis Dooley, his wife Helen, their children Martin and Helena, and their two married sons Francis and James, their wives and children, and shall be for a limited period being the period of five years from the date of this decision, or the period during which the premises are occupied by all or any of them, whichever is the shorter.*
- 3) When the premises cease to be occupied by Mr Johnnie O'Donoghue, his daughter Holly O'Donoghue and her son, and by Mr Francis Dooley, his wife Helen, their children Martin and Helena, and their two married sons Francis and James, their wives and children, or at the end of five years, whichever shall first occur, the use hereby permitted shall cease, all materials and equipment brought on to the premises in connection with the use, including the amenity block hereby approved, shall be removed.*
- 4) No more than 6 caravans, as defined in the Caravan Sites and Control of Development Act 1960 and the Caravan Sites Act 1968 (of which no more than 2 shall be static caravans) shall be stationed on the site at any time.*
- 5) No commercial activities shall take place on the land, including the storage of materials.*
- 6) The use hereby permitted shall cease and all caravans, structures, equipment and materials brought onto the land for the purposes of such use shall be removed within two months of the date of the failure to meet any one of the requirements set out in (i) to (iv) below:
  - i. Within 3 months of the date of this decision a scheme for the removal of the canopy, for the means of foul and water drainage of the site, proposed and existing external lighting on the boundary of and within the site, and also including the siting of caravans, plots, parking and amenity areas; tree, hedge, and shrub planting including details of species, plant sizes and proposed numbers and densities; and boundary fence details (together referred to as the site development scheme) shall all have been submitted for the written approval of the local planning authority and the said scheme shall include a timetable for its implementation and proposals for maintenance;**



- ii. *Within 11 months of the date of this decision the site development scheme shall have been approved by the local planning authority or, if the local planning authority refuse to approve the scheme, or fail to give a decision within the prescribed period, an appeal shall have been made to, and accepted as validly made by, the Secretary of State;*
- iii. *If an appeal is made in pursuance of (ii) above, that appeal shall have been finally determined and the submitted site development scheme shall have been approved by the Secretary of State;*
- iv. *The approved site development scheme shall have been carried out and completed in accordance with the approved timetable.*
- v. *The hard surfacing on the site shall not be broken open or otherwise disturbed except in accordance with any works that may be required under Condition 6 above.*

8.4.1 Having previously been an unauthorised site, the Putwell Bridge Caravan Park is being allocated for Gypsy and Traveller accommodation in the Draft Local Plan. Policy 11 Gypsy and Traveller accommodation with the site regularised for the use of 5 pitches.

8.4.2 There are concerns in respect to Putwell Bridge Caravan Park which is correctly identified as a receptor. However, Environment Statement (ES) paragraph 13.10.5 states the site would experience a slight adverse effect (not significant) during the construction phase. LBH disagree on this point as there is a potential for high levels of construction noise, dust, and issues over access over a 24 hour period to residents on this site as the proposed gas pipeline mains work is in very close proximity to site and the mitigation for this is unclear.

8.4.3 Furthermore, the Limits of Deviation (LOD) have been set but the precise location and extent of the individual works within the LOD will be determined in the detailed design stage and therefore there is uncertainty as to whether the works can be accommodated within the LOD. Should works move to the edge of the LOD, there is uncertainty regarding the amenity impacts stated in ES Chapter 13.

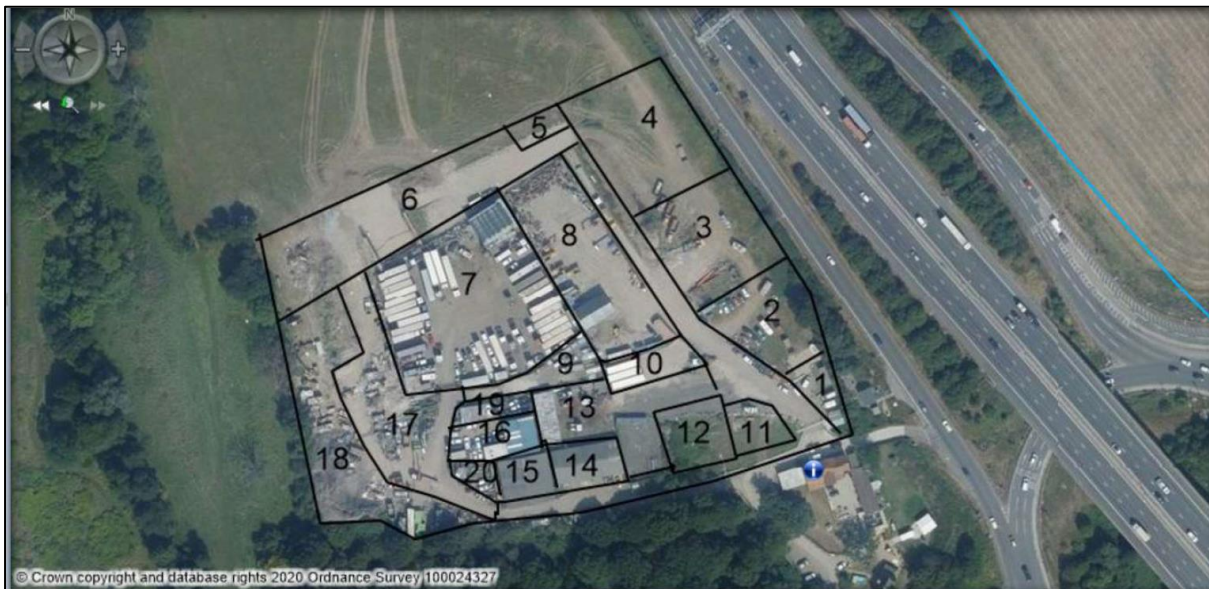
8.4.4 Havering understands that the scheme promoter has been in conversation with families who reside on the site who have indicated that they do not want to be relocated during the construction and subsequent operation of the scheme.

8.4.5 At the time of writing this LIR, LB Havering is awaiting further information from Highways England confirming this position with the residents.

## 8.5 Grove Farm

- 8.5.1 The land known as Grove Farm, Brook Street has an area of approximately 12.4 Ha and lies on the A12 roundabout on the northern side of A12 and western side of northbound London Orbital Motorway 25 and is located within the red line boundary of the application.
- 8.5.2 The site lies within the Metropolitan Green Belt and is currently under investigation for alleged breaches of planning control. It is understood, that Officers are currently preparing a case to pursue enforcement action.
- 8.5.3 The site comprises of various uses and erection of buildings that do not benefit from planning permission, as illustrated in figure 15 (taken on 15 October 2020).

Figure 16 Grove Farm



**Source: London Borough of Havering**

- 8.5.4 The Council alleges that a material change of the land has occurred and therefore it is the Council's intention to resolve these alleged breaches. Prior to the alleged planning contraventions identified the lawful use of the land is agricultural use.

## 8.6 Memorandum of Understanding with Highways England for the Havering Local Plan

8.6.1 Havering entered a Memorandum of Understanding with Highways England in September 2019 as part of the Duty to Co-operate through the Local Plan (2016-2031) process. In addition to dealing with strategic transport matters, the representation from Highways England at Regulation 19 stage consultation included reference to two specific matters:

- a. Policy 11 Gypsy and Traveller accommodation – specifically, the Gypsy and traveller site at Putwell Bridge (adjoining the south side of the A12 at the western end of the slip road from Junction 28 intersection of the M25 Motorway and the A12 Trunk Road).
- b. Policy 36 Low Carbon design, decentralised energy and renewable energy – specifically, the Wind energy evidence base document.

8.6.2 The Council has proposed Main Modifications to the relevant Local Plan policies to address these issues. The Council has set out in its formal response document to the Local Plan Inspector (August 21 2019) how these matters will be resolved. HE is satisfied that this addresses the comments raised in its Regulation 19 response on Policies 11 and 36.

8.6.3 These issues have been addressed within the Draft Local Plan with specific amendments to the policies 11 and 36.

8.6.4 Putwell Bridge Caravan Park has been identified as an allocated Gypsy and Traveller site in Policy 11 and is listed in Annex 6 of the emerging Local Plan Table 5.

8.6.5 An additional criteria was added to Policy 36: Low Carbon Design and renewable Energy, '*vi. There is no unacceptable adverse impact on highway safety on the existing infrastructure or the proposed M25 Junction 28 Improvement Scheme.*'

8.6.6 All parties remain committed to work together outside of the Local Plan process on important strategic matters.

## 9 Relevant Development Plan Policies

### 9.1 Policy Compliance

- 9.1.1 This sections sets out national regional and local policies and their relevance to the proposed scheme.
- 9.1.2 National Networks National Policy Statement (NNNPS) 2014
- 9.1.3 The National Networks National Policy Statement (NPS) was published in December 2014. The statement sets out Government policy relating to the delivery of nationally significant infrastructure projects in regard to the highway and rail networks.
- 9.1.4 The statement reflects the importance given to maintain well connected and high performing networks, which have sufficient capacity to meet long term needs and support economic growth, at both a national and local level. In addition, the statement also recognises the impact of traffic congestion can be economic, constraining economic activity and growth, as well as environmental with consequences such as air and noise pollution.
- 9.1.5 The statement also provides guidance about the need to ensure that new development is appropriately mitigated to avoid environmental and social impacts. However, it also recognises that whilst some local effects and impacts may remain but betterment should be achieved where possible.
- 9.1.6 LB Havering is supportive of the National Policy Statement but believes that local effects and impacts of the proposed scheme should be mitigated to support local communities.

#### *Mayor's Transport Strategy (MTS) 2018*

- 9.1.7 The MTS sets out a series of policies designed to manage movement in a growing city. The MTS interprets the Mayor's London Plan transport vision and details how he and his partnerships will deliver transport in London up to 2041. The MTS is a key part of the Mayor's strategic policy framework to support and shape London's social and economic development.
- 9.1.8 The MTS sets out three themes for action by Transport for London (TfL), the London Borough's and other delivery partners. These are *healthy Streets and healthy people, a good public transport experience, and new homes and jobs*. Under these three priority areas are a set of nine outcome indicators and targets which sit alongside the overarching aim of the strategy– *for 80% of all trips in London to be made by foot, cycle or public transport by 2041*.

9.1.9 The MTS sets out the Mayor’s “healthy Streets” approach, an evidence based approach designed to improve health and reduce health inequalities designed to help Londoners use the car less, and walk, cycle and use public transport more. The Healthy Streets Indicators are set out in figure 16 below:

FIGURE 17 HEALTHY STREETS INDICATORS



Source: Mayor’s Transport Strategy

9.1.10 The MTS sets ambitious goals for a move away from the use of private cars including Policy 1: “The Mayor, through TfL and the boroughs, and working with stakeholders, will reduce Londoners’ dependency on cars in favour of active, efficient and sustainable modes of travel...”. LBH has, to date, seen no evidence that indicates the M25 junction 28 scheme will contribute directly to this policy objective through the promotion of sustainable modes of travel. Indeed the commentary offered in the Transport Assessment (TA) offers no MTS compliant proposals simply referring to infrastructure improvements “through widening of the footway as compared to the existing footway”.

9.1.11 LBH is generally supportive of the MTS proposition that “In the Wider South East and M25 area, in particular, strategic roads must be managed to cater for essential journeys, without increasing car dependency within or outside London”. LBH has raised concerns with the Mayor that his ambitious modal shift target can only be realistically met by an outer London Borough such as Havering if substantial investment is made in new public transport infrastructure and connectivity to give residents alternative options to travel other than the car.

9.1.12 LBH notes that the proposal is primarily the improvement of a Strategic Road Network junction but the ability of local trips using sustainable modes to pass around the improved junction has not been examined fully.

*LB of Havering Local Implementation Plan (LIP3) 2019.*

9.1.13 The Local Implementation Plan (LIP) is the transport strategy for the borough. The LIP sets out how the Mayor’s Transport Strategy will be delivered at a local level.

9.1.14 The LIP places transport in the context of LB Havering, its population, economy and environment. It provides the local means of delivery for MTS initiatives and sets a locally specific set of transport objectives which contribute to achieving the Mayor’s overall transport mode share aim and the nine Mayor’s Transport Strategy outcomes.

9.1.15 The LIP recognises the M25 as part of the national strategic road network and providing London-wide and regional links for Havering’s residents and businesses. The LIP provides a clear indication of LB Havering’s commitment to the delivery of the MTS objectives with a specific borough modal shift target of 65% of all trips being made on foot, cycle or public transport by 2041.

9.1.16 The LIP includes a series of strategic transport aspirations to encourage alternative modes of travel other than the car, which in particular includes exploring a new north south public transport links and improving access to and from the Romford and Rainham Strategic Development Areas (SDA).

9.1.17 The LIP sets out a series of Transport Objectives and Targets which will assist with delivering the objectives and outcomes that are set out in the Mayor’s Transport Strategy. These are set out below:

- a. To improve north-south transport connectivity in Havering through provision of alternative travel choices to the private vehicles.
- b. To ensure suitable access to Havering’s employment areas including the Romford and Rainham and Beam Park Strategic Development Areas.
- c. Enable healthier lifestyles through the provision of active and sustainable travel choices to residents and visitors in Havering and to make Havering a better place to walk and cycle around.



- d. Work with partners to deliver fully accessible transport links to ensure that residents and visitors with disabilities have the freedom to choose how to travel in the borough.
  - e. Ensure that the needs of the less mobile are prioritised when delivering public realm improvements and “healthy streets”.
  - f. To deliver Vision Zero in Havering by 2041 through reducing casualties of all road users on borough roads, especially in the vicinity of schools and KSI “hotspots”.
  - g. Improve air quality in Havering by delivering transport and regeneration programmes that contribute to reducing CO2, PM10, and NOX emissions and that support Havering’s adopted AQAP.
  - h. To reduce the fear of crime and antisocial behaviour and improve perception of personal safety and security to encourage residents to travel actively.
  - i. Through the “healthy streets” agenda, enhance and maintain the quality of public realm in our major, minor and district centres, to create high quality safe neighbourhoods that people want to live and travel within.
  - j. To strengthen strategic links with neighbouring local authorities in Essex and the wider south east on strategic transport issues to support sub regional growth including the A127 growth Corridor and remodelling Gallows Corner.
  - k. To bring and maintain all infrastructure assets to good state of repair in Havering.
- 9.1.18 The Local Implementation Plan includes a number of targets against each of the Mayor’s outcomes and outcome indicators that are contained within the Mayor’s Transport Strategy. These targets cover a number of topics including modal shift, air quality, casualty reduction and bus punctuality.
- 9.1.19 The funding that the Council receives each year from Transport for London is spent on schemes that will contribute towards meeting these targets and therefore the objectives contained within the LIP and MTS. These are set out in the table below:

**FIGURE 18 LOCAL IMPLEMENTATION TARGETS**

<b>Metric</b>	<b>Borough target</b>	<b>Target year</b>	<b>MTS target</b>
Active, efficient and sustainable (walking, cycling and public transport) per cent mode share (by borough resident) based on average daily trips. Base period 2012/13 - 2016/17.	46%	2021	46%
Proportion of London residents doing at least 2x10 minutes of active travel a day (or a single block of 20 minutes or more). Base period 2012/14 - 2016/17.	21%	2021	29%
Proportion of Londoners living within 400m of the London-wide strategic cycle network. Base year 2016.	0%	2021	0%
Deaths and serious injuries (KSIs) from road collisions. Base period 2005 - 2009 (for 2022 target)	34 KSIs	2022	34 KSIs
Deaths and serious injuries (KSIs) from road collisions. Base period 2010 - 2014 (for 2030 target)	19 KSIs	2030	19 KSIs
Vehicle kilometres in given year (per cent change). Base period 2014 - 2016. Reduce overall traffic levels by 10-15 per cent.	0%	2021	N/A
10 per cent reduction in number of freight vehicles crossing into central London in the morning peak period (07:00am - 10:00am) by 2026.	N/A	N/A	N/A
Total cars owned and car ownership per household, borough residents. Quarter of a million fewer cars owned in London. Base period 2014 - 2016.	124,749 cars	2021	N/A
CO <sub>2</sub> emissions (in tonnes) from road transport within the borough. Base year 2013.	328,200 tonnes	2021	
NO <sub>x</sub> emissions (in tonnes) from road transport within the borough. Base year 2013.	500 tonnes	2021	
PM <sub>10</sub> and PM <sub>2.5</sub> emissions (in tonnes) from road transport within borough. Base year 2013.	77 tonnes (PM <sub>10</sub> ) 39 tonnes (PM 2.5)	2021	
Trips per day (000s) by trip origin. Reported as 3yr moving average. Base period 2011/12 - 2016/17.	120 trips	2021	120 trips

Reduce the difference between total public transport network journey time and total step-free public transport network (minutes). Base year 2015.	88 minutes (full network) 91 minutes (step free network)	2041	88 minutes (full network) 91 minutes (step free network)
Annualised average bus speeds (mph). Base year 2015.	12.2 mph	2021	12.2 mph (low) 12.5 mph (high)
No Outcome indicators	N/A	N/A	N/A

**Source: Havering's Local Implementation Plan**

*Air Quality Action Plan (AQAP)*

9.1.20 In June 2018 Havering adopted its AQAP, which outlines the actions the Council will take to improve air quality in the Borough between 2018 and 2023. The AQAP consists of a variety of information explaining air pollution, its effects on human health, the current status of air quality in Havering, sources of pollution, current Council practices, policies, vision, priorities and future actions with regard to improving air quality across the entire Borough.

