GL Hearn
Part of Capita plc

West London Employment Land Evidence

West London Alliance

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DATE	ORIGINATORS	APPROVED
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Limitations

This document has been prepared for the stated objective and should not be used for any other purpose without the prior written authority of GL Hearn; we accept no responsibility or liability for the consequences of this document being used for a purpose other than for which it was commissioned.

1 INTRODUCTION

1.1 This report has been prepared by GL Hearn with Levy Real Estate on behalf of the West London Alliance[1]. It deals with employment land issues in four of the WLA's constituent boroughs - Ealing, Brent, Barnet and Harrow. These four boroughs are collectively referred to as the "Study Area".

1.2 The Old Oak and Park Royal Development Corporation [2] (OPDC) has undertaken its own intensification study, therefore this work seeks to avoid duplication (although it has been informed by it). However the area is necessarily included in part; as it straddles borough boundaries (between Ealing, Brent and Hammersmith and Fulham). Although much of the relevant statistical data are only available at borough level, it is the prime industrial location in the sub region and a key driver for commercial activity.

Purpose of the study

1.3 The purpose of this study is to consider the future needs of commercial and industrial B use class employment floorspace and land in the study area and the degree to which these needs can be expected to be met through emerging policy responses of intensification, co-location, substitution and the recycling of existing sites.

1.4 This, in part, responds to the draft London Plan (the examination in public of which was underway at time of writing) and associated evidence base. The draft Plan proposes a new approach to employment land involving a more detailed and sector-specific approach than has been the case to date.

Context

1.5 The context to the work is the proposed tightening of policies protecting industrial land in the draft London Plan. Policy E4 therein defines industrial uses and a three tier categorisation of industrial sites (as now). It requires boroughs to plan, monitor and manage provision and retention of industrial land, with each borough placed in one of three categories. Barnet and Harrow are "retain capacity" boroughs, meaning they should seek to intensify industrial floorspace capacity within the general principle of no net loss across employment sites covered by the policy. Brent and Ealing are "provide capacity" boroughs as locations where strategic demand for industrial, logistics and related uses is anticipated to be the strongest. These boroughs should seek to deliver intensified floorspace capacity

[1] The West London Alliance is a sub-regional partnership. Its members are the boroughs of Barnet, Brent, Ealing, Hammersmith and Fulham, Harrow, Hillingdon and Hounslow

[2] The Old Oak and Park Royal Development Corporation was established in 2015 as the local planning authority for parts of Brent and Ealing. As such OPDC is responsible for preparing and maintaining a Local Plan or Development Plan and determining planning applications in the OPDC area, including parts of Brent and Ealing in accordance with schemes of delegation.

in either existing **and/or new locations** accessible to the strategic road network and in locations with potential for transport of goods by rail/water.

1.6 Draft London Plan policies are on the basis of no net loss of floorspace in Strategic Industrial Locations (SILs) or Locally Significant Industrial Sites (LSISs). There is reference to replacement floorspace at existing levels or at a 65% of the plot ratio (area) whichever is the greater[3].

1.7 Policy E7 sets out the Mayor's position on supporting increased provision through the intensification of existing industrial sites, the co-location of industrial land with other uses or the substitution of uses to other areas outside of London.

1.8 The industrial policy approach in the emerging London Plan is informed by in particular by the London Industrial Land Demand Study (LILDS) (CAG Consulting, 2017) and the London Industrial Land Supply and Economy Study (AECOM, 2016). The approaches taken in these documents and the way in which they have informed the GLA's industrial policy are discussed in this report.

Market context and response

1.9 The proposed policy in the draft London Plan is to promote industrial intensification or co-location. At this time there is limited evidence to demonstrate demand for developments on these bases, either from occupiers or developers.

1.10 In general, intensification of traditional industrial designated land, particularly within the London boroughs, is a growing challenge for the planning authorities, developers' funds and occupiers or customers.

1.11 The fundamental issue is that without customers (occupiers) for the commercial space, the intention of policy and urban planning risks failure. The customer needs to be central to the discussion of intensification of land use.

1.12 Many businesses in urban locations need to have a central presence to service their customer base. This is particularly true of service response business, 'e-tailers' and parcel delivery. Businesses are making a range of innovations, particularly in the logistics sector, responding to heightened customer requirements and expectation in the business and consumer sectors and the growth of online retailing. These include electric vehicles, moves to smaller and more flexible/adaptable premises, multi user consolidation centres and, to a lesser degree, stacked operations. There is a commercial balance

[3] Draft London Plan (2017), paragraph 6.4.5

for industrial occupiers across their range of operations in terms of the proximity to a London customer base and the ability to service this in part from premises outside of London, taking into account costs of land, rent, workforce, delivery times and externalities of congestion and pollution.

1.13 In terms of delivering new intensified mixed use floorspace, developers have traditionally specialised in particular asset classes - a volume residential developer for instance typically has little awareness of the requirements customers have of industrial speculative development and vice versa.

1.14 Intensification options like multi storey warehousing for HGVs and multi level light industrial are only feasible in the areas of the highest demand and low land availability where values are highest. Finance and funding of new concepts is a major consideration as they are inevitably regarded as being more risky than more traditional models; this in turn impacts on the availability of funding and the terms on which it is offered.

1.15 Mixed use co-locating development led by house builders with private equity or fund backing is expected to be confined to limited areas and occupier types. New joint ventures will need to be created to tackle very different occupier markets. Construction techniques and solutions will be gathered from other global and European regions. With emerging London Plan policy requiring 35% to 50% of residential development to be allocated for affordable housing, and private sales needing to fund affordable provision, suppressed values due to “industrial” locations, combined with increased costs of construction, can lead to viability issues as development is unable to meet the land owners’ expectation on price.

1.16 At the same time, boroughs face competing spatial policy imperatives. The draft London Plan proposes an 88% increase in housing delivery targets for the four study area boroughs. This is backed by national planning policy making clear provision of more housing is a particular priority, backed by a national Housing Delivery Test. There is intense demand for finite space and it is essential to take an overall view of the various calls on this resource and how it can be used most efficiently. This report is intended to support this consideration to help inform policy-making.

Structure of this report

1.17 Against this background, the study’s objectives are defined as:

- To test the demand for employment uses, both quantitatively and qualitatively.
- To test the locational assumptions behind the London Plan evidence base regarding logistics demand figures and the capacity for any of this need to be met by repurposing sites and by ‘substitution’ to other LPAs.
- To assess the probability of intensification or co-location on existing industrial sites.

1.18 Following this introductory chapter, the study covers the following:

A – INDUSTRIAL SECTORS AND DEMAND

Existing evidence and policy

- A review of the existing evidence base and policy requirements.

Existing industrial supply and market dynamics

- A borough by borough analysis of the dynamics of the commercial industrial market including the existing and committed industrial supply.

B – FUTURE GROWTH

Future Logistics and Warehousing Demand and Operations

- A review of trends and likely future developments in the logistics sector.

Scenarios for Future Demand

- Modelling future requirements for logistics and industrial requirements based on labour demand projections and contrasted with the LILDS approach. Utilities and waste needs are not included.

C – INTENSIFICATION, CO-LOCATION AND SUBSTITUTION

Substitution

- Tests the potential for substituting out warehousing requirements beyond London.

Replacement Sites

- Reviewing the current supply, vacant floorspace, future anticipated losses and the ability to provide for future logistics and warehousing floorspace.

Viability of Co-location and Intensification

- High level viability appraisals of co-location and intensification opportunities across the study area.

Policy Incentives

- A brief overview of potential policy responses to intensification and co-location.

1.19 The findings from the study are set out in section 14. Key messages include:

- Land for warehousing and logistics is constrained across the study areas, while demand is high and availability of units is low.
- The warehousing and logistics market and operations are changing in response to increasing consumer needs both in volume and time sensitivity, constraints in land and to create increased efficiencies. Changes include an increasingly agile final mile or 'last touch' delivery operation for logistics operations.

- Using labour demand modelling the future warehousing needs of the study area overall is lower than suggested in the draft London Plan evidence base, which rolls forward 1998-2008 floorspace trends. This is most notable in Brent and Ealing, whereas an increased level of need based on labour demand is suggested for Barnet.
- The substitution of warehousing activity outside of London is considered to play a major role in meeting demand and is a market response that is suitable for some but not all industrial requirements.
- The existing stock of industrial sites, notably factories, has the potential to provide some replacement space for warehousing future needs, notably in Brent and Ealing, but less so in Harrow and Barnet.
- The intensification of existing sites particularly through stacked operations is expected to provide limited additional industrial floorspace due to viability constraints. The viability of co-location will vary considerably dependent on the mix of individual sites and may be suitable in a number of LSIS locations. Whilst this may enable the realisation of industrial space, there may be unintended consequences for occupiers for whom co-location premises will only suited to specific suitable types.

1.20 The provision of new industrial floorspace will remain challenging for London authorities and emerging policy responses will have to be explored in order to meet floorspace needs as set by the GLA. Ongoing research and interaction is required between policy makers and industry to provide a practical response to commercial needs and technology is expected to continue to play an important role.

2 REVIEWING EXISTING EVIDENCE AND POLICY

2.1 This section summarises and considers a number of relevant background reports that fall into the two categories of policy evidence base and wider market literature. A wide range of documents from a variety of sources are reviewed. The policy evidence is largely developed around and including the draft London Plan and its emerging policies. More widely, it provides commentary on the changing nature of the logistics market and its requirements.

Policy Review

Government's Industrial Strategy White Paper 2017

2.2 This paper sets out the Government's overall vision for future economic and industrial growth. It aims to create an economy that boosts productivity and earning power throughout the United Kingdom. It is orientated around five foundations of productivity for the UK considered key to its vision for a transformed economy:

- Ideas, the world's most innovative economy:
- People, good jobs and greater earning power for all;
- Infrastructure, a major upgrade to the UK's infrastructure;
- Business environment, the best place to start and grow a business; and
- Places, prosperous communities across the UK.

2.3 It highlights that artificial intelligence and the data economy, as well as future mobility, are key challenges to be addressed to put the UK at the forefront of future industries.

2.4 While there are not direct references to industrial land, the emphasis on data, efficiency and productivity all have relevance to considering future industrial economic activity and land use requirements . Automation and operational efficiencies are expected to reduce employment needs. Future technological advances in mobility will also enhance the efficiency of the logistics sector in particular and there is a need to understand the implications on land and space requirements.

Draft London Plan

2.5 The draft London Plan was released in December 2017 for consultation. In August 2018 the Mayor published proposed minor changes. Since then there have been two rounds of suggested changes. At time of writing the draft Plan is undergoing examination in public.

2.6 The draft Plan provides a step change in the approach to industrial land, in particular providing a range of responses to slow down its loss to other land uses.

2.7 Policy E4 (Land for industry, logistics and services to support London's economic function) outlines the requirement for a sufficient supply of land and premises in London to meet the current and future demands for industrial and related functions to be maintained. Policy E4 breaks down London's land and premises for industry, logistics and services into three categories:

- Strategic Industrial Locations (SIL)
- Locally Significant Industrial Sites (LSIS)
- non-Designated Industrial Sites

2.8 The policy states that retention and provision of these three categories of land should be planned, monitored and managed, having regard to the industrial property market area and borough-level classifications to ensure there is no net loss of industrial floorspace capacity. Release of industrial land to manage issues of long-term vacancy and achieve wider planning objectives should be achieved through the processes of industrial intensification, co-location and substitution; further detail about how these should be approached is set out in policy E7.

2.9 Policy E4 states that retention and provision of industrial capacity should be prioritised in locations that;

- Are accessible to the road/rail/water strategic transport links
- Provide capacity for logistics, waste management, emerging industrial sections or essential industrial related services
- Provide for micro, small and medium-sized enterprises
- Are suitable for 'last mile' distribution services

2.10 Release of industrial land should be limited to areas that are (or are planned to be) well-connected by public/active transport and contribute to other planning priorities such as housing, schools and infrastructure.

2.11 Table 6.2 of the Draft New London Plan states that Barnet and Harrow should 'retain capacity', whilst Brent and Ealing should 'provide capacity'. These classifications take account of vacancy rates and rents, thus also partly reflecting the viability of new stock and capacity to deliver it. Boroughs that are identified to 'provide' industrial land have been identified as areas of strategic demand and should therefore seek to deliver intensified floorspace capacity in existing and/or new locations. Those that should 'retain' should ensure that where intensification occurs, there is no net loss across designated SIL and LSIS.

2.12 Policy E5 (Strategic Industrial Locations (SIL)) identifies SILs in Brent, Ealing and Harrow;

- East Lane – Park Royal/Heathrow industrial property market area (PMA) (Brent)
- Great Western – Park Royal/Heathrow (Ealing)
- Honeypot Lane – Stanmore (Harrow)
- Northolt, Greenford, Perivale – Park Royal/ Heathrow (Ealing)
- Park Royal – Park Royal/ Heathrow (Brent/Ealing/Hammersmith & Fulham)
- Staples Corner – Park Royal/Heathrow (Brent)
- Staples Corner – Park Royal/Heathrow (Brent)
- Wembley – Park Royal/Heathrow (Brent)

2.13 Policy E5 states that these locations should be managed proactively through a plan-led process. ISILs should be given a definitive boundary in local plan policy maps, having regard to the scope for intensification, co-location and substitution, which should be used as the basis for decision making.

2.14 Policy E6 (Locally Significant Industrial Sites (LSIS)) sets out a similar approach with these sites being given detailed boundaries in borough development plan policy maps with justified evidence in local employment land reviews. The scope for intensification, co-location and substitution should be taken into account.

2.15 Policy E7 (Intensification, co-location and substitution of land for industry, logistics and services to support London's economic function) states that development plans and proposals should be proactive and encourage the intensification of businesses in Use Classes B1c, B2 and B8 that occupy all categories of industrial land through;

- Introduction of small units;
- Development of multi-storey schemes;
- Addition of basements; and
- More efficient use of land through higher plot ratios.

2.16 The policy supports mixed-use or residential development proposals on Non-Designated Industrial sites where there is no reasonable prospect of the site being used for industrial and related purposes, or there is industrial, storage or distribution floorspace provided as part of mixed-use intensification.

2.17 The Plan seeks to ensure that there must be no net loss through the intensification of SIL and LSIS. Efficiency and opening hours must not be compromised. Intensification must be completed prior to any residential component being occupied.

2.18 Development plans and planning frameworks should consider the scope to facilitate what the Plan terms the "substitution" of some of London's industrial capacity - provision in property markets

elsewhere in London and beyond London's boundary where there is opportunity for mutual advantage, the positive and negative impacts of substitution have been assessed and a clearly defined strategy for substitution has been devised as part of a plan-led process.

2.19 Proposals for mixed use development on Industrial sites involving loss of employment space will need to meet the 50% threshold for affordable housing.

2.20 The draft London Plan states[4] that floorspace capacity is defined as either the existing industrial and warehouse floorspace on a site, or the potential floorspace that could be accommodated using a 65% plot ratio, whichever is the greater.

2.21 In theory the Plan sets out a route map for the intensification of industrial land and sets an expectation that this should occur on SIL and LSIS sites alongside a blanket 'no net loss' of capacity. This is particularly relevant to 'provide' London boroughs such as Ealing and Brent. The approach to increasing supply is predicated on the ability of sites to intensify. Alongside the above points in relation to approaches to intensification, supporting London Plan diagrams with regard to co-location illustrate how a stacked industrial site can not only increase industrial floorspace but also yield co-located residential development.

2.22 There are a number of aspects of the draft policies which require further analysis and scrutiny, which this document considers in the West London context, including:

- The financial viability of intensifying and co-locating sites – including with a 35% affordable housing requirement (50% for LSIS or SIL sites not achieving no net loss);
- The appropriateness of a 65% plot ratio or more in meeting occupier functional needs;
- The market appetite from developers and occupiers for 'stacked' industrial, and particularly logistics operations;
- The feasibility of other forms of intensification;
- The ability of intensification to make a demonstrable contribution to additional industrial floorspace in the study boroughs.

Mayor's 2017 Economic Development Strategy

2.23 This states that the Mayor recognises that industrial areas help to keep London's economy working effectively and are essential for a range of functions: food preparation and processing, repair services, warehousing and storage operations, logistics and distribution, construction and maintenance activities. It also provides space for utilities, waste processing and recycling.

[4] London Plan (2017), paragraph 6.4.5

2.24 London has a significant amount of industrial land, especially in Park Royal, Heathrow, the Wandle Valley, the Lea Valley, and the Thames Gateway. However, in recent years, industrial land in London has been lost at almost three times the benchmark set by the London Plan, and in central London at around eight times the benchmark. This marked loss, coupled with steady demand, is beginning to have implications with industrial rents rising faster than elsewhere in the country.

2.25 The Mayor wants to ensure that London retains sufficient industrial land to keep the economy functioning efficiently and to continue providing local employment. To that end, it indicates that he would:

- Set out detailed policies in the London Plan to maintain a sufficient supply of land and premises to meet current and future demand for industrial and related functions.
- Make more efficient use of industrial land (for example, through intensification) so that it can continue to support London's economy.
- Look at intensifying the way London's industrial land is used through multi-storey industrial buildings with associated shared yard space or co-location alongside residential development.
- Help to enhance the physical condition of London's industrial estates by supporting the creation of Industrial Business Improvement Districts (BIDs).

2.26 Operators and developers of industrial and distribution premises are asked to work closely with the Mayor to explore innovative solutions to workspace demand, such as multi-storey development and co-location within residential uses.

2.27 As with the draft London Plan, there is a need to examine from an evidence based perspective, the feasibility of the Mayor's approach towards increased efficiency and intensification of industrial land in the study boroughs and the potential gains that can be made as a result.

London Industrial Land Demand Study 2017

2.28 In June 2017 the GLA released the London Industrial Land Demand (LILDS) report (prepared by CAG consultants) which provides the most recent evidence base for the pan-London position on industrial land. This informed the emerging London Plan policies published in the consultation draft issued in 2017. The LILDS identifies that the industrial land stock of London is continuing to diminish. The more recent average annual land loss (around 100 ha per annum 2010-15) is considerably higher than the London Plan benchmark rates for industrial land release (37 ha per annum). Between 2001 to 2016, there has been a loss of 500 hectares of industrial land across London. Part of this loss is due to the release of vacant industrial land.

2.29 The report considers five industrial land release scenarios in order to illustrate a robust picture of the industrial requirements for the capital until 2041 – baseline; supply trend; potential pipeline; pipeline

plus infrastructure; and intensification & substitution. Drawing on these as evidence, the report suggests that release figures for industrial land need to be revised to 9 ha per annum from the current 37 ha pa, given the scale of loss to date and that projections for the decline of industrial employment for London have been revised down compared to previous forecasts.

2.30 Specifically in relation to forecasting demand for land for logistics and warehousing, the report identifies that this is different to other forms of employment land as the functional economic market area for these sectors is different. It argues that *London's demand for warehousing land does not need to be physically accommodated within London. But that makes the demand forecast to a large extent dependent on the amount of land available for warehousing and hence somewhat circular as a demand forecast to inform a supply allocation* (p103).

2.31 The LILDS notes that evidence indicates that warehouse floorspace has been declining at an average of -0.3% p.a. over the period 2008-15. But this is considered to be a relatively short run time series and to represent a cyclical response following the recession or a response to lack of available supply. It considers it a reasonable assumption that recent trends in warehouse floorspace stock in London have been broadly flat, with demand constrained by available supply. In order to generate a forecast that is not supply-constrained the report reverts to the trend growth rate of 1998-2008. Over this period London's stock of warehouse floorspace increased at an annual average of 58,700 sqm, or at a rate of 0.4% p.a. at a time when GVA grew by 3.7%.

2.32 The report models future annual change in floorspace per borough at 0.4% p.a. based on the 1998-2008 period to for 2016-41, excluding boroughs in the Central Services PMA (which experienced a loss averaging - 3.0% p.a., that would not be sustainable for the forecast period).

2.33 A plot ratio of 0.9 is applied for Central Services boroughs and 0.65 for all other boroughs. This is noted as high by traditional standards for B8 uses but is consistent with the plot ratios used in the London Employment Sites Database, justified as being in line with what has been more recently achieved overall according to analysis of data from the London Development Database. It is considered by the LILDS that developers will be incentivised to develop at high density given the pressures on industrial land in London. The modelling approach identifies a need for 115.3ha of warehouse land in the West London area 2016-41 (or 135.9ha for Heathrow / Park Royal PMA)[5].

2.34 Sensitivity is modelled on the assumption that these higher plot ratios are not achieved. This broadly doubles the reported need. The report also looks at a pan-London employment led scenario (GLA

[5] The LILDS allocates Barnet to the North sub-region, but includes it in the Park Royal/Heathrow property market area.

Economics projection) resulting in -50,000 jobs and -450 ha of land, which leads to a significant loss but is not considered reliable due to a changing relationship between floorspace and employment.

2.35 The LILDS highlights that the main driver of future industrial land trends will be availability of stock. If availability is limited, various costs will be incurred in order to compensate for lack of suitable premises whilst meeting London's needs. A reported solution for this and especially for mitigating costs is through intensifying the way London's existing stock is utilised. This would include promoting higher density of development and activity on industrial land.

2.36 In addition to intensification, two more solutions have been seen as viable: substitution and co-location. By considering drive time and other indicators the report identifies authorities including Dacorum, Milton Keynes, Cherwell, Luton and Bedford as potential substitution locations – under this scenario future West London needs are zero as all requirements are "substituted out".

2.37 With regard to the London Borough of Ealing, for the 2016-41 period the report identifies a decrease in future needs for general industrial land (-19ha) alongside an increase in the need for warehousing (+50ha). The picture in Brent is similar with +61ha for warehousing and +43ha overall. For Harrow and Barnet the requirements are under 10ha each.

2.38 The policy approach for general and light industrial land in the emerging London Plan is informed by the modelling scenarios in the LILDS. The modelling applies London-wide sector growth rates to 2014 local BRES data and assumes consistent growth rates across London.

2.39 It is necessary to model scenarios that test different growth scenarios to understand demand, hence the importance of this study.

2.40 The LILDS reports that the 0.65 plot ratio outlined in the draft London Plan is derived from the London Development Database and an understanding of the 'the pressures on land'. However, as a starting point consideration needs to be given as a starting point to the degree to which this reflects a typical plot ratio for distribution (B8) development given requirements for storage, HGV turning and parking; as against overall average for a range of industrial and warehouse activities. Previous GL Hearn work across London. and particularly the outer London boroughs, indicates that plot ratios above 0.5 are unusual. For instance, Barking has a plot ratio less than 0.4.

2.41 The LILDS is a key report underpinning the draft London Plan and makes important statements about future need. However it is essential that deeper and more locally embedded work is undertaken to look at a range of demand scenarios as well as supply responses.

London Office Policy Review 2017

2.42 This report provides a review of market trends and associated time series data to illustrate key themes and their bearing on policy. The 2017 report informs the review of the London Plan and the preparation of local plans/opportunity area planning frameworks. The report notes that there are categories of hybrid occupiers and spaces that straddle use classes, and that reducing the number of sectors classified as office-based, would reduce projections for office employment and the need for office space. But in line with this there would be a corresponding addition to forecasts for industrial floorspace as the jobs still need to be accommodated somewhere.

2.43 The review notes that for many activities the type of premises occupied can no longer be easily categorised into a binary divide between offices and industrial premises.

GLA 2016 Economic Evidence Base

2.44 This document provides a broad narrative on the state of the London economy and is a key part of the evidence for the draft London Plan. It reports on a number of key metrics that underpin policies in relation to industrial land.

2.45 Residential land values are estimated to be 3.2 times higher than industrial land values on average in London. The proportion of homes built on non-residential land has increased from 57.5 per cent of homes in 2008 to 62 per cent in 2014. The ratio of residential land to industrial land cost per hectare is reported as follows;

- Barnet; Industrial £3.7m/ha, Residential £15.7m/ha = 4.2
- Brent; Industrial £6.2m/ha, Residential £8.0m/ha = 1.3
- Harrow; Industrial £6.2m/ha, Residential £14.8m/ha = 2.4
- Ealing; Industrial £4.9m/ha, Residential £12.8m/ha = 2.6

2.46 The report acknowledges there is a risk that high demand for residential land may 'crowd out' commercial uses of land. In London, general industrial sites (excluding warehousing) occupy just 1 per cent of the land area while other employment uses including retail, warehousing, and public services occupy 9 per cent of the total land. Other non-employment uses including land for transport, waste disposal, electricity and gas substations, cemeteries and other uses occupy 28 per cent of the land.

2.47 The London-wide industrial vacancy rate has fallen from around 16 per cent in 2001 to 11 per cent in 2015, above the 5 per cent frictional vacancy rate identified as the benchmark in the Land for Industry

and Transport Supplementary Planning Guidance (SPG) (2012), although there are significant variations by borough and several boroughs in the study area are below 5 per cent.

2.48 It is noted that small businesses and a variety of sectors from manufacturing, construction and logistics to those not typically associated with industrial areas like creative industries, certain businesses and charities can benefit from affordability and flexibility of premises associated with industrial locations. The Park Royal Atlas recently revealed that 40 per cent of employment there is non-industrial activity, such as professional services, education, retail, restaurants, cafes, arts, culture and sport. This suggests that there is some flexibility in the industrial land market and industrial activities to respond to contraction in industrial land supply by relocating to the wider South East or through intensification of some industrial activities on site.

2.49 Overall the 2016 report lays down a number of initial principles for policies in the draft London Plan which are taken further in the detailed LILDS report above.

Industrial Land and Economy Study 2015

2.50 This report informs the draft London Plan and the 2017 LILDS and reflects many points in the latter.

2.51 Rates of industrial release in London over the last five years are deemed to be excessive and a more cautious rate of release is deemed more appropriate. Therefore care is needed at a local level to be clear on what industry is to be protected and reflected in robust unambiguous policies.

2.52 It notes that release of industrial land has been slower in the inner South East than in London. There is evidence that out migration of industrial uses may be occurring as release of industrial land has been slowest in the inner South East quadrants that are adjacent to those London market areas with the highest rates of industrial land loss. The report argues there may be ongoing potential for adjacent areas of the South East and East of England to accommodate overspill demand from London. Activities serving core London are likely to be pushed further afield; however some industrial businesses that require space for small-scale production that rely on a skilled workforce may find it hard to be economically viable if forced to relocate outside of London.

2.53 Almost half (49%) of all employment in industrial activities is based in designated industrial areas. Total industrial businesses in designated industrial areas are estimated to be 46,700, representing 61.5% of all industrial businesses (although this is subject to potentially large inaccuracies over the way industrial employment is calculated). It is estimated that 130,000 jobs in non-industrial activities

may be located at designated locations, reflecting the variety of ancillary and independent activities (i.e. office and retail) in such locations.

2.54 Average industrial rental values have steadily increased in London over the past five years ranging from 15% (Park Royal / Heathrow) to 19% (Wandle Valley / Lee Valley).

2.55 Figures highlight that 7.3% of all employment in London is in industrial activities, the majority of this is focused in Outer London locations, most notably in the East and West sub-regions. The report notes that although the number of employees in industrial activity declined between 2001-2010 this pattern has since reversed with a 4% growth between 2010-2015, with potential implications for land and floorspace requirements.

2.56 The study identifies Brent and Ealing as accounting for large proportions of total industrial land (over 450 hectares) in London, whilst Harrow and Barnet have a much lower proportion of between 50 to 100 hectares. The boroughs containing the largest proportions of London's industrial floorspace are in the West sub-region; this includes Ealing (which contains 10%) and Brent (with 7%). This is reflective of the high retention of industrial land stock in the Park Royal / A40 / Heathrow Property Market Area, which has retained a relatively high proportion of its industrial land. However, Barnet, Brent, Ealing and Harrow have all released more than the SPG Industrial Benchmark Release Five Year Equivalent of industrial land between 2010 to 2015.

2.57 There are lower vacancy rates of industrial land in the study area than the London average of 10.7% in all study area boroughs:

- Brent 1.9%
- Ealing 3.3%
- Harrow 7.6%
- Barnet 6.0%

2.58 The study identifies potential Industrial Land Release of 20.6 hectares for Harrow, 38.4 for Brent, 54.1 for Ealing and 1.8 hectares for Barnet based on pipeline, opportunity area planning frameworks, local plans and housing zones. It notes that if the trend release for the period 2010 to 2015 continues in the future, then by 2041 the total stock would have reduced by 23% from the 2015 levels.

2.59 The report's analysis suggests that those sectors that are more sensitive to London will tend to remain and / or grow in London whilst those that are less sensitive to London will leave London. The report identifies intensification and continued relocation of services (substitution) as mechanisms to accommodate excess demand, but this is heavily reliant on the willingness of the South East to

continue to provide industrial land in a plan-led manner. How far this may be practicable over time is not considered in any detail.

Industrial Intensification Primer 2017

2.60 This GLA report summarises the main forms that industrial intensification can take, including how industrial sites can achieve mixed-use developments, with case study examples. While some of the options presented are fairly straightforward, others can be considered as challenging in terms of economic viability and deliverability, as well as in ensuring the quality of industrial and residential space.

2.61 Operational intensification – how new and existing units can be managed to ensure that the use of space is as efficient as possible - is a key concept. This can be achieved through the following;

- Subdivision – structural/floor markings
- Installation of additional levels and modern lifting equipment
- Mezzanine levels
- Shared yard space

2.62 Intensification can be delivered through a range of mechanisms;

- Organisation of large yard spaces to assess capacity for additional smaller units
- Utilisation of space up to the boundary
- Generous ceiling heights to increase capacity
- Stacking of smaller industrial units – where there is access to a goods lift and a shared yard
- Co-location with residential

2.63 Both smaller and larger industrial units can be located beneath residential units as long as sufficient mitigation techniques are employed to reduce the effects of noise and design.

2.64 Examples of where this approach has been taken include: X2, Heathrow; Regent Studios, Hackney; Industrial Hotel Pantin, Paris; Travis Perkins, Kings Cross.

2.65 The report is a useful reference point for successful intensification; it is, however, limited in its analysis and applicability to the wider London industrial market.

Industry Reports

Heathrow Airport Expansion Business Case (2015)

2.66 The Airports Commission's business case for the North West runway assesses the likely outcome of a decision to proceed with the north-west runway option for expansion of the airport. It estimated that

the expansion will create up to 78,400 jobs to 2050 including direct, indirect and induced in the local area (14 boroughs including Ealing and Harrow) and up to £190,000 jobs across the UK by 2050.

Heathrow Employment Land Forecasting Study (2019)

2.67 This study, published by Heathrow Airport Ltd considers how much extra land for employment might be required in future under different scenarios of future growth at the Airport, particularly associated with a third runway, in the period to 2040.

2.68 In terms of warehousing, demand ranges from 85.6-128.5ha by 2040. It is noted that the existing provision does suggest wide dispersal of this warehousing across the local and wider area, particularly at Old Oak Common/Park Royal, although proximity to the Airport is likely to be the most attractive for some occupiers, reflected in the clustering of this space in and around the industrial estates closest to Heathrow, such as Feltham.

2.69 The additional needs of Heathrow are anticipated to be above any local or City level demand modelling considered elsewhere and further adjustments may be needed as a result.

Keep London Working – SEGRO 2017

2.70 This SEGRO-commissioned report provides an industry response to the shrinking industrial land portfolio in London. It serves as a commercial rather than a policy perspective and highlights some of the issues and recommendations for industrial land planning.

2.71 The report recognises that urban logistics is facing an unprecedented level of growth in consumer demand arising from: a growing London population and changes in the way we shop - UK online sales grew by 16% in 2015 and are forecast to continue to grow around 15% in 2016.

2.72 The report considers that in light of the growth in demand for urban logistics operations and assumed future growth, this continuing trend of industrial land loss poses a significant challenge for urban logistics operators seeking sites and modern premises in the right locations.

2.73 The dominant logistics sub-sectors in London are reported as:

- Road freight - which has the most businesses of the sub-sectors – supporting 2,555 businesses and 7,300 jobs.
- Other transportation support activities - supports the second largest number of employees of the sub-sector – 1,075 businesses and 15,600 jobs.
- Postal and courier services - which have the most employees of the sub-sector – 1,720 businesses and 32,800 employees.

- Warehousing and storage - which although has a small number of businesses has a high ratio of jobs per business – 365 businesses and 12,900 jobs.

2.74 Logistics, and related sectors, have a number of land and premises requirements. While these vary by individual occupier in their detail, we present some of the common themes below. Many occupiers seek to balance four location requirements:

- Proximity to market - is of paramount importance for urban logistics operators.
- Transport infrastructure - (particularly road) and journey times are paramount in ensuring collections and deliveries can be made efficiently and economically, within allocated time slots. Logistics activities therefore need to be located on good transport networks, with connectivity to the key markets they serve. Locations such as Origin Business Park in Park Royal provide access to the North Circular (A406), A4 and the A/M40.
- The cost of premises - is an important consideration for logistics businesses, often operating with narrow profit margins and bearing a number of other costs. Given the high land values generated by the demand for housing, logistics businesses (and other industrial land occupiers) cannot compete.
- Parking - Sufficient vehicle parking is a key requirement for logistics businesses. These requirements are not only a consideration for businesses when seeking new sites, but must also be fully understood by local planning authorities when considering planning applications for urban logistics developments in London. This relates to shift work and fleets.

2.75 The report discusses a series of industry innovations:

- Urban consolidation centres (UCC) offer significant delivery streamlining for logistics companies, combining loads together to be delivered into locations utilising a single vehicle rather than multiple vehicles.
- Ultra-Low Emission Vehicles (ULEV) and Fuel Cell Emission Vehicles (FCEV) have the potential to dramatically mitigate transport emissions amongst both commercial and private vehicles.
- Reverse logistics (RL) is gaining increased traction within the wider industry and involves the backward flow of returned products from the consumer to an organisation.

2.76 The report concludes with a series of recommendations. Those of particular relevance to this study are:

- Recommendation 2 – The preparation of a full and comprehensive review of the demand for floorspace to meet the future needs of urban logistics and industrial occupiers.
- Recommendation 5 – The London Plan should recognise the location requirements of urban logistics operators in establishing industrial locations, noting that locations out of London are unlikely to enable them to perform effectively.
- Recommendation 6 – Flexible planning policies should be developed to take account of the rapidly evolving technical and operational needs of urban logistics occupiers.
- Recommendation 8 – Refine policy to enable intensification of industrial uses more readily.

2.77 The SEGRO report is useful in providing the industry's perception of industry trends and assisting in developing a pan-London picture on the demand side response to the changing industrial land position.

Delivering the Goods – Industrial - Economic Impact of the Logistics Sector 2015

2.78 This British Property Federation Report identifies:

Economics

- Modernisation is leading to higher employment densities for some premises.
- Recent research indicates an average employment density of 69 sqm per full time employee..
- Evidence indicates that every 1,000 sqm of logistics development supports 14 FTE jobs and £850,000 GVA per annum.
- GVA per employee is approximately £51,000 a year, predicted to rise to £75,000 by 2035.

Technological progress

- The sector is modernising and pushing technological boundaries to meet rising demand and supply challenges.
- This is driving a need for more employees to respond to increased technological efficiency as well as demand for skilled employees in electrical and mechanical engineering, IT and analytics.

The future of logistics

- The rate of development growth in the sector (31%) is projected to exceed the national average (20%) between 2013 and 2035 as determined by Experian employment projections.
- Employment in the sector is expected to grow by 25% from 2013 to 2035, compared to 20% employment growth nationally.
- The logistics sector economic productivity is projected to grow by 83% between 2013 and 2035.
- The e-commerce sector is projected to grow by 10% per year by 2021, reaching £48 billion.
- Drivers of change:
  - Retail – forecast GVA growth of 68% (£57 billion) between 2013 and 2035 (3% per annum).
  - E-commerce – online retailing is projected to experience revenue growth of 10% per annum between 2015/16 and 2020/21 (£48 billion in 2020/21) – creating up to 200,000 jobs in Europe over the next 5 years.
  - Wholesale – 89% (£77 billion) growth up to 2035.
  - Manufacturing – 41% (%58 billion) growth up to 2035.
  - Grey pound – increasing 65 and over population strengthening the grey pound as those in this age group become increasingly digitally enabled.
  - Superfast broadband – further increasing the involvement of online shopping of more rural populations.
- Barriers to growth:
  - Lack of high quality warehouse space in proximity to urban centres.

Colliers – From First Mile to Last Mile 2015

2.79 This report suggests that the last mile of the logistics chain, which accounts for a large proportion of shipment costs and complexity of operations, is the most inefficient. Key trends considered in the report are:

Key Trends

- Across the global logistics markets, it is common to see a range in sizes of centres, but there is also an adaptation depending on city-centre sites for the last mile.

First Mile – The Rise of 'Mega-Delivery Centres (DC)s'

- Across the global logistics markets, it is common to see a range in sizes of centre, but there is also a clear sign that a rationalisation process is ongoing, driving the creation of mega-sheds covering national and regional markets, as the first point of dedicated distribution.
- Technological sophistication - As a matter of operational efficiency, retailers and logistics companies have been engaging with a full range of mobile technologies and the deepening utilisation of sales data analytics, which are essentially spun off from their digital platforms, to help formulate process-driven facilities.
- Bigger and more automated - Due to the growth of e-retailing and the corresponding space requirements to install more sophisticated facilities such as automated picking and sortation systems, there is a noticeable trend that the overall size of the total floor area is getting larger - modern 'first mile' distribution facilities often comprise a floor area of more than 100,000 m².
- Consolidation - In some markets, especially those with a diversified customer base and a shortage of labour, logistics facilities with advanced automation technology are enabling much higher productivity rates and improved delivery times, generating economies of scale. There is a clear trend of many pan-national or regional operations to be consolidated into the one key DC hub.

Last mile urban logistics:

- Urban warehouses – ecommerce retailers have started to include smaller urban warehouses in their network in order to shorten delivery routes and quicken delivery. This allows services such as 'Amazon Prime Now' allowing customer deliveries within an hour via a mobile application. The main differences in requirements for urban warehouses include:
  - Size: 4,600 – 7,000 sqm (approximately 10% of an average Distribution Centre)
  - Manual vs. Automation: more manual pickers
  - Location: located in densely populated, inner city communities
- Cargo Cycles/Cycle Logistics – increased congestion in city centres, increased costs of operating both large and light freight vehicles within city boundaries and more expensive urban warehouses see distributors considering alternative delivery methods.
- Click and Collect - Home delivery typically involves additional costs due to the frequent need for repeated deliveries. Click/connect is becoming increasingly popular for retailers – and customers.

- Parcel Lockers / Smart Lockers – Essentially a self-serve automation arrangement where users can store and pick up products through the identification of specific passcodes.

Summary and Key Issues

2.80 The key policy matters arise from the draft London Plan 2017 and from the supporting evidence on which it draws - the 2015 Industrial Land and Economy Study, 2016 Economic Evidence Base and 2017 LILDS.

2.81 The underlying trends identified by the evidence point to a falling stock of industrial land which is being converted to primarily residential uses. The rate of loss is considerably above the London benchmarks. Meanwhile demand for industrial land is high, particularly for logistics and general light industrial, whilst manufacturing employment has stabilised. Rents for industrial units are historically high and continue to rise against falling vacancies which are nearing levels of damaging functional performance.

2.82 The 2017 LILDS forms a key part of the underlying evidence for the draft London Plan and attempts to forecast future industrial land needs by sector. For warehousing and logistics, the 1998-2008 take up period is rolled forward to 2041 in an attempt to represent a relatively unconstrained scenario compared to the more recent recession / constrained supply period. A warehousing need of 115ha is reported for the West London area with Ealing and Brent having high components despite falling industrial requirements due to manufacturing (modelled from employment forecasts). A plot ratio of 0.65 is assumed for the Outer London boroughs.

2.83 A part of the approach in this West London Employment Land Evidence report is to reconsider the methodological approach and sensitivity to modelling future need for logistics including through a commercial understanding of the local industrial markets. This includes employment sector and sub sector forecasting analysis, as well as analysis of the 0.65 plot ratio, particularly in terms of occupier requirements in West London.

2.84 In recognising the importance of industrial land and the increasingly constrained supply, the draft London Plan builds on the LILDS to put forward a number of policy measures. Of particular note is the need for intensification of existing sites and the expectation for boroughs including Ealing and Brent to provide additional capacity primarily through this mechanism which involves site efficiency, mezzanines (later removed), stacking and basements.

