

OPDC
OLD OAK AND
PARK ROYAL
DEVELOPMENT
CORPORATION

Industrial Estates Study

LOCAL PLAN SUPPORTING STUDY

June 2018



MAYOR OF LONDON

25. Industrial Estates Study

Document Title	Industrial Estates Study
Lead Author	Regeneris
Purpose of the Study	Research into industrial estates to understand their characteristics, success factors and how the Park Royal industrial area is performing against these.
Key outputs	<ul style="list-style-type: none"> • A methodology to assess/evaluate industrial estates and to identify the key characteristics which make them attractive to prospective businesses. • An assessment and baseline of Park Royal in relation to other UK and European Industrial Estates, and its relative competitive position
Key recommendations	<p>Recommendations for how Park Royal can improve its competitive position, including:</p> <ul style="list-style-type: none"> • protecting industrial land; • ensuring a greater diversity of unit sizes; • addressing infrastructure issues; and • improving access to amenities.
Key changes made since Reg 19 (1)	N/A
Relations to other studies	Outputs cross relate to the Future Employment Growth Sectors Study and Park Royal Intensification Study.
Relevant Local Plan Policies and Chapters	<ul style="list-style-type: none"> • Policy SP5 (Resilient Economy) • Place policies P4 (Park Royal West), P5 (Old Park Royal), P6 (Park Royal Centre), P7 (North Acton and Acton Wells), P8 (Old Oak Lane and Old Oak Common Lane) and P9 (Channel Gate) • All Employment chapter policies

The background of the entire page is a photograph of an industrial facility, likely a refinery or chemical plant. It features a complex network of large, polished metal pipes and machinery. The lighting is bright, creating strong reflections on the metallic surfaces. The perspective is from a low angle, looking up at the pipes, which converge towards the top of the frame. The overall color palette is dominated by cool blues and greys, with some warmer tones from the lighting.

regeneris

ECONOMICS • RESEARCH • ANALYSIS

Industrial Estate Research

A Final Report by
Regeneris Consulting

Old Oak and Park Royal Development Corporation (OPDC)

Industrial Estate Research

August 2016

Regeneris Consulting Ltd
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Contents Page

Executive Summary	3
Introduction	3
Park Royal	4
Case Studies	4
A Comparison	8
Conclusions	9
<hr/>	
1. Introduction	11
<hr/>	
2. Approach to Assessment	13
Case Study Locations	13
Assessment Framework	14
<hr/>	
3. The Opportunity	19
Overview of Park Royal and Old Oak	19
Park Royal and Old Oak Profile	20
<hr/>	
4. Case Studies	28
Trafford Park Industrial Estate	28
Slough Trading Estate	36
London Riverside Industrial Area (BID)	43
Manor Royal	51
North East Enfield including Brimsdown (Upper Lee Valley)	59
Brimmsdown	68
Other Industrial Estates of Interest	72
<hr/>	
5. Summary and Conclusions	77
A Summary	77
Conclusions	86

Appendix A - Geographical Definitions

Appendix B - Case Study Area Selections

Appendix C - Site Typologies

Appendix D - Consultees

Executive Summary

Introduction

i. Regeneris Consulting and We Made That were commissioned to carry out research into industrial estates with a view to understanding the characteristics of the estates, their success factors and how Park Royal is performing against these. The specific objectives of this study are summarised below:

- 1) Design a methodology to assess / evaluate industrial estates by identifying the key characteristics which make an industrial estate attractive to prospective businesses.
- 2) Use the methodology to assess and baseline Park Royal in relation to other UK and European Industrial Estates.
- 3) Detail Park Royal's competitive position relative to the other industrial estates and with respect to specific business sectors.
- 4) Recommend how Park Royal can improve its competitive position.

ii. An initial long list of possible case study locations was developed (15 in total), and this was refined to a shortlist following a meeting with the steering group. The shortlist is summarised below and the case studies were selected to focus on those which could generate lessons for Park Royal and particularly those which were thought to perform well.

	Comments	Consultations
Trafford Park	Strong similarities to Park Royal in terms of size and proximity to major city	√ JLL
Slough Trading Estate	Strong performing estate which could generate lessons	√ Council
London Riverside	Fairly significant in size in London terms & performs well	√ BID
Manor Royal	Interest in BID and how performance has improved	√ BID
NE Enfield inc. Brimsdown	One of the largest estates in London after Park Royal and interested to understand how cluster performs	√ Council
A40 Corridor	Qualitative assessment to understand how this might compete/complement Park Royal	√ JLL
Clean-tech Copenhagen	Qualitative assessment to generate lessons on key sector for Park Royal	√ Director of Business Dev.

iii. An assessment framework was developed focusing on the following criteria and each site has been assessed against these:

- Economy

- xii. Whilst the estate is limited in terms of land available for future development, there are no real issues in terms of utilities available which could constrain development. As with Park Royal, Trafford Park has fragmented ownership patterns.
- xiii. Key lessons for Park Royal include the following:
 - There are perceptions that the estate feels ‘open’ and less dense than Park Royal
 - Discussions suggest that there are lower levels of congestion which makes the site attractive
 - Future development is not constrained by utilities and transport which provides opportunities for intensification

Slough Trading Estate

- xiv. Slough Trading Estate is reported to be the largest industrial estate in single private ownership in Western Europe. It provides 19,000 jobs across 900 businesses.
- xv. Key sectors include ICT & Creative Media, advanced manufacturing and manufacturing and there are a large number of multi-national headquarters and data centres. Given the strong ICT presence it is one of the most productive industrial estates with 31% of employment in high value sectors. Overall the estate produces £1.66bn in GVA per year.
- xvi. Slough Trading Estate has very good access to the road network and Heathrow Airport. It is also set to benefit from Crossrail. Due to the existing strong links, this estate has the second highest size of workforce within a commutable distance
- xvii. Rents are the second highest after Park Royal and there is a low vacancy rate (2.2%), which all points to strong demand for premises. A single land owner (SEGRO) has improved site co-ordination and overall, the estate has good levels of public realm and there are low levels of crime on site. SEGRO is reportedly set to invest £110 million within the next four years.
- xviii. Key Lessons for OPDC include:
 - Very good access to highly skilled labour which has helped specialisation in ICT
 - Centralised management (SEGRO) has enabled the co-ordination and implementation of investment, leading to low vacancy and crime rates

London Riverside

- xix. For the purpose of this assessment, we have focused on the BID area at London Riverside which was established in 2007. This is one of the smallest industrial estates examined, with 8,200 jobs and 600 businesses. Key sectors at London Riverside include utilities, transport and logistics and manufacturing.
- xx. The estate produces £615m in GVA per year, which is equivalent to £75,300 per employee (around average compared to other estates we have examined). Nearly half of employment is in high value sectors which reflects the presence of employment in utilities and logistics which typically have higher GVA per employee.

- xxxii. There are average vacancy rates (3.5% across all sites and 5.6% in Brimsdown) and good public realm as well as low crime levels.
- xxxiii. Key Lessons for OPDC are that North East Enfield is one of Park Royal's key competitors for transport and logistics firms, and has better access to M25 and routes to the North (A1/M1/M11) with good connections to Central London.

A40 Estates

- xxxiv. **Greenford** is often considered as an alternative location to Park Royal. Proximity to the A40 provides good access to markets with companies like Jack Wills, Sainsbury's and Tesco locating distribution depots on site. There is also good public transport (central line and Greenford station) which provides good access to labour.
- xxxv. The average price for space on the site is £13 per sq ft which is cheaper than Park Royal. Brompton Bicycles have recently moved into an 86,000 sq ft space on site which is a sign of the areas attractiveness.
- xxxvi. **Perivale and Alperton** are also close to the A40. Key sectors for the Perivale estate are in vehicle sale, storage and repair, or are related to the Film Industry. There is good public transport access at both Perivale and Alperton but the estates are constrained by the capacity for intensification.
- xxxvii. The key lessons for OPDC are as follows:
 - Inability of Park Royal to provide some of the types and quality of spaces required has allowed Greenford to thrive
 - Sites have better access to public transport which could improve the competitiveness of the site relative to other sites

Copenhagen Clean-tech

- xxxviii. The Copenhagen Clean Tech Cluster (CCC) is a group of businesses which work to develop and deliver solutions which aim to tackle challenges relating to improving efficiency in the life cycle of products. The cluster opened in 2012, 40km North West of Copenhagen.
- xxxix. There are currently 12 – 15 Clean Tech companies operating in the area employing 1,300 people. Around 370 hectares of space has been assigned to the Copenhagen Clean Tech Park in line with the city Masterplan. R&D support is provided through the central government, municipalities and close cooperation with local Universities
- xl. Key Lessons for OPDC are as follows: high levels of co-operation between all stakeholders is crucial to understand business needs; access to R&D institutions is also essential.