9.2 Planning Policies

9.2.1 The proposed M25 Junction 28 improvement Scheme was not a consideration within the current development plan; however, the emerging Local Plan does recognise the scheme as a key feature of its spatial strategy and the scheme features in Policy 23 *Transport Connections*.

*The Local Development Framework (LDF) (2008)*

9.2.2 The LDF is the statutory development plan for the Borough and is made up of a series of documents and acts as the implementation plan for the land-use objectives of the borough up to 2020.

9.2.3 Together with the London Plan it sets out the spatial strategy and policies for the sustainable use of land buildings in the Borough and includes two sets of planning policies relevant to this DCO application.

9.2.4 The first set (core policies) state the Council's strategy for balancing the need to deliver economic prosperity and new and affordable housing with the protection and enhancement of the borough's environmental quality and has been prepared to be in general conformity with the London Plan at adoption, as statutorily required. The second set are detailed development control policies, which provide more detailed guidance on the criteria against which planning proposals will be determined.

9.2.5 The LDF includes a portfolio of statutory Development Plan Documents (DPD). Details of relevant policies linked to this LIR can be found [here](#). Within the LDF Site Specific Allocations (DPD) there is no specific allocation relating to safeguarding land to enable the provision of a new dedicated loop road between the M25 northbound carriageway and the eastbound carriageway of the A12 and therefore considered not applicable to this application.

*The new Local Plan (2016 – 2031)*

9.2.6 The council has been preparing a new Havering Local Plan and that underwent an independent examination following its submission to the Secretary of State for the Ministry of Housing, Communities and Local Government in March 2018.

9.2.7 The Examination hearings took place in October 2018 and May 2019 under the direction of a Planning Inspector (Ms Susan Heywood BSc (Hons) MCD MRTPI).

9.2.8 The Inspector considers that the Local Plan could be found 'sound' subject to it including a number of Main Modifications. The proposed Main Modifications have now been published and recently consulted on. It is expected the Inspector having considered all responses to the proposed Main Modifications, will finalise her report into the soundness of the Local Plan and the schedule of recommended Main Modifications in early 2021. If successful, the new Local Plan will be formally adopted and will replace the two set of planning policies referred to above.

9.2.9 The new Local Plan sets out the Council's ambitious vision and strategy for future growth and sustainable development over the next 15 years up to 2031. The Local Plan and Proposals Map together with the London Plan, the Joint Waste Development Plan Document (DPD) for the East London Waste Authority Boroughs and Havering's forthcoming Site Specific Allocations Local Plan will comprise the Development Plan for the borough and will be the primary basis against which planning applications are assessed.

9.2.10 The new Local Plan is a material consideration in planning decisions. The amount of weight given to it, is a matter for the decision maker. The Local Plan and associated documentation can be found [here](#).

## 10 Policy Compliance

### 10.1 Relevant Policies

- 10.1.1 LBH has reviewed its policy documents for compatibility or conflict against the proposed scheme. Rather than reiterating all the policies contained within these documents, for ease of reference Havering has set out below the policies that are considered to be conflicted. All other policies are considered to be in agreement or neutral with the scheme.
- 10.1.2 Whilst the Development Plan for Havering also comprises the London Plan, LB Havering has not considered the scheme's compliance against the London Plan. LB Havering would anticipate the Greater London Authority would carry out such an assessment as part of any LIR that they produce.

### 10.2 Local Plan Policy 22 Skills and Training

- 10.2.1 The Council will promote employment and skills development opportunities for local residents by supporting major development proposals that commit to:
- a. A minimum local labour target of 20% during construction and end user phase for major commercial or mixed use developments including a proportion of apprenticeships where the length of construction phase allows;
  - b. A minimum local labour target of 20% during construction for major residential developments;
  - c. The notification of all vacancies associated with the development and its end use through the Council's employment service; and
  - d. Offer opportunities to local businesses within their supply chains.
- 10.2.2 Where local labour targets cannot be achieved and it can be demonstrated that all opportunities to meet this target have been explored, a commuted sum payable to the Council will be required.
- 10.2.3 Major development proposals will be expected to submit an Employment and Skills Plan for agreement with the Council to detail how these targets will be met. This must include the proportion of apprenticeships offered and the opportunities given to local businesses within their supply chains. The Employment and Skills Plan needs to comply with the Mayor of London's Economic Development Strategy.
- 10.2.4 The Council would want to see jobs, apprenticeships, work experience and careers talks to local schools and colleges during the construction phase of the scheme, with job opportunities ring-fenced for local residents and local businesses included in the supply chain. In conclusion, LBH would expect an Employment and Skills Strategy to be produced in support of the scheme.

10.2.5 The Outline Construction Environmental Management Plan (CEMP) does not contain a firm commitment with regards local workforce employment. Instead such matters will only be considered by the appointed contractor and as part of requirement 4 of the draft DCO Construction and Environmental Management Plan. The fact that no firm commitment has been provided by the scheme promoter with regards to local employment means that the scheme is currently not compliant with Policy 22.

10.3 Policy CP8 Community Needs and DC27 Provision of Community Facilities (Core Strategy and Development Control Policies, 2008)

10.3.1 This policy looks to ensure that suitable range of community facilities are provided to meet existing and forecasted need.

10.3.2 The main issue of concern, is in respect to the Gardens of Peace Cemetery due to the temporary land take to facilitate the proposed diversion of the Cadent Gas pipeline. As discussed under section 'Relevant planning history and any issues arising', Havering is of the understanding that HE and the owners of the Gardens of Peace Cemetery have been in discussions and that the owners are satisfied that the temporary land take will not detrimentally affect the day to day operational requirements.

10.3.3 It was agreed at a meeting with the applicant in late 2020 that Highways England would provide the Council a copy of the correspondence to this effect. In the absence of this information, the Council concerns remain open. At the time of writing, this information has not been received, should it be received to the satisfaction of the Council, the Scheme will be considered compliant with Policy.

10.4 Policy CP9 Reducing the need to travel (Core Strategy and Development Control Policies, 2008), Local Plan Policy 23 Connections

10.4.1 The scheme is principally a road scheme and therefore does not directly support sustainable travel movements. However, in conformity with NPS NN paragraph 3.15 commitment to providing people with options to choose sustainable modes, the Transport Assessment does consider the impact on affected Non-Motorised Users (NMU) routes and assures that pedestrian and cycle facilities are to be maintained throughout the construction phase of the scheme. Whilst the Council acknowledges the commitment from Highways England to maintain the shared use path on the northern side of the A12 during construction, there is however no provision as part of the scheme to enable a safe navigation of the Brook Street roundabout itself for pedestrians and cyclists.



10.5 Policy CP10 Sustainable Transport (Core Strategy and Development Control Policies, 2008), Local Plan Policy 23 Connections

- 10.5.1 This scheme specifically focusses on improving vehicle capacity through the Brook Street roundabout and improving safety through this junction. There is no additional provision proposed to assist pedestrians and cyclists as part of the DCO, although it is recognised that existing NMU infrastructure will be maintained as outlined above in Policy CP9.
- 10.5.2 Furthermore, although not finalised, it is noted that Highways England have been looking at options to improve cycling connectivity between Havering and Brentwood via the Brook Street interchange however the proposal falls outside of the DCO red line boundary and is being progressed through Designated Funds. Should this scheme be implemented, it would contribute towards compliance with policy CP10 and Policy 23 Connections.

10.6 Policy CP16 Biodiversity and geodiversity (Core Strategy and Development Control Policies, 2008), Local Plan Policy 30 Nature Conservation

- 10.6.1 A REAC has been prepared to support this Application (application document TR010029/APP/7.3). This details the environmental mitigation and compensation measures that would be implemented during construction, why they are required, who is responsible for delivering them and any ongoing maintenance arrangements.
- 10.6.2 Requirement 4 of the draft DCO (application document TR010029/APP/3.1) secures the submission of a Construction Environmental Management Plan (CEMP) which be in substantially in accordance with the Outline CEMP (application document TR010029/APP/7.2) and must reflect the mitigation measures set out in the REAC.
- 10.6.3 The Council is concerned that the CEMP will only be produced by the appointed Contractor post Consent and that the highway authority will only be a “consultee” as part of this process. The Council requires additional reassurance that the mitigation measures set out in the REAC will be included. It is essential that such mitigation measures are agreed with the Council prior to commencement of the works.

10.7 Policies CP18 Heritage, DC67 Buildings of Heritage Interest and Policy DC69 Other Areas of Special Townscape or Landscape Character (Core Strategy and Development Control Policies, 2008), Local Plan Policy 27 Landscaping, Policy 28 Heritage assets

- 10.7.1 These policies seek all new development affecting sites, buildings, townscapes and landscapes of special architectural, historical or archaeological importance must preserve or enhance their character or appearance. DC67 seeks the protection of Listed Buildings or their setting.
- 10.7.2 The absence of an up-to-date archaeological desk-based assessment, of field evaluation results and of details on measures to positively address harm, make a reliable archaeological assessment of the proposals difficult at present. Furnishing of this information is necessary to manage any important remains and thus inform a local policy compliant decision.
- 10.7.3 The assessment of landscape and visual effects was based on a combination of magnitude and sensitivity using the assessment matrix included in IAN 135/10 Landscape and Visual Effects Assessment. LBH is satisfied that the Scheme is compatible with National Policy Statement for National Networks (NPS NN 2014) and LB Havering Core Strategy and Development Control Policy DC60 (Trees and Woodlands) and Havering Local Plan 2016-2031 Policy DC29 (Green Infrastructure).
- 10.7.4 LBH is generally satisfied with the landscape and visual impact assessment findings and the concluding significance of effect(s). Further work is however required to satisfy Havering that the requirements of policies CP18 and DC67 have been met.

10.8 Policy DC8 Gypsies and Travellers (Core Strategy and Development Control Policies, 2008), Local Plan Policy 11 Gypsy and Traveller accommodation

- 10.8.1 This policy relates to Gypsy and Traveller provision. Chapter 13 of the ES People and Communities identifies Putwell Bridge Traveller site as a receptor and does not identify any adverse effects on the site. DC8 is also discussed in the relevant planning history section of the LIR.
- 10.8.2 The Council met with Highways England in late 2020 to discuss the impact the scheme will have on families living at Putwell Bridge Traveller site. The Council has requested further information from Highways England concerning the acceptability of the scheme by the families that live on the site. At present this information is outstanding. Once this information has been received to LB Havering's satisfaction, this policy will be considered to be compliant with the scheme.

10.9 Policy DC32: The Road Network (Core Strategy and Development Control Policies, 2008), Local Implementation Plan 2019

10.9.1 This policy concerns new development and the associated impacts of developments on the functioning of the road hierarchy. LBH met with Highways England in late 2020 to discuss traffic modelling and the traffic implications of the scheme on the Strategic Road Network (SRN) and wider network. An outcome of this meeting was that Highways England agreed to look at additional factors such as draft London Plan growth assumptions as part of their traffic modelling work. At the time of writing this LIR, it is understood that the Applicant will be submitting a Transport Assessment supplementary document as Procedure Deadline B (21st December). LBH intend to review this additional material and submit a further written statement by Deadline 1 which will include whether the Council considers this policy compliant with the scheme.

10.10 Policy DC52 Air Quality (Core Strategy and Development Control Policies) and Policy 33 Air Quality (Submitted Local Plan 2018)

10.10.1 These policies are committed to improve air quality and seek air quality neutral developments, where possible.

10.10.2 The case for the schemes states; both PM10 and CO2 would see a small increase at both opening year and after 15 years of operation as a result of the anticipated increase in car usage as noted in section 5.14 of Chapter 5. These results are however not expected to give rise to any significant adverse effects on air quality.

10.10.3 Paragraph 12.5.3 of the Local Plan states; where there is a risk of any negative air quality impacts associated with development proposals, an assessment and, if appropriate, mitigation measures will be required, to ensure that air quality has been adequately considered and any negative impacts are minimised.

10.10.4 Furthermore, the Scheme is within an Air Quality Management Area. The annual mean levels for NO2 and PM10 are considered likely to deteriorate. Local Traffic modelling is required to evidence the air quality impact of the proposed scheme, however the Transport Assessment (TA) does not show this.

10.10.5 Concerns are also raised in respect to Putwell Bridge Traveller site which is identified as a receptor. Paragraph 13.10.5 states the site would experience a slight adverse effect (not significant) during the construction phase.

10.10.6 The Council is unable to ascertain the impact of air quality on the wider local area because of the limitations of the transport modelling available. At the time of writing this LIR, it is understood that the Applicant will be submitting a Transport Assessment supplementary document as Procedure Deadline B (21st December). LBH intend to review this additional material and submit a further written statement by Deadline 1 which will include whether the Council considers this policy compliant with the scheme.

10.11 Policy DC55 Noise (Core Strategy and Development Control Policies) and Policy 34 Managing Pollution (Submitted Local Plan 2018)

10.11.1 This policy stipulates that planning permission will not be granted if it will result in exposure to noise or vibrations above acceptable levels affecting a noise sensitive development such as all forms of residential accommodation, schools and hospitals.

10.11.2 Where the proposal would lead to a noise sensitive development being located near to a noise generating activity, a formal assessment will be required to ensure compliance with the noise exposure categories in Planning Policy Guidance Note 24, *Planning and Noise*. Planning conditions may be imposed to this effect.