2.85 In the following chapters, this report sets out to test the degree to which the intensification of sites is likely to occur in the West London context. In order to make an informed judgement regarding this, an analysis of the West London logistics market and function is included and consideration given to the changing nature of the sector.

2.86 This means that the report's consideration of the policy and related evidence referred to above is supplemented with a range of industry based narrative on the warehousing and logistics sector dynamics.

2.87 Logistics demand continues to rise at the London level, creating employment and a need for suitable occupier locations – the expansion of Heathrow will be an additional consideration. There are a range of occupier operational models and locational requirements enabling the sector to function and service its consumer and business markets

3 INDUSTRIAL SUPPLY AND MARKET POSITION: STUDY AREA OVERVIEW

3.1 This section provides an overview of the industrial land and market position across the four Study Area boroughs. More detailed borough-by-borough data is considered in succeeding chapters.

Industrial Land Supply: Study Area Overview

3.2 The Valuation Office Agency (VOA) data suggests an industrial land supply in London of over 20.7m sqm as of 2015-16 (the most recent period for which data are available). This includes almost 4m sqm within the Study Area, which includes OPDC (1.2m sqm).

Table 1: **Industrial Floorspace (sqm) 2015-16**

Area	Industrial Floorspace (sqm)
Greater London	20,771,000
Barnet	312,000
Brent (inc OPDC)	1,394,000
Ealing (inc OPDC)	2,027,000
Harrow	260,000
Study Area (Including OPDC)	3,993,000
OPDC area	1,190,927
Study Area (Excluding OPDC)	2,802,073

Source: VOA and Borough Data (OPDC), 2018

3.3 According to VOA data and data from the Boroughs (which exclude OPDC) the study area comprises 10% of the Greater London industrial stock and totals 2.8m sqm, rising to 19% including OPDC.

3.4 The table below shows the existing designated land supply within each borough in the Study Area by designation. Note that this relies on local data provided by the borough councils (2018) and differs from the VOA data. However it still shows a supply in the region of 2.7m sqm of industrial floorspace (or 4 m sqm including the area covered by the OPDC).

Table 2: **Current supply of employment floorspace (sqm) by Borough**

Borough	SIL	LSIS	Non-Designated	Total
Barnet	0	223,237	119,996	343,233
Brent	320,659	148,745	220,850	690,254
Ealing	601,311	193,699	677,325	1,472,335
Harrow	63,808	112,592	43,289	219,689
Study Area (excluding OPDC)	985,778	678,273	1,061,460	2,725,511
OPDC	1,190,927	0	0	1,190,927
Study Area Including Park Royal	2,176,705	678,273	1,061,460	3,916,438

Source: Local Authority Data

3.5 Around 54% of the industrial floorspace in the Study Area is in Ealing with another 25% located in Brent (excluding those parts of the Borough in the OPDC area). Both Barnet and Harrow provide significantly less with respectively 13% and 8% of the study area floorspace.

3.6 Ealing has the greatest supply of industrial floorspace in designated SILs. In contrast Barnet has no designated SIL locations, but does have the greatest supply of LSIS, accounting for 33% of `this designation in the study area.

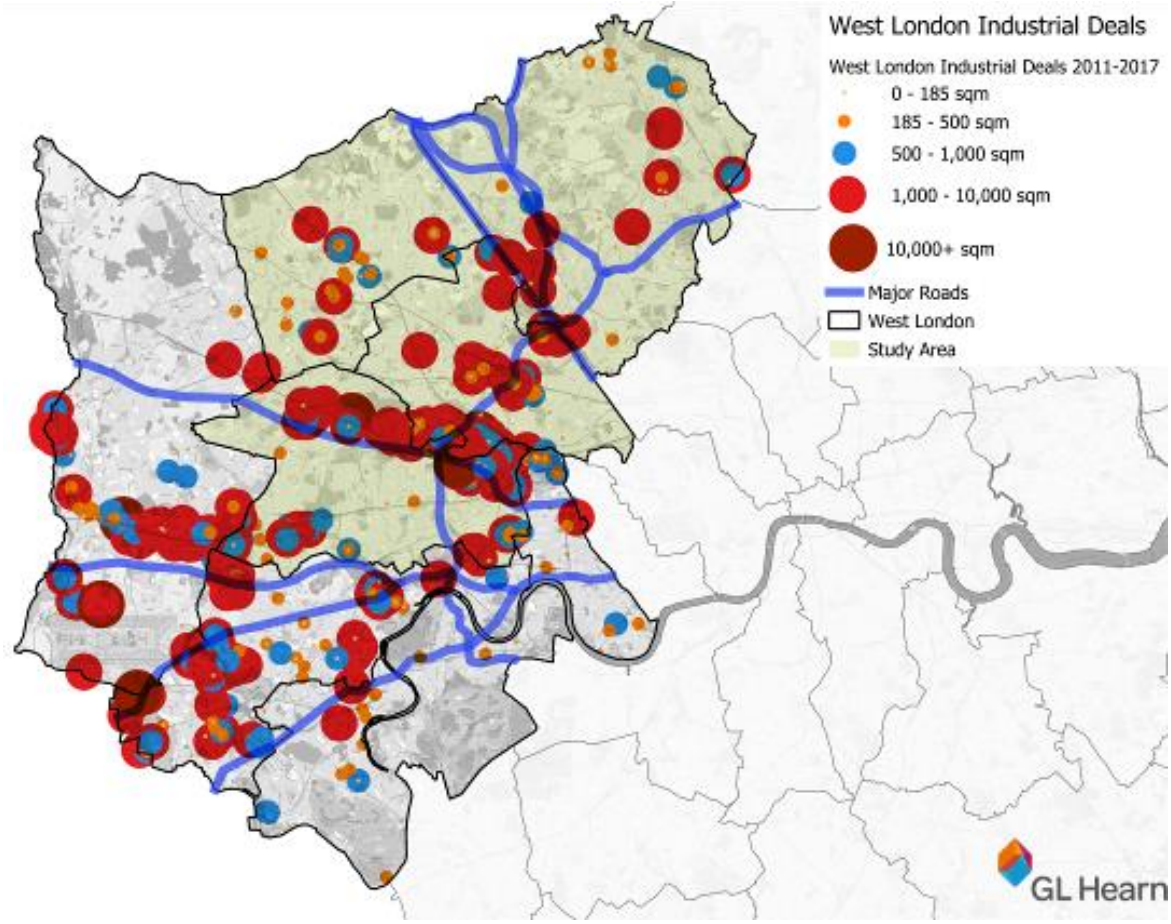
3.7 In isolation this demonstrates the role which each borough plays in the West London context. Even without the provision at Park Royal, both Ealing and Brent have a substantially larger industrial employment base than Harrow and Barnet.

3.8 This is also demonstrated in the nature of the supply with less than 100,000 sqm of strategic space found in Harrow or Barnet, indicating their focus more typically on a local or specialist market.

Market Dynamics: Study Area Overview

3.9 An analysis was conducted of industrial deals across West London from 2011-2017. The study area and deals are highlighted below to specify the area's context within West London. The clustering of activity reflects the roles and attraction of the A40, Park Royal, Wembley, Staples Corner and (although outside the Study Area) Heathrow Airport.

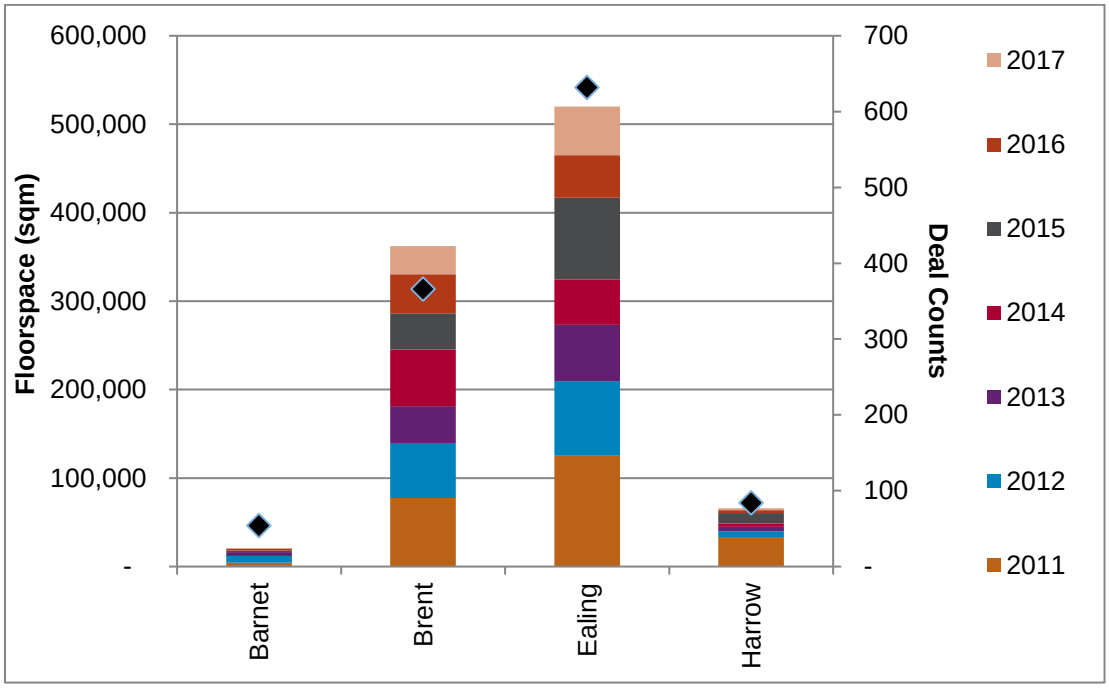
Figure 1: West London Industrial Deals



Source: GL Hearn / CoStar 2018

3.10 Figure 2 below shows take up over the 2011-2017 period across the four boroughs. This serves to indicate the proportionate activity across the boroughs and the intensity of Brent and Ealing as industrial markets. Activity has been relatively consistent but has seen some slowing which is considered to be due to reduced availability.

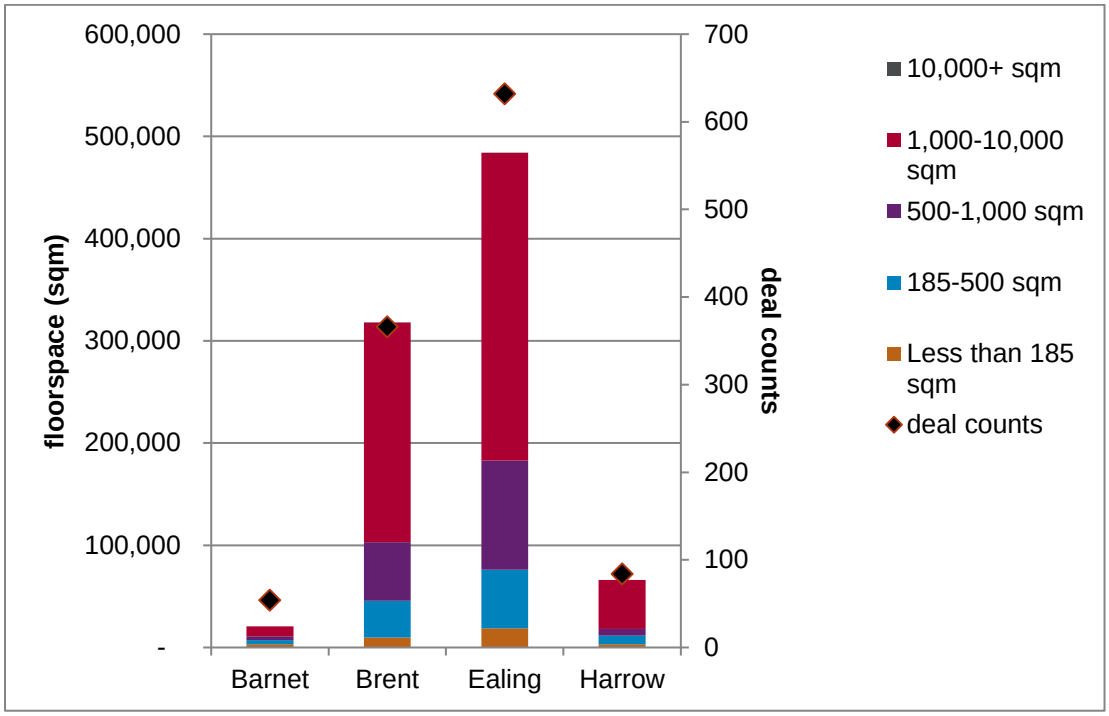
Figure 2: Historic Industrial Take Up (2011 to 2017) and Deal Counts



Source: CoStar / GL Hearn

3.11 In terms of transaction by floorspace by area, in the latest sample year 2018 there was a total of 573,345 sqm of 1,000 to 10,000 sqm sites transacted, accounting for 59% of activity in the study area (figure 3). Demand for, and supply of, this type of stock is greatest in Ealing and Brent. This range can accommodate a range of mid to large size industrial, manufacturing and distribution occupiers. Sites of 500 to 1,000 sqm make up a significant proportion of the remaining floorspace transacted and typically represent more local requirements.

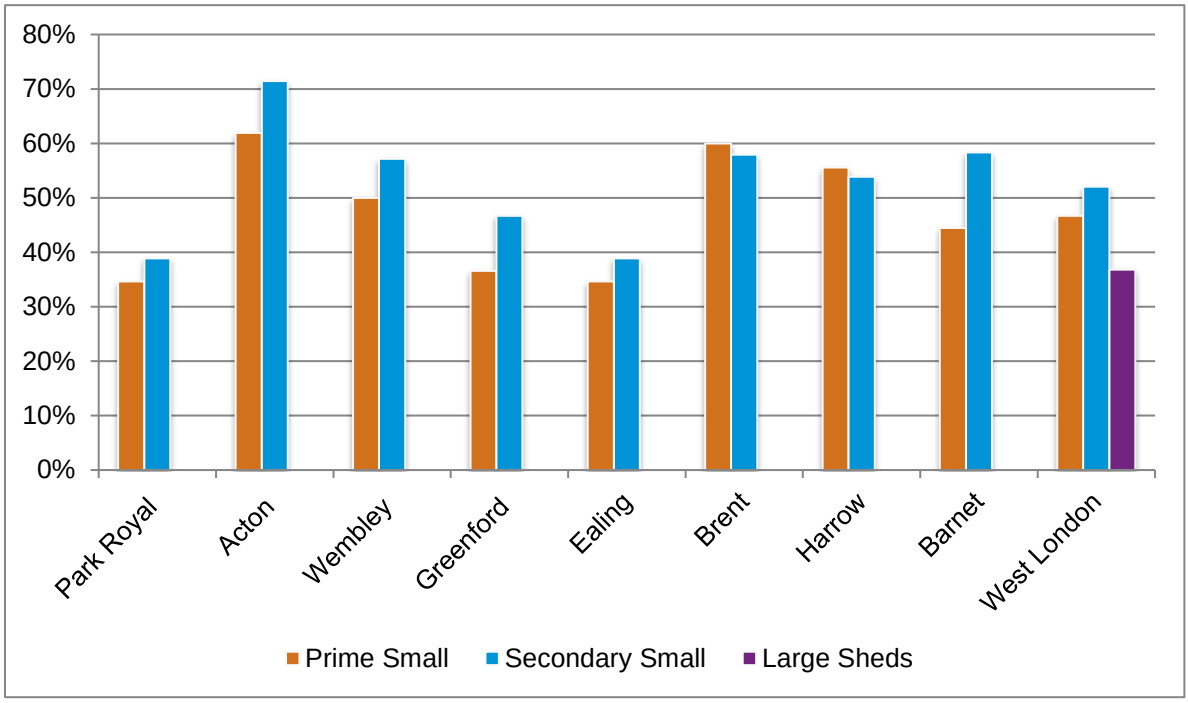
Figure 3: Industrial Floorspace Take Up by Stock Size (2018)



Source: CoStar / GL Hearn

3.12 There has been significant rental growth within the Study Area over the past 5 years (figure 4), both at borough and selected prime location levels. Industrial rental values have increased by 45% for prime stock and 53% for secondary stock in West London. Acton in Ealing has experienced the greatest growth in rental values, particularly for secondary stock. Out of the four boroughs, Brent's prime rents have increased the most, at 60% for prime and just above 55% for secondary. Harrow, interestingly, has seen a greater percentage increase in rent compared to Ealing, which had a more suppressed growth of 35% for prime and just under 40% for secondary. In part this is expected due to the smaller nature of the Harrow industrial market compared to higher stock volume in Ealing.

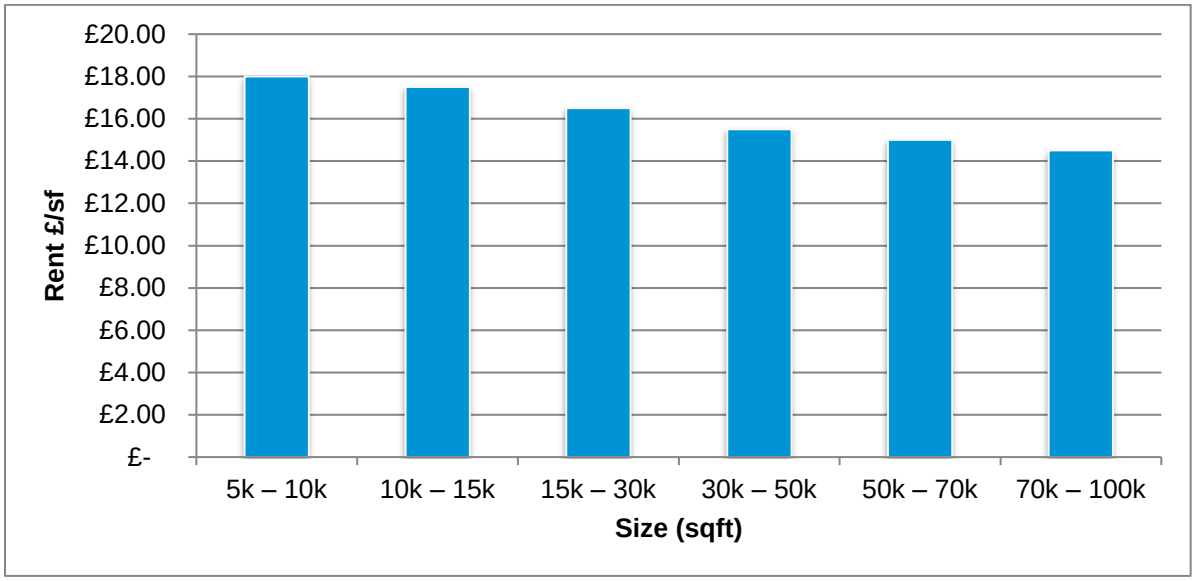
Figure 4: Rental Growth Values by Type (2012-2018)



Source: Levy Real Estate

3.13 Figure 5 below illustrates that typical rent in the study area is significantly higher for smaller stock, reaching up to £18 per sqft (£194 per sqm). Larger floor plates of 70,000 to 100,000 sqft (6,500 to 9,300 sqm) also have high rental values with typical rents at £14 per sqft (£151 per sqm). Smaller uses can tend to higher value light industrial or hybrid stock requirements with higher fit out costs.

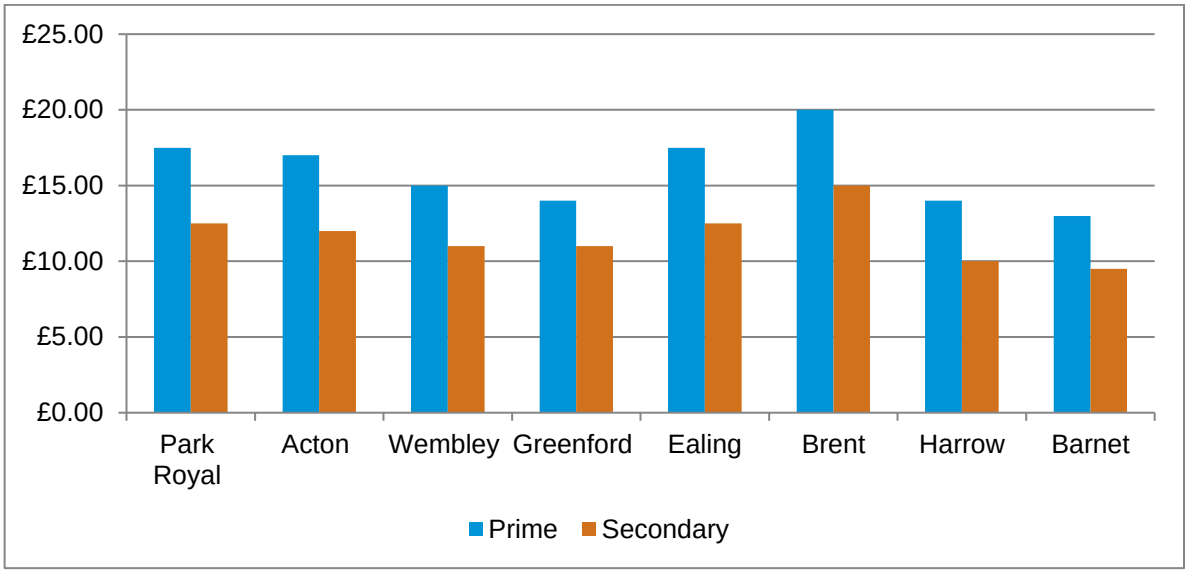
Figure 5: Typical Rent in the Study Area by size (per sqft) (2018)



Source: Levy Real Estate

3.14 Figure 6 shows that the highest prime industrial rents are obtained in Brent, with £20 per sqft foot achieved, which is a 60% increase from 2012. Secondary rental values are fairly consistent across Park Royal, Acton, Wembley and Greenford, ranging from £11 to £12 per sqft (£118-£129 per sqm). The latest index figures forecast a rental growth in the Industrial & Logistics sectors over the next five years of 4.8% per annum across London and 3% across the Home Counties. A further factor is the planned expansion of Heathrow, which has the potential to provide a further driver on floorspace demand and rents.

Figure 6: Primary and Secondary Rental Values in the Study Area (per sqft) (2018)



Source: Levy Real Estate / GL Hearn

Summary

3.15 The study area comprises 19% of the Greater London industrial stock of 2.8m sqm - excluding Park Royal which drives floorspace to some 4.0m sqm. The majority of this stock is located in Ealing and Brent, demonstrating their roles within the West London and overall London economy.

3.16 Transaction analysis reports the highest concentration of deals are in Ealing and Brent, notably along the A40 and other key transport corridors. Demand for stock between 1,000 to 10,000 sqm is greatest here, whereas lower size bands are more common in Harrow and Barnet.

3.17 In terms of rental values and growth, at the borough level Brent has seen the highest percentage increase in rent from 2012 at 60% growth for prime and 55% for secondary small sheds, albeit that locally Acton in inner Ealing has surpassed this. Overall strong rental increases which are at a historic high show the strength of demand combined with constrained supply.

4 INDUSTRIAL SUPPLY AND MARKET POSITION: BARNET

4.1 This section provides an overview of the industrial land and market position across Barnet and considers its role in the industrial and logistics market.

Industrial Land Supply

4.2 In Barnet, there is no designated SIL land for industrial purposes. However there are a large number of smaller designated LSIS sites. These LSIS sites account for 65% of total employment land in the Borough. The remaining 35% of supply is on non-designated employment land. Of note, several of the non designated industrial sites have been identified as part of the Barnet Employment to Residential Article 4, removal of permitted development rights (consultation autumn 2018).

Table 3: **Barnet existing floorspace supply**

SIL	Supply (sqm)	% of total Barnet supply
-	-	-
LSIS	**Supply (sqm)**	**% of total Barnet supply**
North London Business Park	35,169	10%
Connaught Business Centre	5,967	2%
Garrick Industrial Centre	47,020	14%
Granard Business Centre	6,506	2%
Mill Hill Industrial Estate	7,134	2%
Brunswick Business Park	25,932	8%
Finchley Industrial Estate	5,489	2%
Grenville Place	3,993	1%
Hadley Manor Trading Estate	5,767	2%
Lancaster Road Industrial Estate	6,419	2%
Redrose Training Centre	1,886	1%
Queens Road Industrial Park	6,333	2%
Oakleigh Road South	22,632	7%
Regents Park Road Employment Cluster	15,255	4%
Squires Lane	27,735	8%
Non designation	**Supply (sq m)**	**% of total Barnet supply**
-	119,996	35%

Source: London Borough of Barnet, 2018

4.3 The largest designated site in the Borough is the Garrick Industrial Estate in Hendon covering just over 47,000 sqm of industrial floorspace. The site has good access to the A1. A number of the units are occupied by The Bread Factory (7 units) which manufactures and distributes to the catering industry.

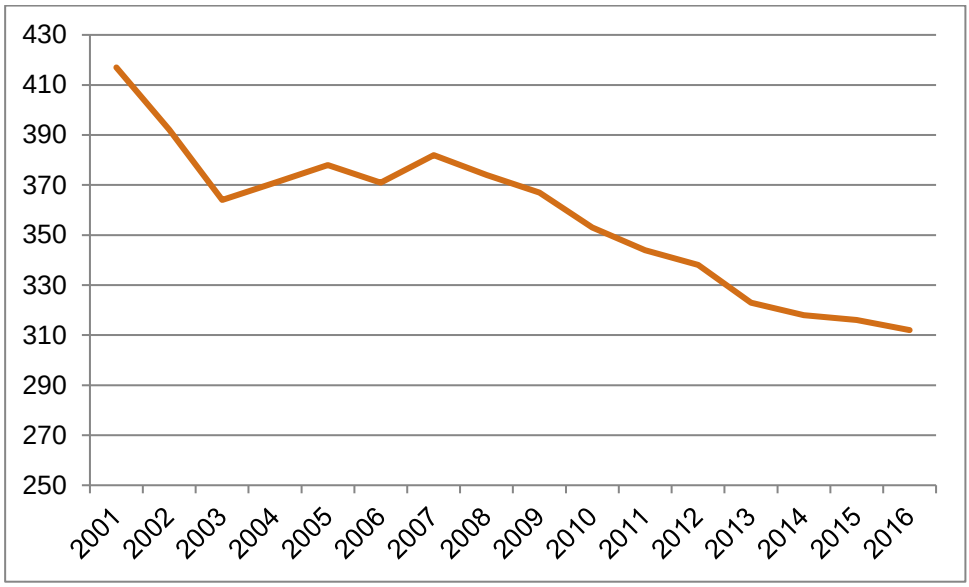
4.4 The next largest allocation is the North London Business Park which although a LSIS is largely office based and (currently) includes the London Borough of Barnet Council offices. The next three largest

allocations all have near access to the North Circular which suggests they also serve a London or local market.

Current Stock

4.5 In terms of industrial floorspace and stock, Barnet's has decreased since 2001 by 25%. The below chart indicates a decrease in floorspace until 2003, a slight increase until 2007 at the recession, and then a steeper decrease up to 2017.

Figure 1: Barnet Industrial Floorspace Change Over Time ('000s)



Source: VOA / GL Hearn

4.6 Since 2001, Barnet has lost 25% of its industrial floorspace (table 4). In percentage terms it has lost 15% more space relative to the overall study area and 5% more than London.

Table 4: **Floorspace Change Over Time (000s)**

	Floorspace 2001	Floorspace 2016	Change 2001-16	Change p.a.	% Change
Barnet	417	312	-105	-7	-25%
Study Area	4,439	3,993	-446	-30	-10%
London	25,831	20,771	-5,060	-337	-20%

Source: VOA / GL Hearn

4.7 Property data from the VOA rating list is analysed on a property by property level to understand the representation of various floorspace size bands in the borough.

4.8 As noted in table 5, there are very limited sites in Barnet above 10,000 sqm. 87% of property is below 1,000 sqm in floorspace. Low floorspace per unit indicates that the market is more local in nature and depends less on large distribution networks.

Table 5: **Industrial Stock and Floorspace by Size Band**

Size Band	# of Sites	% of Borough	Sum of Area (sqm)
<185 sqm	198	46%	17,744
185-500 sqm	114	27%	35,915
500-1,000 sqm	62	14%	46,467
1,000-10,000 sqm	55	13%	142,686
>10,000 sqm	1	0%	14,017
Grand Total	430	100%	256,829

Source: VOA / GL Hearn

4.9 Factories, warehouses and workshops as reported by VOA are subsequently analysed by size band to uncover the relative significance of each segment in the Borough.

Table 6: **Factories Industrial Stock and Floorspace by Size Band**

Factories	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	12	31%	1,324	3%
185-500 sqm	14	36%	4,651	3%
500-1,000 sqm	7	18%	5,729	2%
1,000-10,000 sqm	6	15%	18,327	1%
>10,000 sqm		0%		0%
Grand Total	39	100%	30,031	9%

Source: VOA / GL Hearn

4.10 As table 6 further illustrates ,factory units typically have smaller footprints, with 67% of sites being less than 500 sqm. Factories in total represent only 9% of industrial stock across the Borough.

Table 7: **Warehouses Industrial Stock and Floorspace by Size Band**

Warehouses	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	36	21%	4,244	8%
185-500 sqm	51	29%	15,964	12%
500-1,000 sqm	41	23%	30,681	10%
1,000-10,000 sqm	46	26%	120,209	11%

>10,000 sqm	1	1%	14,017	0%
Grand Total	175	100%	185,115	41%

Source: VOA / GL Hearn

4.11 As table 7 shows, warehouses stock is more evenly distributed in size, although with only 1 site above 10,000 sqm.

Table 8: **Workshops Industrial Stock and Floorspace by Size Band**

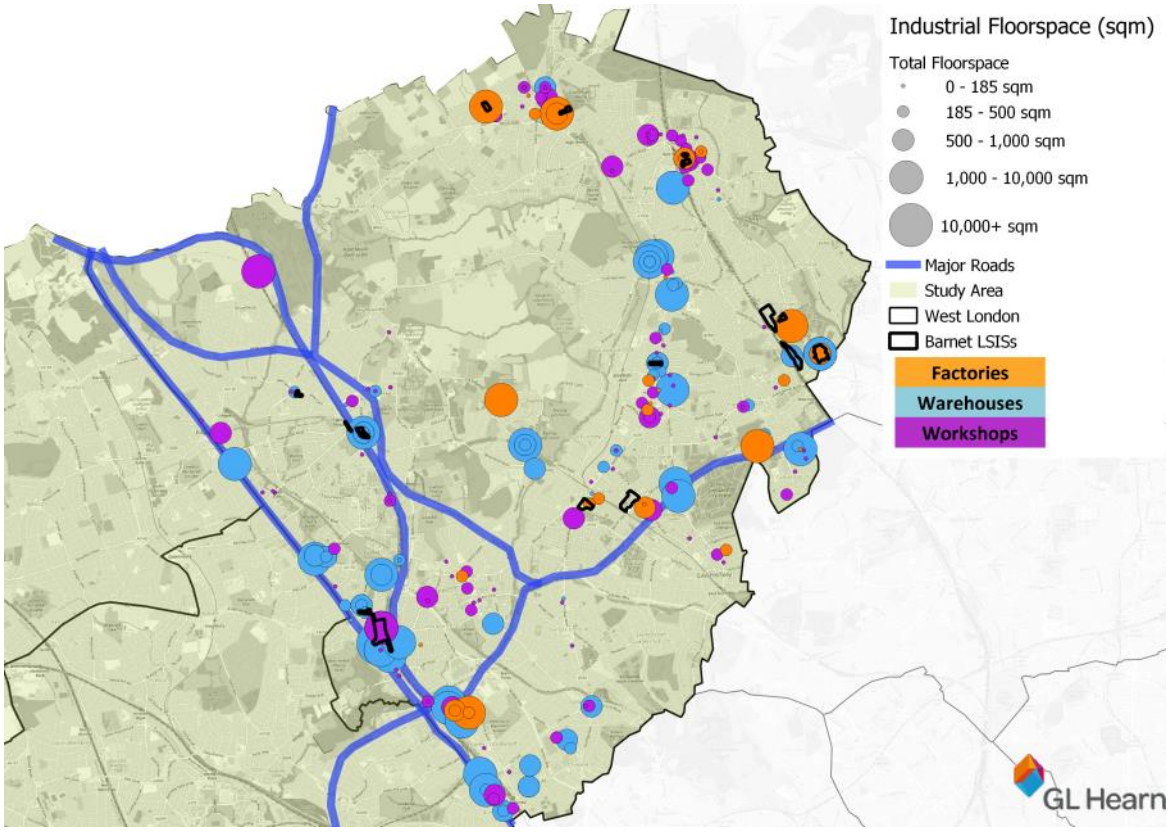
Workshops	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	150	69%	12,175	35%
185-500 sqm	49	23%	15,301	11%
500-1,000 sqm	14	6%	10,057	3%
1,000-10,000 sqm	3	1%	4,150	1%
>10,000 sqm		0%		0%
Grand Total	216	100%	41,682	50%

Source: VOA / GL Hearn

4.12 Workshop stock (table 8) has the highest number of sites relative to the other industrial uses. Most sites (or 92%) are under 500 sqm; 69% of sites are under 185 sqm. This data suggests that workshop stock in Barnet serves very localised uses.

4.13 In figure 2 the current industrial stock in Barnet is mapped according to size band (as reported by the VOA). This suggests the largest concentration of stock above 1,000 sqm sits in the south west corner of the borough, in the M1/A5 industrial corridor. There is another cluster in the A1000 corridor. Larger warehouses in particular tend to cluster along these same corridors.

Figure 2: Barnet Stock Map By Size Band



Source: VOA / GL Hearn

4.14 Another useful way of analysing the stock is by age. Due to limitations with the VOA data, CoStar has been used. Table 9 shows that the majority (over 90%) of industrial floorspace in Barnet is older than 1990.

Table 9: **Age of Stock**

Age Band	% of Sites	Sum of Area (sqm)
Before 1950	50%	42,827
1950 - 1990	41%	101,170
1990 - 2000	7%	32,395
2000 - 2010	1%	9,388
2010 - 2019	1%	29
Total	100%	**185,809**

Source: CoStar / GL Hearn

Market Dynamics

Take up and Availability

4.15 Information about industrial deals and/or takeup in the Borough has been drawn from CoStar. Reflecting the nature of overall stock, a large representation of deals (over 80%) is concentrated at the lower end of the size bands, further illustrating that Barnet's market is concentrated around smaller-sized industrial units.

Table 10: **Deals (2011-2017) By Size Band**

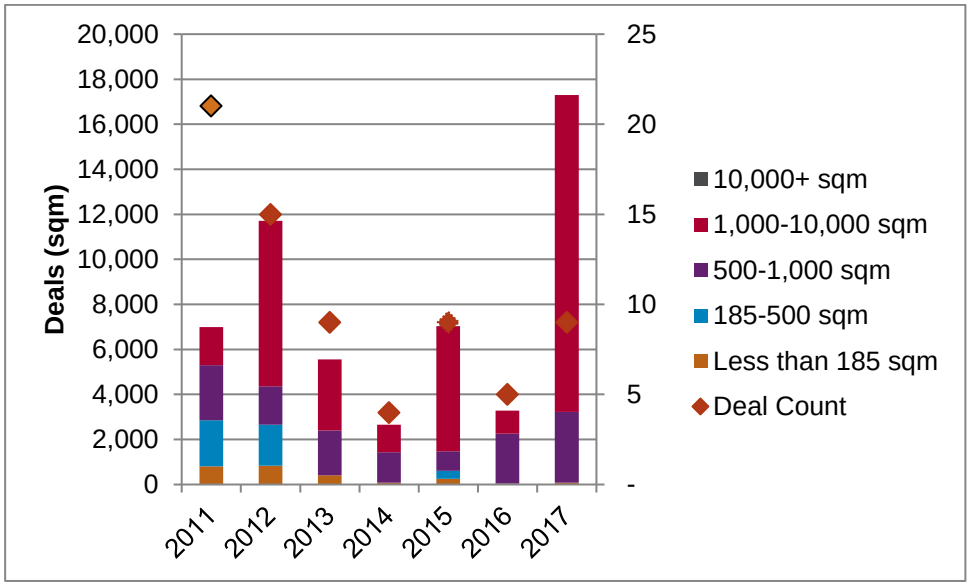
Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	27	38%	2,520
185-500 sqm	13	18%	4,221
500-1,000 sqm	18	25%	13,707
1,000-10,000 sqm	14	19%	34,068
10,000+ sqm	-	0%	-
Total	72	100%	54,516

Source: CoStar / GL Hearn

4.16 Figure 3 shows that since 2011, deal counts have decreased, and generally so has floorspace transacted (with the exception of 2017). In 2017, there were four deals with floorspace between 1,000 and 10,000 sqm.

4.17 Deals in 2017 include VER UK for 6,067 sqm for storage on the High Road in North Finchley and 1,636 for Delphi Foods in Friern Barnet near the A606.

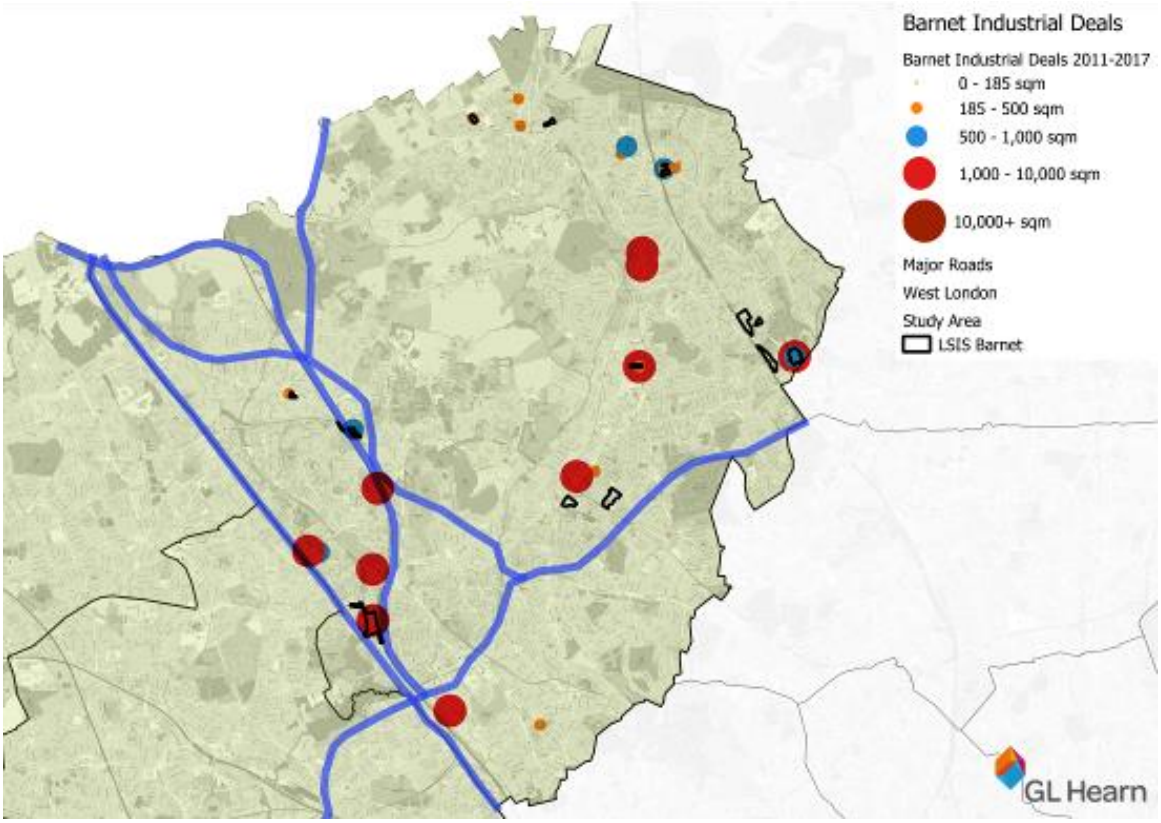
Figure 3: Barnet Industrial Deals (2011-2017) By Size Band



Source: CoStar / GL Hearn

4.18 Spatially, figure 4 shows that market activity is relatively dispersed across the Borough, but reflect the concentrations of stock along major transport corridors as shown in figure 3. The largest deals sit along the M1/A5 corridor and A1000 corridor.

Figure 4: Barnet Industrial Deals



Source: CoStar / GL Hearn

4.19 CoStar was used to track available properties to let in the Barnet search area (2010). Table 11 reports that there is very low availability in the borough for leases. All sites available are below 1,000 sqm.

Table 11: **Lease Availability (2018)**

Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	2	33%	148
185-500 sqm	1	17%	360
500-1,000 sqm	3	50%	2,082
1,000-10,000 sqm	-	0%	-
10,000+ sqm	-	0%	-
Total	6	100%	2,590

Source: CoStar / GL Hearn

4.20 Using historic transactions as an indicator of take up against current availability, there is currently less than one year of supply, suggesting that there are supply pressures in the area (table 12).

Table 12: **Years Supply Calculation**

Average Annual Take Up	
7,788	sqm p.a.
Total Lease Availability	
2,590	sqm
Years Supply	
0.32	years

Source: CoStar / GL Hearn

Rents

4.21 Rents for prime sheds in Barnet have risen less than across other areas of West London, but have still increased by 44% since 2012 (table 13). Perhaps more interesting is that rents for secondary sheds, or those further away from prime locations, have grown by 58% since 2012; 5% more than West London overall. This may reflect the fact that in money terms Barnet is still relatively affordable compared with other Study Area boroughs and demand is switching here, in turn driving a reversion to the mean.

Table 13: **Barnet Rents**

Area	**Small Sheds**					
	Prime			Secondary		
	2012	2018	% Change	2012	2018	% Change
Barnet	£9.00	£13.00	44%	£6.00	£9.50	58%
West London	£10.29	£15.08	47%	£7.17	£11.00	53%

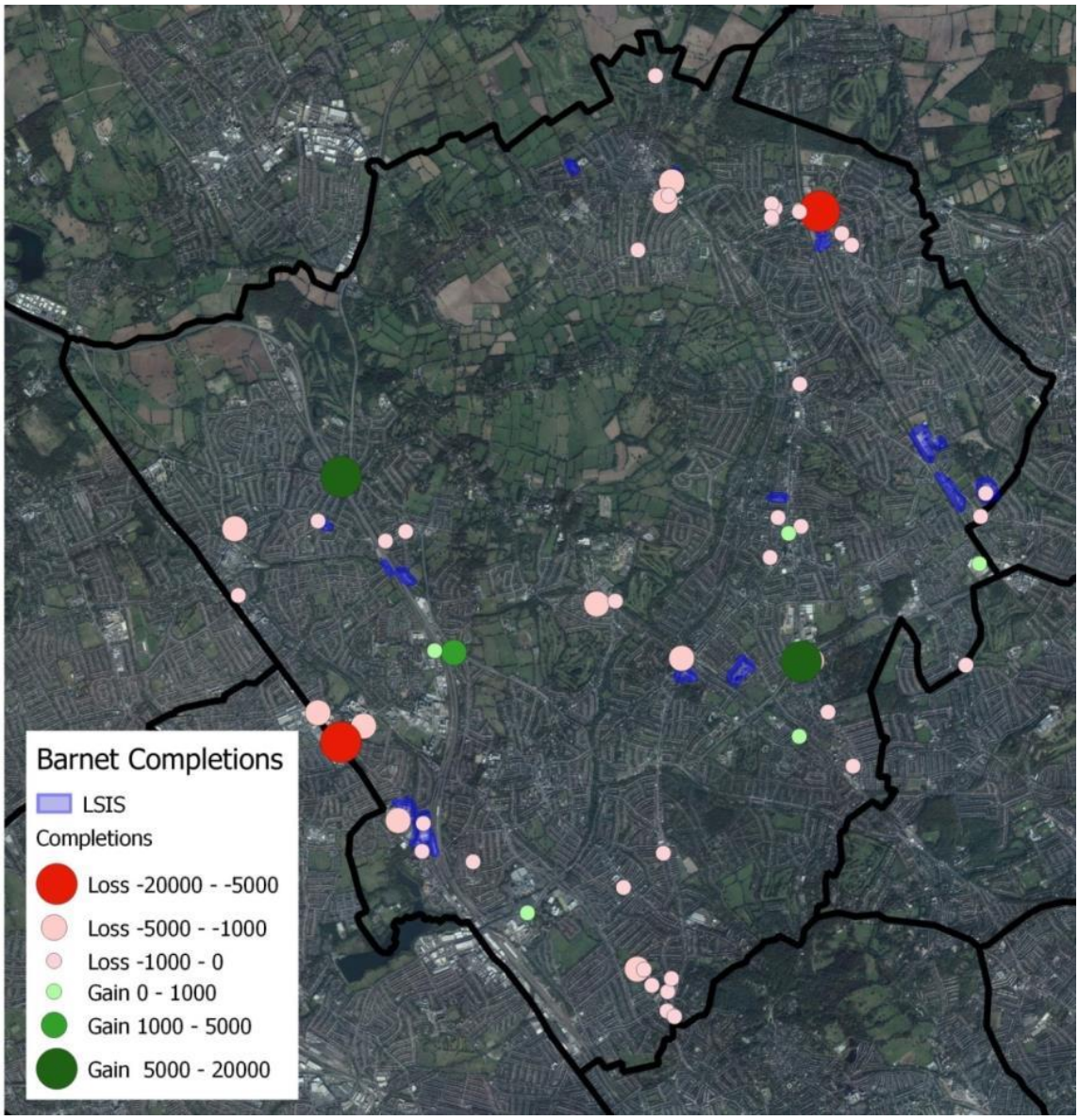
Source: Levy Real Estate, 2018

Completions and Losses

4.22 In Barnet, industrial completions since 2004 have totalled c. 28,000 sqm of floorspace. Of this around 8,800 sqm was on LSIS designated sites. However there was still an overall loss at both a borough level (-35,400 sqm) and within the LSIS sites (-3,100 sqm).

4.23 As shown in figure 5, there were a few clusters of activity in the Borough including along the A5 corridor, Child's Hill and at New Barnet the majority of which resulted in a loss.

Figure 5: Barnet completions/ losses



Source: London Borough of Barnet, 2018

4.24 The largest gross development was at the Brunswick Industrial Estate in Southgate. Seven of the sites which resulted in a gain where either on the M1 or A1 corridor. This indicates that there is a demand for industrial space with good connectivity in the Borough.

Table 14: **Barnet completions/ losses by LSIS (sqm)**

	Gross B1C	Net B1c	Gross B2	Net B2	Gross B8	Net B8	Gross Industrial	Net Industrial
Brunswick IE	3,240	3,240	3,240	3,240		-6,480	6,480	0
Connaught BP						-1,328	0	-1,328
Garrick IC		-1,340	1,340	1,340			1,340	0
Hadley Manor TE		-2,753	980	980			980	-1,773
LSIS Total	3,240	-853	5,560	5,560	0	-7,808	8,800	-3,101
Non-Designated	1,174	-4,371	1,461	-12,261	16601	-15,690	19,236	-32,322
Borough Total	**4,414**	**-5,224**	**7,021**	**-6,701**	**16601**	**-23,498**	**28,036**	**-35,423**

Source: London Borough of Barnet, 2018

4.25 The majority of losses of industrial uses were on non-designated sites, which accounted for 91% of the net loss in floorspace, while only 68% of gross completions were on those sites.

Development Pipeline

4.26 Table 15 shows the current pipeline development of activity in Barnet. This suggests there will be a loss of floorspace across the Borough. This is primarily driven by change of use to residential, although one major loss is to a hotel use (Hyde House).

4.27 The evidence base for the draft London Plan notes that Barnet has lost a significant amount of employment space to residential uses in recent years, largely a result of changes to permitted development rights.

4.28 The pipeline shows almost no B2/B8 pipeline activity and a net loss of 1 sqm of industrial space on designated LSIS sites (there are no SIL sites in Barnet). There are also some losses of B1 space in the pipeline. This would suggest that the designations are being adhered to in relation to industrial if not all employment generating uses.

Table 15: **Summary of Barnet supply pipeline (sqm)**

	Total net B1	Total net B2	Total net B8	Total B2+B8
SIL	0	0	0	0
LSIS	-968	2	-3	-1
Non-designated	**-17,424**	**-1,028**	**-5,341**	-23,793

Source: London Borough of Barnet, 2018

4.29 There is also expected to be considerable losses of all three uses classes in non-designated sites although the majority will be from B1 uses. As table 16 shows, the only notable losses in designated sites will be office stock in Lancaster Road and Regents Park Road to residential uses.

Table 16: **Barnet supply pipeline by Designated site (sqm)**

	Total net B1	Total net B2	Total net B8	Total B2+B8
Garrick Industrial Centre	-2	2		2
Hadley Manor	3		-3	-3
Lancaster Road Industrial Estate	-745			0
Regents Park Road Employment Cluster	-224			0
LSIS Total	-968	2	-3	-1

Source: London Borough of Barnet, 2018

4.30 It would appear that at present Barnet's policies are being effectively implemented regarding the designations.

Commercial Market Summary

4.31 Barnet has a relatively small industrial market. Stock is around 300,000 sqm having fallen by 25% since 2001. Most stock (87%) is below 1,000 sqm, indicating that the market is more local in nature, and depends less on large distribution networks. The largest concentrations of stock sit along the M1/A5 industrial corridor.

4.32 Warehouse space in the borough tends to be larger than factories or workshops.

4.33 Deal counts are limited, averaging around 10 per annum with over 80% in the sub 1,000 sqm property mark. Deals tend to be along the M1/A5 corridor, along the High Road or at Friern Barnet near the A406.

4.34 Availability in the Borough is low and rents have continued to rise, with secondary stock performing above the study area average.

4.35 Designated stock has seen little overall net change since 2004. The majority of losses of industrial uses were on non-designated sites which accounted for 91% of the net loss in floorspace. The pipeline shows further losses at non designated sites.

Logistics function

4.36 Existing and speculative logistics stock is limited in the Borough. The fundamental criteria required to satisfy occupiers' requirements are not present, including quick journey times to the potential urban logistics locations and onwards to major customer clusters in central London. The A5 and A1 do provide access to local markets - however established logistics locations outside the M25 in Hemel

Hempstead, St Albans and Hatfield provide lower cost solutions for occupiers to serve these. Just outside Barnet's boundaries there are existing logistics estates in Borehamwood, Elstree and the Brent area of Staples Corner providing last mile solutions for the Borough and neighbouring North London boroughs.

Sub Markets in Barnet

M1 / A5 corridor

4.37 The Borough provides the final destination for two national transport links - the M1, which connects to the A406 North Circular at Brent Cross / Staples Corner, and the A1 which connects to the A406 either via Hendon Way, also at Brent Cross, or at Finchley. Staples Cross and south along the A5 Edgware Road are target locations for the smaller 'last touch' delivery into the local market. The A5 corridor is dominated by trade counter, retail warehousing, car showrooms and self-storage providers, while closer to Staples Corner there is a cluster of traditional industrial users. These industrial estates straddle the border between Barnet and Brent, with the majority in Brent.

The A5 provides the bulk of the industrial stock in the west of the borough. The remainder of the Borough is relatively sparse although there are pockets of industrial stock. In the western corridor along the A5, and near the North Circular by Brent Cross provides larger industrial units of up to 50,000 sqft (4,642 sqm). In the east of the Borough, Brunswick Industrial Park provides some small industrial unit supply.

Market Evidence

4.38 There is limited industrial development within the London Borough of Barnet. Both larger and smaller units are typically of secondary grade, rather than prime stock. The minimal development undertaken has provided a small amount of prime stock such as at Aerodrome Way, where a local occupier took 1,092 sqft (101 sqm) at a rent of £20.00 per sqft (£215 per sqm) in July 2018. This is an indication of smaller multi-let estate prime rents. Rents for smaller secondary stock are in the region of £13.00 - £15.00 per sqft,(£140-£162 per sqm) - high considering the location and quality of asset, due to the limited supply.

4.39 Larger secondary units are securing rents of £11.00 - £12.50per sqft (£118-£135 per sqm) with average length leases of 10 years. This rental uplift is once again driven by the lack of available stock and pipeline development within the Borough. The letting at Unit C Coppetts Centre to Hyundai UK achieved £12.50 per sqft (£135 per sqm) on a 10 year lease in September 2018, with 12 months

worth of rent free, partly as an incentive and partly to refurbish the unit, which had been previously occupied by a commercial bakery. Unit 9 Brunswick Way achieved £11.75 per sqft (£127 per sqm) in March 2017 to Delphi Foods, on a 10 year lease with a 5 year mutual break. This was a steel portal frame with part brick elevations and ancillary office space which was in disrepair, therefore the rent achieved reflects the quality of the stock.

5 INDUSTRIAL SUPPLY AND MARKET POSITION: BRENT

5.1 This section provides an overview of the industrial land and market position across Brent and considers its role in the industrial and logistics market.

5.2 It is necessary for OPDC to be covered in so far as VOA and CoStar data report information at a borough level, as most of the area covered by the Old Oak/Park Royal Development Corporation (OPDC) falls in part in Brent and part in Ealing. Completions and losses for OPDC are not included however a broader commercial narrative is provided on Park Royal given the importance in the industrial market.

Industrial Land Supply

5.3 Excluding Park Royal, Brent has nearly 700,000 sqm of industrial floorspace. This equates to 25% of total employment floorspace in the Study area. In addition, there is almost 500,000 sqm of employment floorspace within the Borough of Brent but not part of the plan making area, instead falling under the jurisdiction of the OPDC.

5.4 There are three significant SIL sites in Brent. Two of these, Wembley and Staples Corner, have access to the North Circular; the latter of these is also on the M1 and A5 corridor. Both areas are dominated by suppliers for the construction industry and wholesalers.

5.5 The third SIL site at East Lane is smaller than the other two and has poorer strategic access. Despite this it would appear to have some distribution role with warehousing for H&M and BOC.

Table 17: **Brent existing floorspace supply**

SIL	Total (sqm)	% of total Brent supply
East Lane	48,230	7%
Staples Corner	140,354	20%
Wembley	132,075	19%
LSIS	**Total (sqm)**	**% of total Brent supply**
Alperton	42,601	6%
Brentfield Road	1,646	0.2%
Church End	14,533	2%
Colindale	45,270	7%
Cricklewood	8,267	1%
Honeypot Lane	6,365	1%
Kingsbury	16,717	3%
Neasden Lane	13,346	2%
Non-Designation	**Total (sqm)**	**% of total Brent supply**
Non-designated sites	220,850	32%

Source: London Borough of Brent, 2018

5.6 There is little difference in terms of size between the East Lane SIL site and the two largest LSIS sites in the Borough: Alperton and Colindale. The Alperton Sub-Area is fragmented across four zones and has access to the A40 and the North Circular.

5.7 Within Alperton, the areas to the south are smaller units; including some waste infrastructure. The areas to the north have seen some residential conversion but also include some transport infrastructure as well as older office stock.

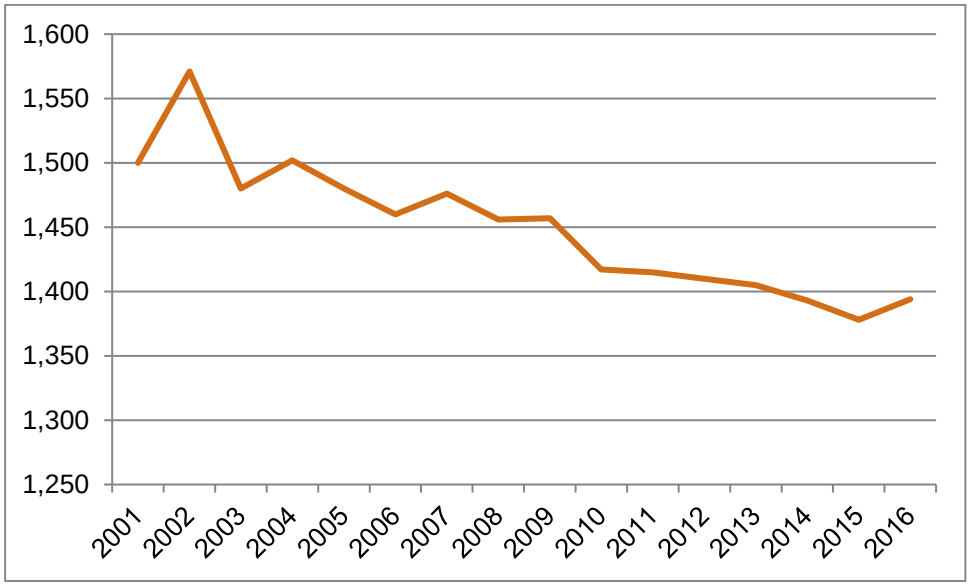
5.8 The Colindale area has access to the A5. The area comprises smaller, now ageing light industrial units and larger strategic distribution units, some of which are currently vacant.

5.9 The supply of LSIS is limited with a number of smaller sites making up 22% of total employment land supply in the Borough. Perhaps more notable is the fact that around a third (32%) of the industrial floorspace is non-designated. Borough policy currently allows for managed loss of employment sites outside SIL and LSIS where continued employment use is unviable and where release provides significant benefits in delivering other local plan objectives.

Current Stock

5.10 In terms of industrial floorspace and stock, the amount in Brent has decreased since 2001. Figure 6 indicates a consistent downward fall in total floorspace after a spike in 2002-2003 albeit with the rate of loss slowing from 2010 turning into a slight increase from 2015-2016 (as with all VOA data this includes the area covered by the OPDC).

Figure 6: Brent Industrial Floorspace Change Over Time (sqm, '000s)



Source: VOA / GL Hearn

5.11 Since 2001, Brent has lost 7% of its industrial floorspace (table 18). Compared to Barnet or Harrow, Brent has retained a greater proportion of its of stock assumed to be due its combination of positioning on the highway network, making it desirable for logistics and trading estates, and through its strategic policy designations. In absolute terms, however, it lost almost exactly the same floorspace as Barnet.

Table 18: **Floorspace Change Over Time (000s)**

Area	Floorspace 2001	Floorspace 2016	Change 2001-16	Change p.a.	% Change
Brent	1,500	1,394	-106	-7	-7%
Study Area	4,439	3,993	-446	-30	-10%
London	25,831	20,771	-5,060	-337	-20%

Source: VOA / GL Hearn

5.12 As noted in table 19, fourteen sites are above 10,000 sqm and 270 over 1,000 sqm. High floorspace per unit indicates that the submarket is more attractive to larger operators reflecting its connection to distribution networks and Central London.

Table 19: **Industrial Stock and Floorspace by Size Band**

Row Labels	# of Sites	% of Borough	Sum of Area (sqm)

<185 sqm	509	31%	51,798
185-500 sqm	559	34%	174,022
500-1,000 sqm	275	17%	191,739
1,000-10,000 sqm	270	17%	710,466
>10,000 sqm	14	1%	247,137
Grand Total	1627	100%	1,375,162

Source: VOA / GL Hearn

5.13 Tables 20, 21 and 22 give information about VOA defined factories, warehouses and workshops respectively.

Table 20: **Factories Industrial Stock and Floorspace by Size Band**

Factories	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	9	10%	893	1%
185-500 sqm	29	34%	10,435	2%
500-1,000 sqm	18	21%	13,037	1%
1,000-10,000 sqm	29	34%	78,719	2%
>10,000 sqm	1	1%	29,292	0%
Grand Total	86	100%	132,377	5%

Source: VOA / GL Hearn

5.14 Factories in total represent only 5% of industrial stock across the borough. They broadly have an even distribution across size bands, with 44% of sites being less than 500 sqm and 35% above 1,000 sqm.

Table 21: **Warehouses Industrial Stock and Floorspace by Size Band**

Warehouses	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	236	22%	25,701	15%
185-500 sqm	387	36%	123,523	24%
500-1,000 sqm	216	20%	150,005	13%
1,000-10,000 sqm	219	20%	572,818	13%
>10,000 sqm	12	1%	207,646	1%
Grand Total	1070	100%	1,079,693	66%

Source: VOA / GL Hearn

5.15 Warehouse stock is more evenly distributed in size, with 42% above 500 sqm and 12 sites above 10,000 sqm. Warehouses have the highest representation of industrial unit typology in the borough, with 66% of all stock.

Table 22: **Workshops Industrial Stock and Floorspace by Size Band**

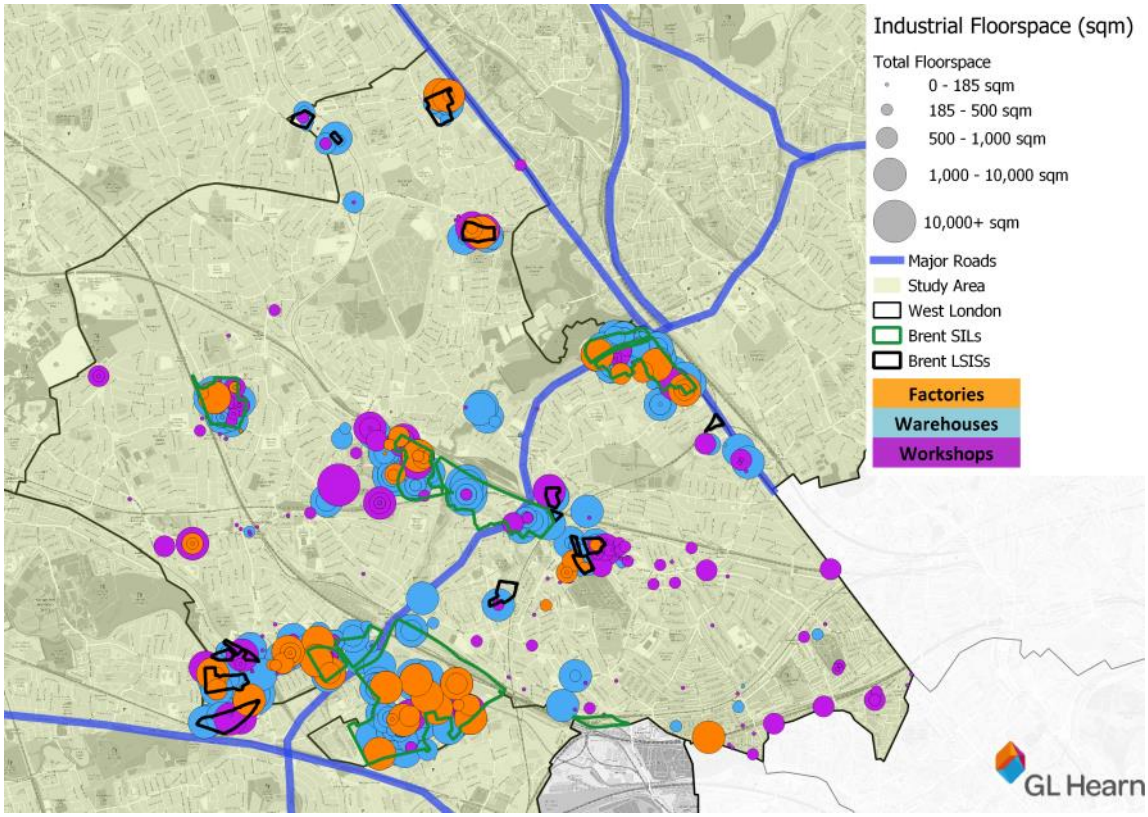
Workshops	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	264	56%	25,204	16%
185-500 sqm	143	30%	40,064	9%
500-1,000 sqm	41	9%	28,697	3%
1,000-10,000 sqm	22	5%	58,929	1%
>10,000 sqm	1	0%	10,198	0%
Grand Total	471	100%	163,092	29%

Source: VOA / GL Hearn

5.16 Brent has a high concentration of workshop stock among lower size bands. Most (95%) are under 1000 sqm. 56% of sites are under 185 sqm, suggesting that workshops meet a very localised need, especially in comparison to warehouses.

5.17 In figure 7 the current industrial stock in Brent is mapped according to size band. It is clear that the largest concentration of stock above 1,000 sqm sits in the western Park Royal edge of the Borough along the A40 industrial corridor; it includes several SILs and LSISs. Other clusters of employment stock exist near Wembley (with Underground and rail connections) and at Staples Corner (near the A5).

Figure 7: Brent Stock Map By Size Band



Source: VOA / GL Hearn

5.18 One additional measure of analysis is categorising the age of stock, shown in table 23. The table shows that most (86) of industrial sites are older than 1990.

Table 23: Age of Stock

Age Band	# of Sites	% of Sites	Sum of Area (sqm)	% of floorspace
Before 1950	64	18%	79,989	11%
1950 - 1990	241	68%	465,381	64%
1990 - 2000	36	10%	127,631	18%
2000 - 2010	12	3%	40,005	6%
2010 - 2019	4	1%	9,326	1%
Total	357	100%	722,332	100%

Source: CoStar / GL Hearn

Market Dynamics

Take up and Availability

5.19 Information about industrial deals and take-up in the borough was obtained from Costar. Data include the OPDC area. The number of deals and amount of floorspace were also analysed. Compared to other boroughs in the Study Area, Brent has had more industrial deals in the higher size bands.

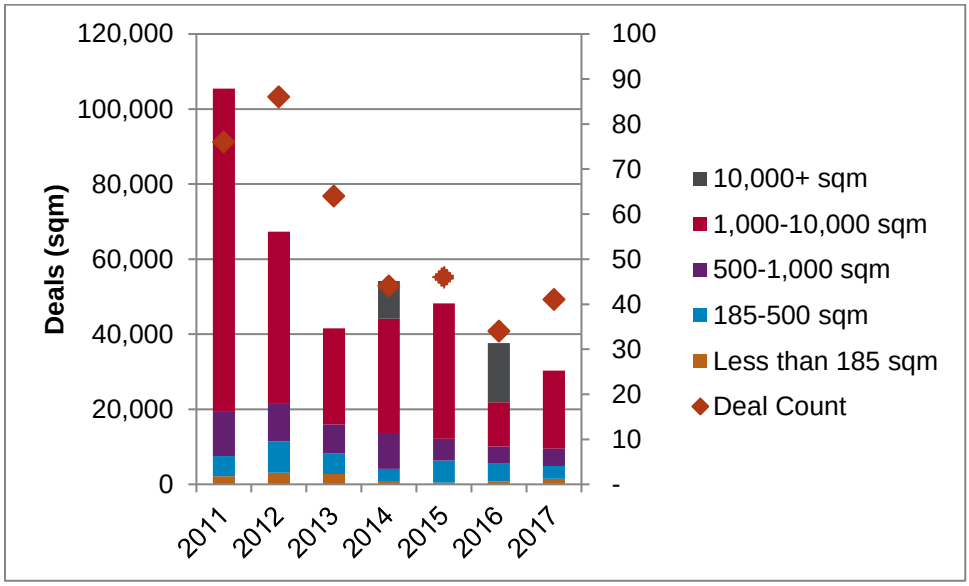
Table 24: Deals (2011-2017) By Size Band

Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	103	26%	11,557
185-500 sqm	122	31%	36,662
500-1,000 sqm	77	20%	53,836
1,000-10,000 sqm	87	22%	256,743
10,000+ sqm	2	1%	25,824
Total	391	100%	384,622

Source: CoStar / GL Hearn

5.20 Figure 8 shows that since 2011, deal counts have decreased and, generally, so has floorspace transacted. Falling deal counts are anticipated to be associated with reducing available space in the Borough and West London as a whole.

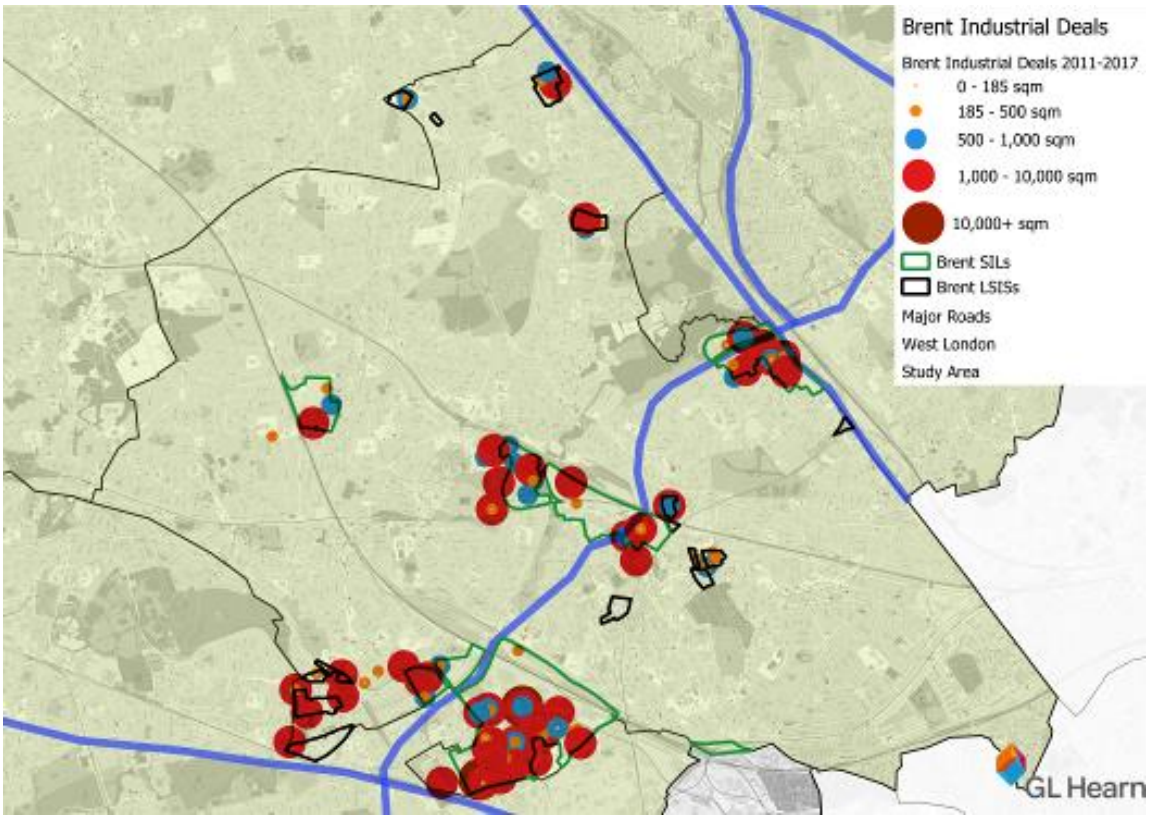
Figure 8: Brent Industrial Deals (2011-2017) By Size Band



Source: CoStar / GL Hearn

5.21 The largest deals appear largely in the same clusters as industrial stock - outside of Park Royal concentrating near Wembley and Staples Corner.

Figure 9: Brent Industrial Deals



Source: CoStar / GL Hearn

5.22 In terms of availability, CoStar was used to track available properties in the Brent search area. According to the table below, there is very low availability in the Borough for leases; 62% of availability, or 22 sites, are between 500 and 10,000 sqm with only 12 sites above.

Table 25: Lease Availability (2018)

Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	3	9%	423
185-500 sqm	9	26%	2,940
500-1,000 sqm	11	31%	7,567
1,000-10,000 sqm	11	31%	31,898
10,000+ sqm	1	3%	11,529
Total	35	100%	54,357

Source: CoStar / GL Hearn

5.23 Take up was averaged in the years 2011-2017, and then compared to current availability. With just shy of one year of supply, there is an indication that there are supply pressures in the area.

Table 26: Years Supply Calculation

Average Annual Take Up	
54,946	sqm p.a.
Total Lease Availability	
54,357	sqm
Years Supply	
0.99	years

Source: CoStar / GL Hearn

Rents

5.24 Rents for prime sheds in the Borough have increased considerably in the current cycle since 2012. Small trade units up to 10,000 sqft (900 sqm) have achieved £20 per sqft at Premier Park, Park Royal and up to £18 per sqft for 20,000+ sqft (1,800 sqm) for facilities located elsewhere within the Park Royal commercial district. Rents for secondary facilities in Wembley and Staples Corner further away from from prime locations such as Park Royal, East Lane and Brentfield Road are in the order of £15 per sqft.

Table 27: Brent Typical Rent Values for Prime and Secondary Stock (sqm)

Area	Average Sub 10,000 sqft (928 sqm) trading estate units					
	Prime			Secondary		
	2012	2018	% Change	2012	2018	% Change
Brent	£12.50	£20.00	62.5%	£9.50	£15.00	63%
West London	£10.29	£15.08	47%	£7.17	£11.00	53%

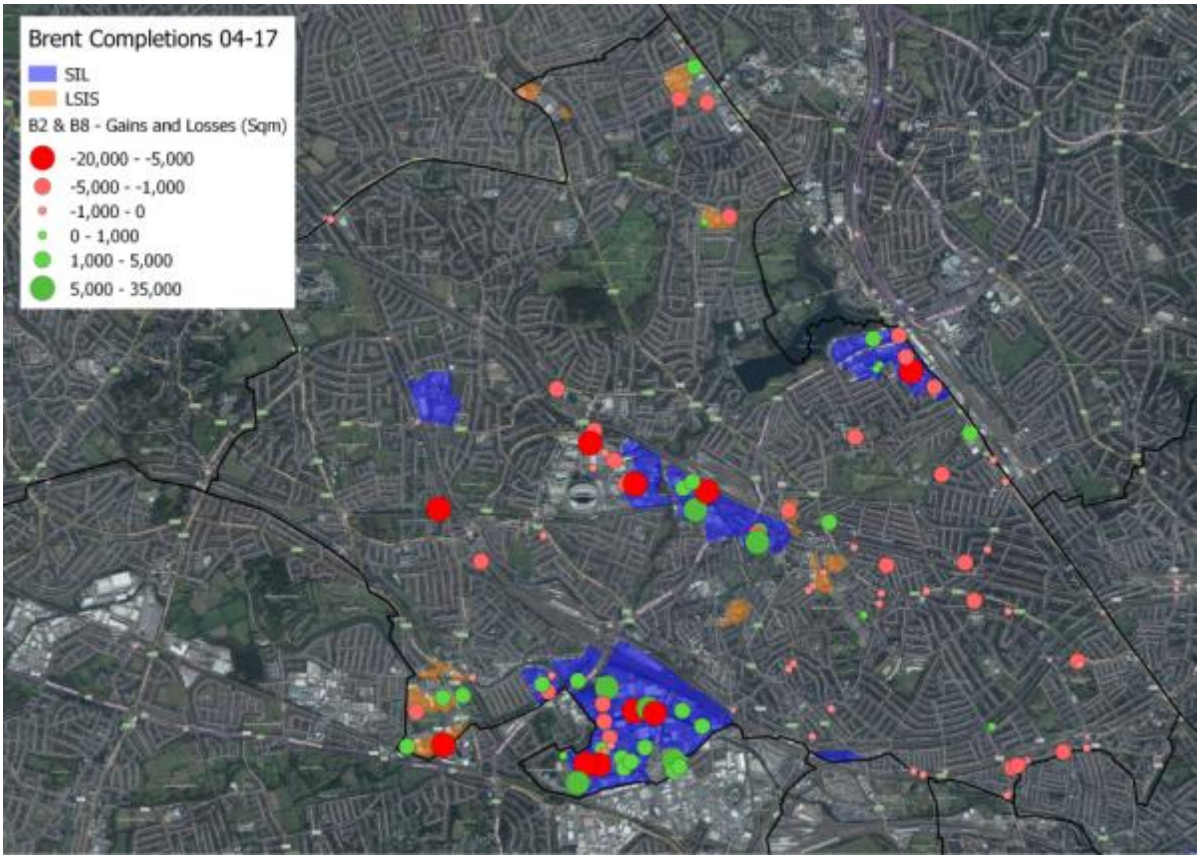
Source: Levy Real Estate, 2018

Completions and Losses

5.25 Excluding sites in Park Royal, Brent has lost a total of -69,000 sqm of employment floorspace since 2004 through change of use. Figure 10 illustrates that designated SIL land has experienced most of this loss.

5.26 There are clear clusters of development around the SIL sites of Wembley and Staples Corner, although in the latter case it is mostly smaller losses while at Wembley there were some notable developments making a gross addition to stock.

Figure 10: Brent completions/ losses



Source: London Borough of Brent, 2018

5.27 Smaller sites within the SIL designations (excluding Park Royal) have been lost with little new supply being developed, resulting in an -8.6% change in stock on designated SIL land since 2004. As identified in table 28, there has been a -3.7% change in stock since 2004 on LSIS designated sites in Brent.

Table 28: Brent completions/ losses (sqm) 2014-17

	Net B2	Net B8	Net B2 + B8	Change in stock since 2004
SIL Sites	-17,777	-12,295	-30,072	-8.6%
LSIS Sites	991	-6,634	-5,643	-3.7%
Other Sites	-28,345	-5,214	-33,559	-7.3%
Borough	**-45,131**	**-24,143**	-69,274	-14.3%

Source: London Borough of Brent, 2018

5.28 The net loss at SIL designated sites is mostly attributed to the loss of supply at Wembley (-15.1%) sites since 2004. There was a net gain of general industrial uses at Staples Corner, however despite its location adjacent to the M1 this was offset by loss of B8 uses.

Table 29: Brent completions/ losses by SIL (sqm)

SIL	Total B2	Total B8	Total B2 + B8	Change in stock since 2004
East Lane	-	-	-	0%
Staples Corner	4,125	-10,713	-6,588	-4.5%
Wembley	-21,902	-1,582	-23,484	-15.1%

Source: London Borough of Brent, 2018

5.29 As shown in table 30 the net loss at LSIS sites is largely due to the loss of B8 supply. Alperton and Cricklewood sites have experienced development on B2 sites, however the volume of supply has not been significant enough to make up for the loss in B8 in Alperton.

Table 30: Brent completions/ losses by LSIS (sqm)

LSIS	Total B2	Total B8	Total B2 + B8	Change in stock since 2004
Alperton	1,476	-4,891	-3,415	-7.4%
Brentfield Road	-	-	-	0%
Church End	-	-	-	0%
Colindale	-	-3,270	-3,270	-6.7%
Cricklewood	4,025	-	4,025	94.9%
Honeypot Lane	-4,510	3,600	-910	-12.5%
Kingsbury	-	-573	-573	-3.3%
Neasden Lane	-	-1,500	-1,500	-10.1%

Source: London Borough of Brent, 2018

5.30 The Honeypot Lane LSIS saw an increase in B8 which although offset by B2 losses is in contrast to the other designations where B8 floorspace was in decline. This is perhaps counterintuitive given discussions around demand for warehouse and distribution.

Development Pipeline

5.31 The supply pipeline for Brent will see a net loss of just over 10,000 sqm of industrial floorspace in the Borough. However there is expected to be a gain of around 1,400 sqm in designated SIL sites.

5.32 There is also expected to be around 200,000 sqm of additional B1 floorspace. This includes a substantial level of delivery in the Wembley area but outside of the SIL designation. This is primarily linked to the new office and residential quarter being built around Wembley.

Table 32: Summary of Brent supply pipeline (sq m)

	Total net B1	Total net B2	Total net B8	Total B2+B8
SIL	628	-1,400	2,781	1,381
LSIS	0	0	0	0
Non-designated	195,266	-9,600	-719	-10,319
Total	195,894	-11,000	2,062	-8,938

Source: London Borough of Brent, 2018

5.33 Table 33 shows that the Staples Corner SIL is expected to deliver new B8 floorspace which is curtailed by the loss of B2 and B1 space. There is no industrial activity in the pipeline at Wembley outside the gain of B1c space.

Table 32: Brent supply pipeline by designated site (sq m)

	Total net B1	Total net B2	Total net B8	Total B2+B8
Staples Corner	-1,112	-1,400	2,781	1,381
Wembley	1,740	0	0	0
SIL Total	628	-1,400	2,781	1,381

Source: London Borough of Brent, 2018

Commercial Market Summary

5.34 Being an established industrial location within Greater London, the London Borough of Brent has an ample amount of stock with significant transport links and arterial roads that promote the property sector of industrial and logistics. Due to an increase in occupier demand in this location, rental levels have seen a steady increase since 2012.

5.35 Brent has a significant industrial market. Stock is around 1,400,000 sqm, having fallen by 7% since 2001 which is less than comparator areas. Some 55% of stock is over 1,000 sqm reflecting the strategic nature of the area. The largest concentrations of stock sit along the A40, Wembley Park transit links, and the M1/Staples Corner corridor.