10.11.3 The noise impacts are not clear, specifically in regard to the residents of Putwell Bridge and Gardens of Peace Cemetery which both have gaps in noise assessment.

10.11.4 The Havering Noise Important Area (NIA) is set within the boundary of the proposed scheme. Of particular note, Gallows Corner junction, a busy five arm junction in the borough is located within the NIA. Further evidence is required to understand the level of noise impacts arising from the scheme at a local level and any appropriate mitigation. Further information is required to reassure the Council that this policy has been complied with.

10.12 Policy DC70 Archaeology and Ancient Monuments (Core Strategy and Development Control Policies)

10.12.1 LB Havering policy DC70 commits the council taking archaeological significance into account when making planning decisions and to taking appropriate measures to safeguard that interest. Where nationally important remains exist, they will be physically preserved.

10.12.2 LB Havering's Heritage SPD (2011) notes that additional, previously unknown archaeological sites will be discovered over time. It also establishes that archaeological advice in the borough is provided on the LPA's behalf by the Greater London Archaeology Advisory Service (GLAAS).

- 10.12.3 As well as establishing a better understanding of the buried potential through site evaluation, it is recommended that HE show how cultural heritage and its sympathetic treatment have fed into project planning and the final range of public benefits that would be derived from any consented scheme.
- 10.12.4 It is also recommended that impacts from both insertion of a new mains and any remediation to the old one are factored into the project's archaeological proposals.
- 10.12.5 In addition to DC70, further information on the schemes compatibility with CP 18 Heritage and the Councils Heritage SPD (2011) can be found in the Topic Specific Issues section of the LIR.
- 10.12.6 Until the Council receives further information from Highways England on the above matters, it is not possible to ascertain whether the scheme is policy compliant.

#### 10.13 Local Development Framework DC31 – CEMETERIES AND CREMATORIA

- 10.13.1 Savills on behalf of the owners of the Gardens of Peace Cemetery submitted a Representation at Procedure Deadline B. The representation states that development of the site is due to commence in the first half of 2021, with a targeted opening date of February 2022. The owners are concerned that the construction of the gas main will cause a delay to the opening date raising concerns that they will not be able to meet the needs and demands of the Muslim community.
- 10.13.2 The owners have also indicated that burial plots would be impacted by the gas pipe line and there are concerns that the easement strip will be sterilised from its intended use (burials). Further the representation indicates that due to the service entrance having to be relocated, this will result in the soil storage area being moved which will further impact on burial plots.
- 10.13.3 Until there is clarification from the Applicant on this matter, the scheme is not considered to be policy compliant with DC31

#### 10.14 Local Development Framework DC 31 states that the Council will ensure that sufficient land is retained to meet demand for burial space and cremated remains

- 10.14.1 From 2006, burial space needs in Havering are forecast to increase by more than four acres every five years.



- 10.14.2 The Havering Local Plan address this issue in Policy 16 Social Infrastructure. The policy states that the Council will protect existing burial space provision as designated on the Proposals Map to meet the need for burial space over the Plan period.
- 10.14.3 The future demand for burial space in the borough has been identified through the Council's Infrastructure Delivery Plan. Sufficient supply of multi-faith/interdenominational plots has been identified for the full Local Plan period. With regards to demands for burials meeting specific Muslim requirements arising from the wider North East London, including Havering, sufficient capacity has been identified until around 2024.

## 11 Topic Specific Issues

### 11.1 Issues

11.1.1 This section of the LIR sets out what the Council considers to be the positive, negative and neutral impacts of the scheme upon the London Borough of Havering. This includes a variety of topic areas which are identified as sub headings. We would like the ExA to note that Havering has particular concerns regarding these matters.

### 11.2 Havering's Landscape

11.2.1 Havering is one of the greenest boroughs in London, with an attractive suburban character and over half the borough covered by protected countryside, parkland and nature reserves. It is a varied landscape where human intervention has played a significant role in the development and maintenance of many of the different habitats, which combine to create a unique landscape so close to the urban centre of London.

11.2.2 The M25 junction 28 is set within the Brentwood Wooded Hills Landscape Character Area (Land of the Fanns Landscape Character Assessment, 2016). This is a semi-enclosed, undulating, well wooded landscape with pastoral and arable fields bounded by hedgerows with intermittent trees, interspersed with ancient and mature woodland blocks that frequently form a wooded skyline. Two waterbodies cross the landscape, the Ingrebourne River, which flows adjacent to A12 and the Weald Brook which flows north to south to the west of the M25.

11.2.3 The area surrounding the junction is Grade 3 Agricultural Land Classification (ALC) and there is a former landfill site to the north west situated within the Grove Farm landholding. Semi-mature woodland belts are largely present along the entry and exit slip roads of the M25, as well as along the A12 east and west of the junction towards the fringes of built-up areas. Woodlands in the local area include Alder Wood, Duck Wood, Grove Wood, The Oaks, Vicarage Wood and Lower Vicarage Wood. To the north west, Dagnam Park/Manor Local Nature Reserve is located. This is a remnant park designed by Humphrey Repton and has a strong sense of place due to its former parkland origins including large areas of mature woodland but also the unity and character of the built form. To the north of the M25 within the borough of Brentwood, Weald Country Park (Registered Park and Garden) is situated. Originally a 12th century deer park, the area has retained much of its parkland character including wood pasture, woodland, cattle grazed pasture and ornamental lakes. Generally, the quality of this landscape is derived from its combination of historic landscape patterns and features, which provide a strong rurality, even with the extensive road network present.

11.2.4 The Scheme lies within a landscape that is predominantly composed of open pasture and woodland blocks, some of which are Ancient Woodland. The Ingrebourne River and Weald Brook flow through the site, passing under the A12. Grove Farm is also enclosed by the Scheme DCO boundary, as well as Maylands Golf Club and other isolated properties, which are sited to the west. Weald Park, a Grade II Registered Park and Garden is located approximately 800 m to the north of junction 28, also within the study area.

#### *Assessment*

- 11.2.5 Landscape and Visual matters are provided within Chapter 9 (application document TR010029/APP/6.1) Appendix 9.1 (application document TR010029/APP/6.3) and Figures 9.1 to 9.8 (application document TR010029/APP/6.2). The Landscape Visual Impact Assessment (LVIA) (Doc ref: TR010029/APP/6.1) has been carried out in accordance with published guidance including Highways England's Interim Advice Note (IAN) 135/10 Landscape and Visual Effects Assessment, DMRB Volume 11, Section 3, Part 5 Landscape effects and the Landscape Institute's Guidelines for Landscape and Visual Impact Assessment (GLVIA) 3rd edition. The assessment of landscape and visual effects was based on a combination of magnitude and sensitivity using the assessment matrix included in IAN 135/10 Landscape and Visual Effects Assessment.
- 11.2.6 LBH is satisfied that the Scheme is compatible with National Policy Statement for National Networks (NPS NN 2014) and LB Havering Core Strategy and Development Control Policy DC60 (Trees and Woodlands) and Havering Local Plan 2016-2031 Policy DC29 (Green Infrastructure).
- 11.2.7 LBH is generally satisfied with the landscape and visual impact assessment findings and the concluding significance of effect(s).
- 11.2.8 LBH agree that the potential effects on the local landscape character would be focussed around Grove Farm, Alder Wood and Maylands Golf Club, and although LBH is satisfied with the majority of the mitigation planting proposed to reduce the impact of the scheme and to offset the losses of vegetation and ancient and mature woodland blocks, these areas of mitigation planting are solely responsible for mitigating the impacts and therefore LBH are of the view that the design, implementation and overall management of the planting needs to be robust and future proof.
- 11.2.9 Where possible, LBH would recommend that vegetation is planted at the earliest opportunity with an array of pioneering and successional species to ensure adequate screening is provided long-term.

11.2.10 Photomontages (Application Document Reference: TR010029/APP/6.2) have been produced in response to the ExA's Procedural Decision following Issue of Acceptance Decision (PD-004), dated 25 June 2020, requesting the submission of photomontages depicting the Proposed Development. LBH is largely satisfied with the viewpoint visual representation, save for a minor point in Figure 9.22 - Viewpoint B (right) 15 year Photomontage (Summer) Grove Farm, where the area could be enhanced further with additional mitigation planting to reduce residual effects.

### 11.3 Archaeology

11.3.1 The borough's Local Plan designates an Area of Archaeological Potential crossing the south side of the scheme area. This relates to the route of the Roman road from London to Colchester and the associated scope for evidence of contemporary roadside activity, including the Roman crossing of the Weald Brook.

11.3.2 The borough's Local Plan designates an Area of Archaeological Potential running through the centre of the scheme area and also along its southern edge. This relates to the course of the Ingrebourne and Weald Brook and the associated scope for multi-period human activity along those watercourses.

11.3.3 The Greater London Historic Environment Record (GLHER) documents that the south west of the scheme area includes part of Maylands Aerodrome, an interwar air field that has historical interest as a pioneering site for the development of package holidays and also its associations with Amy Johnson, the first woman to fly solo from London to Australia.

11.3.4 The GLHER documents the recent discovery of an early/middle Saxon occupation site, just south of the scheme area at the Oak Farm/Gardens of Peace site during fieldwork in advance of development there. The extent of the occupation site is not known and may reach into the scheme area.

11.3.5 LB Havering policy CP18 requires the preservation or enhancement of sites of archaeological importance.

11.3.6 Archaeological impact can be expected from the scheme.

11.3.7 However, the absence of an up-to-date archaeological desk-based assessment, of field evaluation results and of details on measures to positively address harm make a reliable archaeological assessment of the proposals difficult at present. Furnishing of this information is necessary to secure the management of any important remains and thus inform a local policy compliant decision.

- 11.3.8 As well as establishing a better understanding of the buried potential through site evaluation, it is recommended that HE show how cultural heritage and its sympathetic treatment have fed into project planning and the final range of public benefits that would be derived from any consented scheme.
- 11.3.9 It is also recommended that impacts from the gas mains diversion and any remediation to the old one are factored into the project's archaeological proposals.

#### 11.4 Ecology

- 11.4.1 The biodiversity resource of Havering is diverse and constantly changing. Its historic parks, river valleys and Thames-side marshland hold a significant proportion of London's entire resource of some Priority habitats. Its private gardens are home to the stag beetle, a Priority species, and it has a high density of ponds (2 per sq.km) that support important key species such as great crested newts. Havering is also the stronghold in London for another Priority species, water voles.
- 11.4.2 Within Greater London, Havering has 56% of the grazing marsh, 31% of the reedbeds, 31% of the floodplain grassland, 25% of the marshland and 19% of the ponds and lakes, in all cases more than any other London borough. The rivers in the borough are, in the most part, included either in wildlife corridors, SSSIs, LNRs or other sites of nature conservation interest. The estuarine habitats beside the Thames, which include (in Havering, part of) the Inner Thames Marshes SSSI, are internationally important for their biodiversity interest, supporting large numbers of overwintering and breeding wetland birds, rare plant and invertebrate species, and diverse marine wildlife.
- 11.4.3 Havering is the 6th most wooded borough in London, with a number of ancient woodlands, and blocks of semi-natural woodland which are concentrated in the north of the borough, forming part of the attractive wooded Havering Ridge (see figure 12 Constraints Map). Much of the woodland is concentrated around the historic landscapes of Havering Country Park, Bedfords Park, Pyrgo Park and Dagnam Park, which is also designated as one of the seven statutory designated Local Nature Reserves (LNRs) alongside Ingrebourne Valley LNR. Havering also has a large number of non-statutory Sites of Importance for Nature Conservation (SINCs); these include nine Sites of Metropolitan Importance, 64 Sites of Borough Importance - 21 Grade 1 and 43 Grade II sites – and 16 Sites of Local Importance. The Borough has a concentration of sites of high biodiversity value across the northern ridge and, in the south of the borough, the high-value Ingrebourne and Inner Thames Marshes SSSIs and the corridor of the River Thames.



### *Assessment*

- 11.4.4 Ecology matters for this NSIP are provided within Chapter 7 (application document TR010029/APP/6.1) and associated appendices of the submitted Environmental Statement.
- 11.4.5 LBH is satisfied that the Biodiversity chapter has been written, checked and reviewed by suitably qualified professional ecologists who meet the requirements of the EIA Regulations for a competent expert. All the surveys were led by ecologists who are also considered to be competent and in line with CIEEM Guidelines for Preliminary Ecological Assessment and Ecological Impact Assessment in the UK and Ireland.
- 11.4.6 LBH is confident that the relevant biodiversity data searches informed the field survey work and these identified a number of important biodiversity features within and adjacent to the Scheme. These include an area within the northern extent of Ingrebourne Valley Site of Metropolitan Importance for Nature Conservation (SMI) which covers the Ingrebourne River corridor and associated habitats through London Borough of Havering.
- 11.4.7 LBH welcomes the robust approach to survey and initial assessment of potential impacts from this NSIP and the Biodiversity chapter follows the mitigation hierarchy as required by CIEEM EclA guidelines.
- 11.4.8 LBH is satisfied that the Scheme is compatible with NN NPS, Highways England's Biodiversity Plan, LB Havering Policy DC30 (Nature Conservation), DC59 (enhancements to biodiversity) and Policy DC60 (protection and improvement of amenity and biodiversity value afforded by trees and woodland). However LBH notes that construction of the Scheme would result in the permanent loss of habitat of the Ingrebourne Valley SMI and the loss of two veteran trees.
- 11.4.9 During construction, loss of habitat and disturbance of species has the potential to result in temporary adverse effects on Ingrebourne Valley SMI, Ingrebourne River, Weald Brook, Great crested newts (GCN), bats, breeding birds, otter and terrestrial invertebrates.

### *Mitigation*

- 11.4.10 LBH welcomes the mitigation and compensation measures have been incorporated into the design to reduce these potential effects of the Scheme on designated sites, protected and Priority species & habitats. Protection of species, particularly GCN under an EPS mitigation licence during construction, appropriate reinstatement and creation of habitats within temporary construction areas will be required. Careful consideration will also be needed to facilitate temporary storage of clay and re-modelling and enhancement of the Ingrebourne River and Weald Brook and providing wide-span bridges over watercourses.

- 11.4.11 LBH agrees that creation of replacement habitats will support a diverse range of species. LBH acknowledges the long term management and monitoring of all newly created habitats and that this will be part of a long-term management plan to be secured by a requirement of the draft DCO. Although the REAC contains the necessary details for the draft DCO Requirements including refinement of the Outline Construction Environment Management Plan the Council remains concerned that the implementation of the REAC will be the responsibility of the appointed contractor following consent being granted. At this point the Council has no surety regarding the timing of the mitigation implementation, nor certainty about delivery of REAC measures.
- 11.4.12 LB Havering agrees that proposed amendments to the Weald Brook as set out below are positive and compensate for the residual effects listed above:
- a. Veteranising two existing trees within the DCO boundary as well as planting 16 trees with space around them to develop an open crown to produce veteran features in the future
  - b. Managing the invasive Golden Rod on the SMI to restore and enhance this designated site
  - c. Remodelling and enhancement of the Ingrebourne River and Weald Brook as agreed with the Environment Agency and provision of wide-span bridges over watercourses and culverts for species connectivity.