5.36 Deal counts are relatively high averaging around 56 per annum with only 26% in the sub 1,000 sqm property mark. Deals tend to be near Park Royal, Wembley and Staples Corner.

5.37 Availability in the Borough is low and rents have continued to rise, above the London average.

5.38 Designated stock has seen net losses since 2004 with the majority being from SIL and non-designated sites. The net loss at SIL designated sites is mostly attributed to the loss of supply at Wembley. Perhaps against wider trends there was a net gain of general industrial uses at Staples Corner; however despite its location adjacent to the M1, this was offset by loss of B8 uses. LSIS sites have seen changes at Alperton and Cricklewood development on B2 sites. There have been losses in B8 at Alperton and Colindale, but the reverse at Honeypot Lane.

Market Evidence

5.39 Rental increase is prevalent within the multi let industrial sector, with over £20 achieved for light industrial space. An example of this is the transaction at Unit 15 Brentfield Road in December 2018, where a terraced unit of 1,724 sqft (160 sqm) owned by Capital Industrial achieved £25 per sqft (269 per sqm) let to a local occupier on a 5 year lease with a 3 year rent review. Larger units within the multi let sector are achieving more balanced rents such as a letting of a 5,000 sqft unit (464 sqm) in August 2018 to a trade counter occupier at 1000 North Circular Road Industrial Estate at £15.50 per sq ft (£167 per sqm) on a 10 year lease.

5.40 Larger units within the secondary warehousing category have seen rental levels remain stable, achieving £13.00 (£194 per sqm) plus on average length leases of 10 years. Trade counter units have seen a steady rise in rental growth. Unit 2, 1000 North Circular Road Industrial Estate, a 25,297 sqft (2,349 sqm) unit let to Farla Medical in September 2018 on a 10 year lease with a 7 year mutual break option, secured £13.50 per sqft (£145 per sqm).

5.41 Within the prime warehousing category, the most recent deal was the Central Point building, which was let to Euro Car Parts in October 2017. This stand-alone, high bay warehouse comprising 35,577 sqft (3,303 sqm) was let at a rental of £13.25 (£143 per sqm) on a 10 year lease with a 5 year mutual break option.

Logistics function

5.42 The Borough provides two of West London's key logistic locations, Park Royal and Wembley Park. Both locations have characteristics attractive to occupiers - they are both connected to good quality motorway or dual carriageway networks via the M1 and A40 giving access from regional UK distribution hubs to the transhipment / warehouse facilities. The onward supply network at Borough level is likely to be more transhipment or final touch delivery facilities rather than longer term storage, due mainly to the cost of real estate. From Park Royal and Wembley an occupier can access the dense mass of customers in central London via the A406 / A40 providing direct HGV and delivery vehicle access into central London. This, combined with availability of larger facilities, unrestricted working hours and a skilled labour pool supply promote Brent as a very attractive location for national and local logistics operators. The A5 in the east of the Borough is a good local arterial route but not of sufficient quality to support the same volume of 24/7 delivery into central London in the same way as the A40.

Sub Markets in Brent

Park Royal (majority OPDC) ***note that this includes Ealing elements of Park Royal***

5.43 Park Royal is key to distribution into and out of Central London. The area's function is a result of decades of development and industrial property evolution. Major estates within the business district blend into each other and the ownerships are a mix of owner occupiers and institutions. At the centre of the estate is the Central Middlesex Hospital and a smaller element of retail. The eastern corridor of the estate is undergoing considerable re allocation to provide land for HS2; this is slowly displacing occupiers, some of which are re integrated into Park Royal, while others have moved out of London. Boden have remained in their HQ; however, Quattro Ltd HQ has in part been displaced to other depots further west. Waitrose's delivery facility has been integrated into the existing network. Several industrial sites are being redeveloped around Gypsy Corner for residential and student housing – the Carphone Warehouse site and the Perfume Factory are examples.

5.44 The west and southern access to the area along the A40 and A406 provide prime big box warehouse stock, where occupiers are taking advantage of the road network via Hanger Lane and the A40 into central London.

5.45 Park Royal has consistently seen high levels of demand and rejuvenated supply over the past 7 years. Unit 15 Victoria Road is an example of a mid-sized secondary terraced unit of a multi let industrial estate comprising 3,455 sqft (321 sqm). This unit was let to a local occupier for a 5 year term at a rent of £18.00 per sqft (£194 per sqm). Segro has let an 1,800 sqft (167 sqm) unit at Tudor Industrial Estate to Optimum Home Solutions at £23 per sqft (£248 per sqm) with 2 months rent free. An example of a prime light industrial unit letting is Suite 2, 161 Acton Lane. This unit borders both the Ealing and Brent submarkets. Let to Plumbase on a 10 year lease in August 2018, the unit achieved a rent of £21.00 per sqft (£226 per sqm) which is in line with prime industrial rents within this submarket.

5.46 Larger prime units are achieving rents of £14.00 to £17.00 per sqft. Central Reach on Willen Field Road comprises of 29,826 sqft and was let at a rental figure of £15.25 per sqft to V&H Ltd on a 10 year lease. This stand-alone unit of Grade A Specification is of steel portal frame construction with profile metal cladding and a pitched roof with 10 metres clear internal height. The two unit fulfilment centre known as 'Rock & Roll' at Waxlow Road NW10 combined 61,120 sqft facility was let to the MS Company Ltd in December 2017 at £15.25 per sqft (151-183 per sqm) on a lease length of 20 years with 5 yearly RPI rent reviews. This length of lease term and investment into the Borough is evidence of Park Royal's status as one of London's key industrial locations.

Wembley Park

5.47 Although a key industrial location within the London Borough of Brent, rental values in this submarket have not seen such steady growth as Park Royal or Staples Corner. Smaller units within this submarket have reached levels of £15.00 per sqft (£162 per sqm) for prime stock. Examples of this are Unit 4, 390 North Circular Road which was leased by St Gobain for 10 years at £15.00 per sqft (£162 per sqm) and Unit 9 Fourth Way which was leased by a local occupier in March 2018 for the same rental level.

5.48 Larger prime units have seen a strong level of rental growth with the most recent deal being the Central Point building, which was let to Euro Car Parts in October 2017. This stand-alone, high bay warehouse comprising of 35,577 sqft (3,303 sqm) was let at a rental level of £13.25 (£143 per sqm) on a 10 year lease with a 5th anniversary mutual break.

5.49 The largest significant building is "Wembley 180" a 180,720 sqft warehouse which is currently under offer to Amazon at close to £15 per sqft (£162 per sqm) on a 20 year lease. The fulfilment centre will be one of Amazon's direct urban distribution centres servicing central London

East Lane

5.50 East Lane Business Park sits west of Wembley including a mix of large distribution such as H&M as well as smaller typical industrial units including potentially lower value open storage. It therefore provides a mix of local employment and needs as well as strategic access albeit that highway network connections are limited. Smaller units have been transacting at high rent levels from £14 up to £20 sqft (up to £17 per sqm) in 2017 and 2018.

Staples Corner

5.51 Staples Corner, like Park Royal, is an important industrial location within Inner London. Larger units within the multi let sector in this location are achieving substantial rents such as the letting to a national trade counter occupier at 1000 North Circular Road Industrial Estate in August 2018. This transaction comprised a 10 year lease at £15.50 per sqft (£167 per sqm) on a trade counter unit equating to 5,000 sqft (464 sqm).

5.52 An example of a larger unit within the Staples Corner submarket is Unit 2, 1000 North Circular Road Industrial Estate let to Farla Medical who undertook a 10 year lease with a 7th anniversary mutual break option in September 2018. The rent agreed on this unit was £13.50 (£145 per sqm) on a unit comprising of 25,297 sqft (2,348 sqm).

6 INDUSTRIAL SUPPLY AND MARKET POSITION: EALING

6.1 This section provides an overview of the industrial land and market position across Ealing and considers its role in the industrial and logistics market.

6.2 Data from the VOA and CoStar are provided at borough level and therefore include the OPDC Ealing element. Losses and completions data excludes OPDC.

Industrial Land Supply

6.3 Ealing has the greatest supply of employment floorspace in the study area with just under 1.5m sqm of industrial floorspace. In addition there is almost 700,000 sqm of employment floorspace within the Borough of Ealing but under the jurisdiction of OPDC.

6.4 There are two SIL sites in the Borough which provide 41% of all employment land in Ealing. The vast majority of this is located at the Northolt/Greenford/Perivale SIL area (34%).

6.5 The Northolt/Greenford/Perivale SIL is a series of 8 sites along the A40, for the most part not having direct access to road. The sites have access to the Greenford Branch railway line and the Grand Union Canal although neither appears to be utilised currently.

6.6 To the eastern (Perivale) end of the SIL the units are smaller, although there a few notable exceptions including a bus depot and car pound. There is also a string of media presence occupiers including the BBC and other suppliers such as Panalux and Artem.

6.7 The central part of the SIL has typically larger units including the Royal Mail and the former IBM facility. There are also other major distribution units including those occupied by Sainsbury's and Tesco.

6.8 The western (Northolt) end of the SIL is comprised of older smaller industrial stock and modern warehousing. This part of the area has the greatest access to the strategic road network but is also marginally further away from central London.

6.9 The western area has an eclectic mix of occupiers including high end engineering companies (Ultra Electronics), specialist food companies (Polish and Moroccan among others), construction trade suppliers (Pipe Centre and Wolseley), warehousing and distribution.

Table 33: Ealing existing floorspace supply (exc OPDC)

SIL	Total (sq m)	% of total Ealing supply
Great Western	94,194	6%
Northolt, Greenford, Perivale	507,117	34%
LSIS		**% of total Ealing supply**
Bridge Road Industrial Estate	11,813	1%
International Trading Estate	84,684	6%
South Acton	28,549	2%
Southbridge Way	7,064	0.5%
The Vale	52,513	4%
Trumpers Way	9,076	1%
Non-Designation		**% of total Ealing supply**
Non-designated sites	677,325	46%

Source: London Borough of Ealing, 2018

6.10 Ealing's other SIL is the Great Western Industrial Estate in Southall. The area comprises around 6% of the Borough industrial floorspace. The area is largely service (catering and hospitality) and distribution (DPD) although there are also a number of trade counter (Selco, Screwifx) and retail (Matalan) occupiers.

6.11 There is a reasonable supply of LSIS floorspace (194,000 sqm), making up 13% of employment land in the Borough. The International Trading Estate contributes a large proportion of the supply and also supplying Heathrow.

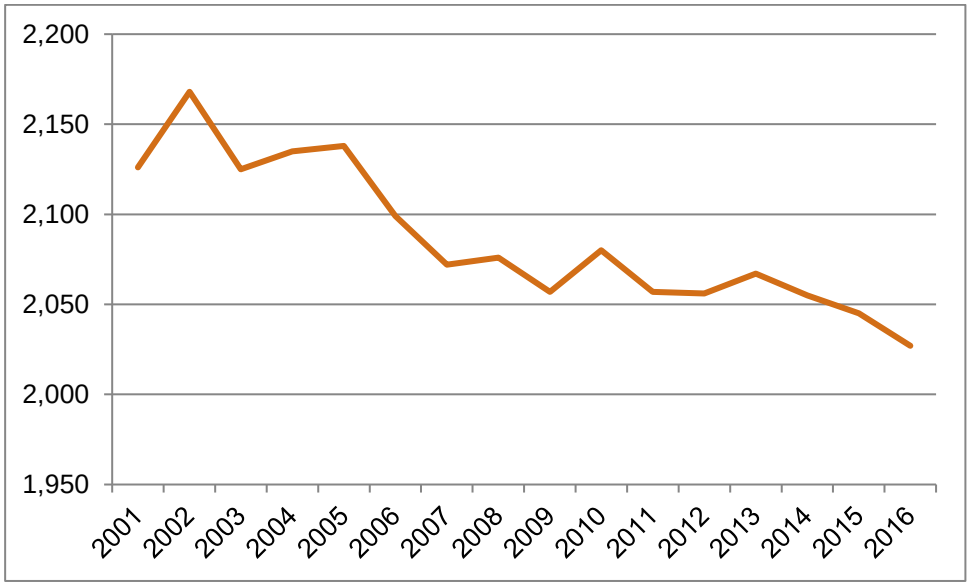
6.12 There is a significant amount of non-designated employment land, making up 41% of total employment land supply in the Borough (VOA records – Borough figures suggest 46%). Again, this demonstrates demand for industrial space across the Borough.

6.13 Ealing policy protects SIL and LSIS land, but provides less security for industrial uses in non-designated land. This means there is less formal policy protection for a relatively large proportion of the Borough's employment stock. In light of this, most change since 2004 has resulted in negative growth of non-designated land. To offset this loss the Borough has also permitted the largest growth within SIL sites. This is also expected to continue with a strong net pipeline supply of sites.

Current Stock

6.14 The amount of industrial floorspace and stock in Ealing has decreased somewhat since 2001. Figure 11 indicates a fairly consistent downward trend in total floorspace. This and further VOA data below includes the OPDC area.

Figure 11: Ealing Industrial Floorspace Change Over Time (sqm, '000s)



Source: VOA / GL Hearn

6.15 Table 34 below shows that since 2001, Ealing has lost 5% of its industrial floorspace. Compared to outer boroughs of Barnet and Harrow, Ealing has historically had more sqm of industrial floorspace and has the lowest percentage loss of stock in the study area relative to other boroughs.

Table 34: Floorspace Change Over Time (000s)

Area	Floorspace 2001	Floorspace 2016	Change 2001-16	Change p.a.	% Change
Ealing	2,126	2,027	-99	-7	-5%
Study Area	4,439	3,993	-446	-30	-10%
London	25,831	20,771	-5,060	-337	-20%

Source: VOA / GL Hearn

6.16 Property data from the VOA rating list was analysed on a property by property level to understand the representation of various floorspace size bands in the Borough.

6.17 As shown in table 35, 24 sites have space above 10,000 sqm. 34% of industrial property is below 185 sqm. There is a fairly even distribution of among size bands in the Borough.

Table 35: Industrial Stock and Floorspace by Size Band

Row Labels	# of Sites	% of Borough	Sum of Area (sqm)
<185 sqm	753	34%	68,650

185-500 sqm	629	28%	195,504
500-1,000 sqm	418	19%	296,095
1,000-10,000 sqm	404	18%	1,095,655
>10,000 sqm	24	1%	450,434
Grand Total	2228	100%	2,106,339

Source: VOA / GL Hearn

6.18 Floorspace was then broken down by sector according to three separate categories as reported by the VOA: factories, warehouses and workshops; and subsequently analysed by size band.

Table 36: Factories Industrial Stock and Floorspace by Size Band

Factories	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	11	6%	1,344	0%
185-500 sqm	34	20%	11,353	2%
500-1,000 sqm	56	33%	40,430	3%
1,000-10,000 sqm	65	38%	169,465	3%
>10,000 sqm	6	3%	107,247	0%
Grand Total	172	100%	329,839	8%

Source: VOA / GL Hearn

6.19 Table 36 shows that factories in the Borough typically have medium to large sized footprints, with 52% of sites being between 185 sqm to 1,000 sqm. Some 38% of stock, or 65 sites, were between 1,000 to 10,000 sqm. Factories in total represent only 8% of industrial stock across the borough.

Table 37: Warehouses Industrial Stock and Floorspace by Size Band

Warehouses	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	304	22%	34,130	14%
185-500 sqm	443	33%	138,293	20%
500-1,000 sqm	292	22%	208,566	13%
1,000-10,000 sqm	297	22%	833,340	13%
>10,000 sqm	16	1%	308,664	1%
Grand Total	1352	100%	1,522,992	61%

Source: VOA / GL Hearn

6.20 Warehouses stock (table 37) is more evenly distributed in size across the Borough, and has a significant number of sites above 10,000 sqm (16) located on the A40. Warehousing stock has the highest number of sites relative to other uses of industrial land in the Borough, at 61%.

Table 38: Workshops Industrial Stock and Floorspace by Size Band

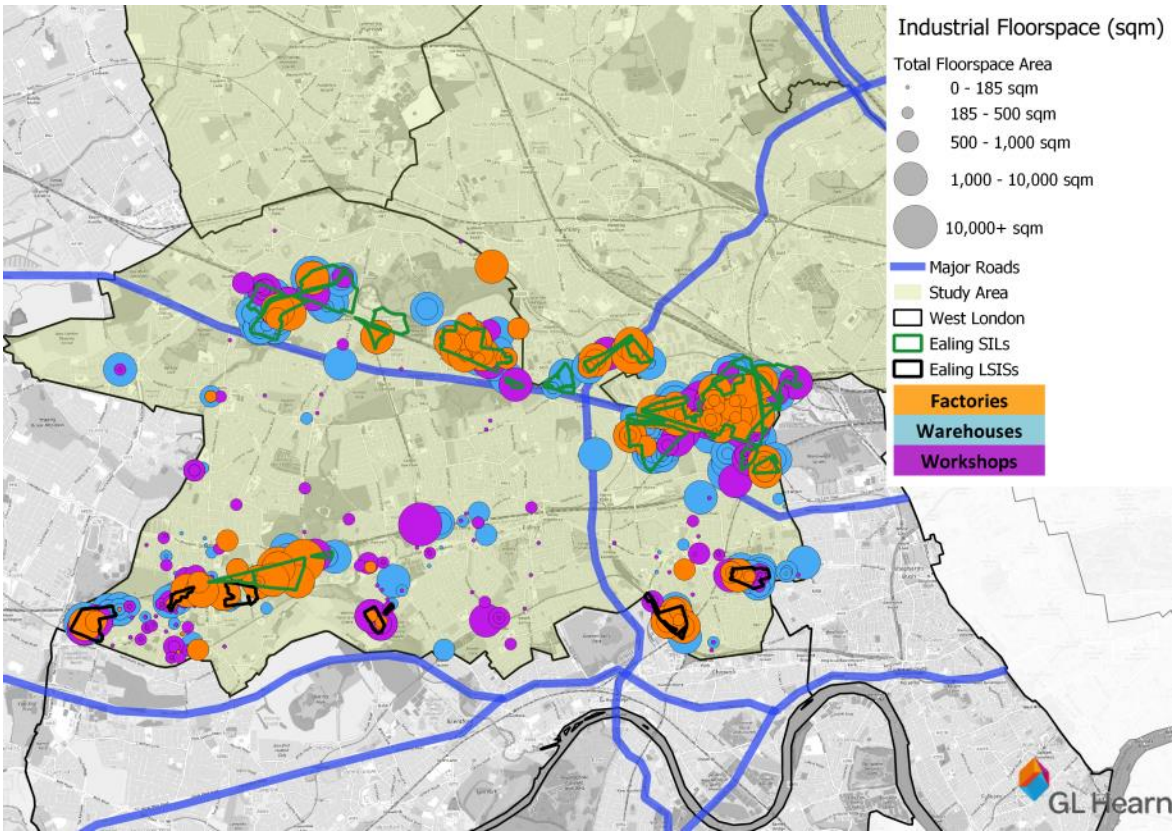
Workshops	# of Sites (sqm)	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	438	62%	33,176	20%
185-500 sqm	152	22%	45,858	7%
500-1,000 sqm	70	10%	47,099	3%
1,000-10,000 sqm	42	6%	92,851	2%
>10,000 sqm	2	0%	34,524	0%
Grand Total	704	100%	253,508	32%

Source: VOA / GL Hearn

6.21 Workshop stock (table 38) represents 32% of Borough stock relative to other industrial land uses. Most sites (84%) are under 500 sqm. Some 62% of sites are under 185 sqm, suggesting that workshops meet localised need.

7.5 Figure 12 illustrates the current industrial stock in Ealing according to size band. It shows that the largest concentration of stock above 1,000 sqm outside of Park Royal sits in the Southall and A40 clusters, both of which include several SILs and LSISs.

Figure 12: Ealing Stock Map By Size Band



Source: VOA / GL Hearn

6.22 Table 39 shows that the majority (over 72%) of industrial floorspace is older than 1990. Compared to other boroughs in the Study Area, however, Ealing has a higher percentage of new stock - 14% of total stock, or 104 units, were built after 2000.

Table 39: Age of Stock

Age Band	# of Sites	% of Sites	Sum of Area (sqm)
Before 1950	84	11%	151,733
1950 - 1990	479	61%	1,272,312
1990 - 2000	112	14%	347,061
2000 - 2010	75	10%	304,930
2010 - 2019	29	4%	91,951
Total	779	100%	2,167,987

Source: CoStar / GL Hearn

Market Dynamics

Take up and Availability

6.23 Information about industrial deals and takeup in the Borough were drawn from CoStar and include the OPDC area. Compared to other boroughs in the Study Area, Ealing has had industrial deals with representation in the higher size bands.

Table 40: Deals (2011-2017) By Size Band

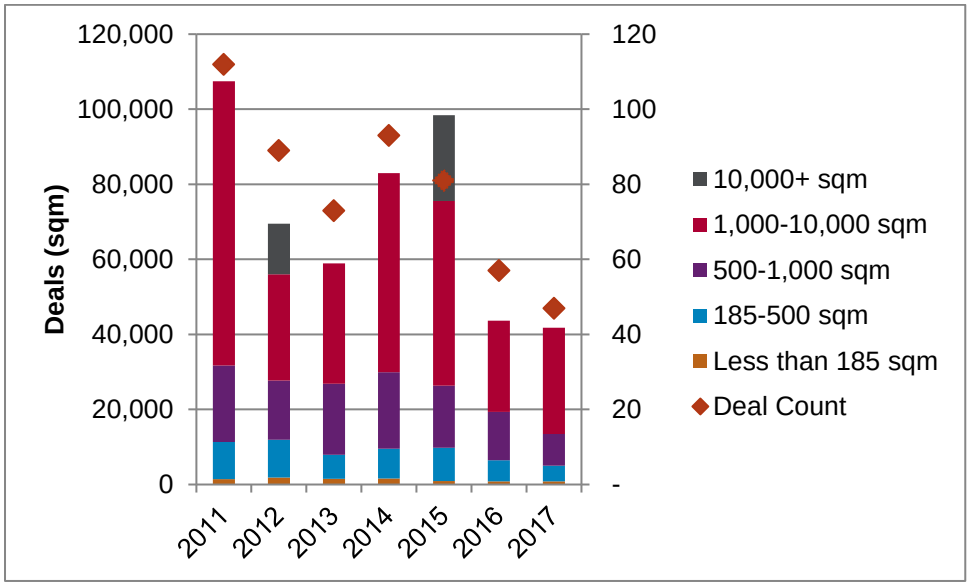
Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	84	15%	8,933
185-500 sqm	169	31%	53,073
500-1,000 sqm	161	29%	113,326
1,000-10,000 sqm	136	25%	291,120
10,000+ sqm	2	0%	36,327
Total	552	100%	502,779

Source: CoStar / GL Hearn

6.24 Figure 13 shows that since 2011, deal counts have decreased, and generally so has floorspace transacted. One exception to this decrease in deals and floorspace transacted is a spike in 2014-2015. The 22,854 sqm Royal Mail site on Rockware Avenue in 2015 helped to significantly boost floorspace transacted, and in 2014 sites including the 8,922 sqm warehouse for Designers Guild in the A40 cluster and 3,360 sqm warehouse for Todd Doors in Southall helped to boost floorspace transacted. Transactions in 2016 and 2017 were more muted.

6.25 Falling deal counts are considered to be attributable to a lack of suitable available industrial space. Larger deals are generally within the A40 cluster, with smaller spaces like Todd Doors more often occurring in Southall closer to Heathrow.

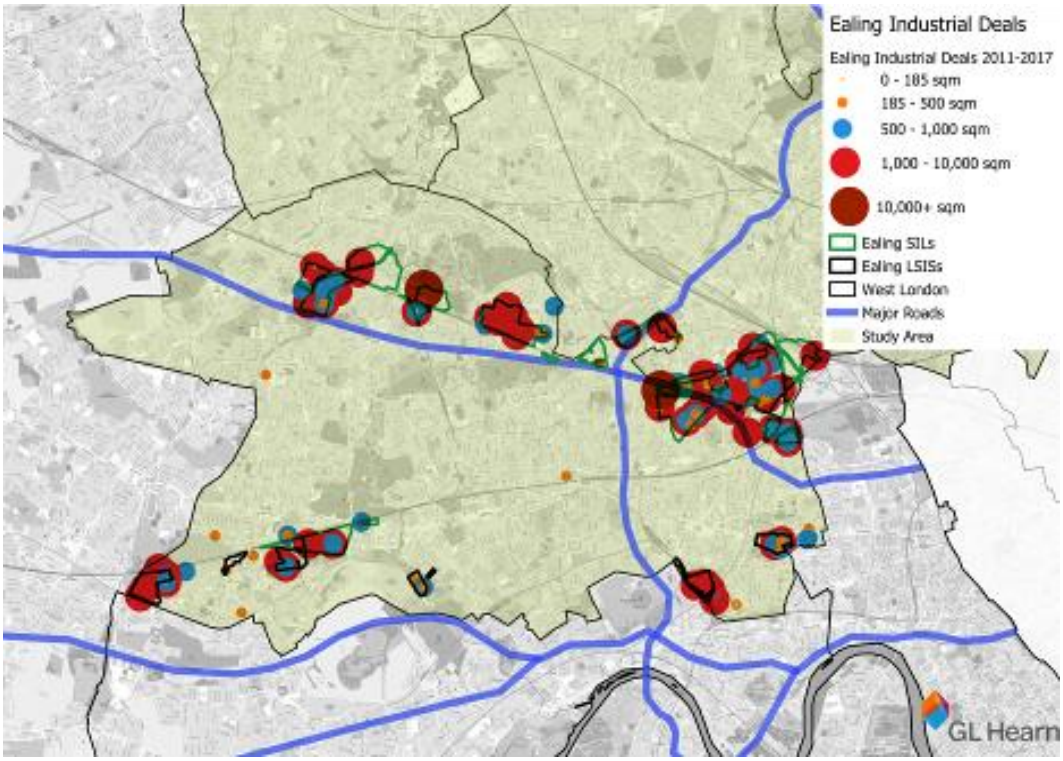
Figure 13: Ealing Industrial Deals (2011-2017) By Size Band



Source: CoStar / GL Hearn

6.26 Figure 14 suggests that market activity is concentrated along major transport corridors. The largest deals appear largely in the same clusters as industrial stock and outside of Park Royal, concentrating along the A40 and in Southall.

Figure 14: Ealing Industrial Deals



Source: CoStar / GL Hearn

6.27 In terms of availability, out of the study area, Ealing had the most available sites listed on CoStar compared to the other boroughs. According to the table below, there is very low availability in the borough for leases. 75% of availability, or 30 sites, are between 500 and 10,000 sqm.

Table 41: Lease Availability (2018)

Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	4	10%	299
185-500 sqm	7	17%	2,270
500-1,000 sqm	10	24%	6,811
1,000-10,000 sqm	20	49%	41,909
10,000+ sqm	-	0%	-
Total	41	100%	51,289

Source: CoStar / GL Hearn

6.28 In table 42 take up is averaged in the years 2011-2017, and then compared to current availability. With less than one year of supply, there is an indication that there are supply pressures in the area.

Table 42: Years Supply Calculation

Average Annual Take Up	
71,826	sqm p.a.
Total Lease Availability	
51,289	sqm
Years Supply	
0.71	years

Source: CoStar / GL Hearn

Rents

6.29 Table 43 shows that rents for prime logistics stock in the Borough have increased to £17.50 from 2012. Rents for secondary sheds, or those further away from prime locations, have increased by 39% being less than West London overall.

Table 43: Ealing Typical Rent Values for Prime and Secondary sheds (sqm)

Area	Small Sheds					
	Prime			Secondary		
	2012	2018	% Change	2012	2018	% Change
Ealing	£13.00	£17.50	35%	£9.00	£12.50	39%
West London	£10.29	£15.08	47%	£7.17	£11.00	53%

Source: Levy Real Estate, 2018

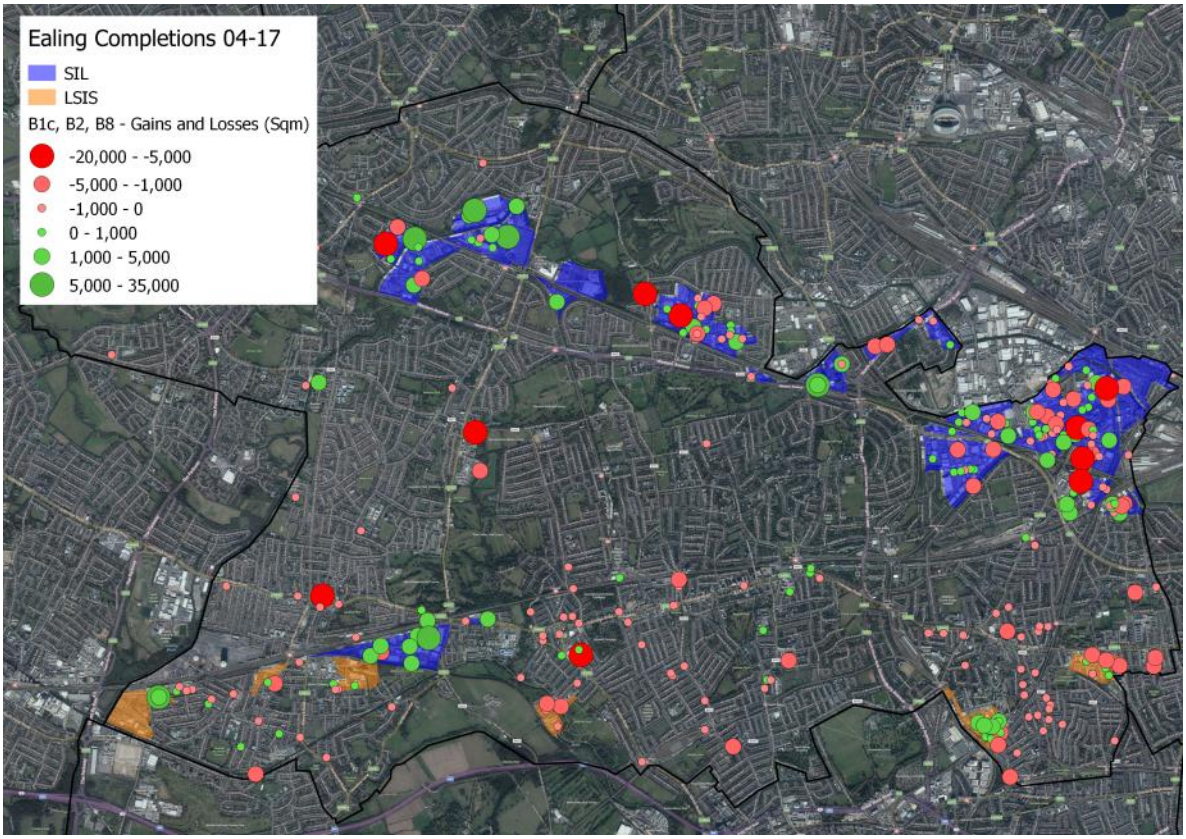
Completions and Losses

6.30 Excluding Park Royal, Ealing has experienced a -2.1% change in stock since 2004. This rate is driven by the loss of stock in non-designated sites across B1c, B2 and B8 classes. However industrial floorspace has seen a positive overall growth across both SIL and LSIS sites.

6.31 Figure 15 maps completions and losses in Ealing since 2004 (these include completions within Park Royal which are not included within any of the figures or tables reported).

6.32 The SIL sites appear to be delivering the larger developments. Outside of the SIL and LSIS designations there are a large number of smaller developments although very few of these result in a gain of employment land. There is also an east/west split, with much of the smaller development occurring to the east.

Figure 15: Ealing completions/ losses



Source: London Borough of Ealing, 2018

6.33 There are a number of positive developments in each of the SIL sites and also at South Acton. Overall, the designated SIL and LSIS sites have experienced positive growth resulting in 16.4% stock change for SIL land and 4.2% change for LSIS since 2004.

Table 44: Ealing completions/ losses (sqm)

	Total B1c	Total B2	Total B8	Total of B1c+B2+B8	Change in stock since 2004
SIL	533	17,469	65,963	83,965	16.4%
LSIS	-23,618	15,751	15,567	7,700	4.2%
Non-designated	-9,102	-29,701	-31,041	-69,844	-11.4%
Total	-23,465	-1,197	-4,466	-29,128	-1.7%

Source: London Borough of Ealing, 2018

6.34 As table 45 shows, across SIL designated sites, both the Great Western (27.1%) and Northolt, Greenford and Perivale (14.6%) gained additional stock through new completions, generating a positive change in stock since 2004.

Table 45: **Ealing completions/ losses by SIL (sqm)**

SIL	Total B1c	Total B2	Total B8	Total of B1c+B2+B8	Change in stock since 2004
Great Western	4,613	2,517	12,743	19,873	27%
Northolt, Greenford, Perivale	-4,080	14,952	53,220	64,092	15%

Source: London Borough of Ealing, 2018

6.35 Designated LSIS sites (table 46) have generally experienced growth in stock since 2004. Most growth in LSIS land is occurring in the south east of the Borough, with completions delivering between 1,000 and 5,000 square metres of stock. This includes the South Acton LSIS, which experienced a 42.8% change in stock since 2004, with growth occurring in B2 and B8 uses classes.

Table 46: **Ealing completions/ losses by LSIS (sqm)**

LSIS	Total B1c	Total B2	Total B8	Total of B1c+B2+B8	Change in stock since 2004
Bridge Road	-	105	101	206	1.8%
International Trading Estate	-19,138	7,147	16,559	4,568	5.8%
South Acton	-1,277	6,065	3,687	8,475	42.8%
Southbridge Way	-	-	-	-	0.0%
The Vale	-3,203	1,004	-2,814	- 5,013	-8.8%
Trumpers Way	-	1,430	-1,966	-536	-5.6%

Source: London Borough of Ealing, 2018

6.36 The Vale and Trumpers Way LSISs have lost industrial floorspace, resulting in -8.8% and -5.6% change in stock since 2004 respectively. In both cases there was an increase in B2 space but a loss of B8.

Development Pipeline

6.37 In Ealing, there is a net loss of around 46,000 sqm of floorspace in the pipeline for B2 and B8 uses and a 81,000 sq m in B1 uses (table 47). However, the net losses are all in non-designated sites (-61,600 sqm), partially offset by gains in both SIL and LSIS sites.

Table 47: **Summary of Ealing supply pipeline (sqm)**

	Total net B1	Total net B2	Total net B8	Total B2+B8
SIL	5,129	2,750	7,559	10,309
LSIS	-3,580	3,121	2,023	5,144
Non-designated	-82,873	-20,719	-40,840	-61,559
Total	**-81,324**	**-14,848**	**-31,258**	**-46,106**

Source: London Borough of Ealing, 2018

6.38 The majority of pipeline growth in designated sites (table 48) is in B2 and B8 uses, although SIL sites are also expected to contribute a net growth in B1 use class. There is expected to be a loss of 3,600 sqm of office stock in LSIS with far more significant decline in non-designated sites.

6.39 The Northholt/Greenford/Perivale SIL has the greatest pipeline supply of industrial floorspace, totalling 8,150 sqm. The majority of this is in B8 uses, although there is also notable contribution from both B1 and B2 uses.

Table 48: **Ealing supply pipeline by Designated site (sq m)**

	Total net B1	Total net B2	Total net B8	Total B2+B8
Northolt, Greenford, Perivale	1,895	1,672	6,481	8,153
Great Western	3,234	1,078	1,078	2,156
SIL Total	**5,129**	**2,750**	**7,559**	**10,309**
Bridge Road	0	2,201	0	2,201
International Trading Estate	-4,500	0	2,306	2,306
South Acton	920	920	-283	637
LSIS Total	**-3,580**	**3,121**	**2,023**	**5,144**

Source: London Borough of Ealing, 2018

6.40 The LSIS sites have a pipeline supply of 5,100 sqm of industrial stock offset by a loss in B1. The majority of activity is in the Bridge Road and International trading estates, with the latter seeing a loss of 4,500 in light industrial uses (B1c).

6.41 There is likely to be some consolidation of industrial uses within designated sites in Ealing with considerable losses in non-designated sites. The losses are across all use classes, but in order to ensure continued diversity in stock and location this should not be continued.

Commercial Market Summary

6.42 Ealing has a relatively significant industrial market. Stock is the largest by area in the Study Area with around 2,027,000 sqm, having fallen by 5% since 2001. A total of 688 units (or 88% of the stock) is larger than 500 sqm. Moreover, 68% of stock is over 1,000 sqm. Some 33 properties, or 4% of all sites, have in total over 542,000 sqm in floor space, and thus depend more on large distribution networks. The largest concentrations of stock outside of Park Royal sit along the A40 and in Southall.

6.43 Deal counts are relatively high, averaging around 80 per annum with only 26% in the sub 185 sqm property mark. Deals tend to be near the A40 and in Southall. In particular, the more significant large floorspace deals occur along the A40 cluster.

6.44 Availability in the Borough is very low compared to average take up. Rents have continued to rise, although rents have increased below the West London average in percentage terms.

6.45 Designated stock has seen marginal net gains since 2004. Over 16.4% of stock was gained across the SIL sites in the Borough, along with 4.2% of LSIS site stock gained. Across the Borough as a whole, however, there was a net loss of 1.7% of stock due to non-designated sites experiencing a loss of stock of 11.4%

Logistics function

6.46 Ealing is considered the largest industrial submarket in the country. Its strategic location between Heathrow Airport and Central London makes it an important logistics hub. Its largest warehouses are located in Park Royal and along the A40 corridor including Perivale and Greenford. Great Western Industrial Park through Southall towards Hayes provides another substantial industrial concentration. The Borough contains about 40 industrial buildings sized over 100,000 sqft (9,285 sqm), nine of which are bigger than 200,000 sqft (180,569 sqm).

6.47 The Borough has lost space on a net basis in recent years through conversions and demolitions. An example occurred at the end of 2017, when the 750,000 sqft (69,635 sqm) former GlaxoSmithKline factory in Greenford was finally demolished. Moderate levels of new supply have been delivered in the past few years. The largest delivery in 2018 was Tera 40, Auriol Drive, Greenford, which totals 43,000 sqft (3,992 sqm). The scheme completed in Q1 2018 and was let to the Royal Mail Group in the same quarter.

6.48 We have identified three specific areas of the Borough that contain the largest proportion of the industrial and business space. There are several other pockets of industrial throughout the Borough in more isolated areas, however the characteristics of the road communications of the M40 (A40) and M4(A4) promote the majority of industrial into a prime category for occupiers and investors.

Logistics & Trading Estates A40 Cluster Northolt, Perivale & Greenford

6.49 The Northolt and Perivale areas are established / traditional logistics and trading estates locations and have been developed over several decades. There is strong demand in these areas due to the access to the A40 providing quick direct access from regional hubs and then onwards to central London. Prime speculative industrial and logistics assets are built in strategic locations close to good road communications, separated from residential areas to avoid operational restrictions, and close to a suitable labour pool. The evolution of trading estates over the decades satisfy these key criteria and

as such rents and development in the area have been a target "prime" location. The main trading estates in the Borough are, however, slightly downgraded due to the congested access via residential roads to the A40 (as is the case, for instance, with Greenford Road (A4127) and Bideford Avenue / Aintree Road). Estates such as The Metropolitan Centre are accessed directly of the A40. Auriol Drive is an example of a redevelopment of traditional industrial to modern prime logistics space and is currently the home to Brompton Cycles, Sainsbury's distribution centre Sotheby's and DHL. Wincanton have occupied a 200,000 sqft (18,569 sqm) facility on a long lease since mid-1980s where they operate a multi contract third party logistics outsourcing (3PL) service. The buildings are of poor quality and would not be considered core prime real estate, but certainly constitute a future prime development opportunity.

6.50 Two deals that support the rental growth level in this established industrial location are at the Metropolitan Park SEGRO scheme in Greenford. The most significant deal was for Unit 33 Metropolitan Park, which is a 3,153 sqft (293 sqm) terraced unit let to Press London for £17.50 (£188 per sqm) on a 5 year lease. Another significant deal on this estate is the Unit 18 letting to SAARCO Ltd which comprises of 3,518 sqft (£327 sqm) let at £17.00 per sqft (£183 per sqm).

6.51 Larger units such as Unit 1 TerA40 in Greenford, a 61,068 sqft (5,670 sqm) warehouse let to Micheldever Tyres at £13.95 for a lease term of 15 years. and Unit 4 Greenford Park a 56,911 sqft unit let to Kuehne & Nagel at £13.50 (£150 per sqm) on a 10 year lease in August 2016 support the location as a "mid box" distribution location.

Southall to Hayes

6.52 The prime logistics area in Southall and Hayes includes locations more attractive because of proximity to the Parkway (A312) providing access to the M40 north, to the M4 to the south and to Heathrow Airport. It has enjoyed sustained rental growth over the last 20 years.

6.53 Major arterial routes through the western areas of Ealing include the Uxbridge Road, providing access to Great Western Industrial Park, and the Hayes Road / Western Road providing access to the International Trading Estate and to central Southall. These provide facilities for local business, mainly on a freehold basis in locations such as Middlesex Business Centre.

6.54 Prime multi let deals within the Hayes and Southall area are limited in recent years mainly due to supply. A recent transaction in December 2018 was in Stockley Close, West Drayton close to the boundary of the Borough; Clevertronics Limited acquired a 9,564 sqft unit (188 sqm) at £13.95 (£150

per sqm) for a term of 5 years. Unit 1 Clayton Business Centre, Southall a 2,537 sqft (236 sqm) unit let to a local occupier on a 10 years lease at £15.00 per sqft in July 2018.

6.55 DPD (Geopost), a leading parcel delivery business, agreed a pre let transaction with SEGRO in 2011 at Collett Way, Great Western. DPD took a lease of 20 years at £16.00 per square foot (£172 per sqm) for 43,000 sqft (3,992 sqm) low site density facility the rental level is inflated to account for the low site density.

6.56 A significant letting is that of 30,000 sqft (£2,785 sqm) at Unit 1 Picador at Armstrong Way on Great Western Industrial Park. This was completed at £13.00 per sqft (£140 per sqm). Although slightly outside of the catchment area, a good example of a letting that could be achieved within the Borough is Suite 5 Dawley Road to Levantine UK Ltd on a 15 year lease in February 2018. This 28,030 square foot (2,602 sqm) building was let at £13.95 per sqft (£150 per sqm). Another comparable slightly out of our catchment area is Hayes 180 on the Uxbridge Road. This 40,423 square foot (3,753 per sqm) facility was let to the Secretary of State at £13.50 per sqft (£145 per sqm) for a term of 10 years with a 5 year break.

Acton

6.57 Acton Estates south of the A40 along Alliance Road and Kendal Avenue provide a location for slightly smaller units development such as W.A.V.E, Westpoint Industrial Estate and Vision. The frontage to the A40 is dominated by car showroom, retail warehouse and trade units, however to the southern part of the Estate the units let well; rents quoted for Vision are £20 per sqft (£215 per sqm) while those achieved at WAVE are £17.50 per sqft (£188 per sqm). Older stock at Westpoint on a short term lease has achieved £14.50 per sqft (£156 per sqm).

6.58 Major investment in the location by several large property companies such as Segro, Prologis and Goodman support Park Royal as the premier industrial location in West London. As such rents and yields hold up very well in comparison to any other location in the UK.

6.59 This market has consistently seen high levels of demand and rejuvenated supply over the past 7 years. Unit 15 Victoria Road is an example of a mid-sized secondary terraced unit of a multi let industrial estate comprising of 3,455 sqft (321 sqm). This unit was let to a local occupier for a 5 year term at the rental level of £19.50 per sqft (£210 per sqm). Unit 2, Hanover West Industrial Estate achieved a rental level of £21.00 psf (£226 per sqm) for a 10 year lease to AGA Rangemaster in September of 2018.

6.60 An example of a prime light industrial unit is Suite 2, 161 Acton Lane. Let to Plumbase on a 10 year lease in August 2018, the unit achieved a rent of £21.00 per sqft (£226 per sqm) which is in line with prime industrial rents within this submarket.

6.61 Central Reach on Willen Field Road comprises 29,826 sqft (2,769 sqm). It was let at a rental figure of £15.25 per sqft (£164 per sqm) to V&H Ltd on a 10 year lease. Another prime logistics unit that was let recently was Unit 2 Mansfield Road, in the Western Avenue Business Park. This unit achieved a substantial rental figure of £15.95 per sqft (£172 per sqm) and was let to Crep Protect in July 2018. This steel portal frame unit consists of Grade A ancillary office space and warehousing with dock levellers and substantial eaves height of 7.25m.

7 INDUSTRIAL SUPPLY AND MARKET POSITION: HARROW

7.1 This section provides an overview of the industrial land and market position across Harrow and considers its role in the industrial and logistics market.

Industrial Land Supply

7.2 According to the Council's data, Harrow has a total of around 220,000 sqm of industrial floorspace. This includes two SIL sites, Honeypot Lane in Stanmore (51,300 sqm) and Wealdstone (12,500 sqm). Combined these contribute around one quarter of the industrial stock in the Borough. The Borough's LSIS sites contribute a further 52% of the stock.

7.3 Neither SIL sites in Harrow has particularly strong strategic road access. Whilst the Wealdstone area has direct access to the West Coast Mainline it does not utilise this.

7.4 The Wealdstone SIL area includes the former Kodak Factory, much of which has been in part redeveloped with other parts cleared. The remainder of the site is comprised of smaller light industrial units servicing local businesses including trade counters. It is the smallest SIL site in the study area.

Table 49: **Harrow existing floorspace supply**

SIL	Total (sqm)	% of total Harrow supply
Wealdstone	12,474	6%
Honeypot Lane, Stanmore	51,334	23%
Industrial and Business Use Areas (LSIS)	**Total (sqm)**	**% of total Harrow supply**
Chantry Place	8,668	4%
Whitefriars Industrial Estate	5,560	3%
Palmerstone Business Centre/ Palmerston Road/Oxford Road	17,193	8%
Neptune Road	15,131	7%
The Arches	8,998	4%
Phoenix Business Centre/Crystal Way/Hawthorn Centre	25,064	11%
Christchurch Ind. Est./Forward Drive	15,581	7%
Barratt Way/Tudor Enterprise Park	5,787	3%
Brember Road	10,610	5%
Non-designation	**Total (sqm)**	**% of total Harrow supply**
Non-designated sites	43,289	20%

Source: London Borough of Harrow, 2018

7.5 The Stanmore SIL site has a sub-category of Industrial Business Park. This means that the site is suitable for "activities that need better quality surroundings including research and development, light industrial and higher value general industrial, some waste management, utility and transport functions, wholesale markets and small scale distribution." Reflecting the better quality surroundings, much of the north of the site has been developed for higher end housing.

7.6 Two of the LSIS sites in Harrow are larger than the Wealdstone SIL site, although both are comprised of a number of smaller industrial areas.

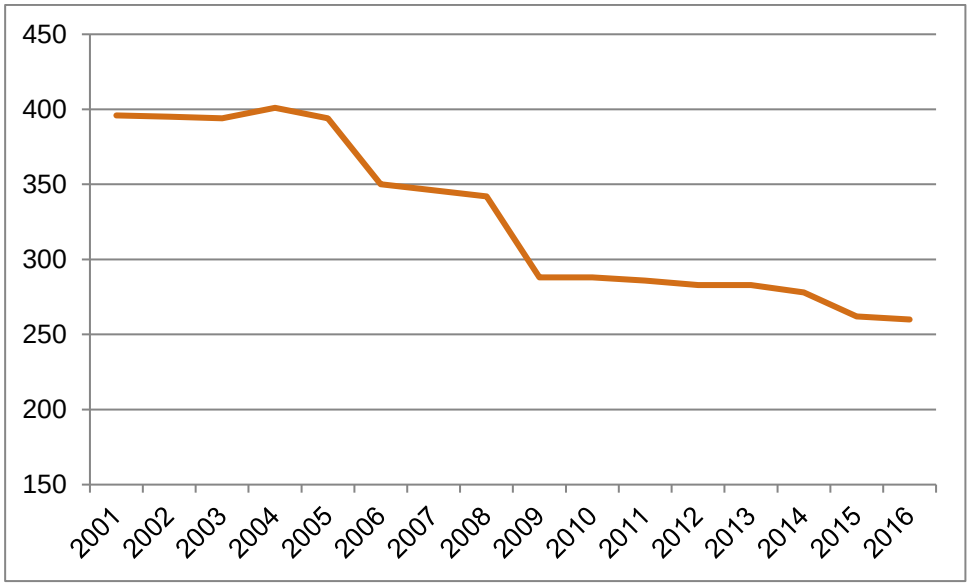
7.7 This suggests that Harrow does not have a strategic role to play in the Study Area. However, the local market is relatively buoyant. As around one third of the industrial floorspace is not designated there is some risk to the overall supply.

7.8 Harrow also has a strong pipeline supply although this will only partially mitigate significant historic losses. Harrow is expected to continue a loss of non designated industrial sites.

Current Stock

7.9 Industrial floorspace and stock in Harrow has decreased significantly since 2001. Figure 16 below indicates a stepped but consistent movement downward in total floorspace.

Figure 16: Harrow Industrial Floorspace Change Over Time (sqm, '000s)



Source: VOA / GL Hearn

7.10 Table 50 compares Harrow to the study area and London, revealing that since 2001, Harrow has lost 34% of its industrial floorspace. Compared to boroughs like Brent or Ealing, or Greater London as a whole, Harrow has lost a greater proportion of stock from a lower base.

Table 50: **Floorspace Change Over Time (sqm, 000s)**

Area	Floorspace 2001	Floorspace 2016	Change 2001-16	Change p.a.	% Change
Harrow	396	260	-136	-9	-34%

Study Area	4,439	3,993	-446	-30	-10%
London	25,831	20,771	-5,060	-337	-20%

Source: VOA / GL Hearn

7.11 Property data from the VOA rating list was analysed on a property by property level to understand the representation of various floorspace size bands in the borough.

7.12 As noted in table 50, there are limited sites with space above 10,000 sqm; some 77% of Harrow's stock is below 500 sqm. Low floorspace per unit, along with fewer regional road connections, mean that the submarket is more local in nature, and thus less connected to large distribution networks.

Table 51: **Industrial Stock and Floorspace by Size Band**

Size Band	# of Sites	% of Borough	Sum of Area (sqm)
<185 sqm	167	45%	15,414
185-500 sqm	119	32%	35,506
500-1,000 sqm	51	14%	33,839
1,000-10,000 sqm	34	9%	78,487
>10,000 sqm	1	0%	71,502
Grand Total	372	100%	234,748

Source: VOA / GL Hearn

7.13 Floorspace has been broken down by sector according to VOA classes. Factories, warehouses and workshops have been analysed by size band.

Table 52: **Factories Industrial Stock and Floorspace by Size Band**

Factories	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	3	13%	328	1%
185-500 sqm	6	26%	2,495	2%
500-1,000 sqm	6	26%	4,209	2%
1,000-10,000 sqm	7	30%	18,350	2%
>10,000 sqm	1	4%	71,502	0%
Grand Total	23	100%	96,884	6%

Source: VOA / GL Hearn

7.14 Factories (table 52) typically have a more even distribution of size footprints, with 39% of sites being less than 500 sqm. Factories in total represent only 6% of industrial stock across the Borough.

Table 53: **Warehouses Industrial Stock and Floorspace by Size Band**

Warehouses	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	41	24%	4,425	11%
185-500 sqm	70	42%	21,775	19%
500-1,000 sqm	33	20%	21,618	9%
1,000-10,000 sqm	24	14%	54,129	6%
>10,000 sqm		0%		0%
Grand Total	168	100%	101,947	45%

Source: VOA / GL Hearn

7.15 Warehouse stock (table 53) is broadly evenly distributed in size across the Borough, but focuses slightly in the lower size bands with only 14% of stock above 1,000 sqm. Warehousing represents 45% of total industrial stock in the Borough, with 168 sites.

Table 54: **Workshops Industrial Stock and Floorspace by Size Band**

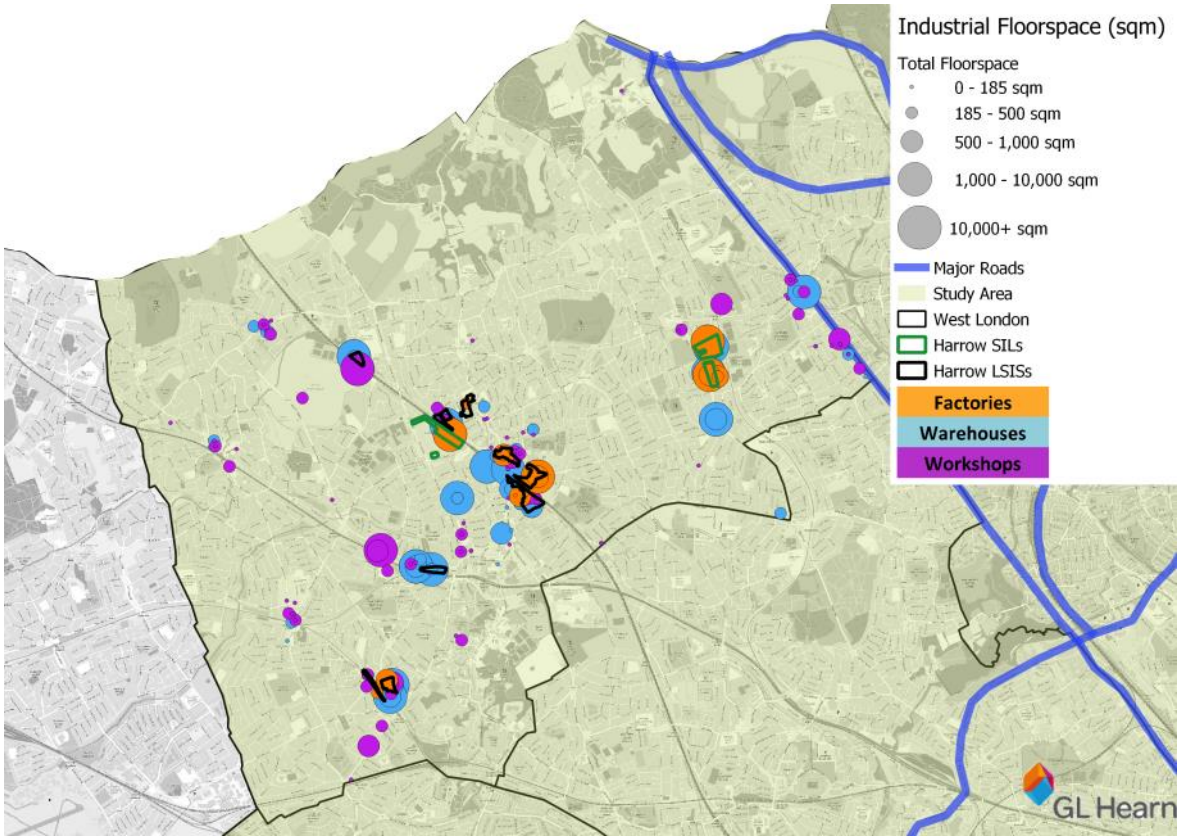
Workshops	# of Sites	% of Ind Sub Group	Sum of Area (sqm)	% of Borough
<185 sqm	123	68%	10,661	33%
185-500 sqm	43	24%	11,236	12%
500-1,000 sqm	12	7%	8,012	3%
1,000-10,000 sqm	3	2%	6,008	1%
>10,000 sqm		0%		0%
Grand Total	181	100%	35,917	49%

Source: VOA / GL Hearn

7.16 Workshop stock (table 54) has the highest number of sites relative to the other uses of industrial land in the Borough, with 49% of total stock. Most (92%) sites are less than 500 sqm. Some 68% of sites are under 185 sqm, suggesting a locally-based pattern of workshop use.

7.17 Figure 17 maps the current industrial stock in Harrow according to size band. The largest concentration of stock above 1,000 sqm sits along main transport corridors, across the Wealdstone and the Harrow/London Northwestern Railway clusters, covering several SILs and LSISs. Other stock is dispersed in several smaller LSIS and SIL sites across the Borough. Workshops tend to be more scattered than factories and warehouses.

Figure 17: Harrow Stock Map By Size Band



Source: VOA / GL Hearn

7.18 Another useful way of analysing stock is categorising it by age. Due to limitations of VOA data, CoStar has been used to derive a sample from which the age of stock in the Borough can be estimated. Table 55 shows that most (over 92%) industrial sites are older than 1990, the highest proportion of any of the Study Area boroughs.

Table 55: **Age of Stock**

Age Band	% of Sites	Sum of Area (sqm)
Before 1950	38%	106,423
1950 - 1990	54%	101,547
1990 - 2000	4%	4,742
2000 - 2010	4%	6,982
2010 - 2019	0%	-
Total	100%	219,694

Source: CoStar / GL Hearn

Market Dynamics

Take up and Availability

7.19 Information about industrial deals and takeup in the Borough were drawn from the Costar database (table 56). The number of deals and floorspace area were analysed in relation to one another. Harrow has had industrial deals with more representation in the lower size bands than other study boroughs, with 73% of all deals from 2011-2017 under 500 sqm. There were no deals occurring with floorspace above 10,000 sqm. Harrow has by far the greatest concentration of deals on small sites.

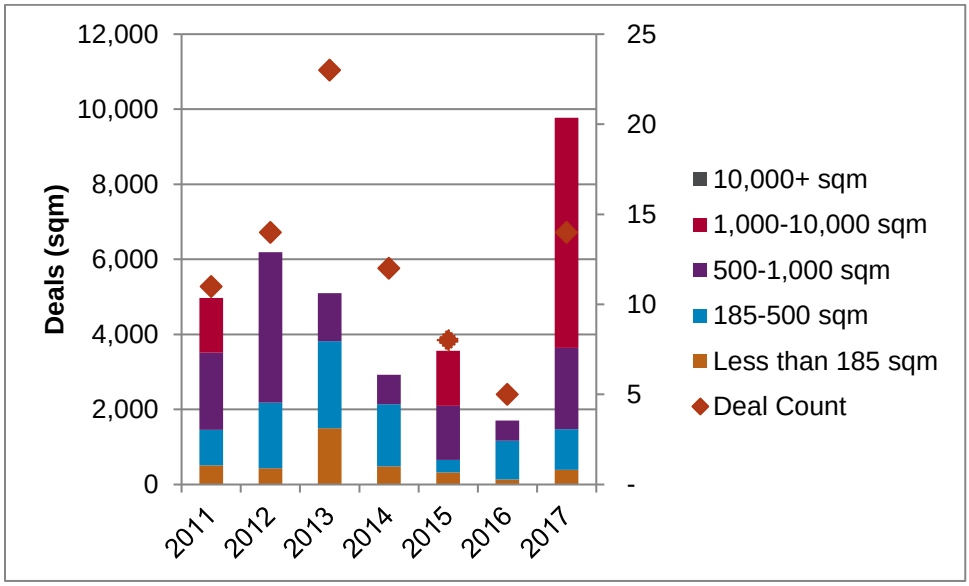
Table 56: **Deals (2011-2017) By Size Band**

Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	36	41%	3,776
185-500 sqm	28	32%	9,111
500-1,000 sqm	18	21%	12,272
1,000-10,000 sqm	5	6%	9,060
10,000+ sqm	-	0%	-
Total	87	100%	34,219

Source: CoStar / GL Hearn

7.20 Figure 18 shows that since 2011, deal counts spiked in 2013 and then fell. The variability is explained by a multi-unit sale occurring at 26-30 Dalston Gardens, which added ten additional deals in the year. In 2017, a 2,892 sqm warehouse deal at Neptune Trading Estate added sizeably to floorspace transacted. In addition, a 1,979 sqm storage facility deal on Headstone Lane in the Wealdstone cluster contributed to increased floorspace trading in 2017. Overall, variability is high because of the low number of deals, stock and market strength in the Borough.

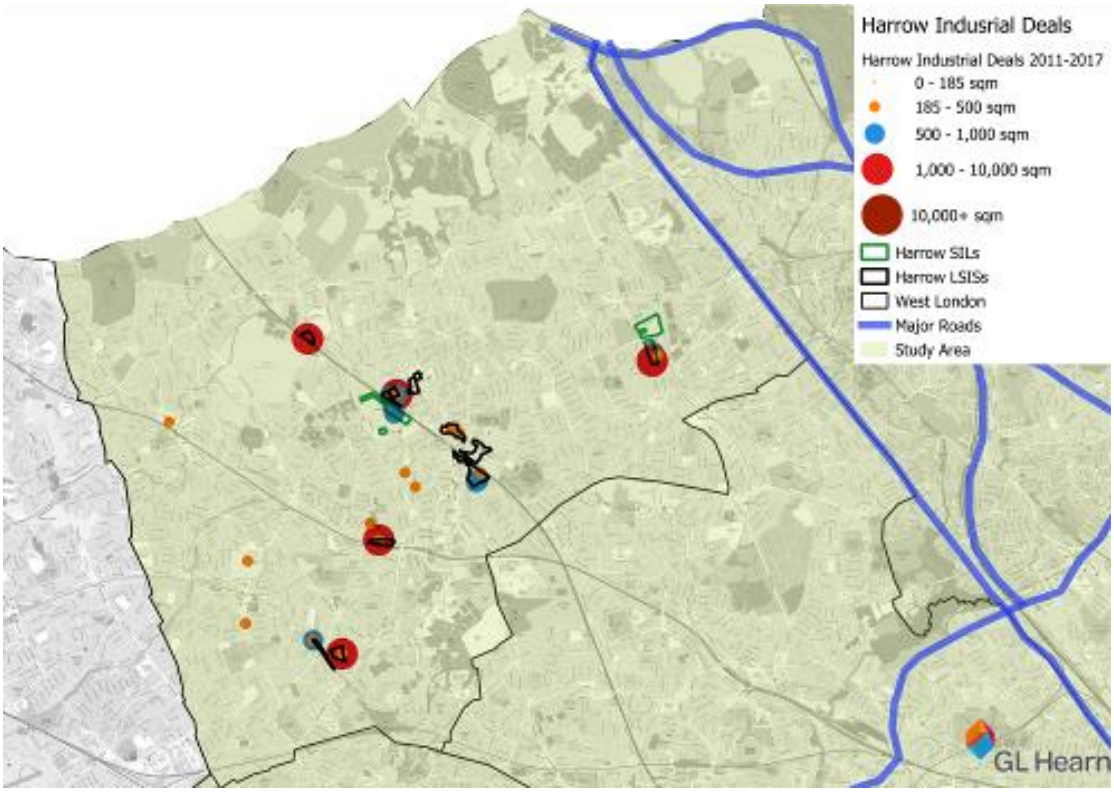
Figure 18: Harrow Industrial Deals (2011-2017) By Size Band



Source: CoStar / GL Hearn

7.21 Figure 19 shows that market activity is relatively dispersed, with relative concentration along major rail corridors (albeit that there is no freight access). The largest deals appear largely in the same clusters as industrial stock, concentrating near the Harrow/London Northwestern Railway and Wealdstone clusters.

Figure 19: Harrow Industrial Deals



Source: CoStar / GL Hearn

7.22 In terms of availability, CoStar was used to track available properties to let in the Harrow search area. Table 57 shows there is very low availability in the Borough for leases. Only two sites are listed as available to be let, one site 161 sqm in area, the other at 592 sqm.

Table 57: **Lease Availability (2018)**

Size Band	# of Sites	% of Sites	Sum of Area (sqm)
Less than 185 sqm	1	50%	161
185-500 sqm	-	0%	-
500-1,000 sqm	1	50%	592
1,000-10,000 sqm	-	0%	-
10,000+ sqm	-	0%	-
Total	2	100%	753

Source: CoStar / GL Hearn

7.23 Table 58 shows average take up for the years 2011-2017 compared with current availability. With significantly less that a year of supply, there is an indication that there are supply pressures in the area.

Table 58: **Years Supply Calculation**

Average Annual Take Up	
4,888	sqm p.a.
Total Lease Availability	
753	sqm
Years Supply	
0.15	years

Source: CoStar / GL Hearn

Rents

7.24 Table 59 shows that rents for prime sheds in the Borough have increased by 56% from 2012. Rents for secondary sheds, or those further away from prime locations, have increased by 54%. Both prime and secondary rents have seen higher rental growth than West London overall (particularly primary stock).

Table 59: **Harrow Typical Rent Values for Prime and Secondary sheds (sqm)**

Area	Small Sheds					
	Prime			Secondary		
	2012	2018	% Change	2012	2018	% Change
Harrow	£9.00	£14.00	56%	£6.50	£10.00	54%
West London	£10.29	£15.08	47%	£7.17	£11.00	53%

Source: Levy Real Estate, 2018

Completions and Losses

7.25 In total only 745 sqm of new industrial floorspace has been completed since 2009/10 in Harrow. This was offset by significant losses of over 8,000 sqm mostly in distribution.

7.26 The majority of gross delivery occurred on designated sites whereas losses occurred primarily on unallocated sites (table 60).

Table 60: **Harrow completions/ losses (sq m) – 2009/10 – 16/17**

	Designated Employment Areas		Unallocated		Total	
	Net	Gross	Net	Gross	Net	Gross
B1(c)	2	416	-1,409	0	-1,407	416
B2	0	0	-1,515	43	-1,515	43
B8	-731	286	-4,525	0	-5,256	286
Total	-729	702	-7,449	43	-8,178	745

Source: London Borough of Harrow, 2018

Development Pipeline

7.27 The employment floorspace pipeline for Harrow (table 61) will see a net gain of just over 3,000 sqm of employment floorspace the largest proportion of which (95%) will be B2 uses on SIL sites. Across all uses the SIL sites are expected to add around 3,600 sqm net.

7.28 However, Harrow's LSIS areas are expected to experience a reduction in employment floorspace in light of increasing pressure for non-industrial floorspace uses.

Table 61: **Summary of Harrow supply pipeline (sqm)**

	Net B1	Net B2	Net B8	Net Total
SIL	-1,069	2,891	1,837	3,659
LSIS	-175	-534	83	-626
Total	-1,244	2,357	1,920	3,033

Source: London Borough of Harrow, 2018

7.29 Table 62 shows that the largest net development pipeline in terms of net floorspace on designated sites is the B2 development at the Wealdstone SIL. There are a greater number of proposed developments at Honeypot Lane, which include a loss of B1 (B1c) and a gain of B8.

Table 62: **Harrow supply pipeline by SIL site (sqm)**

	B1	B2	B8	Total
Wealdstone	0	2,891	0	2,891
Honeypot Lane, Stanmore	-1,069	0	1,837	768
SIL Total	-1,069	2,891	1,837	3,659

Source: London Borough of Harrow, 2018

7.30 The positive pipeline in Harrow indicates a degree of buoyancy within the market.

Commercial Market Summary

7.31 Harrow has a relatively small industrial market. Stock is around 220,000 sqm, having fallen by 34% since 2001. A total of 286 units or 77% of the stock listed on the VOA is smaller than 500 sqm. Moreover, 9% of stock is over 1,000 square meters. The Borough does not have a significant concentration of large floorspace buildings compared to other boroughs in the Study Area.

7.32 Deal counts are relatively low averaging around 12 per annum with 41% in the sub 185 sqm property mark. Deals tend to be in the Harrow/London Northwestern Railway and Wealdstone clusters.

7.33 Availability in the Borough is low and rents have continued to rise. Rents have increased above the West London average in percentage terms, significantly so for prime small sheds.

7.34 From 2009/10, there has been an overall net loss of stock in the borough in light industrial uses.

Logistics function

7.35 The Borough has a limited regional logistics function and is a predominately residential location rather than industrial. The road network through the Borough does not support high volume HGV movement; deliveries to the Borough are largely provided from operators beyond its boundaries at transhipment depots either from outside the M25 or from locations such as Watford, Elstree/ Borehamwood to the north or Wembley to the south. There is limited industrial and light industrial stock in the Borough, what there is are is small units on trading estates. These units cater for a local industrial / business market, the Borough's characteristics do not lend to high volume logistics occupiers.

7.36 A big industrial land loss has been the Kodak factory which is currently being demolished and redeveloped by Barratt Homes. The Kodak playing fields opposite have already been developed by Persimmon Homes. Within this development there has been a release of circa 6 acres of commercial land surrounding the site and this will provide circa 100,000 sqft (9,285 sqm) of business / light industrial units of no larger than 10-20,000 sqft (£928-1,857 sqm). The site has recently been put under offer to a combination of an owner occupier and a developer. Delivery of this new space should be in Q3 2020, estimated rental values at this location are £15.50 - £16 per sqft (£167-172 per sqm).

Sub Markets in Harrow

Wealdstone

7.37 The Wealdstone area provides the location for the majority of small trade and industrial stock in the Borough. Traditionally, industrial buildings would be used to buffer the railway lines from the residential and the land was cheaper.

7.38 Unit 1 Barratt Way 6,060 sqft (563 sqm) let to a local occupier at £15.3 (£165 per sqm) in July 2018. These are secondary industrial units with reduced service yard access and poor road access adjacent to the railway. This estate is opposite the Kodak site and adjacent to the railway line.

7.39 Waverley Industrial Estate, Hailsham Drive is one of the major business estates in the Borough and is home to several local business and two logistics / courier operator. Several of the buildings contain

higher than 10% office content where the tenant has created cheap “office” space. In good residential urban areas close to transport an increase in industrial office ratio is quite common, although still not institutionally acceptable in a new speculative development. Recent deals on the Estate have included Unit 8 6,314 sqft (586 sqm) let to Yamato Transport Europe in June 2018 at £12.95 per sq ft (£139 per sqm).

7.40 The area also has several trade counter schemes. Christchurch Industrial Estate has attracted major occupiers including Edmundson Electrical, Screwfix, Tool Station, Wolseley and Tile King. These are some of the leading trade counter operators, all focused on the building trade, suggesting that the businesses recognise the location as a heavily residential area. The estate is fully let and there is no recent letting evidence, however several rent reviews are pending and at rent review a rent in the order of £17.50 per sqft (£188 per sqm) would be in line with other trade counter estates within this market.

Harrow/London Northwestern Railway

7.41 Similarly to the Wealdstone submarket, central Harrow is a densely populated residential area, therefore the industrial property located in this submarket is either light Industrial space or trade counter estates. An example of a letting in this sector is to a medical supplies company at Unit F7, Phoenix Business Centre a 1,300 sqft (121 sqm) unit let to Asccendo Pharma who took a 5 year lease at £12.30 per sqft (£132 per sqm) in April 2018. Premier Banqueting also took a lease on the same estate for 1,963 sqft (182 sqm) in December 2018 at a rental figure £12.75 (£137 per sqm).

7.42 Due to the residential nature of this location, very few deals of 10,000 sqft (928 sqm) and over have recently transacted. The closest is the Kavis Ltd letting at Unit 4 Crystal Way in February 2017 at £10.00 per sqft (£108 per sqm). This 9,699 sqft (901 sqm) letting was leased for a period of 10 years with a review in January 2022. Given the current market, it is fair to predict that the review figure would be in the region of £13.00-£15.00 per sqft (£140-£162 per sqm) in line with the current market rental values for this submarket.

8 WAREHOUSING, LOGISTICS AND FUTURE LOGISTICS

8.1 As explained in section 2, the draft London Plan evidence base relies on pre-recession take-up trends as the basis for predicting warehousing needs. This section of the study goes into further detail to understand sector performance, specifically to explore the evolution of urban logistics in London and the role of the study area. This is essential in understanding how a sector in demand can be accommodated as its form and function change.

Trends in the sector

8.2 The growth in warehousing and logistics is in part related to general growth (commercial, population, expenditure) as well as the significant and well documented shift from high street retailing to online spend or e-commerce. This has particularly driven the sector's domestic growth.

8.3 Online shopping grew from 7.5% of total retail sales in May 2011 to 19.8% in Nov 2017 [6]. It is forecast to increase to 25% by 2021. While this is not a new trend, demand for next day or same day delivery has in turn increased requirements for warehousing space and additional employment in goods delivery.

8.4 The number of UK parcels increased 12.5% to 2.5bn in 2017 [7]. If growth continues at its current rates the UK will be sending and receiving 3.9bn parcels by 2021.

8.5 Various factors, including: the rise of e-commerce; changes in retail segmentation; and the increase of occupier demand for next-day, if not same-day delivery have caused logistics rental and land values within the M25 to dramatically increase in the past 5 years. The home and business delivery operation is changing in and around London as operators avoid storing goods for any length of time given the cost of space in the capital. As a result they have sought to move things in and out of the warehouse as quickly as possible.

8.6 Given its location in relation to Heathrow and the Central Activities Zone (CAZ), parts of the Study Area have become a prime market for logistics space where they benefit from a number of strategic roads including the A40/M40, A4/M4, A1 and M1, enabling good access to wider markets.

8.7 Location has always been a crucial factor to occupiers within the UK industrial and logistics sectors. However, shifts in occupier leasing attitudes, combined with the rapid loss of industrial land in the past five years to increased residential development, mean that location has become even more

[6] ONS retail sales index 2018
[7] Pitney Bowes Parcel Shipping Index

important to parcel delivery companies. This is particularly evident within the M25 and more specifically the Heathrow A40 corridor'.

Market segments

8.8 The logistics sector has no single model of operation. This depends on the operator as well as the goods being moved. There are two principal market segments:

- Business to business (B2B); and
- Business to consumer (B2C).

8.9 These have different requirements in terms of locational coverage. B2C operators need to cover residential properties. In any given area a saturation point can be reached where operators' requirements will only grow in proportion to increases in dwellings or online sales. This arises because logistics companies (third party logistics or 3PLs) will model the throughput and resulting vehicle requirements needed to fulfil area-based coverage in relation to demand and competitor coverage. Higher density residential markets and consumer demands create the need for more sophisticated models, as do policy drivers such as the Ultra Low Emissions Zone (currently) in central London, forcing 3PLs to innovate towards electric vehicles.

8.10 B2B warehouse requirements adjust proportionately to business demand and may be operated in-house as well as by outsourcing to 3PLs. B2B operations tend to be more frequently classified as wholesalers and have a retailing (cash and carry) as well as delivery function. B2B operations also tend to be more location sensitive as proximity to other businesses is a priority, whereas B2C can be more time critical, which drives locational decisions.

8.11 Many companies (such as Amazon, DHL and DPD) operate in both B2B and B2C markets. As a result they balance their locational requirements on consumer demand and business operations. This is also true for food retailers who supply stores as well as customers and manage their own deliveries. Ocado are essentially a logistics operator specific to grocery activities.

Warehousing occupiers

8.12 As noted in the LILDS, the warehousing and industrial market has moved over the last decade from particularly take up in large scale food logistics towards a more mixed profile including online retail and parcel delivery. Trade park operators also seek floorspace, however trade park uses vary in their floorspace needs by type across B8, A1 and uses not covered by a specific use class ("sui generis").

8.13 The UK Warehousing Association[8] reports that at a national level top occupiers of the UK's 424m sqft (39m sqm) of warehousing are as follows, covering the B2B and B2C categories:

- High St Retail / homewares (85m sqft) (8m sqm)
- 3PL/Transport (75m sqft) (7m sqm)
- Food Retail (62m sqft) (6m sqm)
- Others: manufacturing, food service, automotive, wholesale, parcel and online retail

8.14 This reflects the very large scale requirements across the UK, notably in the East Midlands, for national and regional distribution centres for a range of goods.

8.15 At the London level (Inner M25), the profile is reported as driven by food retail (32%) and 3PL/Transport (30%). London's higher cost base generates a separation of occupiers by those requiring immediate proximity to markets and customers locating within the capital, whereas increasingly those able to function from outside seek to do so. Food retail suppliers to homes and businesses have greater criticality in their location compared to those to high street stores, albeit the B2C element has the higher level of customer proximity to maximise delivery across multiple time slots in a single day. Transport and 3PL (3rd-party logistics companies such as DHL) operations increasingly responding to a 'just in time market' also seek close proximity to customers in order to meet increasingly challenging volumes and demands.

8.16 In the Study Area context there are numerous examples of both B2B and B2C operations, primarily concentrated in the SIL and LSIS sites on the key transport corridors, the A40 being the arterial route. Examples include:

Table 63: **B2B and B2C Examples: West London Study Area**

Type	Tenant	Year	Location	Size (sqm)	Size (sqft)
B2B	Keuhne + Nagel Ltd	2016	Premier Park, Park Royal	15,800	170,000
B2B	Tesco Distribution Centre	2015	Greenford A40	9,940	107,000
B2C	Royal Mail	2015	Rockware Ave, Greenford	22,800	245,000
B2B	John Lewis Distribution	2014	Cumberland Way, Park Royal	10,030	108,000
B2B	Wincanton	2014	Greenford A40	23,800	256,000
B2B	Norbert Dentressangle (Now XPO)	2013	Hannah Close, Park Royal	7,060	76,000
B2B/B2C	DHL Southall	2013	Premier Park, Park Royal	5,670	61,000
B2B	DPD	2010	Great Western SIL	4,650	50,000
B2B	Boden	2018	Victoria Road, Park Royal	7,000	75,000

[8] The Size and make up of the UK Warehousing Sector, UKWA 2016

Models of Operations

8.17 There are broadly two warehousing logistics models:

- Hub and spoke - which tends to include a small number of national or regional centres with smaller units served as spokes. Items are typically processed at a main regional distribution centre (DC) with further smaller spokes that fulfil the 'final mile' requirement.
- Multiple hubs - which usually operate as a large number of smaller hubs.

8.18 National and regional DCs tend not be located in urban areas due to pricing and floorspace needs and London is broadly exceptional in this regard due to the scale of the market. DCs might reach 18,500 sqm (200,000sqft) in West London (East London having larger centres such as the 46,000 sqm (500,000sqft) Tesco's DC at Dagenham) and over 93,000 sqm or 1m sqft elsewhere (such as in the East Midlands' nationally recognised logistics Golden Triangle). Royal Mail's 22,845sqm (245,000 sqft) A40 facility is one of the largest in the Study Area.

8.19 Local units are the 'final mile' element where goods are distributed primarily to customers. They remain the primary preferred model of operation. They vary in size, with typical requirements 2,700-4,600 sqm (30,000-50,000 sqft). DPD's 4,600 sqm (50,000sqft) at Southall and DHL's Premier Park 5,500 sqm (60,000 sqft) represent a typical and more traditional model, with space for HGV deliveries and loading for a significant number of delivery vans. SEGRO report that Ocado has two customer fulfilment centres (CFCs) in Hatfield Erith feeding nine spokes which deliver to customers' doors across London - this includes a 6,000 sqm (65,000 sqft) unit at Park Royal. Each spoke has a 1 to 1.5 hr drive radius for deliveries[9].

8.20 Confirming this model the DPD Group report that new urban logistics operations prefer hubs ranging in size between circa 3,700 sqm (40,000 sqft) on 1.2 hectares (3 acres) to 6,000 sqm (64,000 sqft) on 2 hectares (5 acres). Currently DPD have 64 centres in the UK and their target is to open 8 centres per year until 2022. Another consulted operator reflected this, identifying their ideal as being a 2 hectare (5 acre) site with a 4,600 sqm (50,000 sqft) building (25% plot ratio).

8.21 Operators such as Hermes/DHL/RMG can operate from smaller facilities of c1,800 sqm (20,000 sqft) on trading estates enabling them to fulfil localised final mile requirements.

8.22 Within these profiles are a range of variations by occupier model with some emerging trends such as smaller 'last touch' centres (considered below) and consolidation centres which enable deliveries from a range of suppliers to be consolidated[10]. The returns business is also a major market sector

[9] Keep London Working 2017 (SEGRO)
[10] ""

with up to 40% of goods being shipped back; this has given rise to centres such as Clipper operations in Enfield.

Location characteristics

8.23 Logistics and related sectors have a number of land and premises requirements. While these vary by individual occupier in their detail, we present some of the common themes below. Many occupiers seek to balance four location requirements[11]:

- Transport infrastructure – accessibility (particularly by road) and journey times are paramount in ensuring collections and deliveries can be made efficiently and economically, within allocated time slots. Primary logistics activities therefore need to be located on good transport networks, with connectivity to the key markets they serve. Park Royal and Greenford / Perivale provide access to the A40/M40, A4/M4 and North Circular.
- Proximity to market / customer base – with greater densities needing higher fulfilment.
- The cost of premises – with rising rents in industrial locations and strong competition, costs pressurise operators and lead to both compromises and innovations.
- Parking - a key requirement for logistics businesses depending on the model stage. Hubs require significant HGV space, whereas spokes require HGV drop and van pick up, delivery and storage.