*Residual effects*

- 11.4.13 LBH is satisfied that no long-term residual effects are anticipated for GCN, bats, breeding birds, otter and terrestrial invertebrates. However, despite following the mitigation hierarchy, the Scheme has the potential to result in the following residual effects:
- a. Adverse effect of moderate significance in relation to the loss of two veteran trees (irreplaceable habitat).
  - b. Adverse effect of slight significance to Ingrebourne Valley SMI due to the permanent loss of 1.9 % of the SMI.
  - c. Adverse effect of moderate significance on the Ingrebourne River within the proposed scheme DCO boundary due to the permanent loss of open water and riparian habitat caused by the 80 m culvert extension. Enhancement of riverine habitats outside the boundary would result in a neutral effect on the Ingrebourne. However, the adverse effect on the Ingrebourne River within the boundary remains.

## *Conclusion*

- 11.4.14 LBH considers that Highways England has placed biodiversity at the heart of the design process and explored opportunities for delivering a net gain for biodiversity. This supports the target of delivering no net loss of biodiversity on the strategic road network by 2020 and to achieve net gain by 2040, We therefore welcome the proposed biodiversity enhancements for this development including the use of native species for landscape planting as well as bird and bat boxes in retained habitat to ensure that measurable net gains are provided for biodiversity. This will enable the Secretary of State for Transport to demonstrate compliance with their statutory duties including the biodiversity duty under s40 Natural Environment and Rural Communities (NERC) Act 2006 and support the HE Biodiversity Action Plan.
- 11.4.15 LBH agrees that the Scheme would deliver effective and appropriate compensation for the ecological impacts identified. Mitigation and compensation for impacts on the non-statutory designated site have been discussed in detail and agreed with the Council's advisors.
- 11.4.16 LBH also agrees that the mitigation and compensatory habitat for protected and Priority species for both construction and operational phases of this Scheme is acceptable.
- 11.4.17 LBH agrees that the shadow Habitats Regulations Assessment screening report (TR010029/APP/6.9) relating to the assessment of likely significant effects from the development on Habitats sites has been prepared as required by the Conservation of Habitats and Species Regulations 2017 (as amended) to inform the decision to be made by the Secretary of State for Transport as competent authority.
- 11.4.18 LBH agrees that no likely significant effects from the Scheme are predicted on Habitats sites for the construction or operational phases, either alone or in combination with other plans and projects. LBH also agrees that no mitigation is therefore considered necessary for Habitats sites for this Scheme and it does not need to progress to Stage 2 Appropriate Assessment.
- 11.4.19 LBH does not therefore consider any additional mitigation is required to make the Scheme acceptable both during construction and operational stages.
- 11.4.20 LBH acknowledges that the design has embedded measures to minimise ecological impacts, so subject to mitigation and compensation being secured by Requirements of the DCO when issued, the proposal is considered to be acceptable from an ecology point of view.

## 12 Contaminated Land

### 12.1 Policy Compliance

- 12.1.1 Chapter 10 (Geology and Soils) of the Environmental Statement is in compliance with Policy DC53 Contaminated Land of the Council's Core Strategy and Development Control Policies Development Plan Document. The Council will however need to review a ground investigation and detailed risk assessment report, in order to be satisfied that a full technical assessment has been undertaken, as per the aforementioned policy.

#### *Assessment Methodology*

- 12.1.2 The Council supports in principle the assessment methodology outlined in Chapter 10 of the ES for the assessment of risks associated with land contamination. However, the Council in its section 42 consultation response recommended early involvement and consultation prior to the commencement of the investigation works, in order to agree on the design of the ground investigation (e.g. soil sampling strategy, gas monitoring strategy etc.). It is noted that the Council has not been consulted by the Scheme project team with regard to the ground investigation strategy and therefore, when the ground investigation report becomes available, the Council may require additional site investigation works, if considered necessary.

#### *Construction and Operational Phase Impacts*

- 12.1.3 Given that the ground investigation works are ongoing, the land contamination assessment, which has been carried out is a phase 1 / preliminary desk-based assessment.
- 12.1.4 Taking into consideration, that part of the development area lies on a historical landfill (Brook Street), for which there are no historical data available, such as soil sample test results, ground gas monitoring, the Council agrees with the risk assessment, subject to any changes of the phase 2 / detailed risk assessment. Until the ground investigation and detailed risk assessment reports become available, the Council considers that the construction and operational phase impacts of the scheme, associated with land contamination have not been fully assessed.
- 12.1.5 With regard to the risks related to asbestos presence in particular, a suitable and sufficient risk assessment must be carried out, in line with the Control of Asbestos Regulations (CAR) 2012.

## *Mitigation*

- 12.1.6 Many of the mitigation measures set out in the Construction Environmental Management Plan (CEMP) are subject to the phase 2 / detailed risk assessment which has yet to be provided. The CEMP also states that a Contaminated Land Management Plan is expected to be prepared, as part of the final CEMP. HE proposed that this will be prepared by the appointed contractor after the DCO has been granted providing LB Havering with little opportunity to influence the document. LB Havering considers this to be a risk to the delivery of the proposed scheme.
- 12.1.7 With regard to the mitigation measures for the operational phase of the Scheme, LB Havering notes that the final landscaping works have not been specified in the ES. More specifically, the ES states: "*It has been assumed that hardstanding would be placed across the majority of the proposed works associated with the carriageway*". Taking into account the significance of landscaping, in relation to the creation or removal of pathways from sources of contamination to receptors, the Council requires this information to be provided in the ground investigation report and detailed risk assessment, in order to be in a position to assess the final mitigation measures.
- 12.1.8 The Council is of the view that mitigation should be re-considered following the detailed risk assessment. Depending on the outcomes of this risk assessment, additional mitigation measures may be required.



## 13 Built Heritage

### 13.1 Background

- 13.1.1 The London Borough of Havering is the furthest east of the London Boroughs and historically formed part of the County of Essex. The current Borough was formed in 1965, combined of the former borough of Romford and the urban district of Hornchurch. The character of its historic environment is therefore unique in that it reflects its location, with London suburbia sitting alongside rural Essex. Havering has a rich and diverse heritage. There are eleven Conservation Areas all with differing qualities and characteristics which reflect the history of the Borough; from rural villages, to market towns and early twentieth century housing estates. The Borough contains nearly 150 listed buildings, including 21 Grade I and II\* listings which are of the highest significance as well as over 150 locally listed building, recognised for their local architectural or historic interest. There are three Scheduled Monuments, including a Roman site and two medieval sites, and one Registered Park and Garden at Upminster Court.
- 13.1.2 The Borough takes its name from the medieval manor and Liberty of Havering-atte Bower, which covered an area stretching from the Thames marshes in the south to the village of Havering-atte-Bower in the north. The Liberty consisted of the three large parishes of Romford, Havering-atte-Bower and Hornchurch. The eastern side of the Borough was within Chafford Hundred, which comprised of a cluster of small parishes of isolated farms and hamlets including Cranham, North Ockendon, Upminster and Rainham.
- 13.1.3 For much of its history, this area was part of the agricultural landscape of Essex with isolated farmsteads and hamlets interspersed with moated manor houses and more substantial properties (including the now demolished Gidea Hall, Dagnams and Pygro Park). From the late seventeenth century, a number of large country houses were constructed as the area became a popular rural retreat from London. Surviving examples include the eighteenth century Rainham Hall (Grade II\* listed) and The Bower House (Grade I listed) in Havering-atte-Bower.
- 13.1.4 Havering-atte-Bower was the location of the royal manor house from the eleventh to the seventeenth centuries. The village still retains its ancient green and its character as a rural settlement, containing buildings in the Essex vernacular alongside impressive eighteenth-century country houses including The Bower House (listed at Grade I) and The Round House (listed at Grade II\*). The manor here closely aligned with the boundary of the medieval parish of Hornchurch. The Grade I listed parish Church of St Andrew, of thirteenth century origins, remains a prominent landmark within Hornchurch.

- 13.1.5 The thirteenth century market town of Romford was in the centre of the Liberty. The town, being located on a major route into London, benefitted from travel and trade and grew to a large market town with many coaching inns lining the High Street. The arrival of the Eastern Counties Railway in 1839 resulted in the expansion of the Romford, and the extension of the London Tilbury and Southend line to Hornchurch and Upminster in 1885 instigated the development of nineteenth century suburbs close to station locations. In the early twentieth century, Gidea Park was the first major suburb to be developed at the edge of Romford beyond the nineteenth century residential development of the town. It is now designated as a Conservation Area. At the core of the Gidea Park garden suburb are the exhibition houses which originally consisted of 159 houses by 100 architects showcased by the development company in 1911.
- 13.1.6 More intensive development for housing peaked in the 1930s with the selling of the old estates and the construction of new arterial roads. The architectural character of the suburbs is varied but the creation of the Green Belt curtailed further large-scale development, protecting the unique character of the Borough.

#### *Assessment*

- 13.1.7 Built Heritage matters regarding the proposed M25 Junction 28 scheme are evaluated within Chapter 11 of the Environmental Statement (Doc.Ref.TR010029/APP/6.1). A number of Appendices which support the Cultural Heritage chapter have also been reviewed together with associated chapters for interrelated disciplines such as landscape and visual impact.
- 13.1.8 The cultural heritage assessment of the scheme has considered impacts on heritage assets that may occur during the construction and operation of the scheme. This includes direct physical impacts, as well as indirect impacts to heritage assets and their settings.
- 13.1.9 Whilst broadly supportive of the assessment methodology, which accords with the guidance in the Design Manual for Roads and Bridges (DMRB), it is noted that there are some discrepancies with the National Networks National Policy Statement (NSPNN) regarding the criteria for assessing the value of heritage assets.
- 13.1.10 Paragraphs 5.120-5.142 discusses the Historic Environment. Of particular relevance is paragraph 5.131 which states that “substantial” harm to or loss of designated assets of the highest significance including World Heritage Sites, Scheduled Monuments, Grade 1 and 2 Listed Buildings, registered Battlefields, and Grade 1 and 2 Registered Parks and Gardens should be wholly exceptional.

- 13.1.11 The discrepancy lies whether World Heritage Sites, Scheduled Monuments, Grade I and II\* Listed Buildings, Registered Battlefields, and Grade I and II\* Registered Parks and Gardens, which are considered to be assets of the highest significance (NSPNN) should be considered of “very high” value for the purposes of assessment Rather than “ high” as per the DMRB. It is recommended that clarification on this discrepancy is sought to ensure the assessment is compliant with the NPSNN.

### *Conclusion*

- 13.1.12 With regard to assessment, the Cultural Heritage Chapter does not discuss or conclude upon potential impacts to the two listed buildings at Tylers Farm (HE Ref: 1079905 and 1183938). Whilst LBH does not consider the scheme will have a significant adverse effect upon these two designated heritage assets, this does need to be evidenced within the Environmental Statement.
- 13.1.13 The proposed scheme will encapsulate a historic farm at The Grove including a threshing barn which is thought to date from the nineteenth century – potentially earlier. The potential significance of structures at The Grove was highlighted to Highways England in January 2019, advising that a site visit would be required and that further evidence should be provided to demonstrate the value of these structures.
- 13.1.14 The Cultural Heritage chapter provides no evidence to establish why the structure is not considered to be of any heritage value and meriting consideration as part of the planning process. Based upon an external inspection of the structure LBH considers it a non-designated heritage asset.
- 13.1.15 LB Havering’s technical support team have visited the above barn, and it appears that the structure has been converted to office or residential use. The barn no longer sits within the agrarian landscape with which it had a functional relationship but land to the south and south-west do remain as recognisable elements of its nineteenth century setting, includes the area of woodland to the south-west, known as The Grove, after which the farm was named. In this respect, setting does contribute to the significance of the former barn, although this significance is low.
- 13.1.16 It is likely that the barn will experience negative impact within its setting both through visual changes resulting from the physical alterations of the scheme and through environmental factors such as increased noise. Fairly modest enhancement works to the immediate setting would outweigh any negative impacts. This could include screening of views to the south of the new elevated carriageway as well as improvements to the north.

13.1.17 It is acknowledged that the barn is of lower significance, however, it is requested that an assessment of the former barn at The Grove is undertaken as part of the Environmental Statement and potential mitigation measures discussed with the London Borough of Havering.

## 14 Air Quality in Havering

### 14.1 Background

- 14.1.1 Since September 2006 the entire London Borough of Havering has been designated an Air Quality Management Area (AQMA) for Nitrogen Dioxide (NO<sub>2</sub>) and Particulate Matter PM<sub>10</sub>. Whilst the national objectives for PM<sub>10</sub> are currently being met, there are a number of areas where there are exceedances of the NO<sub>2</sub> legal limit, which need to be addressed. In Havering, NO<sub>2</sub> and Particulate Matter are primarily produced by road traffic, but there are also other contributions such as construction, domestic gas use and industry.

#### *Assessment*

- 14.1.2 The Council supports in principle the air quality assessment methodology for the construction and operational impacts of the Scheme. However, the Council does not approve the following elements of the methodology:
- a. While sensitive receptors within 200m of the site boundaries have been identified (Figure 5.2 of the Environmental Statement), in line with the current guidance, a Construction Dust Assessment has not been undertaken, as such the risk of the construction dust impacts of the Scheme has not been assessed. It is noted that this matter was raised in the Council's Section 42 consultation response and was not addressed. Without an appropriate assessment, the Council has concerns that appropriate mitigation measures may not be taken, which will affect the health and well-being of its residents.
  - b. Background concentrations have been derived from Defra's background maps (2015 reference year). Given that comparison of mapped and measured background concentrations in Havering has shown underestimation of NO<sub>2</sub> of up to 42%, the Council considers that the use of unadjusted mapped background data is not appropriate. The Council considers that a representative NO<sub>2</sub> background concentration of the area would be in the range of 23-27µg/m<sup>3</sup>. Similarly, predicted background concentrations for the future year should be adjusted upwards. Taking into account that estimates of background concentrations is a parameter affecting the dispersion model's predicted results, the Council is of the view that the model should be reviewed to improve its performance, reduce uncertainties and proceed to any necessary adjustments at a next stage.

- 14.1.3 The NO<sub>2</sub> data collected by diffusion tube monitoring from February to August 2016 were annualised backwards to derive annual means for the calendar year 2015. Whilst this is not against the DEFRA Local Air Quality Management Technical Guidance (TG16), it is very uncommon and considered less accurate, in comparison to annualisation for the same calendar year. Given that the derived NO<sub>2</sub> concentrations were used for the verification of the model, the Council has concerns regarding the appropriateness of this approach, as it increases the amount of uncertainty of the model and its results. The Council is of the view that the base year of the air quality assessment should be 2016, as air quality monitoring data are available for this year.

#### *Construction and Operational Phase Impacts*

- 14.1.4 As highlighted in the previous section (Assessment), the impacts of the construction phase of the Scheme, have not been assessed. The Council considers that this assessment should be carried out, in order to be able to establish adequate mitigation measures.
- 14.1.5 The Council is of the view that the operational phase impacts have not been adequately assessed for the following reasons:
- a. The Council has concerns about the determination of the Affected Road Network, in particular that the affected roads appear to be very limited and that potential “knock on” implications of this Scheme on the wider road network have not been adequately considered. If additional traffic is forecast to use the borough’s strategic roads, in particular the A127 and Gallows Corner junction, which is one of the borough’s major air pollution “hotspots” and less than 4km distant from the Scheme, the average annual mean levels for NO<sub>2</sub> and PM10 are considered highly likely to deteriorate. Local traffic modelling of Gallows Corner and the local road network is required to evidence the air quality impact of the proposed scheme on the local road network
  - b. The methodology elements regarding the background concentrations and the annualisation of the NO<sub>2</sub> monitoring data, which are described in the previous section (Assessment Methodology) are considered to have significantly increased the model uncertainty
  - c. The Council has concerns as to the time elapsed from the chosen baseline year of 2015 and the projected baseline year of 2022. Whilst it is accepted that the modelling was undertaken some years ago, since that time Defra has produced more recent NO<sub>2</sub> mapping with the latest baseline year being 2018. Furthermore, the data available at the time of the modelling would not have taken into account the slowing of the downward trend due to vehicle emissions being incorrectly reported in real-time compared to those measured under testing conditions off road



- d. The model performance has been evaluated by using the statistical parameter of the Root Mean Square Error (RMSE). The RMSE is within 10% of the annual objective in 7 out of the 10 sites which were used for the model verification. Although the DEFRA Local Air Quality Management Technical Guidance (TG16) states that the RMSE should not be higher than 25% of the annual mean objective, the recommendation is that the RMSE should be within 10% of the objective. The fact that the model overestimates the NO<sub>2</sub> concentration by 14% at location CP7 and at the same time underestimates the NO<sub>2</sub> concentration by 10.8% at location HE22, which is near location CP7, raises concerns about how effectively uncertainties in the model have been dealt with and more importantly regarding the model's performance
- e. Surface roughness coefficients have been defined as 0.5 metres (representative of parkland, open suburbia) for the air quality study area. The Council does not consider that the study area is representative of parkland and considers that a surface roughness coefficient of 1.0 would be more realistic. This parameter is important for the estimation of pollutant concentrations and can therefore affect the model results. Another parameter the value of which is not considered appropriate, is the minimum Monin-Obukhov length at the meteorological site. The Council considers that this value should be greater than 10 as the London City Airport area is not considered representative of a small town.

14.1.6 Taking the above into consideration, the Council has concerns that the air quality impacts of the operational phase of the Scheme may be greater than what the current assessment suggests and that the residents may be exposed to unacceptable levels of air pollution.

### *Mitigation*

14.1.7 The Environmental Statement sets out indicative mitigation measures to control dust and emissions during the construction phase of the Scheme and states that '*Mitigation measures to control dust during construction would be specified within contract documentation and incorporated into the Outline Construction Environmental Management Plan (CEMP) (application document TR010029/APP/7.2) and the Register of Environmental Actions and Commitments (REAC) (application document TR010029/APP/7.3)...*' The CEMP does not outline any mitigation measures either and states that '*Location specific measures to be developed in a Dust, Noise, and Nuisance Management Plan in line with good construction practices.*'

### *Conclusion*

- 14.1.8 Unless the construction phase impacts have been fully assessed, the Council considers the Scheme 'High' risk in terms of construction impacts and therefore requires that mitigation measures for a 'High' risk site are taken, including real-time Particulate Matter (PM10) continuous monitoring, in line with the Institute of Air Quality Management (IAQM) Guidance on the assessment of dust from demolition and construction.
- 14.1.9 The air quality impacts for the operational phase of the Scheme have been assessed as 'non-significant', as such no mitigation measures have been proposed. The Council has concerns regarding the outcome of this assessment, as outlined above, therefore mitigation should be re-considered following review of the assessment. Depending on the outcome of the revised assessment and if the impacts on sensitive receptors are found to be significant, the Council would require mitigation to offset the transport emissions of the Scheme.

## 15 Noise

### 15.1 Methodology

- 15.1.1 LB Havering supports in principle the noise and vibration assessment methodology for the construction and operational impacts of the Scheme. However, the Council does not approve the following elements of the methodology:
- a. While sensitive receptors within 200m of the site boundaries have been identified (Figure 5.2 of the Environmental Statement), in line with the current guidance, the Council has concerns that the assessment fails to address the potential wider effects of the scheme particularly with regards to current noise “hotspots” such as Gallows Corner, A127 (Southend Arterial Road), Gubbins Lane and Squirrels Heath Lane which currently fall outside the current assessment area and have therefore not been considered. Residents currently living in these areas experience excessively high levels of noise above current guidance/legislative criteria. Without an appropriate assessment in terms of the expansion of the study/assessment area, the Council has concerns the scheme will result in increases in noise levels above already unacceptable levels and that appropriate mitigation measures may not be taken, which will affect the health and well-being of its residents.
  - b. The limitations of the extent of the assessment are further confirmed by the fact that the long term or short term monitoring stations used by Highways England in their noise assessment are all within 200 metres of the Development Corridor, significantly away from the “hotspots” highlighted. The noise assessment therefore fails to address the wider impact of the scheme, both construction and operational phases.
  - c. LB Havering has raised concerns as to the reliability of the traffic modelling undertaken by Highways England, as such as the traffic flow directly relates to the noise levels, this also raises concerns as to the reliability of the results/findings of the noise assessment based on this traffic modelling used by Highways England in relation to this scheme. This is particularly relevant with regards to the operational phase of the scheme.
  - d. LB Havering has concerns (previously raised with Highways England) that by employing the criteria that any increase in noise levels experienced residents of up to 3dB over the design life of the scheme (i.e. just prior to opening to 15 years post opening) is acceptable. The adoption of this design criteria, particularly where the noise levels are already unacceptable high, will have negative impact the wellbeing and health of effected residents

### *Construction and Operational Phase Impacts*

- 15.1.2 The impacts of the construction phase of the Scheme, have not been assessed adequately in terms of noise. The Council considers that this assessment needs to be expanded to include the impact associated with traffic flow changes with respect to congestion and congestion avoidance during this phase of the scheme particularly outside the current “Affected Road Network” currently being used by Highways England. The assessment is should be expanded, in order to be able to establish adequate mitigation measures.
- 15.1.3 LB Havering is of the view that the operational phase impacts have not been adequately assessed for the following reasons:
- a) The Council has concerns about the determination of the Affected Road Network, in particular that the affected roads appear to be very limited and that potential “knock on” implications of this Scheme on the wider road network have not been adequately considered. If additional traffic is forecast to use the borough’s strategic roads, in particular the A127 and Gallows Corner junction, which is one of the borough’s major noise pollution “hotspots” and then this needs to be assessed by Highways England.
  - b) The position and number of long and short term monitoring positions is inadequate to determine the wider effect of this scheme.

## 16 Flood Risk and Drainage

### 16.1 Methodology

16.1.1 The following documents have been reviewed and found to be acceptable by Havering:

- Doc 6.3 River Corridor Study (for drainage and flooding matters)
- Doc 6.1 ES Chapter Road Drainage and Water Environment
- Doc 6.6 Flood Risk Assessment
- Doc 6.8 Drainage Strategy.

16.1.2 The assessment methodology is appropriate and Havering recognises that positive drainage and SUDS techniques will be employed. Havering officers have input into the appraisal process and consider the approach to be robust and agree with the outcomes of the appraisal, and the proposed mitigation measures which comprise flood compensation areas within the proposal.

## 17 Non-Motorised Users

### 17.1 Pedestrians

- 17.1.1 The Countryside and Rights of Way Act 2000 (CRoW) regulates all Public Rights of Way (PRoW) and ensures access to them. It requires local highway authorities to publish a Rights of Way Improvement Plan (RoWIP), which should be reviewed every 10 years. The Act also obliges the highway authority to recognise the needs of the mobility impaired when undertaking improvements.
- 17.1.2 Policy on the use of PRoWs is contained in Mayor's Transport Strategy 2018 (MTS) and the detail of specific improvements in the Havering Local Implementation Plan (LIP). The MTS sets that London should become a place that emphasises the use of sustainable travel modes wherever possible. The emerging Local Plan policy 29 supports the development of a green network of PRoWs.
- 17.1.3 The dDCO refers to the public rights of way (PRoW) that will fall within the Order limits. In addition to PRoW the dDCO refers to private rights of way within the Order limits.
- 17.1.4 The creation of the new right of way alongside the A12 as Work No 2 (i.e. a roadside footpath) is marked on *TR010029 2.4 Streets, rights of way and access plans*, plan No 1 from location 1/10 to 1/20 but then does not appear to connect to a right way around the Brook Street roundabout (from point 1/20 southwards to point 1/7) to the footpath right of way that runs along the southern section of the A12, along the west bound on-slip, across the southern section of the J28 gyratory and then into Brook Street. This creates a situation for users of no safe route being available under the scheme from the northern side of the A12 west of the junction to the footpath on Brook Street towards Brentwood. This places users of the footpath network in this section of the borough at risk.
- 17.1.5 Notwithstanding the above the dDCO passes responsibility for seeking closures of public and private rights of ways on a temporary basis to the contractor – dDCO Clause 13(1)(b). Along with the temporary highway closure powers discussed elsewhere in the LIR this is, as matter of principle, unacceptable to LB Havering. The local highway authority expects the scheme promoter to deal with such matters. LB Havering also notes that rights of way within the highway will be subject to the same unacceptable regime.



## 17.2 Severance

- 17.2.1 Community severance is concerned with the role of roads as a barrier between different parts of the community resulting in changes to journey patterns and the impact of the Scheme on accessibility to and from communities and their facilities. In accordance with DMRB Volume 11, Section 3, Part 8, the magnitude of impact for assessing community severance has been described using a three-point scale, according to the criteria set out in Table 13.8 Environment Statement People and Communities Chapter 13.

**FIGURE 19 ASSESSMENT CRITERIA FOR COMMUNITY SEVERANCE**

Magnitude	Criteria
Major	In cases of severe severance, people are likely to be deterred from making trips to an extent sufficient to induce a re-organisation of their habits. This would lead to a change in the location of centres of activity or in some cases to a permanent loss of a particular community. Alternatively, considerable hindrance will be caused to people trying to make their existing journeys. For example, a change in journey length of more than 500 m.
Moderate	In cases of moderate severance some residents, particularly children and elderly people, are likely to be dissuaded from making trips. Other trips will be made longer or less attractive. For example, a change in journey length of between 250 m and 500 m.
Minor	Generally, in cases of slight severance current journey pattern is likely to be maintained, but there will probably be some hindrance to movement. For example, a change in journey length of less than 250 m.

**Source: DMRB Volume 11, Section 3, Part 8**

## 17.3 Journey Length and Severance

- 17.3.1 Severance of existing and proposed routes and PRoW used by NMU which may be affected by the Scheme have been identified through a desk-based assessment drawing on the guidance in the Pedestrians, Cyclists and Equestrians component of DMRB Volume 11, Section 3, Part 8. Changes in journey length, journey times and amenity for pedestrians and others may be such that they affect, adversely or beneficially, the degree to which a locality is subject to “community severance”.

## 17.4 Amenity

- 17.4.1 Amenity, for non-motorised users, is defined in Volume 11, Section 3, Part 8, sub-section 4 as “the relative pleasantness of a journey”. In assessing amenity for the routes used by pedestrians and others, a descriptive approach has been employed to give an overall indication of the change in amenity and the number of journeys affected, including reasoned judgement. This assessment has verified the earlier assessment undertaken during the option selection stage of changes in amenity, allowing for any subsequent modifications in the Scheme design (for example, to traffic forecasts, or the route alignment or mitigation). Other factors have been considered where applicable, such as footpath width and distance from traffic, barriers between pedestrians and traffic, and the quality of street furniture and planting.
- 17.4.2 For ramblers, changes in the quality of landscape or townscape are also relevant. For cyclists, there may be positive factors, such as the clear signage of alternative routes, subways or cycle crossings, and negative factors such as junctions where cyclists and vehicles are not separated. For equestrians, landscape quality is generally an important factor, and some of the factors affecting cyclists, depending on the existing and proposed provision for riders.
- 17.4.3 Safety for equestrians crossing a route is a particularly important consideration. The NMU assessment focuses on changes in journey lengths and times, the effect on the amenity value of journeys and changes in community severance. The outcomes have been collated into a combined schedule. Table 13.12 sets out the magnitude of impact criteria used for the assessment of NMU. Havering agrees with the impact criteria, however, it is disappointed that the assessment of impacts is not fully reported as would be expected by using this criteria.

**FIGURE 20 TABLE ASSESSMENT CRITERIA FOR NMU EFFECTS**

<b>Magnitude</b>	<b>Magnitude of impact criteria</b>
Major Beneficial	Substantial improvement to NMU network through provision of new amenities for pedestrians and cyclists where there is no existing route. NMUs navigate route with a decrease in traffic flows of over 50% Annual Average Daily Traffic (AADT). Decrease in journey length by over 500 m.
Moderate Beneficial	Improvement to existing NMU network through new amenities, where there are none or few existing amenities. NMUs navigate route with decrease in traffic flows of 30% - 50% AADT. Decrease in journey length by 250 – 500 m.
Minor Beneficial	Improvement of existing NMU network through upgrading of existing amenities or provision of new amenities where some already exist. Decrease in journey length by up to 250 m.
Negligible /Neutral	No change to traffic flows or NMU amenity. No provision of new amenities. No substantial change in journey length.
Minor Adverse	Existing facilities worsen. Increase in journey length by up to 250 m.
Moderate Adverse	Existing facilities worsen. NMUs navigate route with increase in traffic flows of 30% - 50% AADT. Increase in journey length by 250 – 500 m.
Major Adverse	Substantial harm to NMU route and degradation of amenities. Closure or removal of existing NMU routes. NMUs required to navigate route with an increase of traffic flows of over 50% AADT. Increase in journey length by over 500 m.

**Source: Atkins own methodology based on best practice 2018**

## 17.5 Cyclists and Pedestrians

17.5.1 Road side paths, the cycle crossing, bridleways and footpaths provide amenity to recreational users and those travelling between the surrounding villages to access services, facilities, and Grove Farm.

- 17.5.2 The results of an NMU audit undertaken in 2014 to record the usage of NMU routes in the area show that NMUs use both the carriageway and traffic-free routes - footways, SUPs and PRoW near junction 28. However, overall usage is low when compared to the overall traffic movements. The audit identified that on average 108 cyclist movements and 70 pedestrian movements per day between 7am and 7pm. Equestrian movements, although not audited, are unlikely to be significant in quantum. However, this could represent latent demand. The overall traffic figure shows 48,276 movements over the same period.
- 17.5.3 A walking, cycling and horse-riding assessment and review (WCHAR) has been undertaken by the applicant in October 2018 to review the NMU audit findings. Given there have been no change to NMU conditions since 2014, Highways England have not considered it necessary to update the audit.
- 17.5.4 Havering does not agree with the approach Highways England have taken. Given the inadequate facilities that are currently in place to support pedestrians and cyclists crossing the Brook Street roundabout from the A12 and A1023, it is unsurprising that such low numbers of pedestrians and cyclists have been registered.
- 17.5.5 Given the junction is in close proximity to the residential settlements of Harold Wood, Harold Hill and Brentwood as well as National Cycle Network 136, this indicates that there is suppressed demand to navigate this junction. The photos below indicate the challenges pedestrian and cyclists currently have when navigating the Brook Street interchange.