Study area logistics characteristics

8.24 Considering the above and drawing on the commercial insight, the following summaries represent the study area logistics characteristics and demand drivers.

8.25 **Barnet:** The fundamental criteria required to satisfy occupiers' requirements, particularly quick journey times to the potential urban logistics location and onwards to major customer clusters in central London are not present. The A5 and A1 do provide access to local markets particularly for local B2B wholesaling, but established logistics locations outside the M25 in Hemel Hempstead, St Albans and Hatfield provide lower cost solutions for occupiers. Just outside Barnet's borough boundaries existing logistics estates in Borehamwood, Elstree and Staples Corner provide last mile solutions for the Borough and its North London neighbours.

8.26 **Brent:** The Borough provides two key logistic locations in West London: Park Royal and Wembley Park. Both locations have characteristics attractive to occupiers; they are both connected to good quality motorway or dual carriageway networks via the M1 and M40 giving good access from regional UK distribution hubs to the transhipment / warehouse facilities. The onward supply network at Borough level is likely to be more transhipment or final touch delivery facilities rather than longer term storage, due mainly to the cost of real estate. From Park Royal and Wembley an occupier can access

[11] The shed of the future Ecommerce: its impact on warehouses 2014 (Deloitte)

the dense mass of customers in central London via the A406 / A40 providing direct HGV and delivery vehicle access into central London. This, combined with availability of larger facilities, unrestricted working hours and a skilled labour pool supply makes Brent a very attractive location for national and local logistics operators. The A5 in the west of the Borough is a good local arterial route, but not of sufficient quality to support the same volume of 24/7 delivery into central London as the A40.

8.27 **Ealing** is considered the largest industrial submarket in the country. Its strategic location between Heathrow Airport and Central London makes it an important logistics hub. Its largest warehouses are located in Park Royal and along the A40 corridor at locations including Perivale and Greenford. The area from the Great Western Industrial Park through Southall towards Hayes provides another substantial industrial concentration. The Borough contains about 40 industrial buildings sized over 9,300 sqm (100,000 sqft) nine of which are bigger than 18,500 sqm (200,000 sqft).

8.28 **Harrow** has a limited regional logistics function and is a predominately residential location rather than industrial. The road network through the Borough does not support high volume HGV movement; deliveries to the Borough are largely provided from premises outside its boundaries, with transhipment depots either beyond the M25 or from locations such as Watford, Elstree and Borehamwood to the north or Wembley to the south. There is limited industrial and light industrial stock in the Borough, that there is being small units on trading estates. These units cater for a local industrial / business market as the Borough's characteristics do not lend to high volume logistics occupiers.

8.29 Over the last 6 months of 2018, Levy Real Estate report a total of 267 active requirements within the West London boroughs surrounding the A40. Of these requirements, 62% were for units comprising 2,000 sqft to 10,000 sqft (186-928 sqm), which represents the need for space from service sector, trade counter and food manufacturing tenants. Of the other 38% of requirements, 19% were for units of between 10,000 sqft to 25,000 sqft (928-2,321sqm) while 13% were for units of between 25,000 sqft to 100,000 sqft (2,321-9,285 sqm); the remainder were for smaller stock. This confirms the occupier demand shift from larger DCs (over 100,000 sqft or 9,285 sqm) to multiple smaller final mile hubs located within the M25.

Future logistics

8.30 Increasing costs, space restrictions and growing demand (in terms of both volume and precision in logistics) are driving the sector towards innovation and efficiency in both operational and physical terms. The key areas being considered include:

- Electrification of vehicles
- Moving from 'final mile' to 'micro logistics' centres which are smaller and more flexible providing the last touch before customer delivery
- Advent of stacked logistics (multi level and multi storey)
- Increased use of mezzanines
- Drone deliveries
- Consolidation centres
- Reverse logistics
- Automation

8.31 These are explored in more detail below and should be considered as adoptions and evolutions happening in parts of the industry that may, over time, affect the amount and type of land the sector will require. They are not assumptions about changes expected sector-wide. It is also of note that for the most part, the internal workings and innovations of companies are closely guarded secrets. All that said, this section examines the potential relevance of these developments to the Study Area boroughs.

8.32 **Electrification of vehicles:** The use of electric vehicles in logistics and particularly urban logistics is rapidly increasingly. DPD has openly committed to a future fully electric fleet and have opened an all electric 450 sqm (5,000 sqft) centre in Westminster, responding to the Ultra Low Emissions Zone (ULEZ). UPS in 2018 announced moving to an all electric central London fleet. The ULEZ is projected to expand in 2021 to the North Circular; this will provide significant encouragement for expansion of electric fleets and for a step change in approach. The technology and range of movement for electric batteries is (currently at least) a key restricting factor that means both circulation and charge time for vehicles are critical - electric vehicles have a typical delivery range of between 50 and 70 miles before they need recharging, therefore the only locations that work for them are ones close to their customer base. As a result some existing locations at Park Royal and other key centres serving a broad base may move towards fleet electrification, whilst some operators will look for more central sites at a premium. For example Gnewt Cargo is an inner London micro-distribution firm using electric commercial vehicles to move items around city centres and to provide the first and last touch-points.

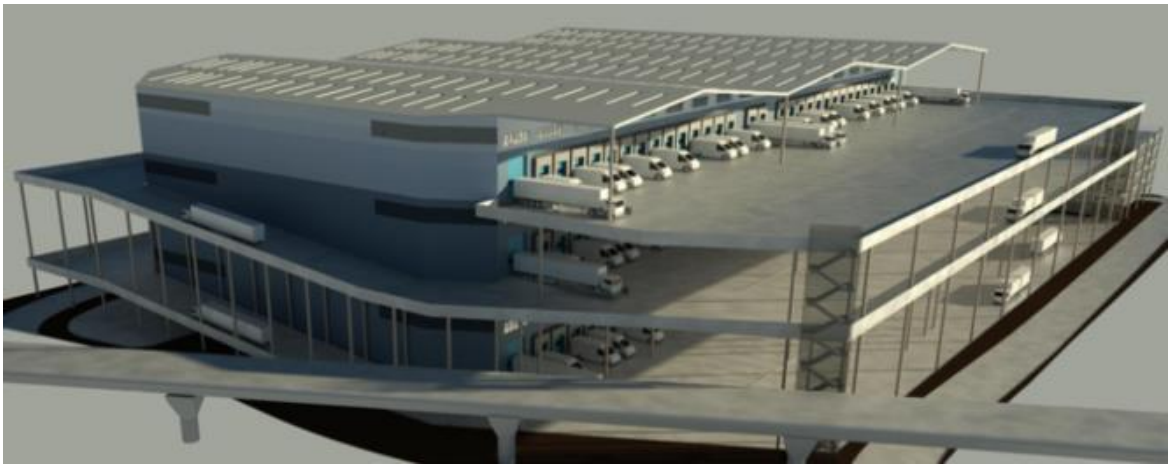
8.33 **Moving from 'final mile' to 'micro logistics' centres which are smaller and more flexible.** Particularly in inner London and the CAZ, the need for smaller and more agile delivery responses is seeing more flexibility and innovation. DPD has opened a 450 sqm (5,000sqft) site in Westminster of all electric vehicles. A combination of electric vehicle fleets and customer demand for quicker delivery times will drive this market in denser urban locations, seeing a downshift from 50,000 sqft (4,642 sqm) final mile to smaller more agile bases of 20,000sqft (1,857 sqm) or less in traditional industrial

units or cells in multi-level buildings. These can be used for pick and pack last mile supply chain / immediate delivery service of smaller high value products to target locations, notably West End of London and high value West London residential areas. Target occupiers are occupiers that take advantage of "Big Data analytics" such as e-tail intelligence, retail and parcel delivery providers with delivery to be provided by electric vehicles, mopeds, cycle couriers and small vans.

8.34 **Advent of stacked logistics: multi storey:** These are industrial warehouse spaces accessed by HGVs via a ramp or road way - effectively a stacked up warehouse concept achieving over 9,300 sqm (100,000 sqft) per floor and 10-15% office content. The X2 site in Heathrow (2010) is currently the only stacked urban logistics site in the UK, a 2 storey ramped facility with full lorry access developed by Brixton. However, the model is more prevalent in the Far East. In its initial years, X2 did encounter various issues, due mostly to design related factors, but now reports high occupancy.

8.35 **I**t is anticipated that stacked large urban logistics sites will become more common in the near future as rents rise to a level where development of facilities of this kind with their higher build costs becomes viable. Gazeley's proposed G Park facility in East London Silvertown (13,000 sqm or 140,000 sqft per floor on 3 floors) is expected to be the first providing HGV access to each floor via a ramp. This would be the first development within the M25 of its kind.

Figure 20: Proposed multi-level warehouse, Silvertown



Source: Levy LLP

8.36 **Advent of stacked logistics: multi level:** The idea of multi level industrial buildings has been in London for centuries - Docklands and Thames River warehouses are multi level for practical reasons of loading and unloading, but also because the land area near the target location was

constrained. The multi level concept is being pursued afresh now in locations where there is a level of demand from occupiers greater than can be met by a single storey building at a lower rent. The concept involves micro logistics companies on upper floors of multi level buildings, albeit on lower levels. The Generator proposed at Northfields (Brent) by St George on the former SEGRO site will be a 6 level light industrial of 16,700 sqm (180,000 sqft) with units ranging from 630 sq ft to 30,000 sq ft (58 sqm - 2,785 sqm) with parking at ground / first and with two large and three medium sized service lifts.

Figure 21: The Generator (St George, Northfields, Brent)

Source: St George Public Exhibition 2018

8.37 **Drone deliveries:** PwC report that over 76,000 drones could be flying in the UK by 2030. Drones are estimated to have the potential to increase transport and logistics GDP by £1.2bn, or an increase of 1.5% in GDP in that time[3]. However CBRE note that 76,000 drones is only one for every 6 people living in the UK; drones will not be consuming the entire B2C delivery market any time soon[2]. Under current regulations drones can only be operated in line of sight and their use at any scale would require development of software allowing them to avoid collision without a human controller. In areas near airports (notably Heathrow in the Study Area) proximity to aircraft operations there may raise further issues. Drones remain a relatively untested concept, but are expected to become more integrated to deliveries in the long term.

8.38 **Increased use of mezzanines[12]:** Major mezzanines are now becoming commonplace. At Origin Business Park, Park Royal, John Lewis invested in a 5,500 sqm (60,000 sqft) mezzanine provision to combine its digital product photography division with its existing homeware distribution facility. Other examples involving non-logistics industrial occupiers include: Farley Group in a 9,300 (100,000 sqft) unit, including a mezzanine with showroom, warehouse and office space; and Brompton (Greenford) at 8,000 sqm (86,000 sqft) with a mezzanine which gives it the capacity to house its 150 production staff.

8.39 **Consolidation centres:** Urban consolidation centres (UCCs) offer significant delivery streamlining for logistics companies, combining loads together to be delivered into locations utilising a single rather than multiple vehicles. These range from very large to micro footprints. In 2014 the London boroughs of Camden, Enfield, Islington and Waltham Forest opened a 2,000 sqft. (185 sqm) consolidation centre in Edmonton with access to the strategic road network. open Monday to Friday from 6.30am to 6pm. This receives goods on behalf of the councils and prepares them for onward delivery to their sites utilising two low emission (Euro V) trucks.

8.40 **Reverse logistics:** In some retail sectors, up to 20% of goods are returned to the store. This rises to almost 50% for home shopping operators and specialist fashion retailers. A number of 3PLs offer reverse logistics on behalf of retailers and returns otherwise increase the throughput of warehouse and parcel goods.

8.41 **Automation:** While in its infancy, automation in warehousing is expected to rise significantly in the future. At present around 5% of warehousing is thought to be automated worldwide[13]. This is particularly restricted to the largest scale national or 'mega' distribution centres of which Amazon is a leading proponent and have acquired an automation business (Amazon Robotics). A fully automated container port terminal in Long Beach, California has seen a 45% reduction in labour requirements[14]. Mid sized facilities (relatively speaking) of 100,000 sqft (9,300 sqm) will also see an increase in automated racking. In the longer term, package delivery may also see greater automation using autonomous vehicles, albeit this is on the distant horizon. Last mile delivery is expected to be the last area of automation[15] and the industry appears to expect that smaller urban warehouse facilities are likely to remain typically hand picked for the foreseeable future[16]. In some instances the need for labour is increasing, with returns operations needing staffing to check the integrity of returned goods prior to refunding and processing, for example.

[12] Keep London Working 2017 (SEGRO)
[13] EUROPEAN LOGISTICS: warehousing the future 2017 (Savills)
[14] From first mile to last mile 2015 (Colliers)
[15] Shifting patterns: The future of the logistics industry 2016 (PWC)
[16] From first mile to last mile 2015 (Colliers)

Logistics trends and the Draft London Plan

8.42 A number of these trends and developments are reported to a greater or lesser degree in the LILDS. In the draft London Plan this is translated to *Policy E7 Intensification, co-location and substitution of land*, which states that *Development Plans and proposals should be proactive and encourage the intensification of businesses in Use Classes B1c, B2 and B8 that occupy all categories of industrial land through;*

- ~~*Development of mezzanines*~~ *(*removed via Early Suggested Changes To The Draft London Plan)
- *Introduction of small units*
- *Development of multi-storey schemes*
- *Addition of basements*
- *More efficient use of land through higher plot ratios*

8.43 This section considers the spectrum of industrial land uses. However their applicability to logistics is particularly pertinent given the LILDS and the significant logistics requirements in Brent and Ealing from the draft London Plan as 'provide' boroughs. Some commentary focussing on the extent to which they might apply in the Study Area boroughs based on the industry intelligence gathered as part of this study is given in the next few paragraphs.

8.44 **Development of mezzanines** – as noted this is an increasingly common practice for logistics operators seeking to maximise the use of space and create efficiencies, particularly in larger units. In SILs in target logistics corridors in Brent and Ealing it is expected that mezzanines will be fully utilised. If mezzanines are a measure of floorspace this will increase plot ratio efficiency. This point was removed from Policy E7 prior to the London Plan EiP and will not form part of monitoring however it remains a useful tool in maximising the efficiency of floorspace.

8.45 **Introduction of small units** – in higher density urban locations micro logistics sites are expected to become increasingly common. However in lower density boroughs such as Harrow and Barnet for the foreseeable future demand will be served from last mile sites outside of London or from the primary logistics zones. Arterial industrial sites in Ealing, Brent and Barnet remain key targets for DCs or last mile spoke operations rather than micro units. Over time it is anticipated that micro sites may become more common and reduce last mile facility needs and some 3PLs already have much smaller floorspace requirements. Micro logistics will not necessarily need to locate in industrial areas as per the DPD Westminster example.

8.46 **Development of multi-storey schemes** – ultra urban stacked large logistics facilities with HGV ramps remain an untested concept but are expected to occur only in the areas of highest demand

commanding peak rents (a point further considered and reinforced in the viability section of this report). Market feedback suggests that only one in each London quadrant is expected in the medium term, for West London at Park Royal where the viability fundamentals will be strongest. Stacked light industrial buildings with micro logistics are expected to become more common in higher density/high value areas.

8.47 **Addition of basements** – there is little evidence that logistics facilities utilise basements. Costs tend to be prohibitive due to a combination of London Clay groundwork issues and ventilation for delivery vehicles.

8.48 **More efficient use of land through higher plot ratios** – policy E4 in the draft London Plan seeks to ensure *that across London there is no net loss of industrial floorspace capacity (and operational yard space capacity) within designated SIL and LSIS* with supporting text stating that floorspace capacity is measured as *existing industrial / warehousing floorspace or potential industrial and warehousing floorspace that could be accommodated on site at a 65 per cent plot ratio (whichever is the greater)*. The ability of achieving higher plot ratios at logistics sites entails a range of considerations.

8.49 Although location has now become the most crucial element of occupier demand, flexibility has become much more common within the market. This is resulting in businesses changing their layout and site density plans which previously suited their business structure tailored to the circumstances of the location that they have chosen.

8.50 Whilst occupiers are learning to be more flexible in the layout of their new final mile logistics sites, previous requirements have remained the same. Amenities such as 24/7 access and a self-secured site, along with multiple fully functioning dock level loading doors and eaves height are all still crucial requirements of all of the major parcel delivery companies. Site density also still plays a crucial factor in final mile logistics warehousing. Parcel delivery companies require a large enough space to maintain storage for a certain amount of stock, yet maintain the need for substantial yard and hard standing area. This allows for an easy and daily consistent flow of deliveries from articulated lorries and HGVs from their larger regional hubs, and for sprinter vans to depart the depot after collecting the parcels for delivery. One area of innovation is roof parking for lighter vehicles. Boden's Park Royal scheme at Victoria Road incorporates roof parking understood to be for lighter cars using the office function.

8.51 Where stacking takes place, plot ratios will quickly exceed 65% and even 100%. However as noted this is not going to be applicable to the majority of schemes for final mile or DCs coming forward in the study areas.

8.52 Random sampling of plot ratios in recent developments around West London boroughs has been undertaken; the sample results are set out in table 64. Initially this sampling focussed on post 2008 development (a 10 year period) however subdued development activity in Harrow and Barnet meant a pre 2008 search was required. Data are drawn from CoStar (2018).

8.53 The significant variations in ratio by type, size and location are a clear reminder of the importance of being sensitive to use classes and end user requirements in planning policy. In Ealing and Brent, areas of high logistics demand, average ratios are lower and are only prevented from being further so by isolated examples of stacked floorspace on light industrial. Harrow's older stock tends to higher ratios again driven by particular cases and lower land availability which may constrain user type.

8.54 It should be noted that CoStar reports mezzanines as 2 storey. Warehouse operations therefore are typically reported as having 2 storey designation but in practice are limited in floorspace by nature of mezzanine provision and parking requirements.

8.55 Development opportunities for B8 and other occupiers where yard space is critical to operations may be at risk with a blanket 65% ratio. There is a need to refine plot ratios as a target or consider alternative policy measures where nuances reflect location, site designation and occupier type.

Table 64: **Plot Ratio Sample West London Boroughs**

Borough	Building Use	Location	Storeys	Yr Built	Gross Internal Area (m^2)	Plot Size (m^2)	Plot Ratio
Harrow	Industrial Light	Units 1-7 Mill Yard Columbia Ave HA8 5DQ	1	2005	727	2,289	32%
Harrow	Industrial Light	Healthaid House HA1 1UD	3	2006	5,397	1,190	454%
Harrow	Industrial Light	Units 5-10 Hailsham Dr HA1 4TR	2	1999	4,291	6,918	62%
Harrow	Industrial Light	4 Palmerston Centre HA3 7RG	2	2005	475	500	95%
Harrow	Industrial Light	50 The Arches HA2 8AA	1	2007	383	201	190%
Barnet	Industrial Light	Units 1-9 Garrick Road NW9 6AQ	2	2000	14,017	12,284	114%
Barnet	Industrial Light	Unit 1 Granville Rd NW2 2LD	2	2000	406	379	107%
Barnet	Storage	401 High Rd N2 8HS	6	2006	7,483	3,316	226%
Barnet	Industrial Light	Unit 3 Hyde Estate Rd NW9 6JX	1	2000	646	1,191	54%
Barnet	Industrial Light	DWS Bodyworks Station Rd NW4 4PT	1	2005	1,905	6,604	29%
Ealing	Distribution	703 Tudor Estate NW10 7UY	2	2013	2,288	2,001	114%
Ealing	Distribution	Unit 9 Acton Ln NW10 7NS	2	2012	1,020	2,417	42%
Ealing	Industrial Light	Unit 6-11 Adrienne Ave UB1 2QW	2	2008	1,709	2,032	84%
Ealing	Industrial Light	Units 1-6 Picador UB2 4SE	2	2018	2,750	9,022	30%
Ealing	Distribution	Unit 3 Tera 40 UB6 0TP	1	2009	10,144	28,504	36%
Brent	Storage	329 Edgeware Rd NW2 6JP	4	2008	3,589	13,843	26%
Brent	Industrial Light	Victory Great Central Way NW10 0BN	3	2016	5,369	8,128	66%
Brent	Industrial Light	Unit 4 Humber Trading Estate NW2 6EF	4	2008	768	1,549	50%
Brent	Industrial Light	390 North Circular Road NW10 0JF	1	2016	2,947	4,813	61%
Brent	Industrial Light	Staples Corner, Priestley Way NW2 7BA	3	2005	12,497	18,592	67%

Plot Ratio Averages	
Harrow Average	167%
Barnett Average	106%
Ealing Average	61%
Brent Average	54%
West London Average	97%
Industrial Light average	100%
Storage Average	126%
Distribution Average	64%

Information sourced using CoStar using industrial properties constructed since 1999

Summary and conclusions

8.56 Table 65 summarises key logistics trends in relation to the study areas. Given the commercial profiles, the boroughs are grouped according to the nature of their employment land market.

Table 65: **Logistics in the study area**

	Ealing and Brent	Harrow and Barnet
Typical logistics requirements: distribution centres and final mile	Core logistics locations on artery routes, provide DCs (100,000 sqft or 9,285 sqm+) and final mile (c50,000 sqft or 4,642 sqm) units serving local and to Central London. Final mile remains preferred generic model.	Lack necessary connectivity, local need largely served from outside borough including outside London.
Electric vehicles	Currently focussed on CAZ. However the proposed expansion of the ULEZ in 2021 will drive electric to take over the final mile network where it serves inner London.	
Micro logistics	Sub 20,000 sqft or 1,857 'last touch' centres currently focussed on CAZ for high density operations. Over time may be more prevalent but this is not manifest at present.	
Ultra urban multi storey (HGV)	Limited development in Park Royal is expected	Not anticipated
Ultra urban multi level	Advent anticipated in higher density areas with high rents, accommodating micro logistics	Not anticipated

Drone delivery	Not anticipated in foreseeable future	
Mezzanines	Commonplace in new facilities	Demand profile too limited for logistics
Basements	Not anticipated	
Higher plot ratios	These are moving towards 65% for new last mile facilities using high site efficiency and innovation. DCs vary due to HGV requirements. Stacked sites will be very high ratios.	Demand profile too limited for logistics however smaller operators will flex to available units.

8.57 The warehousing industry is evolving. Increasing consumer demands alongside a lack of available space and increasing rents in London are forcing change and innovation in the sector's operations and in its property requirements.

8.58 The sector's operations are broadly built around a hub and spoke model. In the context of the study boroughs, Ealing and Brent's industrial sites on the arterial transport corridors remain the focus of demand for both hub and spoke operations that serve local customers and trans-shipment into Central London. There is ongoing demand from operators in these areas and constrained supply.

8.59 Site efficiencies are improving as operators respond to local constraints. This is to an extent limited by the need for vehicle parking, turning, loading and general operations. However plot ratios are moving towards 60% or above where new sites come forward. This general trend will not be applicable to all developments coming forward in the study area.

8.60 Stacking in relation to logistics is expected to be focused on a limited number of distribution centres in Park Royal or with micro logistics operations embedded in mixed use or stacked light industrial in dense urban areas, not confined to transport corridors.

8.61 Draft London Plan policies E4 and E7 are relevant to the changing logistics market to the degree that in areas of high demand, primarily the SILs of the A40 corridor, Park Royal and Wembley, future developments will see a greater intensification of land use. However given the degree of saturation in these areas for the logistics market, the rate of floorspace intensification is expected to be slow.

9 SCENARIOS FOR FLOORSPACE DEMAND

9.1 This section of the report considers the future industrial floorspace and land needs in the study area boroughs.

9.2 The approach and findings of this section are considered in light of the outcomes and methodology of the draft London Plan and the underlying evidence set out in the LILDS 2017 and London Industrial Land Supply (2016). The purpose is to review and test the LILDS method drawing on locally specific information.

9.3 Requirements reported in this section for Ealing and Brent include the OPDC area as it is not possible to disaggregate the forecasts below the borough boundaries.

9.4 Land requirements are not considered here for utilities and waste given the highly functional nature of need. Transport based needs are included drawing on a labour demand model. This differs from the LILDS which draws on a functional approach but does not report specific borough needs, concluding figures *could be 200ha or more (across London). This increased demand is likely to be balanced to some degree by release of transport land in other locations* (p174).

LILDS method

9.5 As noted previously, the logistics floorspace need in the LILDS draws on the 1998-2008 floorspace change for the non CAZ boroughs. This period saw warehouse floorspace growth of 0.4% p.a., with some floorspace needs being met from outside London. Gross value added (GVA) and floorspace correlations are reviewed in order to determine that the functional economic area for warehousing extends beyond London, although the GVA and employment relationship is not examined. The LILDS does note that *London's demand for warehousing land does not need to be physically accommodated within London. But that makes the demand forecast to a large extent dependent on the amount of land available for warehousing and hence somewhat circular as a demand forecast to inform a supply allocation* (p103). This comment highlights issues regarding focusing on specific and particularly historically derived figures for warehousing need.

9.6 The pre-recessionary period experienced greater growth in floorspace particularly in Ealing and Brent when there was some capacity for strategic sites to accommodate large scale strategic regional DCs and other large scale warehousing. As noted by the LILDS there is capacity and capability for these larger requirements to be met from outside of London.

9.7 This identifies an underlying issue as the functional economy of warehousing and logistics is complex and changing, rendering past trends out of date. As reported in the commentary on logistics trends in section 8 above, there are a range of typologies for warehousing that serve different types of needs, from immediate localised distribution to regional transhipment. Within London there are concentrations of warehousing activity that relate to spatial characteristics, in particular access to network access enabling servicing of consumers. The sector is responding to changes in constrained supply and consumer demand focusing on final mile or smaller scale operations to meet local needs.

9.8 For logistics requirements labour demand in the LILDS is reported as a sensitivity test, at the London level, indicating a loss of 450ha (transport and storage plus wholesale segmented to 5 digit SIC at 36 employees per sqm). Labour demand is disregarded as *this approach implies a constant relationship between floorspace and employment which may not hold in the long term in the logistics sector given the rapid productivity gains and as we have noted the London boundary is not the appropriate functional economic area for the logistics sector* (p109).

9.9 Notwithstanding the benefits of undertaking sensitivity on employment density and warehousing, the LILDS figures for warehousing need to be considered in their own context, being that changing needs and a larger than borough or London level property market indicates that historic trends may not be the most or only suitable approach to identifying floorspace needs.

9.10 This study revisits the floorspace need for logistics based on locally customised labour demand models and includes sensitivity on floorspace densities as an indicator of productivity, albeit that industry research[17] maintains that current guidance on densities[18] remains appropriate. Determining a labour demand based model does not prohibit considering a wider functional economic area but it does consider a useful and reliable alternative to rolling forward pre-recession trends that is consistent with the approach suggested in national planning practice guidance[19].

9.11 For general and light industrial land the LILDS considers the following 4 sectors to be the principal drivers of requirement. These are segmented at the 5 digit SIC level. The number of jobs here is the industrial land component of jobs with the total component for jobs for London (parenthesis):

- Manufacturing -50,200 (-50,000)
- Building trades 16,500 (66,000)
- Motor trades -4,600 *
- Repairs 1,600 *

* these sub sectors are not readily comparable to the employment sector total.

[17] BPF (2015) Delivering the Goods p15 reference to 69sqm per employee average employment density
[18] HCA (2015) Employment Density Guide p29 final mile warehousing 70sqm GEA per employee employment density rising to 77 for regional distribution.
- [19] National Planning Practice Guidance, Housing and Economic Land Availability Assessment

9.12 Broad sector GLA Economics growth rates are applied to the 2014 BRES data for these sectors for each borough (grossed up to account for self-employment). Density assumptions and a plot ratio of 0.65 convert these to land requirements, with an average against past trends in floorspace change (2008-15).

9.13 **Hybrid services:** The LILDS notes that services sectors occupy industrial land and the Industrial Land Demand and Release Benchmarks in London prepared for the GLA by Roger Tym[20] consider finance and business the largest job sector on industrial land. The LILDS reports these 'hybrid' activities as those that can be in office, industrial or premises not clearly classified as either. These activities include publishing, creative industries and engineering amongst others. Sensitivity testing on these categories reports a Park Royal / Heathrow area need of 26.7ha.

9.14 Alternative methodologies are used for utilities, transport, waste and wholesale markets. These are not considered in detail here as they reflect the functional needs of those sectors. A labour demand model is reported for transport employment and floorspace.

Study method: labour demand

9.15 The approach taken here is principally to revisit the labour demand model as is traditional in employment land requirement studies (and in line with the Planning Practice Guidance on future employment land needs).

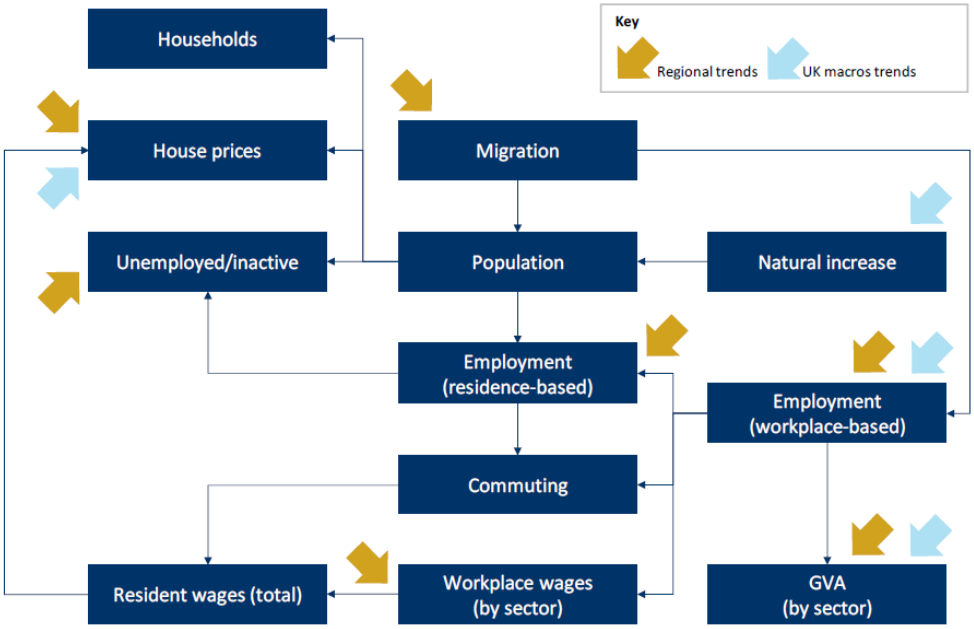
9.16 Employment forecasts to 2038 from Oxford Economics for the 4 boroughs have been used to identify the future labour demand requirements. The 2038-41 period is rolled forward using the 2033-38 compound annual growth rate (CAGR). These locally specific forecasts consider the regional (London) forecast performance and segment this locally, importantly taking into account past local trends and performance. The forecasts are at broad sector as well as 2 digit SIC level. Details are provided in Appendix B which reports sector change.

9.17 Oxford Economics' Local Authority District Forecasting Model ensures that global and national factors (such as developments in the Eurozone and UK Government fiscal policy) have an appropriate impact on the forecasts at a local authority level. This empirical framework is critical in ensuring that the forecasts are much more than just an extrapolation of historical trends. Rather, the trends in global, national and sectoral forecasts have an impact on the local area forecasts. The modelling

[20] Roger Tym & Partners (2011) Industrial Land Demand and Release Benchmarks in London

incorporates a Brexit effect which sees a downturn in certain sectors for a 3 year period before returning to trend.

Figure 22: Oxford Economics Model relationships

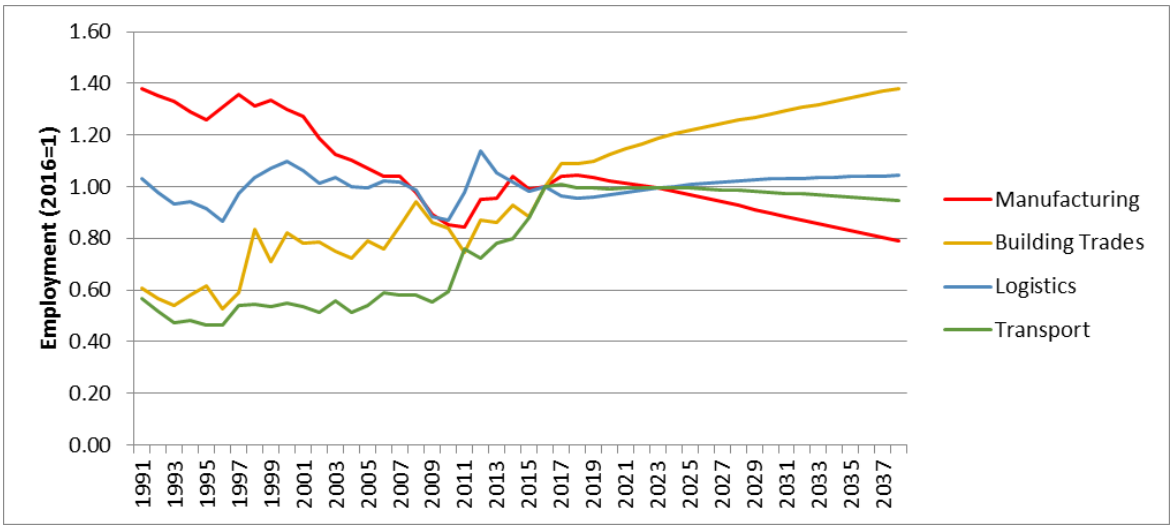


Source: Oxford Economics

9.18 To enable broad comparison with the LILDS, employment has been segmented by key sectors of manufacturing, construction, transport, logistics and other. Logistics comprises wholesaling, warehousing and postal. It is of note that within the logistics sector the wholesaling element tends to be a stronger driver than warehousing and postal. 'Other' covers a range of sectors where an element of activity takes place in industrial areas and is broadly equivalent to the 'hybrid' sensitivity in the LILDS. Utilities and waste are not considered. A breakdown of the 2 digit composition of the industrial sectors is appended in Appendix B.

9.19 Figure 23 shows the industrial forecast trends in employment over the study area, using 2016 as a base year. The manufacturing and building trends demonstrate clear patterns of decrease and increase respectively, whereas logistics and transport are relatively stable. The building trade forecast follows trend whereas manufacturing has seen more stability and growth over the last decade which suggests the rate of decline may not be as pronounced as predicted.

Figure 23: Employment change by industrial sector (2016=1) to 2041

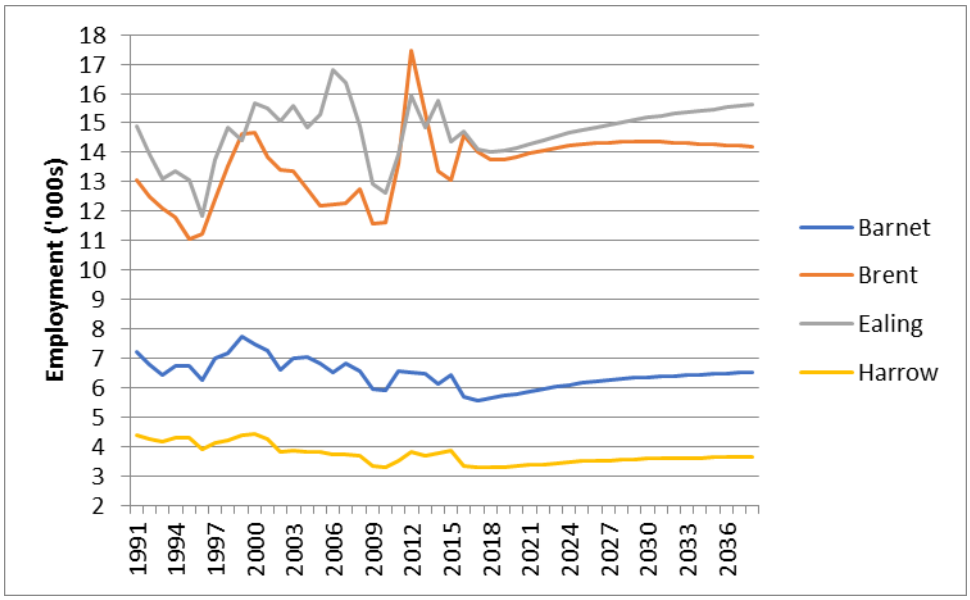


Source: Oxford Economics / GL Hearn

9.20 Further examination of logistics employment at the borough level is reported below. Performance in Ealing was strong 1997 to 2007 pre recession with over 200 jobs per year gained. A more muted growth is forecast forward to 2041. Brent has historically seen a much more unstable performance in logistics which is smoothed to slow growth going forward albeit falling from 2027. Both Harrow and Barnet see marginal increases from a lower base.

9.21 What is evident is that a Brexit effect is reported in the 2016-2019 period before returning to growth thereafter. This has an adverse effect on the total growth in jobs over the study period 2016-41.

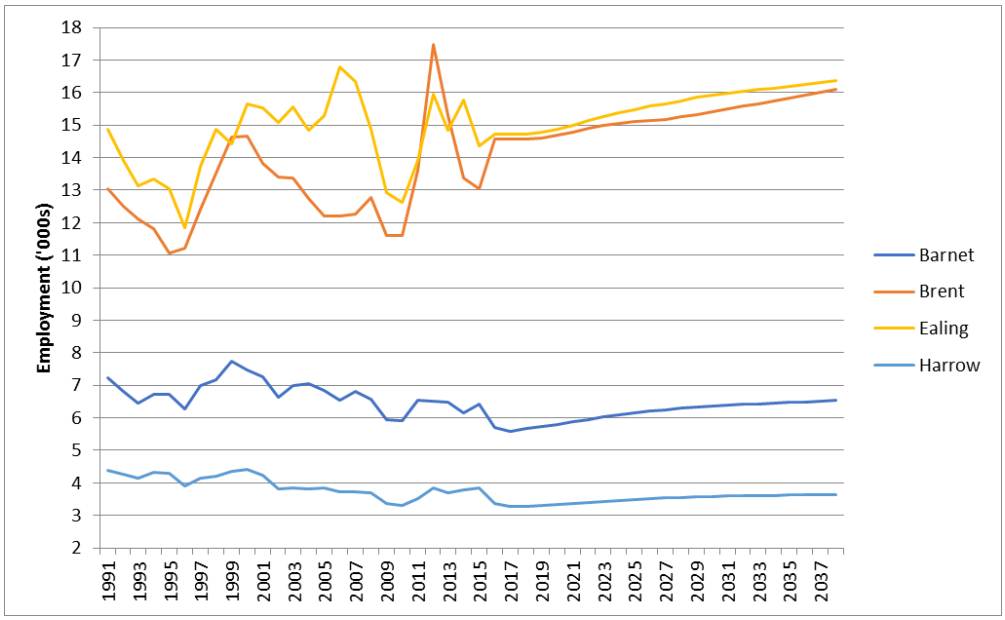
Figure 24: Borough logistics employment forecasts to 2041



Source: Oxford Economics / GL Hearn

9.22 Given that the commercial market review has indicated a strong level of demand, particularly in Wembley, Park Royal and the A40 corridor, the forecast Brexit job losses in the host boroughs of Ealing and Brent are not likely to occur at such a pace. An alternative scenario is set out below which holds employment constant for 2016 to 2019 in these two boroughs before applying the growth rates for 2019 onwards. Furthermore, given the presence of Park Royal and Wembley in Brent and the associated logistics demand, a further adjustment has been modelled for the post 2027 period that derives an uplift by applying the Ealing CAGR for 2019 onwards.

Figure 25: Adjusted logistics employment forecasts to 2041



Source: Oxford Economics / GL Hearn

9.23 The change in employment resulting from the adjusted labour demand model above is reported in the table below.

Table 66: **2016-2041 industrial employment change**

	Manufacturing	Building Trades	Logistics	Transport	Total
Barnet	-700	6,120	800	220	5,430
Brent	-2,510	2,350	1,400	-950	290
Ealing	-3,260	5,360	1,570	-500	3,160
Harrow	-660	3,900	290	-210	3,310

Source: Oxford Economics / GL Hearn

9.24 The key findings are:

- Manufacturing sees losses particularly (in absolute terms) in Brent and Ealing.
- All boroughs see building trades increases – most notably in Barnet – anticipated to be associated with population and therefore residential growth.
- Ealing and Brent in particular see logistics employment increases, with notable growth also in Barnet.
- Change in transport employment is limited with some growth focused on Barnet.

Floorspace needs

9.25 GL Hearn has considered the proportion of employment in each of these sectors which is likely to take place in light industrial floorspace (Use Class B1c), general industrial floorspace (Use Class B2) and warehouse / distribution floorspace (Use Class B8).

9.26 We have calibrated our standard model, which relates sectors and use classes for the study area economy, through interrogation of the composition of employment in key sectors[21] from BRES and using professional judgement and experience. The application of apportionment of the labour demand sectors is set out in Appendix A. It is of note that the floorspace and land requirements are sensitive to adjustments in the model. Key points include:

- Building trades are considered a limited driver of B class needs, with 5% of employment in B8 related to storage.
- Wholesaling with warehousing and postal have primary B8 requirements (80-90% of employment).
- An 'other' category is introduced for sectors with industrial needs outside of the main typologies. This relates to the 'wholesale and retail trade and repairs' with 15% of employment in B8 (wholesale of car parts) and 50% in B2 (car repairs); as well as smaller elements in B1c and B8 floorspace of employment from publishing, media, rental and leasing, security, repairs and personal services (including commercial laundrettes, photographers, barbers and shoe repairs). To a degree there is crossover with the 'hybrid' floorspace needs in the LILDS.

9.27 To these figures we have applied standard employment densities taking account of the *HCA Employment Densities Guide: 3rd Edition* (Homes and Communities Agency, 2015). We have converted figures to provide employment densities for gross external floor areas on the following basis:

- Light Industrial (B1c): An average of 49 sqm Gross External Area (GEA) per employee, assuming that the gross external area of buildings is on average 5% higher than the net internal area;
- General Industrial (B2): An average of 38 sqm GEA per employee, assuming that the gross external area of buildings is on average 5% higher than the gross internal area;
- Warehouse/ Distribution (B8): An average of 70 sqm GEA per employee.

9.28 Applying these employment densities to the econometric forecasts of net growth in jobs in industrial and warehousing activities, we have derived forecasts for net changes in industrial and warehousing employment floorspace over the 2016-2041 period. To calculate the land requirements to support

[21] Analysis of sectoral jobs was undertaken at 5-digit SIC (Standard Industrial Classification) which provides a detailed sub-sectoral breakdown of jobs in each sector to level to identify the primary line(s) of business within each sector.

these net changes, we have assumed the draft London Plan plot ratio of 0.65. The adjusted labour demand model with the 'smoothed' Brexit has been used.

9.29 The borough summaries (shown as "West London Evidence") are provided in tables 67 and 68 alongside the LILDS forecast figures (ha) with the B1c, B2 and B8 classes amalgamated. As previously the LILDS categories have been applied for ease of comparison.

Table 67: **Industrial land needs (sqm)**

West London Evidence							
	Logistics	**Manufact'g**	**Building Trades**	**Transport**	**Other**	**West Lon Total**	**% of existing floorpspace***
Barnet	50,290	-26,420	21,420	4,650	37,660	**87,600**	28.1%
Brent	86,890	-95,200	8,230	-20,020	23,730	**3,630**	0.3%
Harrow	18,480	-25,070	13,640	-4,400	13,490	**16,140**	2.4%
Ealing	98,490	-124,050	18,760	-10,540	23,520	**6,180**	0.8%

*based on VOA 2016 data, includes OPDC for Brent and Ealing

9.30 In terms of floorspace, logistics is the main driver for all boroughs, particularly in Brent and Ealing. This is in line the commercial market analysis in the preceding sections. Barnet also has a relatively high requirement for logistics. Significant manufacturing floorspace loss is anticipated in Brent and Ealing which reduces the overall aggregate need considerably, whereas losses are limited in Barnet and Harrow. The 'other' category is significant particularly in Barnet. Sector figures indicates this is related to car repair as well as other personal services.

Table 68: **Industrial land needs (0.65 plot ratio) vs LILDS (ha)**

West London Evidence							LILDS			
	Logistics	**Manufact'g**	**Building Trades**	**Transport**	**Other**	**West Lon Total**	**Wareh'g**	**Industrial**	**Sub total**	**LILDS Total***
Barnet	7.7	-4.1	3.3	0.7	5.8	**13.5**	9.3	-2.2	7.1	**7.3**
Brent	13.4	-14.7	1.3	-3.1	3.7	**0.6**	60.9	-21.6	39.3	**43.0**
Harrow	2.8	-3.9	2.1	-0.7	2.1	**2.5**	4.0	-5.1	-1.1	**1.2**

Ealing	15.2	-19.1	2.9	-1.6	3.6	**1.0**	49.7	-18.8	30.9	**35.6**

***** includes transport, utilities, and waste

9.31 The primary difference in outcomes between this study and the LILDS is the logistics sector requirement. The labour demand models produce a considerably lower logistics requirement than the LILDS 1998-2008 trend rolled forward for Brent and Ealing.

9.32 The labour demand model is built on specific detailed modelling assumptions of localised economic performance rather than a historic roll forward of needs reproduced at the London level which does not necessarily reflect the current demand profile and does not recognise in its baseline position the ability of strategic needs to be met from outside London. The labour demand model will reflect to a greater degree the trend of 'substituting' activity outside of London as it tracks recent and long term trends in sectoral employment.

9.33 The LILDS general industrial classification groups together the equivalent sectors of manufacturing and building trade in the West London model and the requirements as slightly higher herein. The 'other' sector represents a further requirement which has a notable effect on Barnet's needs and include local activities such as personal services and car repairs amongst others. The Use Class categorisation below provides further clarity and in some instances this relates to hybrid floorspace needs which are not included in the baseline projections in the LILDS. It is not possible to compare this directly to the LILDS 'hybrid' sensitivity work which is not broken down by borough.

9.34 Both the historic method and the labour demand method are based on borough boundaries and are therefore not suited to disaggregating OPDC figures. Consideration will need to be given to the apportionment of requirements to the respective Local Plans taking into account that OPDC contains 36% of Brent's industrial floorspace and 34% of Ealing's and the location responses of intensification (see later sections).

9.35 The transport requirement reported here is based on a labour demand model. This shows relatively limited change in Barnet and Harrow but some losses in Brent and to a lesser extent in Ealing. It is noted that the LILDS draws on functional data but does not produce a specific borough requirement.

Sensitivity – employment density

9.36 The Oxford Economics labour data does model future trends including a decrease in jobs that may be adversely affected by automation. The relationship with this and floorspace needs associated with automation requires further research. As noted previously, future larger warehouses are likely to find

an increased level of automation whilst smaller final mile operations are expected to lag considerably in this technology. Running sensitivity on employment density does increase the requirements. For the higher demand warehousing boroughs of Ealing and Brent likely to accommodate large footprints more orientated to automation, increasing densities from 70sqm to 95sqm per employee (HCA Employment Density Guide density for National Distribution Centres) being an increase of 36%, results in increases for warehousing with revised (compared to table 68) totals being:

- 21.0ha for Ealing warehousing, (7.8ha total)
- 18.1ha for Brent warehousing, (5.3ha total)

9.37 These increased requirements remain under half of the LILDS historic trend requirement total.

9.38 The explanation for the divergence between the labour demand and historic completions models may be in part that the former both responds to the substitution of activity into the wider functional economic area, and reflects some recent constraints in job growth. Neither of these negate the reliability of the figures.

Borough industrial needs

9.39 Tables 69-72 below report the Use Class requirement for the boroughs segmented by the industrial sectors in the LILDS evidence. The sectors have different use class requirements, therefore the apportionment is not directly equivalent to identifying all logistics as B8 for example. Of note, building trades have some industrial requirement which might reflect in storage or warehousing needs.

9.40 Harrow's requirements are limited with falls in B2 from manufacturing largely balanced by B8 driven by logistics and building trades. The 'other' employment component notably includes wholesale/retail/repairs and personal services growth.

Table 69: **Harrow industrial land needs (ha)**

	B1c	B2	B8	Total
Manufacturing		-3.86		-3.86
Building Trades			2.10	2.10
Other	1.00	0.56	0.52	2.08
Transport			-0.68	-0.68
Logistics			2.84	2.84
Total	1.00	-3.30	4.79	2.48

9.41 Barnet sees some strength in demand for B8 particularly driven by building trades as well as logistics uses arising from wholesaling growth. This is anticipated to be related to population growth.

9.42 The 'other' employment component generates a substantial overall need from a range of sectors including vehicle repairs and personal services growth. The latter may be suitable for more hybrid light industrial space.

Table 70: **Barnet industrial land needs (ha)**

	B1c	B2	B8	Total
Manufacturing		-4.06		-4.06
Building Trades			3.30	3.30
Other	2.22	1.90	1.68	5.79
Transport			0.72	0.72
Logistics			7.74	7.74
Total	**2.22**	**-2.17**	**13.42**	**13.48**

9.43 Ealing's requirements are driven by a significant B8 demand drawn from logistics – primarily wholesaling but also warehousing - however falls in manufacturing to a large extent mitigate the overall need. The degree to which manufacturing sites are likely to be suitable for future logistics needs is considered separately in the study.

Table 71: **Ealing industrial land needs (ha)**

	B1c	B2	B8	Total
Manufacturing		- 19.09		-19.09
Building Trades			2.89	2.89
Other	0.92	1.26	1.44	3.62
Transport			-1.62	-1.62
Logistics			15.15	15.59
Total	**0.92**	**-17.83**	**17.86**	**0.95**

9.44 As with Ealing, Brent's future needs are particularly driven by logistics (wholesaling and warehousing) whilst the gross position is balanced by manufacturing losses.

Table 72: **Brent industrial land needs (ha)**

	B1c	B2	B8	Total
Manufacturing		-14.65		-14.65
Building Trades			1.27	1.27
Other	1.57	0.84	1.24	3.65
Transport			-3.08	-3.08
Logistics			13.37	13.37
Total	**1.57**	**-13.80**	**12.79**	**0.56**

Summary and conclusions

9.45 This section has revisited industrial land requirements for the study boroughs based on a customised labour demand model produced by Oxford Econometrics with some further local refinement by GL Hearn. Particularly with regard to the logistics sector, the results are provided as an alternative to the LILDS which provides supporting evidence to the draft London Plan. Even with sensitivity testing on employment densities, the logistics requirements identified here for Ealing and Brent are considerably lower than in the LILDS which rolls forward the 1998-2008 floorspace change.

9.46 The needs suggested for Barnet are higher than the LILDS evidence due largely to the inclusion of a wider definition of industrial needs including those for example that potentially relate to 'hybrid' activities such as personal services sector, as well as population growth multipliers related to building trades. Given the analysis of the Borough's capacity and commercial profile, its ability to meet forecast needs will be very limited as recognised in its 'retain' capacity in the draft London Plan. A number of the functions of its forecast needs are expected to be met through commercial market responses outside of the borough (substitution) as set out in the proceeding section.

9.47 The Oxford Economics labour demand model is considered in part to reflect that because the functional economic area for logistics is beyond London, then labour demand *and as a result floorspace* needs also transfer beyond the city. The LILDS substitution model approach considers these and is examined in more detail in the proceeding sections.

9.48 The planned expansion of Heathrow is anticipated to give rise to a further level of demand which will particularly affect the Heathrow A40 corridor and therefore the study boroughs of Brent and Ealing.

10 SUBSTITUTION

10.1 Substitution is an operational response which involves the planned transfer of industrial capacity from within the capital to alternative locations and markets outside London's boundary.

10.2 The LILDS takes a statistical approach to considering substitution considering inter alia industrial rents, floorspace, jobs, and drive times to rank South East authorities on their potential for absorbing London warehouse needs (including Welwyn Hatfield, Slough, Dacorum, Luton Central Bedfordshire, Bedford, Cherwell and Milton Keynes). The spatial substitution scenario for North and West London assumes full substitution of future warehouse needs.

10.3 Policy E4 of the draft London Plan states "*Development Plans and planning frameworks should consider, in collaboration with neighbouring authorities within and outside London, the scope to facilitate the substitution of some of London's industrial capacity to related property markets elsewhere in London and beyond London's boundary"…* and goes on to note that *"full regard is [*to be*] given to both the positive and negative impacts of substitution including impacts on servicing the economy inside and outside London, businesses and customers, labour markets and commuting, supply-chains and logistics, congestion, pollution and vehicle miles."* The detailed practicalities of the approach are not reported.

10.4 It is recognised that due to the lack of industrial development land within the M25 and increased rents, many occupiers that service London have taken it upon themselves to adopt a substitution response and move away from areas where rental values have drastically increased where this is operationally feasible. The evidence suggests that this happened throughout functional markets both across the M25 and between individual boroughs, based on available land and operational / commercial viability.

10.5 The feasibility of substituting warehousing needs should be considered in light of the operational demand profile for logistics operations explained earlier in this document. Broadly this comprises distribution centres, final mile and emerging micro logistics. In addition, while the draft London Plan and its supporting evidence reports a 'warehouse / logistics' need, in reality boroughs need to plan for broader B8 and industrial requirements, including building trades and a wider range of industries with B8 storage needs and hybrid space, the substitutability of which will raise distinctive issues.

10.6 Given existing pressures on industrial land the larger scale operations for national and regional distribution centres with the exception of limited examples in Park Royal / A40 are now typically and adequately met from outside of London. Key locations and operations include:

North (M1)

- Hemel Hempstead (Amazon, Royal Mail, Martin Brower)
- Dunstable (Superdrug DC, Amazon)
- Milton Keynes (River Island, John Lewis, Waitrose)
- Borehamwood (Sainsbury's)
- London Colney / Coney St (DPD, DHL, Sainsbury's)

West (M4)

- Reading (Tesco)
- Bracknell (Waitrose)
- Slough (various)
- Thatcham (K&N)

10.7 The relevant planning authorities will consider their local future market needs which are embedded in the distributional requirements of London.

10.8 In terms of final mile servicing (B2C and B2C wholesale), operators report that outer boroughs - notably Harrow and Barnet – can be (and are) largely served from outside of London or from the Wembley / Park Royal areas. It follows therefore that the market has already substituted these requirements. This is in line with these boroughs' relatively small total stock and 'retain' borough category in the draft London Plan. However with increasing demand in quantitative (volume) and qualitative (timing) terms the advent of micro logistics operations may begin to emerge at the local level, involving smaller floorplates with proximity to higher density centres. Other forecast industrial requirements as reported above may also be suitable for substitution through market forces, for example relating to building trade goods storage and distribution.

10.9 The roles played by Ealing and Brent at Park Royal, Wembley and the A40 in particular suggest that substitution of certain types of need may be less feasible for uses as these primary SIL areas continue to serve both local markets and, critically, trans shipment into Central London. It is in these areas of greatest demand where functions are highly time and location sensitive that intensification is more likely to occur or alternatively there will be adverse effects on business and consumers due to time delays. Full substitution of future needs is not considered realistic but moreover that property stock renewal will take place to enable higher plot ratios and in some instances stacked industrial buildings. To some degree due to the warehouse property market area and operational models these boroughs already cater for substituted inner London needs, however innovation in micro logistics may see a more localised response for certain product types.

10.10 While Policy E4 indicates that there should be collaboration across the London boundary, there is as yet no formal mechanism or recent experience of proceeding with such an approach which has been market-led. Given the complexities of the logistics sector operations and requirements of business and consumers in London against the back drop of changing technology and markets, further support or guidance may be needed from the Mayor in progressing (and evidencing) such collaboration outside of the market assessments undertaken by individual authorities.

10.11 The externalities of substitution include congestion and pollution which bear both an environmental cost and journey time cost. This factor does need to be considered in policy responses in planning and transport terms – the latter has already seen the expansion of the Ultra Low Emissions Zone.

Summary

10.12 The draft London Plan and LILDS take a broad approach to the substitution of warehouse needs, draft Policy E7 directing boroughs to consider substitution of industrial requirements, albeit recognising potential adverse effects on logistics, businesses and customers.

10.13 The logistics and warehousing operational models are complex and a deeper understanding is required to progress a robust approach to substitution through the plan making process. The evidence indicates that larger scale distribution centre needs are being met outside of Greater London, whereas time and proximity critical functions relating to final mile activity continue to have functional requirements to be in the city.

10.14 The market itself has responded to constraints in part, with the expansion of strategic warehousing in Home Counties estates and in some instances final mile operations serving outer London.

10.15 Particularly for the critical functions of the A40 and Park Royal areas in serving both local and central London, there will be a limit to substitution as time sensitive operations are required including the increased prevalence of electric vehicles restricting trip mileage and times for logistics deliveries.

10.16 Substitution of need for employment will also face political barriers without a rigid framework as Home County boroughs are reluctant to increase land requirements for additional development, as has historically been the case with housing.

11 REPURPOSING SITES

11.1 As is typical in many employment land reviews (including here), the LILDS aggregates future warehousing needs with forecast losses in general and light industrial to come to a net overall industrial land requirement position.

11.2 The purpose of this section is to consider the feasibility of the repurposing of current and forecast industrial vacancies for warehousing requirements. In viability terms the analysis focuses site redevelopment rather than examining the repurposing of premises. Notwithstanding it is worth highlighting that changes in some uses and sectors may limit the scope for repurposing existing sites - greater automation in the logistics sector may require floor bearing standards that are difficult to achieve through retrofitting.

Vacancies and forecast losses

11.3 The LILDS develops a picture of losses based on labour forecasts that draw on manufacturing (-50,200) and motor trades (-4,600) at the London level. These outweigh gains in building trades and repair. Similarly the preceding section of this report focuses forecast losses based on declining labour demand for manufacturing.

11.4 Analysis of VOA data has been undertaken in the industrial supply and market review sections considering type and size. The VOA classifies premises by warehouse, workshop and factory. In line with the forecasts, growth would be expected in warehousing, losses in factories and a lesser degree of change in workshops. The size and location of these property types is considered on a borough by borough level below alongside the current vacancy profile as reported by Costar to review the degree that site repurposing responds to market needs.

Barnet

11.5 Barnet's 175 existing warehouses are primarily located on the A5, M1 and A1000 High Road corridors and are spread across size bands up to 10,000 sqm. There is a limited factory stock (less than 40 units), 85% of which is concentrated in the sub 1,000 sqm band. Locationally these are spread across the Borough with only two larger units on the main corridors. Workshops are even more concentrated in smaller bands with 82% under 500 sqm with a wide distribution across the Borough and particularly concentrated on the A1000 High Road. Current vacancies are limited to 6 units, all under 1,000 sqm.

11.6 Given this background there is only limited stock likely to be suitable for repurposing for logistics considering the size and locational requirements. There may be opportunities for smaller scale

logistics operations of micro or small final mile centres. Notwithstanding this, given what was said in the preceding chapter the market may be expected to continue the current trend of substituting some of Barnet's anticipated 8.0 ha (50,000 sqm floorspace) of logistics growth beyond its boundaries.

Brent

11.7 Brent's 1,070 existing warehouses are spread across size types, however there are 200 over 1,000 sqm. Larger stock tends to be concentrated around Park Royal, Wembley and Staples Corner. Factory stock is around one tenth of warehousing stock, albeit the size band proportions are similar with 29 larger units 1,000 to 10,000 sqm. Factories tend to be located in the same areas as warehouses, suggesting that there may be a degree of opportunity for replacement sites to meet forecast needs of over 13 ha (87,000 sqm). However manufacturing activities in Brent in prime locations such as Park Royal will already be paying a premium for the location in order to maintain proximity to their target London market – supplying fresh food products for example – and as a result there is uncertainty around decline. The Borough's workshops are more concentrated in smaller size bands and spread more broadly across primary and secondary locations. Current vacancies (26) are almost entirely older pre 1995 stock and the majority are smaller warehouses representing normal market churn.

Ealing

11.8 Ealing's 1,350 warehouses are located along the A40, Park Royal and Southall with over 300 exceeding 1,000 sqm. Factories follow a similar spatial pattern but are around one tenth in number compared to warehouses. There are 65 over 1,000 sqm which may provide some replacement opportunities contributing towards Ealing's 15.6 ha (98,000 sqm) of forecast need. Similar to Brent, the level at which the decline of factories is anticipated (124,000 sqm loss) may be tempered by the capability of manufacturing operators to compete in high demand locations due to their need to maintain customer proximity. Ealing also has a significant volume of workshops (704) which again are typically located in the A40, Park Royal and Southall corridors and may offer some replacement opportunities, albeit that a positive gain in B1c requirements is forecast. Ealing has slightly a higher vacancy rate (50 units) around half which are over 1,000 sqm and almost all are older warehouses spread across the industrial areas that may be let or renewed in due course.

Harrow

11.9 Harrow's warehouse stock of 168 units is largely located in designated locations across a spread of size bands. Factory stock is limited to 23 units, again spread in size range. The limited factory units

in the central part of the Borough may be feasible for conversion in terms of their size and location if there is demand for smaller final mile or micro logistics centres. Excluding one large unit, Harrow has only 25,000 sqm of factory floorspace to meet its 18,500 sqm of logistics requirements. The large unit is a largely demolished 71,500 sqm at the Kodak site, planned for redevelopment reproviding a mix of modest B1c/B2 class units of half the existing footprint, partly justified through poor connectivity and replacement employment, alongside a range of uses notable C3 (2,000 units). Harrow has only 2 small premises vacancies at the time of reporting.

Viability

11.10 Alongside being of appropriate size and locations, the ability of factory sites to serve as replacement for logistics and other industrial uses is dependent on the viability of the development. For unit conversions this is expected to be feasible in many instances particularly when buildings have remaining lifespan. In the case of site redevelopment, explored further in the next chapter, the viability of mid sized B8 properties is challenging outside of prime locations in Ealing and Brent. However results do suggest positive residual values throughout the study boroughs which indicates that site specific sensitivities on land values may mean redevelopment and replacement sites are possible. Co-location with residential may also be a method of enhancing viability subject to the appropriateness of integrating the use types in terms of functional and environmental requirements.

Conclusions

11.11 Forecast declines, notably in manufacturing activities, suggest that there will be future vacancies of industrial premises that can contribute to future warehousing needs. The ability of existing general industrial sites to be repurposed for warehousing is subject in particular to meeting size and locational requirements, as well as the viability of redeveloping or repurposing stock for alternate needs.

11.12 In Harrow and Barnet, with lower counts of industrial premises there are few general industrial or manufacturing sites, particularly over 1,000 sqm. This means there are limited opportunities to meet future warehousing needs in this way, even before the suitability of premises, including access to networks, and viability are taken into account.

11.13 Ealing and Brent have stock, particularly factories, much of which are in suitable industrial locations. In the future this may be renewed for warehousing particularly in prime locations and this can be expected to contribute to future needs in part. Current advertised vacancies are, however, focused on older warehousing stock. Much of this is small scale, which may be let through market churn or potentially renewed.

12 INTENSIFICATION AND CO-LOCATION: VIABILITY

12.1 This section considers the drivers around intensification and co-location and goes onto assess the financial viability of developing and intensifying industrial sites across the four boroughs comprising the Study Area. It reviews the development of multi-storey buildings for a combination of industrial uses ('intensification') and a mix of industrial and residential uses ('co-location'). A single storey industrial scenario is also included within the assessment.

Intensification

12.2 Intensification of industrial sites and in particular logistics operations is reviewed in section 8, which considers a range of ways in which sites can be developed to maximise their floorspace efficiency. This chapter focuses on the financial viability of developing stacked industrial uses for both logistics and light industrial activities.

Co-location

12.3 Co-location involves the integration of residential and industrial use classes either vertically or horizontally, the latter essentially being the segmentation of sites. Co-location is encouraged by Draft London Policy E7 notably for LSIS and non-designated sites.

12.4 A number of applications are being progressed for co-location around London. There are, however, only limited operational examples, the Travis Perkins / Unite site at St Pancras being the best example, with a significant volume of student housing stacked over the builders' merchant with a large transfer slab, albeit in a mixed rather than predominantly industrial area. This chapter examines the financial viability of delivering a fixed co-location model however, there are a number of wider implications that are considered below that should form part of any future policy marking process:

Co-location benefits

- Introducing a residential component can help to make marginal industrial development projects commercially viable – enabling the rejuvenation of redundant space in lower value industrial areas. As a result this may avoid the otherwise complete loss of industrial floorspace in a development.
- Co-location increases land use efficiency and in instances where multi level industrial is achieved this will increase industrial floorspace provision and plot ratio efficiency.
- Residential units will inevitably help boroughs to meet high housing needs.

Co-location challenges

- The over-arching challenge for co-location is to balance industrial and residential requirements on a site having regard to its wider location. The model is typically only suited in areas of light industrial activities with minimal adverse environmental effects on residential occupants in terms of air quality, noise, traffic (as recognised by draft Policy E7). There may be restrictions on parking and hours of operation including for deliveries. This can lead to the sterilisation of industrial units

– difficulty in providing residential amenity within industrial areas particularly when considering Agent of Change issues.

- The model remains relatively untested and the investor market is conservative about mixing industrial uses with other use classes with concerns over saleability and letability of both occupier types.
- Mixing residential and industrial requires more intensive design to ensure that both the building use types and immediate areas integrate positively.
- Issues in terms of estates that are in multiple land ownership, ensuring that schemes are brought together comprehensively to avoid ad hoc, piecemeal development – which may lead to less than optimal housing and industrial offer.

Viability testing

12.5 In order to test viability it is essential to compare an estimate of modelled development site value with a benchmark land value (BLV) for each scenario to identify that there is an incentive for the owner to bring forward development - typically BLV + 20%. There are numerous factors affecting value on a site by site basis across each borough. This study therefore seeks to consider the general viability of a range of scenarios with assumptions which, in our professional view, are characteristic of the study area whilst having regard to a number of assumptions and sensitivities. The approach taken is in accordance with the recommended approach to testing viability to inform local plan-making.

12.6 All scenarios which comprise residential accommodation (co-location) have been tested to reflect a minimum on-site affordable housing contribution of 35%, assuming compliance with the Mayor's current supplementary guidance on affordable housing and viability. As will be seen from our conclusions at this level of provision, emerging draft London Plan policy would require development at both designated (SIL and LSIS) and undesignated industrial sites involving net loss of employment space to deliver a minimum 50% affordable housing would have major viability implications.

Development Scenarios

12.7 For each of the four boroughs the assessment tests four scenarios across a notional land area of 1 hectare (c2.5 acres) as follows:

- Scenario 1 - B8 distribution arranged over two storeys ('intensification') relating to the 'ultra urban' logistics model;
- Scenario 2 - B1c/B2 light industrial uses arranged over four storeys ('intensification') relating to the 'multi level' logistics and stacked industrial model; ;
- Scenario 3 - B1c light industrial at ground with residential on three upper storeys ('co-location'); and
- Scenario 4 – B8 distribution as a single storey ('redevelopment').

Revenue Assumptions

12.8 To test these development scenarios across the four boroughs, two value sensitivity scenarios have also been applied to rental levels for each borough. These accord with the prime and secondary rents reported in the commercial market review section albeit that it may be challenging to achieve prime rents under a co-location scenario due to operational constraints. Drawing on the prime and secondary rent benchmarks broadly enables the scenarios to be applied at a spatial level accounting for local sensitivities. The headline rental values applied are as follows:

Table 73: **Prime and secondary industrial rents per borough**

Location	Prime rents £ psf (sqm)	Secondary rents £ psf (sqm)
Harrow	£14 (£150)	£10 (£108)
Barnet	£13 (£140)	£9.50 (£102)
Brent	£20 (£215)	£15 (£161)
Ealing	£17.50 (£188)	£12.50 (£135)

Source: Levy Real Estate

12.9 To clarify the spatial aspect of this, CoStar deals from 2017 and 2018 were mapped for the four individual boroughs (appended) as reported in the table below, further supplemented by discussions with Levy Real Estate. Maps are provided at Appendix C.

Table 74: **Prime and secondary industrial rent locations per borough (selected)**

Location	Prime rents	Secondary rents
Harrow	Isolated deals / Phoenix Way / Barnet Way	Wealdstone Industrial, Neptune Road
Barnet	Isolated deals	Mill Hill, Garrick Industrial
Brent	Park Royal, isolated deals at East Lane / Brentfield Road	Staples Corner / Wembley / Alperton LSIS
Ealing	Park Royal / Northolt, Greenford, Perivale	Great Western, Acton, International Trading Estate,

Source: CoStar / GL Hearn interpretation / Levy Real Estate

12.10 For the residential element we have sought to ascertain typical new build development values across the four boroughs. Whilst each scheme will naturally vary from a value perspective, to achieve this we have had regard to average scheme pricing for new build developments listed with Molior for the period Q3 2018 – Q2 2019.

12.11 For affordable housing values it is acknowledged that each borough's policy aspirations will differ in terms of tenure mix and provision. However, for modelling purposes we have applied a consistent figure across the four boroughs which is considered realistic for assessment purposes based upon each council's policy mix of Intermediate (Shared ownership) and Affordable Rented dwelling types.

For Brent, a mix of 70% affordable rent vs 30% shared ownership is assumed, whereas in the three other boroughs 60% affordable rent and 40% shared ownership is assumed. This calculation suggests the following pricing for each Borough:

Table 75: **Residential values per borough**

Description	Private value £ psf (sqm)	Affordable value £ psf (sqm)
Harrow	£590 (£6,351)	£275 (£2,960)
Barnet	£685 (£7,373)	£299 (£3,218)
Brent	£710 (£7,642)	£300 (£3,229)
Ealing	£740 (£7,965)	£318 (£3,423)

12.12 Where residential accommodation is proposed, the core scenarios are based on a 35% affordable housing provision based on the Mayor's guidance. We would note that there is an expectation that the development at SIL and LSIS locations which results in a loss of employment floorspace will deliver a minimum 50% affordable housing which would adversely impact on viability. A 50% affordable housing scenario is not considered as part of this assessment, but as our results show requiring provision at this level would put further pressure on viability which is already limited in many of the scenarios.

12.13 The following CIL assumptions are adopted for appraisal purposes which are consistent with local and policy as at the date of assessment (March 2019, subject to indexation). For Mayoral CIL we would note that from 1st April 2019 it is anticipated MCIL2 will supersede the Mayor's existing MCIL which is reflected within our assessment. No existing chargeable floorspace is assumed in the appraisals.

12.14 All affordable housing is assumed to be non-rated for CIL purposes.

Table 76: **CIL charges per borough**

Charging Authority	Charge – Residential £psm (£psf)	Charge – Industrial £psm (£psf)
Mayoral	£60 (£5.60)	£60 (£5.60)
Harrow	£150 (£13.93)	Nil
Barnet	£184 (£17.09)	Nil
Brent	£277 (£25.73)	Nil
Ealing	Nil	Nil

Development Appraisal Assumptions

12.15 GL Hearn has undertaken a series of development appraisals based on the scenarios as set out above using the Argus Developer software package. The appraisals do not constitute formal RICS Red Book Valuations but provide a 'high level' indication of broad viability of the options in the

absence of detailed design and valuation work. As such they are in line with usual practice for testing the viability of local plan policy options.

12.16 Scenarios 2 and 3 are considered both on the basis of prime industrial and secondary industrial rental values on a borough by borough basis. A spatial consideration of the implications is reported below. Scenarios 1 and 4 are considered only appropriate where prime values can be achieved and are therefore a secondary rental sensitivity is discounted for these two scenarios.

12.17 The appraisals are based on a number of key assumptions some of which are true of all the scenarios and some which are only true of one option.

12.18 A draft London Plan plot ratio of 65% is assumed for all scenarios based on the emerging evidence that particularly for stacked schemes this is likely to be achievable, and that for some new schemes, tightening availability is moving the industry to this level of efficiency. It is of note however that a number of occupiers still require sufficient operational yard space that will drive down ratios towards a typical 45% having further adverse implications on viability.

12.19 For the broader range of assumptions including build costs, yields, fees and timings, GL Hearn has drawn on market knowledge and further input from Levy Real Estate.

Description	Appraisal Assumptions			
	Scenario 1	**Scenario 2**	**Scenario 3**	**Scenario 4**
Site Area	1 ha (2.5 ac)	1 ha (2.5 ac)	1 ha (2.5 ac)	1 ha (2.5 ac)
Plot ratio	130%	260%	65%	65%
Unit size	139,931 sq ft GIA (assumes 2 storeys)	279,861 sq ft GIA (assumes 4 storeys)	69,965 sq ft - B1c 209,896 sq ft – residential (assumes 4 storeys	69,967 sq ft GIA (assumes 1 storey)
Affordable housing	n/a	n/a	35%	n/a
Revenue	n/a	n/a	Market Residential Harrow £590 psf Barnet £685 psf Brent £710 psf Ealing £740 psf	n/a
Commercial Yield	4.75%	5.25%	5.25%	4.75%
Build cost	£175 psf External Works + 5%	£175 psf External Works + 5%	B1c £136 psf Residential £186 External Works + 10%	£121 psf External Works + 5%
Professional fees	8%	8%	10%	8%
Contingency	5%	5%	5%	5%
Finance	6.5%	6.5%	6.5%	6.5%
Sales / Marketing	Letting 10% Year 1 rent Legal 5% Year 1 rent Sales 1% Legal 0.5% Marketing £50,000	Letting 10% Year 1 rent Legal 5% Year 1 rent Sales 1% Legal0.5% Marketing £50,000	Letting 10% Year 1 rent Legal 5% Year 1 rent Sales 1% Legal0.5% Marketing £50,000	Letting 10% Year 1 rent Legal 5% Year 1 rent Sales 1% Legal0.5% Marketing £50,000

			Residential sales 1.5% Residential marketing 1%	
Profit	Profit level = 15% GDV	Profit level = 15% GDV	B1c 15% of GDV Market residential 17.5% GDV Affordable residential 6% GDV	Profit level = 15% GDV
Timings	Build Period = 18 months Sale on PC	Build Period 15 months Sale on PC	Build Period - 24 months Sale of commercial on PC and Affordable housing on completion Private sales – 8 units pcm	Build Period = 12 months Sale on PC

Benchmark land value

12.20 To assess the results of the appraisals, we have benchmarked a typical hectare of industrial land from advice provided by Levy Real Estate based on market transaction knowledge. Levy advise that for any site situated within the four boroughs with a good prospect of being granted planning permission for industrial uses and/or located within a Strategic Industrial Location (SIL) the range of land values would be as follows:

Table 77: **Benchmark land values**

Benchmark Land Value	£/hectare (lower)	Mid-Point	£/hectare (upper)
Low Value	£6,180,000	£7,415,000	£8,650,000
Medium Value	£8,650,000	£9,885,000	£11,120,000
High Value	£11,120,000	£11,735,000	£12,350,000

12.21 It is of note that the values broadly align with the GLA 2018 'Industrial Intensification and Co-Location Study' scenarios, albeit that Ealing falls under their 'suburban' model which would see a higher mid and upper value. However, this West London work has used more localised residential and industrial value sampling.

12.22 Values can be affected by a range of factors including policy – for example prospects of residential permission and associated increase in anticipated value returns whilst restriction to industrial will cap expectations. Equally residential enhances viability thus enabling development that might not otherwise come forward.

12.23 We would comment that whilst this exercise adopts a consistent benchmark land value we would note that each respective site location will be affected by individual circumstances which will impact on viability. The appraisal results should therefore be treated as indicative and not representative of individual sites but are of value to inform policy development. The assessment of individual site values would be in line with GLA guidance based on existing use value plus land owner incentivisation.

Appraisal Results

12.24 The table below presents the results of the appraisals, which are compared with the Benchmark Industrial Land Values. Where viability is not achieved for prime locations then figures are not reported for secondary.

Table 78: **Scenario appraisal findings**

Scenario	Description	Location	Residual Land Value	Benchmark Threshold	Viability
1	B8 – 2 storey stacked – prime	Harrow	£0	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
1	B8 – 2 storey stacked – prime	Barnet	(£2.1m)	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
1	B8 – 2 storey stacked – prime	Brent	£11.5m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Viable Marginal
1	B8 – 2 storey stacked – prime	Ealing	£6.7m	*£7,415,000* *£9,885,000* *£11,735,000*	Marginal Unviable Unviable
2	B1(c)/B2 stacked 4 storey – Prime	Harrow (prime)	(7.1m)	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
2	B1(c)/B2 stacked 4 storey – Prime	Barnet (prime)	(£10.7m)	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
2	B1(c)/B2 stacked 4 storey – Prime	Brent (prime)	£13.5m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Viable Viable
2	B1(c)/B2 stacked 4 storey - secondary	Brent (secondary)	(£3.6m)	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
2	B1(c)/B2 stacked 4 storey – prime	Ealing (prime)	£5m	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
3	B1(c) with residential above – prime	Harrow (prime)	£4.8m	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
3	B1(c) with residential above - secondary	Harrow (secondary)	£2.2m	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
3	B1(c) with residential above – prime	Barnet (prime)	£14.1m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Viable Viable
3	B1(c) with residential above - secondary	Barnet (secondary)	£8.9m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Marginal Unviable
3	B1(c) with residential above – prime	Brent (prime)	£9.5m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Marginal Unviable
3	B1(c) with residential above -	Brent	£6.2m	*£7,415,000*	Marginal

	secondary	(secondary)		*£9,885,000* *£11,735,000*	Unviable Unviable
3	B1(c) with residential above – prime	Ealing (prime)	£20.8m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Viable Viable
3	B1(c) with residential above - secondary	Ealing (secondary)	£17.5m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Viable Viable
4	B8 – single storey – prime	Harrow	£4m	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
4	B8 – single storey – prime	Barnet	£3m	*£7,415,000* *£9,885,000* *£11,735,000*	Unviable Unviable Unviable
4	B8 – single storey – prime	Brent	£9.8m	*£7,415,000* *£9,885,000* *£11,735,000*	Viable Marginal Unviable
4	B8 – single storey – prime	Ealing	£7.4m	*£7,415,000* *£9,885,000* *£11,735,000*	Marginal Unviable Unviable

Discussion

12.25 Under **Scenario 1** for stacked large scale B8 only those locations which are able to derive high industrial rental values typically exceeding £17 per sqft (£183 per sqm) are considered viable. This is evident in prime locations in Brent (Park Royal) and, to a lesser extent, in parts of Ealing (Park Royal and, in theory, peak demand locations along the A40 (Northolt, Greenford, Perivale)). In reality therefore only locations that are anticipated to both achieve this rent and be a feasible location for delivering such schemes in terms of network access are around Park Royal and the above key SIL sites. This reflects the expectations for future logistics markets.

12.26 The principal prohibiting factor to viability is the high build costs incurred in delivering a multi-storey scheme which are not offset by a rental premium for additional building height. It is notable that for those options where a B8 distribution option is shown to be viable, a stacked industrial development is able to derive a site value in excess of a conventional single storey option as defined under Scenario 4, despite the increased build costs, due the significant associated floorspace yield.

12.27 Under **Scenario 2** for multi level light industrial the appraisal results show a wide range in site values derived across the four boroughs. The pattern is similar to that of Scenario 1 whereby only those locations with high industrial rental values are able to support a viable scheme, owing to the high build costs associated with multi-storey development. Only Park Royal (prime) in Brent achieves a positive return able to incentivise multi-storey development above existing land values albeit that in Ealing the appraisal results are approaching viablity (again Park Royal and A40 Northolt, Greenford, Perivale). The Generator Hub proposed at Northfields in Brent is an example of such a scheme, subject to completion however it is understood that this scheme is cross subsidised through the adjacent residential component.

12.28 **Scenario 3** for co-location suggests a range of results depending on the rental and capital values applied. Outcomes based upon the input assumptions are reported below. It is of note that co-location sensitives can be particularly significant in affecting results in terms of affordable housing, residential values and development mix - the nature of the scheme may drive residential values below a borough average. As noted it may be that the highest industrial rents are unachievable in co-located schemes due to the constraints and restrictions on the units.

- Co-location on the basic input assumptions is unviable in Harrow for both prime and secondary locations due to lower residential and industrial values compared with the other boroughs. This notwithstanding, individual schemes with sensitivity on higher residential values or mix may come forward in certain locations.