**FIGURE 21 M25 JUNCTION 28**



Source: Google Maps



FIGURES 21, 22 AND 23 BROOK STREET INTERCHANGE



Source: Google Maps

- 17.5.6 **Accident data** for 8 March 2013 to 30 December 2017 (ES Chapter 13) shows that no collisions involved NMUs. However, a number of rear-shunt or side-swipe accidents were recorded in the immediate vicinity of, and on, the roundabout.
- 17.5.7 The sensitivity of the NMU's is therefore considered to be low. The accident data set out in chapter 13 is not surprising given the findings of the NMU audit undertaken in 2014 which indicated a low level of usage by NMU's. There have been no accidents because there is at present a low number of people willing to navigate this dangerous junction by foot or by bike. A number of uncontrolled crossing points and safe navigable facilities at the Brook Street interchange have resulted in low usage of the junction.



## 18 Traffic and Transport

### 18.1 Road Network

- 18.1.1 A further issue is the impact the scheme will have on the local road network both during construction and operation. Whilst it is acknowledged that the scheme design does not directly impact on borough operated roads, many of these roads connect to the A12, a strategic road operated by Transport for London that is directly impacted by the new loop road. The Council has been working closely with Transport for London (TfL) to better understand the implications of the scheme on the strategic and local road network and traffic modelling work has been undertaken to support this.
- 18.1.2 A further issue, is the impact of the scheme on the local road network, and the impact this may have on Romford Town Centre, being a Strategic Development Area (SDA). The Romford SDA will accommodate a significant level of housing growth with increased levels of economic activity alongside new and enhanced supporting infrastructure.
- 18.1.3 Of particular concern is the section of A12 from Gallows Corner junction eastwards and the approaches to the A12 on borough operated roads, where a number of these junctions are already operating at or above capacity during peak periods.
- 18.1.4 The Transport Assessment (TA) does not address the implications of the scheme on the wider local road network to understand the knock-on effects this would have on main employment and cultural centres within Romford Town Centre.
- 18.1.5 To better understand that impact this scheme will have in the boroughs road network, LBH has commissioned Transport for London to undertake traffic modelling at specific junctions along the network. This is discussed in greater detail in the following section of the LIR.

## 19 Local Modelling Impacts

### 19.1 Introduction

19.1.1 LB Havering has undertaken an assessment of the local traffic impacts of the scheme using a microsimulation model that will assess the effect of the scheme on local roads. The model is based on that used to assess the emerging Havering Local Plan and the flows from the HE scheme traffic assessment. The assessment considers the following junctions:

- A12/A127/ A118 Main Road/ Straight Road Gallows Corner junction
- A12 / Gooshays Driver / Gubbins Lane junction
- A12 / Pettits Lane junction
- A12 / B175 Havering Road /.North Street junction
- A12 / Mawney Road junction
- A127 / Ardleigh Green Road / Squirrels Heath Road junction

19.1.2 A copy of the local modelling impacts report titled *Havering Strategic Modelling Technical Note* can be found in Appendix 1 of the LIR.

### 19.2 Modelling Summary Results

#### *Difference in Flows*

- 19.2.1 For the AM peak 2041 capped differences, A12 traffic increases by 20% from Gallows Corner to M25 J28 (increase of more than 300 PCUs). There is an 8% increase in the westbound direction to Gubbins Lane/Gooshays Drive but a 15% increase westbound between Gubbins Lane to Gallows Corner. The A127/Hall Lane eastbound towards the M25 J29 see a 25% increase in traffic, westbound is less with a 15% increase.
- 19.2.2 The M25 between J27-J30 in both directions see increases between 15-20%, with southbound seeing the greater increase in traffic (increase between 300 and 1000 PCUs). In Romford, the eastbound on the A1251 towards Thurloe Gardens see a 30% increase in traffic. Overall, the majority of roads in Havering see increases in both directions but these are less than 100 PCUs in absolute values. The A13 near Rainham Marshes eastbound towards M25 J30 sees an increase in traffic of 24% (more than 700 PCUs), westbound also sees increases of 9% (more than 400 PCUs). The A1306, a 45% increase eastbound towards the A13/M25 J30 (more than 400 PCUS), westbound towards Rainham sees only a 10% increase. Whilst these changes on the A13 do represent large percentage, some caution must be attached to their interpretation because of the location towards the edge of the simulation model and limited calibration in the area.

- 19.2.3 In the IP peak 2041 capped scenario, nearly equal increase in traffic flows in both directions between A12/A127 Gallows Corner junction and M25 Junction 28, are seen with increases of between 10-17% (increase of more than 150 PCUs). The same trend continues from Gallows Corner to the A12/Mawney Rd junction, with less than 10% increases in both directions. At the A127/Hall Lane junction, an approximate 20% increase towards M25 Junction 29 and a nearly 10% increase from Junction 29 onto the westbound A127 is seen. The A127 to southbound Hall Lane movement sees an increase of 30% towards Upminster, while northbound on Hall Lane is an increase of only 5%. An increase of the M25 in both directions between 8 and 15% (increase between 500 and 1000 PCUs) is recorded. The majority of non-major roads in Havering see increases in traffic, of between 2 and 10%, but this translates to generally less than 100 PCUs in absolute terms.
- 19.2.4 In the PM peak 2041 capped scenario, differences from the A12/A127 Gallows Corner junction to the A12/Mawney Rd junction show there is less a 10% increase in both directions. The same traffic flow pattern is seen from the A12/A127 Gallows Corner junction to the A127/Hall Lane junction, at less than 10% increase in traffic flow in both directions. The A13 near Rainham Marshes sees nearly an inverse of traffic flows from the AM Peak, with an increase of 26% westbound (more than 800 PCUs) and less than 10% increase eastbound (more than 300 PCUs) towards the M25. The A1306 continues the same pattern as the AM Peak with a 35% increase in traffic eastbound towards the A13 (more than 300 PCUs). The A127/Hall Lane junction eastbound towards the M25 junction 29 see a 20% increase in traffic, with the westbound less than a 15% increase. On the M25 junctions 27 to 28 see only a 4% increase in traffic southbound and 3% increase northbound (100-300 PCUs). Junctions 28 to 29 and junctions 29 to 30 see greater increases of approximately 10% in both directions (400-650 PCUs).

#### *Junction Delays*

- 19.2.5 Junction delays, which are reported below (in PCU hours -actual flow multiplied by average delay time per PCU for each simulated junction) provide a measure of total delay accumulated at the junction due to the individual delays, taking into account the total volume of traffic through the junction. The choice of PCU hours reflects more appropriately the greater importance of changes in delay where high volumes of traffic flows are affected, but does naturally emphasize delays on high capacity roads, particularly motorways.
- 19.2.6 In the delay difference from 2016 to 2026, the only major site of delay impacting on Havering is at J28 of the M25 which is present in both the AM peak and PM peak differences. Across all time periods there are some delays south of the A228 Dartford Crossing.

- 19.2.7 In the delay difference plots, there are many more node delays, particularly directly in and surrounding the Barking Riverside development in the Borough of Barking & Dagenham. In the AM peak the delay at J28 remains with additional delays at the Ardleigh Green/Squirrels Heath junction, as well as North of the M25 Dartford Crossing on the M25. The PM peak suffers from the same delays as the AM Peak but also has a large delay at Gallows Corner and more delays at J28, reflecting the increase in peak traffic flows in both directions utilising this junction. The IP peak has one additional delay north of the M25 J28 compared to the 2026 differences.

#### *Volume over Capacity (V/C)*

- 19.2.8 The junction volume to capacity (V/C) ratio is a standard indicator to measure how close a junction or link is to theoretical capacity, under actual traffic flows.
- 19.2.9 The volume-to-capacity ratio can be calculated for an individual turning movement, a link, or for the junction as a whole. In SATURN simulation, it is dependent on a wide range of factors including type of junction, numbers of lanes, lane capacity, traffic signal staging and traffic levels, both opposing and 'on-link' volumes.
- 19.2.10 In 2026 AM and PM peaks, the V/C exceeds 95% at M25 J28, Gallows Corner, North of J28 on the M25, and the A12 west of the Mawney Rd junction.

#### *Conclusion*

- 19.2.11 The traffic growth is most evident along the M25, the main corridors in Havering and principal outer London radial corridors. In all periods, there is a significant M25 growth of traffic that occurs between the junctions 27 to 30. The three principle roads in Havering are the A12, A127 and A13 all providing links from M25 towards central London. They all see increases in traffic flow across all time periods in 2026 but less so than compared to the 2041 models. The increases in traffic flows in 2026 are typically between 4% and 10% across all time periods.

- 19.2.12 For the AM peak 2041 capped differences, A12 traffic increases by 20% from the A12/A127 Gallows Corner junction to M25 junction 28 (increase of more than 300 PCUs). There is an 8% increase in the westbound direction to the A12/Gubbins Lane/Gooshays Drive junction but a 15% increase westbound between A12/Gubbins Lane junction and the A12/A127 Gallows Corner junction. The A127/Hall Lane junction eastbound towards the M25 junction 29 see a 25% increase in traffic, westbound is less with a 15% increase. The M25 between junctions 27 and 30 in both directions see increases between 15-20%, with southbound seeing the greater increase in traffic (increase between 300 and 1000 PCUs). Overall, the majority of roads in Havering see increases in both directions but these are less than 100 PCUs in absolute values.
- 19.2.13 In the PM peak 2041 capped differences, from A12/A127 Gallows Corner junction to A12/Mawney Rd junction, there is less than 10% increase in both directions. The same traffic flow pattern is seen from A12/A127/ Gallows Corner junction to A127/Hall Lane junction with less than 10% increase in traffic flow in both directions.
- 19.2.14 In the delay difference plots for 2016 to 2041 uncapped, there are many node delays, particularly directly in and surrounding the Barking Riverside development. In the AM peak the delay at M25 junction 28 remain with additional delays at the A127/Ardleigh Green/Squirrels Heath junction, as well as North of the M25 Dartford Crossing. The PM peak suffers from the same delays as the AM peak but also has a large delay at A12/A127 Gallows Corner junction and more delays at M25 Junction 28, reflecting the increase in peak traffic flows in both directions utilising this junction.
- 19.2.15 There is a significant increase in the total queues at the end of the 3 time periods across Havering, indicating the increased congestion in the network, in the uncapped model some of this will be due to the Barking Riverside Development. The increases are quite significant in the uncapped model with an increase in queue in the AM of 141%, 399% in the IP and 285% in the PM peak.
- 19.2.16 Travel time nearly doubles from 2026 to 2041 capped and more than doubles for 2041 uncapped. While the travel time (PCU-hours) increased the most in 2041 uncapped, so did the travel distance (PCU-km), across all time periods.
- 19.2.17 The overall results in the reference case include all committed schemes but may not fully reflect potential for additional infrastructure and development not committed at this time (such as the Lower Thames Crossing).
- 19.2.18 These results are at significant variance to that which is reported in the Transport Assessment for the proposed scheme. The detail of the transport analysis is set out in TR010029 Document 7.4 – Transport Assessment. The commentary below is based on review of this document.

### 19.3 Roads Unsuitable for Construction Traffic

19.3.1 London Borough of Havering would expect the appointed contractor to only utilise the Transport for London Road Network and M25 for construction traffic purposes. It is understood that detailed construction routes are yet to be decided and will be set out in the Construction Traffic Management Plan by the appointed contractor should the scheme receive Development Consent.

19.3.2 There are a number of roads in the vicinity of the proposed construction traffic routes that LB Havering do not consider to be suitable for construction traffic due to current traffic and future traffic levels and these are set out below:

- Gubbins Lane
- Gooshays Drive
- Straight Road
- Main Road
- Whitelands Way
- Petersfield Avenue
- Harold Court Road
- Squirrels Health Road
- Bryant Avenue

### 19.4 Bus Routes Impacted

19.4.1 The main bus route that will be impacted by this scheme is the 498. This service operates between Queens Hospital in Romford and Brentwood. It has a service frequency of every 20 minutes and provides vital health services for the wider catchment area of Queens. The bus route currently uses the Brook Street roundabout between the A12 and the A1053 Brook Street.

19.4.2 Should the works result in the A12 Eastbound off slip being closed, a significant bus route diversion would be required leading to increased journey times for passengers.



## 20 Highways England Transport Assessment

### 20.1 Modelling Approach

- 20.1.1 The LB Havering response to the TA scoping report questioned whether forecast growth in the London Plan for the east sub region had been referenced in the traffic modelling. LBH sees no clear confirmation that this has been included beyond the 922 dwellings and 42581m2 of employment land recorded as outcomes from the uncertainty log (TR010029 Document 7.4, Table 5-2). The effect of the use of Tempro to 'growth' traffic quantum is set out below.
- 20.1.2 LBH notes the applicant's three-tiered approach to traffic modelling used to develop the TA and in turn inform the Environmental Statement. The three phases are noted as:
- Strategic model –the existing M25 North East Quadrant model.
  - Area strategic model – cordoned from the M25 North East Quadrant model covering the Havering and Brentwood areas.
  - Local microsimulation (VISSIM) model covering the immediate scheme area.
- 20.1.3 LBH is concerned that the treatment of growth in the wider strategic model does not fully include growth along the A12 corridor that could reasonably be expected to impact the residents of Havering given the critical role the A12 plays in movement across the borough.
- 20.1.4 In particular an inspection of the uncertainty log indicates that growth in the M25 corridor north of the LB Havering is considered but not the A12 corridor in Chelmsford which, as set out in the adopted Chelmsford local plan has planned growth of 10,779 housing units by 2036 of which at least 750 are already consented in the North East Chelmsford development.
- 20.1.5 The area strategic traffic model developed from the wider strategic model has insufficient detail to allow consideration of how traffic may redistribute itself across the borough and in particular on to local roads. This is also reflected in the coverage of the microsimulation VISSIM model that has no coverage of key local and TLRN junctions that may be affected by the scheme.
- 20.1.6 LBH further notes that the use of Tempro to assess traffic growth outside of the immediate modelled area will not provide a full assessment of the soon to be adopted Havering Local Plan and London Plan which propose high levels growth within the borough and in the Thames Gateway area.

- 20.1.7 The Council raised this issue of future borough wide growth in its S42 Consultation response where it brought to the applicant's attention the levels of growth expected in the borough over the lifetime of Havering's soon to be adopted Local Plan.
- 20.1.8 Discussion with Highways England has identified that future year statistical information may be available from the area strategic model but this, to date, has not been provided. LBH does however, note that this information, drawn as it is from a strategic model, and may not adequately provide information on the detailed operational performance of local road / TLRN junctions affected by the scheme. The implication of this lack of information and its impact on LB Havering is discussed below.
- 20.1.9 LBH considers that the resulting TA for the scheme does not examine local traffic issues.
- 20.1.10 LB Havering is aware at the time of writing this LIR that Highways England will be submitting a Transport Assessment Supplementary Document to the Planning Inspectorate at Procedure Deadline B. This may address some of Havering's concerns and will be subject to a separate written representation from LB Havering at Deadline 1.

## 21 Highways Issues

### 21.1 Strategic Road Network Impacts

- 21.1.1 The Council raised concerns about the impact the scheme would have on Gallows Corner junction in its Section 42 consultation. LBH has no visibility on the traffic impacts of the scheme at the critical Gallows Corner A12 junction.
- 21.1.2 Gallows Corner is a five-arm junction connecting the A127 and A12 trunk routes as well as two of Havering's own roads (A118 Main Road and Straight Road). The detailed microsimulation traffic model developed by the applicant as the lower tier of the traffic modelling hierarchy ends at the eastern approach to the Gallows Corner A12 junction without including the junction itself (TR010029 Document 7.4 – Table 3-3). This junction currently experiences severe congestion particularly during peak periods and LBH needs to understand the impacts on residents and businesses in terms of traffic flow, noise, vibration and air quality.
- 21.1.3 The junction is also considered a significant barrier to anyone from Harold Hill wishing to access Romford, Havering's main town centre. The Secretary of State for Transport announced recently that this junction could be considered for investment through the Government's Major Roads Network programme. TfL are putting together a Scheme Study Outline Business Case to be considered by the DfTA which is expected to be submitted in 2021.

## 22 Construction Traffic Issues

### 22.1 Implications for Local Road Network

- 22.1.1 LB Havering is concerned that a lack of co-ordination of the works, traffic management, closures and diversions could have a detrimental impact on the operation of the local highway network. The Council considers that the operation and resilience of the highway network could be significantly constrained impacting on journey time reliability both for individuals and business to business activity.
- 22.1.2 This would result in significant re-routing of traffic across the network utilising other routes to access destinations within Havering with untoward consequences for our residents in terms of noise, vibration and air quality.
- 22.1.3 LB Havering has not seen to date a full set of construction traffic modelling outputs; Havering understands that further assessment work is underway due to changes in the proposed traffic management arrangements from that set out in the TA (TR010029 Document 7.4 – Table 8-1). The outcomes of the assessments conducted to date, set out in the TA at paragraphs 8.2.19 to 8.2.24, is simplistic and presented on a network-wide basis rather on specific links. This limitation is implicitly acknowledged in paragraph 8.2.25 which suggests ongoing dialogue with the local highway authorities, including LB Havering, will allow a mitigation solution to emerge.
- 22.1.4 In reality LB Havering are of the view that Highways England should be in position to fully quantify the construction traffic impacts and therefore develop the CTMP at this stage rather than leave this to the appointed contractor after development consent is secured (TR010029 Document 3.1 Draft Development Consent Order, Schedule 2, Requirement 10).
- 22.1.5 LBH also queries how rail services can be provide some degree of construction worker access (TR010029 Document 7.4 – Table 8-2) to site given the location remote from rail stations. Havering would presume that the final element of the journey would be by a road-based mode of travel.
- 22.1.6 LB Havering remains concerned that the planned access to the main construction compound from the A12 east bound carriageway will of necessity require substantial volumes of HGV traffic to travel west along the A12 into the urban area of Havering before returning eastbound to the construction compound. Again the effect of this remains unquantified.

22.1.7 LB Havering notes that the scheme has been designed in accordance with the requirements of the DMRB, however the Council has concerns regards the Code of Construction Practise Process (COCP). LB Havering is concerned that it will be the responsibility of the appointed contractor to provide a detailed Code of Construction Practice (COCP) which Havering will only be consulted upon. Havering does not consider it acceptable to just be a consultee and expects to approve the COCP and Construction Traffic Management Plan given the effects likely to occur on the boroughs roads and to its environment.

## 22.2 A12 Eastbound Off-Slip

22.2.1 The Council has sought assurances from Highways England that the existing A12 eastbound off-slip will remain open during construction to allow the residents of Woodstock Avenue to access Brook Street roundabout to travel west along the A12. Highways England have given assurances that the A12 off slip will remain open during construction apart from the occasional night time closures but the detail is to be confirmed in the CEMP produced by the contractor post the DCO being granted. This remains a concern for the Council.

22.2.2 Consultees and the LB Havering have raised the adverse impacts on the residents of Woodstock Avenue should construction methods be left to the contractor without clear controls over closures of the A12 eastbound off slip. Such a closure would create the need for a 14km detour along the A12 for Woodstock Avenue residents who can only access and exit their properties from the A12 eastbound carriageway. Havering considers this potential diversion not just for residents, but also for emergency services exiting from Woodstock Avenue as a significant issue as Havering considers having a 14 km detour as not being acceptable. LB Havering considers it imperative that the A12 Eastbound off-slip remains open to vehicle traffic at all times throughout the construction period to avoid the implications of such as detour.

### *Woodstock Avenue Traffic Survey*

22.2.3 A representation was made at Procedure Deadline B from a member of the public residing in Woodstock Avenue. This representation requested that signals be installed at the junction of Woodstock with the A12 to enable residents to exit the junction and turn right to head west along the A12. This request has been made on the basis of the access/egress from the A12 to Woodstock Avenue being from the eastbound carriageway as noted above.

22.2.4 The representation indicated that this issue has been raised by local residents of Woodstock Avenue at both informal and formal consultation stages, and was subject to a meeting with Highways England, LB Havering and Transport for London in 2018.

- 22.2.5 Given the concerns that have been raised by Local residents and the challenges they face when wanting to travel westbound on the A12, the Council would ask that Highways England investigate this request fully and report back during the examination.
- 22.2.6 In order to consider this matter, for the examining authorities information, a traffic survey was carried out on 19<sup>th</sup> and 21<sup>st</sup> November 2020 to better understand the number of vehicle movements exiting Woodstock Avenue and turning around at the Brook Street roundabout.
- 22.2.7 The analysis was carried out to find the proportion of vehicles travelling westbound having exited Woodstock Avenue across two survey periods and in each two-hour peak. The survey periods were as follows:
- A Thursday survey between the hours of:
    1. 07:00 – 09:00
    2. Midday – 14:00
    3. 16:00 – 18:00
  - A Saturday survey between the hours of:
    1. 10:00 – midday
    2. 14:00 – 16:00
- 22.2.8 In total, the ANPR camera surveys identified a total of 116 cars exiting Woodstock Avenue across both survey days. On Thursday 19 November this was 73 vehicles and on Saturday 21 November this was 43 vehicles.
- 22.2.9 Of these, 116 vehicles, 40 vehicles were found to be utilising the A12/M25 roundabout to travel westbound. This is 34.5% or approximately a third of all observed vehicles. On Thursday 19 November and Saturday 21 November this was found to be 20 vehicles per survey day.
- 22.2.10 The numbers demonstrate that a number of people residing in Woodstock Avenue rely on the Brook Street roundabout in order to travel west along the A12 towards Gallows Corner. Should the A12 Eastbound off slip be closed during night time construction works of the scheme, this will result in significantly lengthened journey times for these residents. In addition it is critical for the emergency services that the A12 eastbound off slip remains open particularly given that Queens Hospital in Havering has a catchment area that stretches to Brentwood.



## 23 Operational Phase Traffic Issues

### 23.1 Local Road Network Implications

- 23.1.1 LBH supports the general scheme concept to allow easier operation of the M25 for strategic, long distance traffic and to provide a free flow environment for traffic travelling from the M25 northbound to the A12 eastbound.
- 23.1.2 LBH concern is that the failure to consider the local road network impacts leaves LB Havering exposed as the authority with responsibility for the safe and efficient operation its road network<sup>1</sup> and unable to satisfy its statutory obligations as set out in the 2004 Traffic Management Act and Havering's own Network Management Strategy.
- 23.1.3 The Traffic Management Act 2004 (TMA2004) created the Network Management Duty (NMD) which commenced in January 2005 and requires consideration of traffic implications of all forms of traffic on all roads in every traffic authority.
- 23.1.4 The Duty states:
- “It is the duty of a local traffic authority to manage their road network with a view to achieving, so far as may be reasonably practicable having regard to their other obligations, policies and objectives, the following objectives-*
- (a) Securing the expeditious movement of traffic on the authority's road network; and*
- (b) Facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority.”*
- 23.1.5 The Speed Limits and Traffic Regulation Plans appear to be appropriate for the proposed layout. However, Havering does have concerns as to how well the roundabout would work and, in particular for road safety should the traffic signals fail and be out of operation at all. In such a situation, dangerous potential points of conflict would occur on all approaches to the roundabout.
- 23.1.6 LBH notes that the draft DCO as currently written potentially undermines its role as a Traffic Management Authority. This is discussed in the draft DCO section of this LIR.

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<sup>1</sup> As required by Section 16(1) of the Traffic Management Act 2004

## 23.2 Cumulative Traffic Issues

- 23.2.1 LB Havering remains concerned that the cumulative impact assessment does not appear to have taken into account Havering's housing trajectory. This issue was raised during the Section 42 consultation stage of the scheme development.
- 23.2.2 Havering has concerns regarding the approach that HE has taken to assess cumulative and in combination effects.
- 23.2.3 The study area for the identification of 'other developments' for inclusion in the assessment of cumulative effects has been based upon thresholds and spatial areas. HE state that "these thresholds and spatial areas are based upon professional judgement and taking into account the nature and location of the Scheme and the ZOIs for individual environmental topics."
- 23.2.4 Only developments in the traffic model within 3 km of the DCO boundary have been included in the cumulative assessment.
- 23.2.5 It is acknowledged in TR010029 6.1 Environmental Statement Chapter 15: Assessment of cumulative effects that Havering sent through a number of lists of proposed developments which it considered should be taken into account in the development of the cumulative and in combination assessment.
- 23.2.6 Havering's section 42 response noted growth areas outside of the Zone of Influence that Highways England should take into account including two Housing Zones in Romford and Rainham and Beam Park.

### *Havering Housing Trajectory*

- 23.2.7 In terms of cumulative impacts, Havering would like to draw the ExA attention to Havering's Housing Trajectory. LBH consider the quantum of proposed development significant enough to be taken into account in the assessment of the cumulative impacts of the proposed scheme.
- 23.2.8 Havering's 10 year target (2016-2026) is drawn from the London Plan 10 year target of 11,701.
- 23.2.9 The Council has proposed to achieve this target and seek to exceed it in order to close the gap between identified housing need and supply. The Council proposes to achieve this target through the use of a 'stepped trajectory'.
- 23.2.10 In practice a stepped trajectory has been used by Local Authorities where housing delivery is reliant on development of large strategic sites/ areas which have long lead in times and/or when it appears unlikely that an annualised average target will be able to be met in the initial plan period.

- 23.2.11 The Local Plan is being assessed against the 2012 NPPF, where its guidance material, which does not discuss a “stepped trajectory”. The 2018 NPPF now formalises the use of a stepped trajectory, at paragraph 033 of its guidance for Housing and Economic Land Availability Assessment.
- 23.2.12 Figure 24 **below** sets out how housing delivery targets will be stepped so as to align with the 10 year housing target of the London Plan (rolling forward the target into 2025/26), and meet the 15 year target for the plan period (17,551).

**FIGURE 25 HOUSING SUPPLY**

Plan period	Year	Target
Years 1-5	2016/17-2020/21	700 units per annum
Years 6-9	2021/22-2024/25	1640 units per annum
Year 10	2025/26	1641 units per annum
Years 11-15	2025/27- 2030/31	1170 units per annum

Source: London Borough of Havering’s Local Plan

- 23.2.13 Figure 25 **below** identifies the supply anticipated to come from each of these key sources.

FIGURE 26 KEY SOURCES OF HOUSING SUPPLY

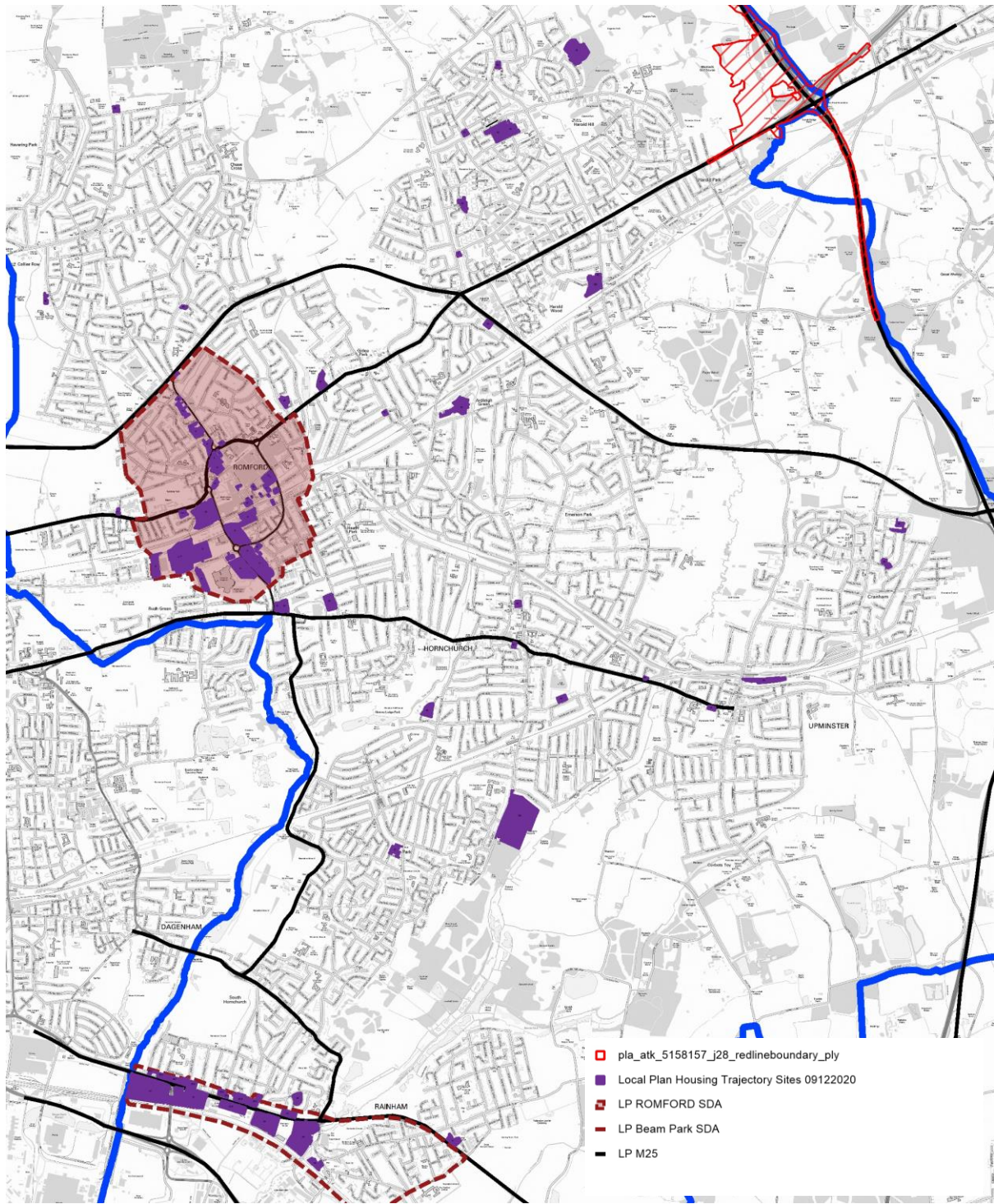
Source of Supply	Net additional Homes 1-5 years	Net additional Homes 6-10 years	Total 10 year supply	Total 15 year supply
Major sites within the Romford Strategic Development Area (including 12 Estate Regeneration Programme sites)	124	5117	5241	6642
Major sites within the Rainham and Beam Park Strategic Development Area (including 12 Estate Regeneration Programme sites)	590	2515	3105	3105
12 Estates regeneration programme sites outside of the SDAs	-34	410	376	1288
Other major sites outside of the SDAs and estates regeneration programme (including permissions, applications, pre-applications and other sites)	1117	503	1620	1620
Small sites (with potential for the delivery of 1-9 dwellings)	540	900	1440	2340
Vacant units returning to use	78	130	208	338
Completions 2016/17 and 2017/18	884	NA*	884	884
<b>Surplus from 2015/16</b>	221	NA*	221	221
<b>Total</b>	<b>3520</b>	<b>9,575</b>	<b>13,095</b>	<b>16,438</b>

Source: London Borough of Havering's Local Plan

- 23.2.14 Havering considers that the major development sites around Romford Strategic Development Area should have been taken into account in the assessment process.
- 23.2.15 Figure 26 sets out the locations of future housing growth sites in relation to the proposed scheme.