- Co-location is reported as viable for prime Barnet locations although records how no particular spatial pattern to these. In secondary Barnet locations (in rental terms being Mill Hill, Garrick Industrial based on recent deals) the appraisals suggest a more marginal viability position.
- Brent's residential values drive the colocation results which in theory are also supported by strong industrial rents. Subject to land values, prime areas such as around Park Royal could achievable co-location albeit this may conflict with primary industrial activities. Secondary areas such as Staples Corner / Wembley / Alperton also move towards viable at lower benchmark land values and may be more suitable in terms of industrial activity.
- Co-location is reported as viable within both prime and secondary locations across the borough of Ealing, largely as a result of relatively strong residential sales values that are likely to be reinforced and further improved by the opening of the Elizabeth line in particular locations Notwithstanding it is those areas associated with higher value residential as well as less intense industrial activity such as Acton that are more likely to be suited to such schemes.
- Outside of Park Royal, smaller light industrial units for B1c will typically command higher rents than B8 units. B1c occupiers also tend to be better suited to co-location than B8, particularly those tending towards 'hybrid' activities such as maker space, media and art. Therefore some correlation begins to occur between prime LSIS rental locations as outlined and potential co-location with more limited prejudicing of industrial activity.

12.29 The GLA's 2018 Industrial Intensification and Co-Location Study: Design and Delivery Testing considers a wider range of co-location models than considered here. As we have seen, this notes the importance of benchmark land value in viability and the sensitivity to modelling in relation to individual site circumstances. It notes the importance of site scale as larger sites allow more flexibility for design responses allowing for both industrial operations and the residential units that will support additional value.

12.30 Under **Scenario 4** whilst all appraisals suggest a positive site value, only those areas benefitting from higher industrial rental values in Brent and Ealing are able to deliver a viable scheme when compared with the benchmark land values. This suggests that in many areas the replacement of existing older industrial stock is challenging outside of prime locations due to strong prevailing land values. Whilst a large shed footprint is tested (6,500 sqm), the results for a smaller site (2,000 sqm) would not vary significantly as economies of scale at this level (c10% on cost) would not alter outcomes to a material degree but do make redevelopment more challenging. Replacing the profile with B1c light industrial will add some further cost in terms of typical fit out, however rents will typically be pushed towards the premium end of the market or even exceed the upper values considered here in some instances.

12.31 In considering the scenario outcomes it needs to be borne in mind that not all areas or individual sites are inherently suitable for co-location between residential and employment use even where this may be shown to be economically viable. It is also accepted that there may be adverse market sentiment from both a residential and commercial perspective to such configuration.

Conclusions

12.32 This section provides the outcomes of a range of viability appraisals undertaken on intensified and co-located industrial sites, drawing on a set of benchmark assumptions we consider reasonable for testing options in the Study Area.

12.33 Due to the costs associated with multi level industrial development both for B8 logistics and light industrial, it is anticipated that this will only be likely to come forward in locations where industrial rents are highest and demand at a premium. These are confined to Brent and parts of Ealing, particularly at Park Royal and other key industrial locations on the A40.

12.34 The co-location viability work indicates that residential above light industrial becomes theoretically viable in areas where both residential values and industrial rents are sufficient – in Ealing and parts of Brent and Barnet where prime rents for industrial work in conjunction with the residential element. The co-location results are particularly susceptible to sensitivity as residential values and development mix can enhance a scheme (this may make some schemes in Harrow deliverable as well). Ealing shows the strongest viability and this is reflected in a number of emerging schemes being reported in the Borough, as described earlier in this report.

12.35 The co-location appraisals consider the industrial and residential units desirable at the prevailing values. However as noted there may be constraints on the functionality of industrial units which reduce their market interest.

12.36 The appraisals are 'policy blind' in the sense they do not consider the suitability of sites for the introduction of residential uses. The nature of SIL site functions for heavier industrial and logistics uses may mean that residential is unsuitable from a resident and/or industrial perspective. Notwithstanding, at LSIS and non-designated sites co-location may be a means of bringing investment into industrial stock given the results of the standalone unit viability. As considered in the following section, site level analysis is required to determine co-location suitability whilst maintain the viability of the wider industrial area.

13 ECONOMIC AND POLICY INCENTIVES

13.1 The section briefly reviews the economic and policy incentives associated with intensification and co-location of logistics and other industrial stock.

Economic

13.2 The primary driver for industrial intensification and co-location is the reduced availability of land at a time of high and growing demand, driving up land prices, unit availability and rents. The best examples of industrial intensification referred to above are located in close proximity to Heathrow due to its demand for logistics. Access to the M4 / M25 / M40 / A40 on top of this make the Study Area an attractive location for logistics. Even here, however, significant costs are involved with, for example, multi storey industrial, and viability remains challenging. It is anticipated that these options will be market-led, taken forward by developers and operators when it makes economic sense for them to do so - where rents and demand are sufficient to overcome development costs.

13.3 In terms of residential co-location, lower value residential areas are unlikely to achieve mixed use integration due to the higher development costs this model requires. Such sites may be less desirable for residential, driving values down. LSIS or non-designated site fringe areas of medium - high value or rising value residential locations may be best suited for co-location development where residential values approach the borough median but land values remain partially suppressed, potentially due to the mixed use nature of projects. Increasing affordable housing requirements above 35% will put significant pressure on viability and flexibility should realistically be applied in the planning balance. The requirements for these cases are likely to be reduced given the drafted changes to the draft London Plan that puts this expectation only on sites reporting a net loss in industrial floor area. Affordable workspace requirements will put further pressure on viability. A wide range of development mix and design scenarios can be considered in co-location responding to site constraints to maximise preferred floorspace types.

Policy

13.4 Three policy tools are considered here:

- Design typology guidance
- Site specific policies
- Public sector led development

Mixed Typology Design Guidance

13.5 Provision of mixed typology guidance by planning authorities will help to establish the key requirements and expectations of development and provide some certainty regarding expectations. This will require specific research in an emerging area of design and technology. This might draw on initial and high-level guidance in the GLA's Industrial Intensification Primer and consider points such as:

- Separate access
- Noise and other environmental impact mitigation
- Operational hours
- Floorspace intensification and facility sharing
- Residential / placemaking strategy

Policy Guidance

13.6 A broad development management policy approach could be developed that builds on the principles of the draft London Plan's Policy E7, adapted to address the circumstances of each borough. This could then be applied at an area level in LPAs. This would combine principles of design guidance for areas of change to enable encouragement of residential development alongside industrial retention and / or intensification.

13.7 It is clear from the analysis in this report that an effective policy response to the issues it raises will have to look at the issue at the same spatial scale that operators use in taking locational and investment decisions; this is likely to require taking a cross-borough and pan-south east perspective. The Mayor has a valuable role to play in providing a framework for effective cross-boundary engagement and policy-making.

Site-specific Policies

13.8 Through the plan-making process specific sites can be identified or allocated to deliver industrial intensification and co-location, providing a high level of planning certainty. These would need to be tested in advance. Policies could identify:

- Industrial and other employment floorspace requirements and use class
- Residential and other non-industrial floorspace / units expectations
- Access, design and massing guidance

13.9 As explained earlier, stacked industrial uses can only be expected to come forward in higher value locations. Park Royal is the only location anticipated for multi level ramped logistics in the Study Area. Other higher value areas may achieve multi storey industrial, such as Acton or Wembley where rents exceed £17 per sqsf.

13.10 Co-location is likely to come forward where site specific circumstances are favourable. There are, however, some common characteristics that are likely to be supportive:

- Local industrial rents with potential to exceed £10-£12 per sqft (£108-£129 per sqm) to ensure a suitable occupier profile in line with a higher quality fit out and activity suited to residential proximity.
- Reasonable network access, preferably good connectivity to local A roads to facilitate delivery and operational connections away from high density residential networks.
- Future occupier demand profile, particularly for B1c uses like maker space, arts and creative, trade counter, wholesale, small manufacturing or construction related.
- LSIS or non designated sites may be suitable where the development does not prejudice the overall area operation (LSIS) and does not degrade the balance of industrial uses solely towards light industrial unless this is considered desirable in light of other local evidence.

13.11 Based on the analysis in the viability section, the following areas could warrant further investigation for co-location suitability (Park Royal is excluded based on its functional role). However, this would be dependent on the Borough's individual policy expectations for these areas. Other non designated sites may also be suitably that are below the level of analysis conducted here, subject to localised rents.

Table 79: **Potential co-location areas**

Borough	Location
Harrow	Limited isolated sites
Barnet	Mill Hill, Garrick Industrial
Brent	Staples Corner / Wembley / Alperton
Ealing	Northolt/ Greenford/ Perivale*, Acton, International Trading Estate*, Great Western*

* in the main these sites may not be suited on a functional basis

13.12 The above list is not intended as exhaustive and should be considered in line with the points made following paragraph 13.10 above.

Public Sector intervention

13.13 We have shown that widespread adoption of intensification or co-location will have to be market led, depending on commercial and viability essentials. However there is room for public sector accelerator/exemplar initiatives to show industry the potential to push new technology and strategy around colocation / intensification. These could be led by local authority (borough and/or GLA)/ developer joint ventures. This would require land and resource but might create a catalyst development providing industry with greater confidence around the delivery and policy environment.

14 SUMMARY, CONCLUSIONS AND FURTHER AREAS OF RESEARCH

14.1 This study has considered the most important factors underpinning the need for and future management of industrial and other employment land in West London:

- The emerging planning policy environment, notably the draft London Plan 2017 and its evidence base, and wider industrial and logistics market evidence relevant to the Study Area boroughs.
- The current industrial stock in the study area boroughs and the industrial property markets in each, their drivers, functions and key characteristics.
- The future trends driving the logistics and warehousing market and their implications for industrial land, particularly in the light of the emerging London Plan policies.
- Future industrial floorspace needs in the study area, principally drawing on a local labour demand model, contrasted with the evidence supporting the draft London Plan.
- The validity of substituting out future warehousing and logistics requirements beyond London.
- The ability of manufacturing and other general industrial sites to be suitable replacements for future logistics and warehousing requirements.
- The financial viability of achieving intensification and co-location in the study boroughs.
- The types of policies or other incentives that may be suitable in promoting intensification and co-location.

14.2 The key findings are summarised as follows:

Policy

- There is significant evidence of continuing reduction in industrial land across London, which is contributing to historically high rents. Demand for industrial land is high in much of London, particularly for warehousing, logistics and general light industrial, whilst manufacturing employment has stabilised. If the process is allowed to go unmanaged, there may be the risk of functional economic needs being compromised. That said, the industry itself continues to respond to these pressures through innovation in logistics models or market led substitution of operations.
- The draft London Plan 2017 in recognising the importance of industrial land and the increasingly constrained supply, puts forward a number of policy measures including co-location and the intensification of existing sites and the expectation for boroughs including Ealing and Brent to provide additional capacity primarily through these approaches.
- The 2017 London Industrial Land Demand Study, the primary industrial evidence base document supporting the draft London Plan, draws on a range of methods in forecasting future needs, including rolling forward historic warehousing completion trends and labour forecasting for general industrial.

Borough industrial floorspace and property markets

- According to VOA data and data from the Boroughs, excluding OPDC, the study area comprises 10% of the Greater London industrial stock and totals 2.8m sqm, rising to 19% including OPDC.
- Around 54% of the industrial floorspace in the Study Area is in Ealing with another 25% located in Brent (excluding those parts of the Borough in the OPDC area). Both Barnet and Harrow provide significantly less, with 13% and 8% of the Study Area floorspace respectively.

- There has been significant rental growth within the Study Area in recent years (which have seen the upwards shoulder of the business cycle). Industrial rental values have increased by 45% for prime stock and 53% for secondary stock in West London. Brent's has seen the greatest rental growth at 60% for prime and just above 55% for secondary. Harrow and Barnet have also performed strongly, albeit with less stock – perhaps reflecting the greater availabi8lity of relatively affordable stock in those boroughs. Ealing has had more subdued growth of 35% for prime and just under 40% for secondary. Trends are continuing with land constraints and increasing needs, squeezing some occupiers out.
- Harrow and Barnet have limited industrial property markets, particularly for logistics. This is because they have limited major industrial stock on the strategic network and tend to be served from locations outside of London or from Wembley and Park Royal. Harrow in particular is focused on local industrial requirements, whilst Barnet provides logistics and trading at Brent Cross and M1, A5 and A406 access nodes.
- Brent and Ealing house key industrial locations within the West London / Heathrow corridor including around Southall, the A40, Park Royal, Staples Corner and Wembley. They have a critical functional for London as a whole, providing strategic industrial reserves for logistics and warehousing that serves trans-shipment into Central London alongside local logistics, trading estates and customer proximity requirements for general industrial.

Future logistics trends

- The warehousing and logistics market (comprising B2B and B2C operations) is changing to meet increasing customer demands in volume, pace and accuracy of delivery. The hub and spoke model typifying operations remains prevalent in the industry; however in high density locations there are moves towards smaller scale micro logistics providing rapid deliveries on low emissions vehicles. The industry serving inner London is expected to move towards electric fleets as the expanding low emissions zone forces a response. Battery capacities will maintain the emphasis on final mile or smaller scale hubs to ensure recharging circulation times can be met.
- Broader innovations include increasing automation, a tightening of lots to maximise efficiency on scarce land without restricting operations. Multi user consolidation centres maximise floorspace to throughput ratios against a background of increasing volume including returns of online goods.
- Stacked industrial and logistics developments are anticipated to emerge in prime locations where exceptional demand justifies build costs, albeit that delivery of such schemes is limited to date.

Future industrial floorspace needs

- This study draws on detailed sectoral local labour demand modelling provided by Oxford Economics for the study boroughs to identify industrial floorspace requirements. This contrasts with the LILDS, which for general industrial uses rebases GLA pan London sector growth rates to borough employment levels and for warehousing rolls forward the pre-recessionary completions trend.
- Utilities and waste requirements are not considered in this study as they respond more accurately to functional need rather than labour demand. Transport requirements are included based on labour demand – a borough level figure is not provided in the draft London Plan evidence.
- The labour demand model herein identifies a significantly lower level of floorspace needs than the LILDS model for Ealing and Brent even when sensitivity on floorspace density is considered. However, the model does report an increased need, notably in Barnet, based on requirements in

general industrial including building trades and car repair as well as other 'hybrid' sectors such as personal services. Industrial requirements overall are summarised as:

Table 80: **Industrial land needs (0.65 plot ratio) vs LILDS (ha)**

	West London Evidence						LILDS			
	Logistics	Manufact'g	Building Trades	Transport	Other	West Lon Total	Wareh'g	Industrial	Sub total	LILDS Total
Barnet	7.7	-4.1	3.3	0.7	5.8	**13.5**	9.3	-2.2	7.1	**7.3**
Brent*	13.4	-14.7	1.3	-3.1	3.7	**0.6**	60.9	-21.6	39.3	**43.0**
Harrow	2.8	-3.9	2.1	-0.7	2.1	**2.5**	4.0	-5.1	-1.1	**1.2**
Ealing**	15.2	-19.1	2.9	-1.6	3.6	**1.0**	49.7	-18.8	30.9	**35.6**

***** logistics 18.1ha and total of 5.3ha under a higher employment density

****** logistics 21.0ha and total of 7.8ha under a higher employment density

- Requirements are generated by borough boundary therefore there is no disaggregation for OPDC between Ealing and Brent. Consideration for the apportionment of needs should take into account that approximately 35% of each borough's industrial floorspace is located in OPDC and that Park Royal is the single largest estate in the study area with a commensurate level of demand.

Substitution

- Substitution is considered from a market perspective. This has seen significant growth in large scale distribution outside of London which play a role in fulfilling the capital's requirements along key transport corridors, particularly the M1. Final mile operations are also supported from beyond the city's boundaries for outer London boroughs. For strategic locations at SILs on the A40, Park Royal and Wembley, the role in fulfilling local warehousing needs and trans-shipment to central London is considered to reduce substitutability of requirements to a large degree.
- There is considered to be limited prospect of a formal approach to substitution across the Greater London threshold without a clear and formally-structured framework which would need strategic support from the GLA or MHCLG.
- The effects of substitution on congestion and pollution need to be taken into consideration in planning and transport policy responses.
- Given the broader findings from the commercial market review and forecast needs, commercially led substitution may realistically be expected to continue, particularly in Barnet where nearby industrial locations are able to provide well connected routes to service locally arising needs.

Replacement sites

- Forecast decreasing needs notably in manufacturing suggest that current identified factory premises may provide replacement sites for warehousing requirements. Analysis of current and future vacancies in Harrow and Barnet suggest a limited stock of current vacancies and factory

premises for future conversion. In Ealing and Brent there are greater levels of potential larger factory premises in key industrial locations able to provide for warehousing needs, subject to viability and the realisation of forecast losses.

- The challenges for Harrow and Barnet in providing replacement sites puts greater pressure on existing estates to meet need, but also indicates that wider functional market areas can realistically be expected to support the local economies.

Viability of intensification and co-location

- Modelling of stacked logistics, light industrial, vertical colocation and single storey B8 footprints is undertaken with sensitivity on local industrial and rental values.
- Only the higher value prime industrial rent locations in Brent and Ealing – Park Royal and the A40 - are capable of delivering stacked industrial floorspace due to high build costs.
- Single story developments show positive residual values but are sensitive to local benchmark land values which suggests that often renewal will not be viable.
- Co-location on the assumptions used indicates strong residential baseline values and industrial demand are required to make developments of this kind viable. Co-location will be particularly sensitive to local site conditions and the development mix; it is, however, expected to be viable in higher value LSIS areas. Co-location needs to be considered in light of unintended consequences, particularly the risk of sterilising uses for some light industrial typologies, and site specific assessment should take place to ensure suitability.

Policy interventions

- Potential policy approaches include design guidance, site specific policies or joint ventures to drive investment models. Site specific policies on intensification and co-location will require localised benchmarking on values for residential and industrial uses as well as responding to the local industrial market and balance of provision.

Recommended areas for further research

- Surveys on plot ratios by use class and operation to test ongoing requirements for yard space and other hardstanding.
- Ongoing engagement with industry particularly the logistics and warehousing market to reflect local levels of need, facilitated at the pan London (and where relevant, wider south-east) and borough levels.
- London-wide research into warehousing property and functional markets to underpin considerations of a substitution model both within and across London's boundary. Production of an evidence base and coordination by/with the GLA may be required to provide a framework within which cross-boundary engagement can be taken forward effectively. Given that industrial floorspace needs remain positive including in low capacity boroughs such as Barnet, a framework for provision is necessary to ensure economic needs are facilitated.
- Site or sub area testing for co-location suitability considering local values and the demand supply relationship of industrial floorspace provision in light of local needs.

Key messages

14.3 This study has investigated the feasibility of industrial intensification, substitution, co-location and replacement sites specifically for the study boroughs of Barnet, Brent, Ealing and Harrow, alongside modelling of future industrial needs against a background of their individual commercial markets and the broader logistics and warehousing market.

14.4 The work suggests that industrial intensification through vertical stacking will be limited in location and volume for the foreseeable future due to significant costs restricting it to the highest value areas. Co-location may have a broader spatial remit as a function for renewing industrial floorspace or maximising land use efficiency, but is unlikely to yield additional floorspace and should be approached with caution to avoid unintended consequences.

14.5 The modelling work from a labour demand perspective indicates a lower overall level of need that the LILDS for the study boroughs primarily due to lower warehousing requirements in Brent and Ealing. Even with sensitivity on floorspace densities their needs remain significantly below the LILDS requirement which rolls forward a pre-recession pan London growth rate which was a period of larger footprint occupation in the capital. The review of current trends suggests that warehousing and logistics operations in urban areas are moving towards smaller more dynamic and/or consolidated sites that are served from larger hubs outside of the city, albeit that the level of demand remains high and is likely to increase with the expansion of Heathrow.

14.6 Modelling does provide a higher need for the borough of Barnet due to population driven sector requirements including building trades, vehicle repair and wider personal services, the latter may in part be suited to a more hybrid space model. Whilst Barnet has a highly constrained ability to meet forecast needs, much of the identified requirement may be suitably served from other locations outside the Borough (as much already is).

14.7 The substitution of needs is important but complex from a planning policy and political perspective. The market itself has increasingly found a substitution approach with wider functional property markets across the south east (and east) supporting London. Within the city between boroughs substitution is also considered to be taking place and as a result some ‘provide’ boroughs (Ealing and Brent) are supporting the function of more constrained locations of ‘retain’ boroughs such as Barnet. Strategic leadership and provision of an evidence base by the GLA would facilitate this kind of approach.

14.8 Overall the research suggests that emerging policy mechanisms will provide a limited solution to meeting forecast needs particularly at the level indicated through the LILDS. A more detailed understanding of local markets and warehousing operations is required to segment time and location critical activities and a strategic framework to ensure needs can be met at appropriate locations at the regional level to avoid compromising economic growth and higher costs. Meanwhile the industry itself will continue to adapt to constraints and evolve and innovate through technology, information management and environmental response.

APPENDIX A: Sector – Land Use / Industrial Type

	B1a/b	B1c	B2	B8	NON-B	
Crop and animal production, hunting					100%	Manufacturing
Forestry and logging					100%	Manufacturing
Fishing and aquaculture					100%	Manufacturing
Mining of coal and lignite					100%	Manufacturing
Extraction of crude petroleum					100%	Manufacturing
Mining of metal ores					100%	Manufacturing
Other mining and quarrying					100%	Manufacturing
Mining support service activities					100%	Manufacturing
Manufacture of food products	0%	0%	100%	0%		Manufacturing
Manufacture of beverages	0%	0%	100%	0%		Manufacturing
Manufacture of tobacco products	0%	0%	100%	0%		Manufacturing
Manufacture of textiles	0%	0%	100%	0%		Manufacturing
Manufacture of wearing apparel	0%	0%	100%	0%		Manufacturing
Manufacture of leather and related	0%	0%	100%	0%		Manufacturing
Manufacture of wood and of products	0%	0%	100%	0%		Manufacturing
Manufacture of paper and paper products	0%	0%	100%	0%		Manufacturing
Printing and reproduction of recorded media	0%	0%	100%	0%		Manufacturing
Manufacture of coke and refined petrol	0%	0%	100%	0%		Manufacturing
Manufacture of chemicals and chemicals	0%	0%	100%	0%		Manufacturing
Manufacture of basic pharmaceutical	0%	0%	100%	0%		Manufacturing
Manufacture of rubber and plastic products	0%	0%	100%	0%		Manufacturing
Manufacture of other non-metallic minerals	0%	0%	100%	0%		Manufacturing
Manufacture of basic metals	0%	0%	100%	0%		Manufacturing
Manufacture of fabricated metal products	0%	0%	100%	0%		Manufacturing
Manufacture of computer, electronic	0%	0%	100%	0%		Manufacturing
Manufacture of electrical equipment	0%	0%	100%	0%		Manufacturing
Manufacture of machinery and equipment	0%	0%	100%	0%		Manufacturing
Manufacture of motor vehicles, trailers	0%	0%	100%	0%		Manufacturing
Manufacture of other transport equipment	0%	0%	100%	0%		Manufacturing
Manufacture of furniture	0%	0%	100%	0%		Manufacturing
Other manufacturing	0%	0%	100%	0%		Manufacturing
Repair and installation of machinery	0%	0%	100%	0%		Manufacturing
Electricity, gas, steam and air conditioning	0%	0%			0%	Utilities
Water collection, treatment and supply	0%	0%			0%	Waste
Sewerage	0%	0%			0%	Waste
Waste collection, treatment a	0%	0%			0%	Waste
Remediation activities and other waste activities	0%	0%			0%	Waste
Construction of buildings	5%			5%	90%	Building Trades
Civil engineering	5%			5%	90%	Building Trades

Specialised construction activities	5%			5%	90%	Building Trades
Wholesale and retail trade and repairs	5%		50%	15%	30%	Other
Wholesale trade, except of motor vehicles				90%	10%	Logistics
Retail trade, except of motor vehicles				0%	100%	Other
Land transport and transport via pipe	5%			30%	65%	Transport
Water transport	5%			30%	65%	Transport
Air transport	5%			30%	65%	Transport
Warehousing and support activities	10%			80%	10%	Logistics
Postal and courier activities	10%			80%	10%	Logistics
Accommodation					100%	Other
Food and beverage service activities					100%	Other
Publishing activities	70%	20%	5%	5%	0%	Other
Motion picture, video and television	50%	40%			10%	Other
Programming and broadcasting activities	70%	20%			10%	Other
Telecommunications	90%				10%	Other
Computer programming, consultancy	100%					Other
Information service activities	100%					Other
Financial service activities	80%				20%	Other
Insurance, reinsurance and pension funds	100%					Other
Activities auxiliary to financial services	80%				20%	Other
Real estate activities	20%				80%	Other
Legal and accounting activities	80%				20%	Other
Activities of head offices	100%					Other
Architectural and engineering activities	100%					Other
Scientific research and development	100%					Other
Advertising and market research	100%					Other
Other professional, scientific	80%				20%	Other
Veterinary activities	10%				90%	Other
Rental and leasing activities	30%			20%	50%	Other
Employment activities	70%	5%			25%	Other
Travel agency, tour operator and other	15%				85%	Other
Security and investigation activities	24%	10%	16%	12%	38%	Other
Services to buildings and landscape	50%				50%	Other
Office administrative, office support	100%				0%	Other
Public administration and defence	80%				20%	Other
Education	5%				95%	Other
Human health activities	5%				95%	Other
Residential care activities	5%				95%	Other
Social work activities	25%				75%	Other
Creative, arts and entertainment activities	5%				95%	Other
Libraries, archives, museums and other					100%	Other
Gambling and betting activities					100%	Other
Sports activities and amusement	5%				95%	Other

Activities of membership organisation	50%				50%	Other
Repair of computers and personal	15%	30%		10%	45%	Other
Other personal service activities	15%	10%			75%	Other

APPENDIX B: Borough / sector 2016-2041 employment change

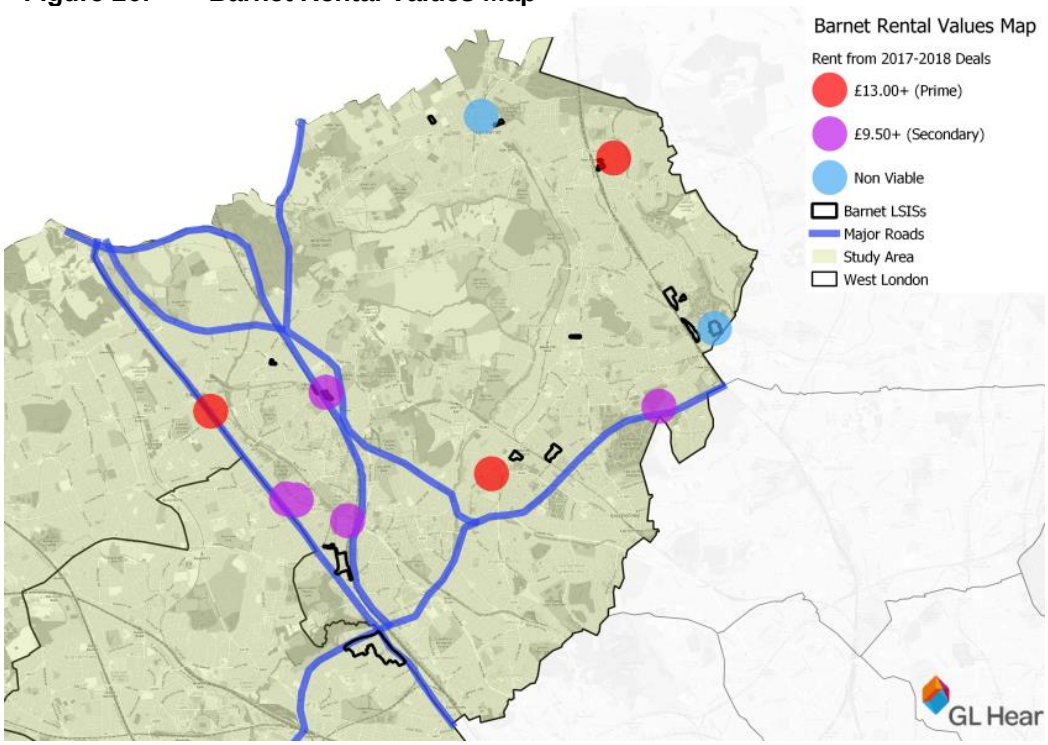
	Ealing		Brent		Barnet		Harrow	
Total employment by detailed sector	2016	2041	2016	2041	2016	2041	2016	2041
Crop and animal production, hunting	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0
Forestry and logging	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fishing and aquaculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining of coal and lignite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extraction of crude petroleum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining of metal ores	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other mining and quarrying	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining support service activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacture of food products	7.5	6.5	4.9	4.1	1.1	2.2	1.1	0.9
Manufacture of beverages	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacture of tobacco products	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacture of textiles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacture of wearing apparel	0.1	0.1	0.3	0.2	0.2	0.2	0.0	0.0
Manufacture of leather and related	0.0		0.0	0.0	0.0		0.0	
Manufacture of wood and of products	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Manufacture of paper and paper products	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Printing and reproduction of recorded material	0.7	0.4	0.5	0.3	0.3	0.3	0.2	0.1
Manufacture of coke and refined petrol	0.0		0.0		0.0	0.0	0.0	
Manufacture of chemicals and chemicals	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0
Manufacture of basic pharmaceutical	0.0	0.0	0.4	0.3	0.0	0.0	0.0	0.0
Manufacture of rubber and plastic products	0.4	0.2	0.2	0.1	0.1	0.1	0.0	0.0
Manufacture of other non-metallic minerals	0.5	0.3	0.9	0.6	0.4	0.4	0.0	0.0
Manufacture of basic metals	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Manufacture of fabricated metal products	1.1	0.8	0.7	0.5	0.2	0.3	0.4	0.3
Manufacture of computer, electronic	0.7	0.4	0.2	0.1	0.2	0.3	0.3	0.2
Manufacture of electrical equipment	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Manufacture of machinery and equipment	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0
Manufacture of motor vehicles, trailers	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Manufacture of other transport equipment	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Manufacture of furniture	0.5	0.4	0.2	0.1	0.1	0.1	0.0	0.0
Other manufacturing	0.2	0.2	0.3	0.2	0.3	0.4	0.1	0.0
Repair and installation of machinery	2.0	1.5	0.9	0.7	0.2	0.3	0.2	0.1
Electricity, gas, steam and air conditioning	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Water collection, treatment and supply	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sewerage	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Waste collection, treatment a	0.4	0.4	1.3	1.2	0.3	0.4	0.5	0.4
Remediation activities and other waste activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction of buildings	4.9	7.4	5.2	6.5	7.9	53.8	5.8	8.3
Civil engineering	1.0	1.3	1.7	1.7	0.7	1.0	0.3	0.4
Specialised construction activities	6.5	9.6	5.4	6.6	6.0	32.7	4.5	6.3
Wholesale and retail trade and repairs	1.9	2.3	3.2	3.4	2.0	3.6	0.7	0.9
Wholesale trade, except of motor vehicles	8.8	10.5	10.0	11.4	4.4	15.9	2.6	3.0
Retail trade, except of motor vehicles	15.1	17.3	13.5	13.3	16.4	148.4	8.1	9.3
Land transport and transport via pipe	8.5	7.9	7.1	6.2	4.5	17.0	2.8	2.6
Water transport	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Air transport	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
Warehousing and support activities	2.8	3.2	2.5	2.9	0.3	0.4	0.2	0.3
Postal and courier activities	3.1	2.8	2.1	1.9	1.0	1.5	0.5	0.4
Accommodation	0.8	0.9	0.6	0.7	0.9	1.4	0.4	0.5
Food and beverage service activities	9.7	11.5	9.3	11.2	8.0	40.4	4.0	5.1
Publishing activities	0.5	0.4	0.2	0.2	0.5	0.7	0.3	0.3
Motion picture, video and television	2.3	2.2	1.1	1.3	0.8	1.1	0.3	0.4
Programming and broadcasting activities	0.7	0.7	0.4	0.4	0.0	0.0	0.0	0.0
Telecommunications	0.7	0.5	0.8	0.8	1.4	2.5	0.7	0.7
Computer programming, consultancy	3.2	3.4	3.1	4.1	4.1	22.4	4.4	5.7
Information service activities	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
Financial service activities	1.0	0.8	1.4	0.9	1.3	2.5	0.9	0.7
Insurance, reinsurance and pension funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Activities auxiliary to financial services	0.5	0.6	0.5	0.4	1.2	2.0	0.6	0.7
Real estate activities	2.9	3.3	2.6	3.0	6.3	18.9	2.0	2.4
Legal and accounting activities	1.6	1.9	1.8	2.1	4.1	19.7	3.7	4.1
Activities of head offices	3.5	5.2	4.0	5.6	6.1	29.0	3.8	5.2
Architectural and engineering activities	2.0	2.7	1.9	2.4	2.2	6.4	1.9	2.4
Scientific research and development	0.1	0.2	0.5	0.7	0.2	0.3	0.3	0.4
Advertising and market research	5.8	6.7	0.5	0.5	0.9	1.8	1.0	1.1
Other professional, scientific	2.3	3.0	2.7	3.2	3.5	8.4	1.4	1.7
Veterinary activities	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.1
Rental and leasing activities	1.3	1.6	0.8	1.1	0.4	0.4	0.2	0.3
Employment activities	6.4	8.7	3.1	4.5	3.6	10.1	1.8	2.6
Travel agency, tour operator and other	0.4	0.6	0.5	0.7	1.0	1.5	0.4	0.6
Security and investigation activities	0.4	0.5	1.1	1.4	1.6	1.9	0.2	0.2

Services to buildings and landscape	2.2	2.8	3.1	4.2	3.6	10.3	1.8	2.4
Office administrative, office support	3.4	4.9	2.2	3.3	2.4	5.4	1.2	1.9
Public administration and defence	4.4	4.1	3.2	2.9	5.0	17.0	2.4	2.2
Education	12.5	13.8	11.6	12.9	19.1	206.2	9.8	10.7
Human health activities	8.9	11.5	15.1	19.9	12.9	87.3	5.8	8.2
Residential care activities	1.7	1.9	1.2	1.3	4.2	11.8	1.8	2.2
Social work activities	3.6	4.2	3.9	4.6	5.6	22.2	2.9	3.8
Creative, arts and entertainment activities	1.8	2.0	1.4	1.6	1.9	3.4	0.8	1.0
Libraries, archives, museums and other	0.1	0.1	0.4	0.5	0.4	0.5	0.1	0.2
Gambling and betting activities	0.5	0.5	0.7	0.7	0.5	1.7	2.3	2.7
Sports activities and amusement	1.9	2.5	1.9	2.7	2.2	6.1	1.8	2.6
Activities of membership organisation	0.7	0.6	0.5	0.5	1.5	2.1	0.4	0.5
Repair of computers and personal	0.5	0.6	0.3	0.3	0.3	0.4	0.2	0.2
Other personal service activities	3.6	4.3	2.8	3.2	4.3	15.0	2.5	3.2
Total Employment	161.3	183.4	147.9	165.0	160.0	14789.2	91.4	110.9

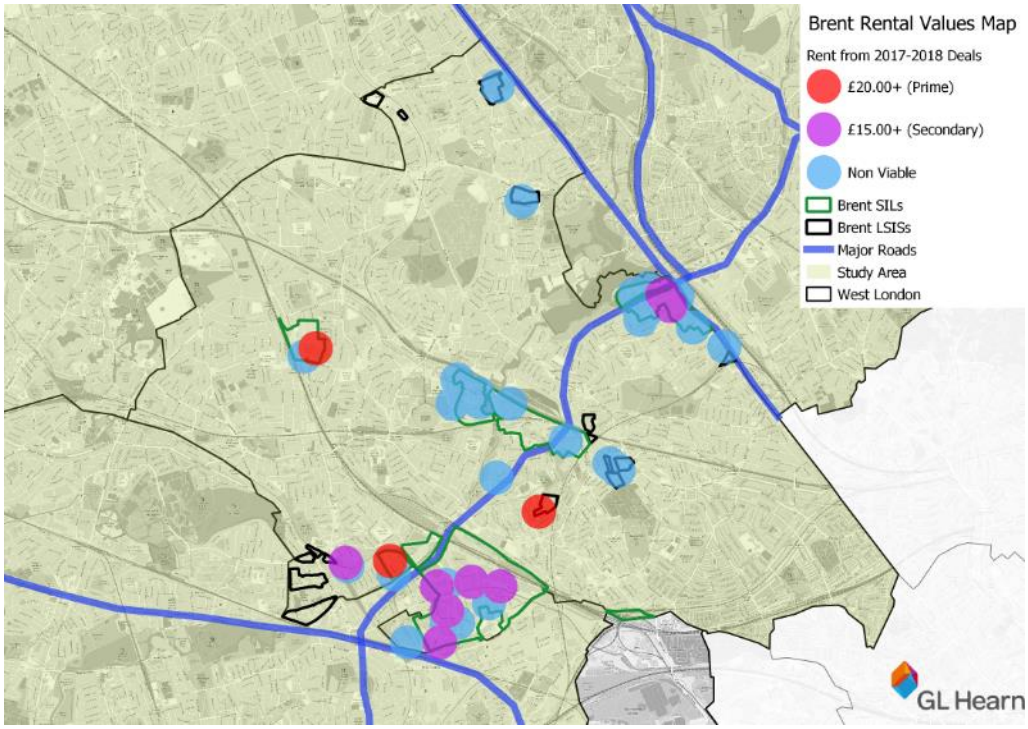
APPENDIX C: Prime and secondary industrial rental value locations by borough

Figure 26: Barnet Rental Values Map



Source: Levy Real Estate, CoStar (2017-2018)

Figure 27: Brent Rental Values Map

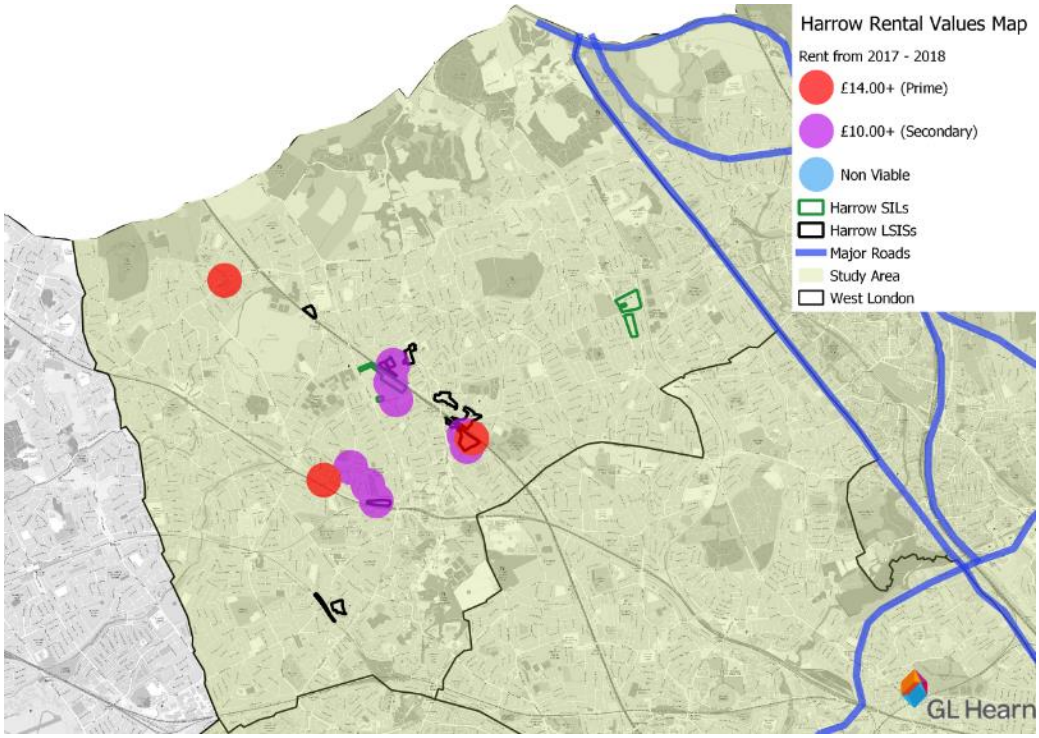


Source: Levy Real Estate, CoStar (2017-2018)

Figure 28: Ealing Rental Values Map

Source: Levy Real Estate, CoStar (2017-2018)

Figure 29: Harrow Rental Values Map



Source: Levy Real Estate, CoStar (2017-2018)

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