FIGURE 27 FUTURE HOUSING GROWTH LOCATIONS



Source: London Borough of Havering

### *Lower Thames Crossing*

- 23.2.16 Havering has recorded its concern with the respect the cumulative traffic impacts of the M25 junction 28 DCO and the Lower Thames Crossing (LTC) DCO. We note that the LTC traffic forecasts form an element of the traffic analysis for the M25 junction 28 scheme under operational conditions, however, we remain concerned that the adverse cumulative impacts of the concurrent construction of both schemes has not been fully assessed.
- 23.2.17 LBH is particularly concerned should the construction of both schemes run concurrently with overlapping regimes for managing road closures and temporary restrictions. Indeed whilst there has been explicit acknowledgement of the inter-relationship between both schemes in the operational phase there has been no analysis of overlapping construction traffic impacts.



## 24 Consideration of the Impact of the Proposed Articles and Requirements within the draft Development Consent Order

### 24.1 Draft DCO

- 24.1.1 The draft Development Consent Order (dDCO) as provided at the point of application fails to protect LB Havering and its citizens against the impacts of the proposed scheme.
- 24.1.2 This dDCO commentary should be read in conjunction with the detailed analysis of individual topics made in this LIR. It should be noted that the comments do not reflect the proposed changes to the dDCO that occur due to the request for changes made by the applicant on 7 December 2020 which will be subject to a separate written representation.
- 24.1.3 *Clause 5 – drainage.* In the context of this Article the Consents and Agreements Position Statement states that LB Havering has agreed to the dis-application of the Land Drainage Act 1991. The liabilities that may be imposed on LB Havering as a local flood authority if clause 5 is implemented as stated cannot be supported.
- 24.1.4 *Clause 7 – limits of deviation.* This article provides for significant limits of deviation in the vicinity of the Cadent gas main. LB Havering has ultimate oversight of both the burial ground and Gypsy and Traveller site which could be adversely affected by excessive deviation in the gas main works. We note that the Applicant is seeking via a potential additional submission amend the limits of deviation at this location. At the time of writing LBH is due to discuss the change with Highways England in early January.
- 24.1.5 *Clause 10 - Application of the 1991 Act [NRSWA].* The examination of this article has confirmed Havering's belief that the matters listed apply only the Strategic Road Network and the Transport for London Route Network. It would be helpful if the order wording explicitly confirmed this state of affairs.

- 24.1.6 *Clause 13 – Temporary alteration, diversion and restriction of use of streets.* This clause seeks to make use of ‘deemed consent’. Works that may affect the LB Havering’s roads are significant with temporary closures and traffic management measures expected with attendant safety concerns which only a fully approved working approval regime can manage. The integrity of an LBH asset is key to the discharge of the Council’s safety responsibilities under the Highway Act 1980. Deemed consent of temporary works compromises the necessary control that these duties require. As such, deemed consent for such works is inappropriate and not in accordance with the requirements placed upon Havering. LB Havering is a competent network operator with a tried and tested asset management team in place to address these issues and therefore the appropriate body to ensure that these works are designed and carried out safely and correctly.
- 24.1.7 *Clause 16 – Classification of roads, etc.* In clause 16(2) LBH notes that the applicant may vary the classification of special roads on notice. Havering is extremely concerned that whilst a special road becoming a trunk road is entirely conceivable, the suggestion that a special road could be ‘detrunked’ on notice into a local road is an entirely flawed concept and should be specifically excluded by the order.
- 24.1.8 *Clause 18 - Traffic regulation.* LBH notes that Clause 18(2) (c) allows the formation of on highway parking spaces. We see no reference in schedule 1 (Matters as to which Orders can be made under Section 6, Orders similar to traffic regulation orders in London, of the Road Traffic Regulation Act 1984) to this particular power. Whilst LBH acknowledges that direct alignment to the 1984 Act is not the aim of the dDCO, we have concerns that stepping outside of the bounds of the 1984 Act creates an untenable situation in terms of approval procedures where the basis for such a TRO presents a series of unknowns. In Clause 18(11) the principle of ‘deemed consent’ applies. Havering’s objection to the principle of ‘deemed consent’ applies to this article.
- 24.1.9 *Clause 19 - Discharge of water.* Havering has already highlighted its concerns about the seemingly unfettered liability of watercourse authorities for the applicant’s uncontrolled manner into watercourses that LB Havering has responsibility for. LBH sees no reference in DCO to the question of flow attenuation and how the applicant will be required to demonstrate this in any application for consent. In Clause 19(9) the principle of ‘deemed consent’ applies. Our objection to the principle of ‘deemed consent’ applies to this article.
- 24.1.10 *Clause 22 – Authority to survey and investigate the land.* Clause 22(6) the principle of ‘deemed consent’ applies. Havering’s objection to the principle of ‘deemed consent’ applies to this article.

24.1.11 *Clause 35 – Temporary use of land for carrying out the authorised development.* Havering noted in its written representation of 9<sup>th</sup> September the concerns over the requirements to remove temporary works. Whilst this applies to land, Havering sees no requirement to reinstate highways to the Highway Authority's satisfaction.

## 24.2 Requirements – Part 1

24.2.1 *Part 1, Clause 4.* Havering strongly disagrees that the CEMP for Secretary of State approval can be left to the construction stage; indeed LBH has noted in the supporting documentation that Highways England intend to delegate the development and submission of the CEMP to its civil engineering contractor.

24.2.2 LBH sees this as an unacceptable state of affairs, and the ExA is invited to reject the approach due to the uncertainties the currently proposed approach will bring with the reliance in the dDCO of phraseology such as “*substantially in accordance with*”.

24.2.3 Havering would contend that the real issue at stake here for the ExA is to be assured that the CEMP must be in compliance with the submitted ES. LBH sees nothing that would prevent a substantive CEMP being submitted prior to the completion of the Examination to aid this determination. The view expressed by the applicant in its supporting documentation is inconsistent with the requirement for the applicant (or a successor body) as the undertaker to be responsible for seeking the discharge of the requirements.

24.2.4 LBH has no doubt that the applicant (as undertaker) must be responsible for seeking the discharge of the requirement; the ExA is invited to be assured that this will not be delegated to contractors.

## 24.3 Requirements – Part 2

24.3.1 The approval of requirements is exclusively reserved for the Secretary of State. Havering notes two issues with this.

24.3.2 Firstly, whilst LBH notes that ‘consultation’ by the applicant is proposed prior to the making of a submission for discharge, it is clear that the applicant is at liberty to ignore the views of the statutorily responsible authorities and submit a requirement for discharge irrespective of the consultee views expressed. LBH would therefore invite the ExA to add a requirement for all consultation responses to be supplied in full to the Secretary of State for his information.

24.3.3 Secondly, LB Havering will require authority to inspect the works with regard to environmental matters within its remit.

## 25 Developing the Obligations

### 25.1 S106

- 25.1.1 A deadline for receipt of a signed Planning Obligation is likely to be set in the examination timetable. Havering recognises that the ExA can only take into account submissions and documents that have been submitted by the close of the examination period.
- 25.1.2 Through the preparation of this LIR, it is apparent that the proposed scheme is in conflict with a number of Havering's policies. These policies cover a range of subject matters. It is recommended that a series of mitigation measures are proposed for inclusion in the S106/legal agreement to make the scheme acceptable to Havering and its residents.
- 25.1.3 The policies that are adversely affected are listed below:

### 25.2 Employment – CP3, CP5 and D13.

- 25.2.1 The Outline Construction Environmental Management Plan (CEMP) does not contain a firm commitment with regards local workforce employment. Instead such matters will only be considered by the appointed contractor and as part of requirement 4 of the draft DCO Construction and Environmental Management Plan. The fact that no firm commitment has been provided by the scheme promoter with regards to local employment means that the scheme is currently not compliant with Policy 22.
- 25.2.2 In order to support emerging Local Plan Policy 22 Skills and Training, LB Havering requires HE to prepare for its approval a Local Training Skills and Brokerage Strategy. This strategy will promote employment and skills development opportunities for local residents by supporting major development proposals that commit to:
- a. A minimum local labour target of 20% during construction and end user phase for major commercial or mixed use developments including a proportion of apprenticeships where the length of construction phase allows;
  - b. A minimum local labour target of 20% during construction for major residential developments;
  - c. The notification of all vacancies associated with the development and its end use through the Council's employment service; and
  - d. Offer opportunities to local businesses within their supply chains.
- 25.2.3 Where local labour targets cannot be achieved and it can be demonstrated that all opportunities to meet this target have been explored, a commuted sum payable to the Council will be required.

- 25.2.4 Major development proposals will be expected to submit an Employment and Skills Plan for agreement with the Council to detail how these targets will be met. This must include the proportion of apprenticeships offered and the opportunities given to local businesses within their supply chains. The Employment and Skills Plan needs to comply with the Mayor of London's Economic Development Strategy.
- 25.2.5 HE must require its contractor, no later than three months prior to Commencement of the Development, to submit to the Council for approval a Local Training Skills and Job Brokerage Strategy.
- 25.2.6 HE must require its contractor to carry out the Development in accordance with the Local Training Skills and Job Brokerage Strategy.
- 25.2.7 The Local Training Skills and Job Brokerage Strategy must provide that HE will require its contractor to:
- a. Use Reasonable Endeavours to recruit at least 20% of the total workforce for and during the construction of the Development from Havering residents and Thurrock residents and Barking and Dagenham residents.
  - b. Employ one 'new start' apprentice for every £3 million of construction contract value applicable to the construction of the Development, with such arrangements to be based on the following:
    - (a) HE must use Reasonable Endeavours to employ any apprentices from Havering residents and Thurrock residents and Barking and Dagenham residents; and
    - (b) any person who is employed as an apprentice must, immediately prior to the start of the apprenticeship, be in a low or unskilled position or be unemployed (provided that if an unemployed person has previously been employed, their last period of employment was in a low or unskilled position).
  - c. Employ a Skills and Employment Manager whose principal place of work is located within the Order Limits to manage the commitments provided for under the Local Training Skills and Job Brokerage Strategy, including being responsible for job brokerage, outreach and to help maximise opportunities for minority groups;
  - d. Notify the Council and the London Boroughs of Havering and Thurrock and Barking and Dagenham at least three months in advance of the employment and skill requirements of each phase of the Development;
  - e. Have regard to plans promoted by the Construction Industry Training Board, the National Skills Academy and any equivalent organisation as may be agreed to by HE;
  - f. Supply a Resource Plan to job brokerages nominated by the Council and the London Boroughs of Thurrock and Barking and Dagenham upon Commencement of the Development, which must be updated on a quarterly basis;

- i. Notify job brokerages nominated by the Council and the boroughs of Thurrock and Barking and Dagenham of any job vacancies arising from the construction of the Development and to allow a minimum of 48 hours from that notification for the relevant job brokerage to fill the vacancy;
- ii. Interview any suitable candidates put forward by the job brokerages.
- iii. Provide quarterly monitoring returns to the Council and the boroughs of Thurrock and Barking and Dagenham in respect of compliance with the Local Training Skills and Job Brokerage Strategy.
- iv. In order to support the delivery of this work Havering will require revenue support for a part time FTE (Pay Band 8 (£39,774) coupled with a multiplier of 1.8) for 3 years. This will total £107,389.80.

### 25.3 Transport – CP9

- 25.3.1 To support the delivery of Transport – CP10 of the LDF, Policy 23 *Connections* of the Local Plan and the Council’s Local Implementation Plan (LIP), the Council delivers an annual programme of measures to encourage sustainable travel to and from school and businesses.
- 25.3.2 The Council works closely with schools through the TfL STARS Accreditation programme to support them in the development and implementation of their School Travel Plans. In recent years there has been a significant modal shift away for single occupancy car use during the “school run” from 39% in 2009 to 17% in 2019. The Council, through its Cycle Training provider offers free Bikeability Training to all schools in the borough. This training is hugely popular as the Council is oversubscribed every year.
- 25.3.3 In recent years the Council has been working closely with the major employees in the borough, including the Barking Havering and Redbridge University Hospital NHS Trust (BHURT) to develop and deliver measures that encourage staff to travel to and from work sustainably. This has included the implementation of cycle parking, and provision of pool bikes.
- 25.3.4 This work is delivered through a Smarter Travel function within the Transport Planning team at LBH. LBH seeks a financial contribution from Highways England of £450k to enable this work to continue over five year period. Upon commencement of construction, LB Havering seeks an annual sum of £90k per annum for a five year period.
- 25.3.5 To further support the delivery of CP9 and the Council’s Local Implementation Plan the Council is seeking a financial contribution to support the continued delivery of free cycle training the boroughs school children and wider residents. Upon the commencement of construction, LB Havering seeks £100k per annum over a three year period.



25.3.6 To mitigate the impacts of traffic re-routing during construction of the scheme, the Council is seeking a contribution from the applicant to support the Council's sustainable travel agenda, in particular the work that is done on sustainable and active travel and road safety education. To support this agenda, upon commencement of construction, LB Havering is seeking a contribution of £200k per annum over a three year period.

#### 25.4 CP15 Environmental Policy

25.4.1 The Council seeking a financial contribution to enable a 1 FTE post to be created to monitor the delivery of the CEMP and of all the Environmental Control Plans (ECPs) which will be developed for the final CEMP to ensure that construction related mitigation measures are successfully implemented on site.

#### 25.5 Air Quality – DC 52

25.5.1 Installation of a real-time PM10 continuous monitoring station to measure and help with mitigating controls for the dust from demolition and construction. This will be monitored by the 1FTE post set out in par 25.4.1 and will be required three months prior to commencement of construction. LB Havering is seeking a contribution of £59,376.

25.5.2 The Council has an adopted AQAP which comprises of a series of actions to be delivered over the lifetime of the document. In order to support the AQAP's delivery, upon commencement of construction, the Council is seeking an annual contribution of £100k per annum over a five year period.

#### 25.6 Electric Vehicle Charging Points

25.6.1 The Council is currently investigating options for delivering electric vehicle charging points across the borough. This is to support central and regional government policy on delivering EVCP infrastructure.

25.6.2 The government wants the UK new car market to offer no petrol or diesel vehicles by 2030. The Mayor's Transport Strategy (2018) aims for all taxis and Private Hire Vehicles to be zero emission capable by 2033, and for all buses to be zero emissions by 2037, and all new road vehicles drive in London to be zero emission by 2040.

25.6.3 LB Havering is developing a strategy for delivering EVCP infrastructure across the borough and ensuring there are suitable and sufficient locations for drivers to charge their vehicles will form an important part of this strategy. LB Havering is seeking a contribution of £100k from the applicant to enable Electric Vehicle Charging Points to be delivered in the vicinity of the scheme, to be paid to the Council when the scheme becomes operational.