A Comparison

xli. The key points for Park Royal based on the assessment are summarised below:

Economy	Proximity to Key Markets, Workforce and Transport Access	Physical	Other
<ul style="list-style-type: none"> • Park Royal is the largest industrial estate in terms of employees and jobs but not size • Second most 'dense' site with 105 employees per ha after Manor Royal (121). • Average in terms of GVA per employee (£67,147) but above Trafford Park (£54,640). Lowest in London area. • Linked to this, higher value employment only accounts for 29% of total. Only Trafford Park and NE Enfield have lower % • Highest rental levels (£15ft²) compared to all other estates which confirms strong performance 	<ul style="list-style-type: none"> • Park Royal has good access to markets, with the largest number of businesses and employees within a 25km radius out of all industrial estates • High congestion in AM and PM peaks, means Park Royal has poor number of employees within commutable time. • High level of potential workforce educated to degree level (and above). • Relatively few educated to A Level (or equivalent). • Poor public transport connections at present, but set to be drastically improved with Crossrail (and HS2). 	<ul style="list-style-type: none"> • 52% of space is warehousing and only NE Enfield / Brimsdown have higher percentage (64/65%) • Average size of unit is smaller than all other estates at 7,800ft² which reflects diversity of estate • Vacancy rate at 3.6%. Only Trafford Park (5%) and Brimsdown have higher (5.6%). • High levels of crime in Park Royal - over 120 crimes recorded in April 2016, although a large proportion is associated with Central Middlesex Hospital. 	<ul style="list-style-type: none"> • Highly fragmented land ownership in Park Royal compared to other sites • No platform for 'day to day' management of the site similar to a BID which could address issues around security • Utilities good at present, but lacks capacity for expansion • Limited supply of industrial units (as shown in rental values) could prevent future growth. • Congestion in the area is a major issue, especially with regard to its competitiveness relative to other industrial estates

1. Introduction

Study Purpose

- 1.1 The Old Oak and Park Royal Opportunity Area Planning Framework (OAPF) adopted by the Mayor of London in 2015 sets out an ambitious vision to capitalise on the major investment in transport infrastructure at Old Oak Common to create a new commercial centre in London. A new interchange station at Old Oak Common will provide a focal point for High Speed 2, Crossrail and the Great West Main Line. Old Oak is identified as having the potential to deliver 24,000 new homes and 55,000 new jobs over the next 30 years.
- 1.2 Today, Old Oak is 105 hectares of industrial and railway land in west London. The area has limited public transport access and is occupied primarily by railway depots, rail lines, waste sites, and other secondary uses. To the west of Old Oak is the Park Royal industrial estate. The industrial estate spans 500 hectares and is one of the largest in Europe. The OAPF identifies Park Royal as having capacity for further growth through intensification, with an indicative target of 10,000 new jobs.
- 1.3 It is recognised that there is limited research into industrial estates and in response, Regeneris Consulting and We Made That have been commissioned to look at the characteristics of industrial estates and their success factors, and, determine how Park Royal is performing against these success factors. The specific objectives of this study are summarised below:
- 1) Design a methodology to assess / evaluate industrial estates by identifying the key characteristics which make an industrial estate attractive to prospective businesses.
 - 2) Use the methodology to assess and baseline Park Royal in relation to other UK and European Industrial Estates.
 - 3) Detail Park Royal's competitive position relative to the other industrial estates and with respect to specific business sectors.
 - 4) Recommend how Park Royal can improve its competitive position.
- 1.4 Regeneris have led the work to analyse the key characteristics within each of the industrial estates and understand Park Royal's competitive position with We Made That providing expert input to the site typologies analysis. This study is essential in supporting Old Oak and Park Royal Development Corporation (OPDC) to identify priorities and projects which can ensure the estates ongoing success and competitiveness. This will inform the Park Royal work programme, which will set out the future vision for the industrial estate and identify strategic objectives together with a prioritised project plan of interventions. It will also provide an evidence base to inform other OPDC strategies and documents including the Local Plan.

Our Broad Approach and Report Structure

- 1.5 In order to inform this study, we have carried out the following key tasks:
- Identified an initial list of potential case study locations and designed a draft framework. Both of these were discussed at a workshop involving representatives from OPDC, LB Brent, LB Ealing and local business representatives.
 - Following the workshop, a final list of case studies and draft assessment framework were agreed as set out in Section 2 of this report.

- Each of the case study locations were assessed against the framework. Information was gathered from a range of sources including: planning documents, national data sets (such as BRES), commercial property data sets (such as EGi) and consultations with key individuals (Appendix A).

1.6 The remainder of the report is set out into the following headings:

- Approach to Assessment
- The Opportunity
- Case Studies
- Summary and Conclusions

2. Approach to Assessment

- 2.1 This section sets out our approach to this assessment, outlining the methodology by which industrial estates were chosen for the analysis. This includes analysing a large selection of industrial estates before shortlisting those which could provide the most relevant lessons for Park Royal. This is followed by an overview of the Assessment Framework used to analyse the characteristics of each of the industrial estates examined as part of this research.

Case Study Locations

- 2.2 The selection process for selecting industrial estates to be examined as part of this research was conducted by assessing a range of criteria which was agreed at the Inception Meeting. This includes an initial overview of each industrial estate, including:

- Size – a focus on estates which are 250ha plus in size
- Proximity to major city
- Focus on UK locations, with a small number of European examples
- A range of sectors could be considered
- A strong focus on lessons learned – how can Park Royal improve?

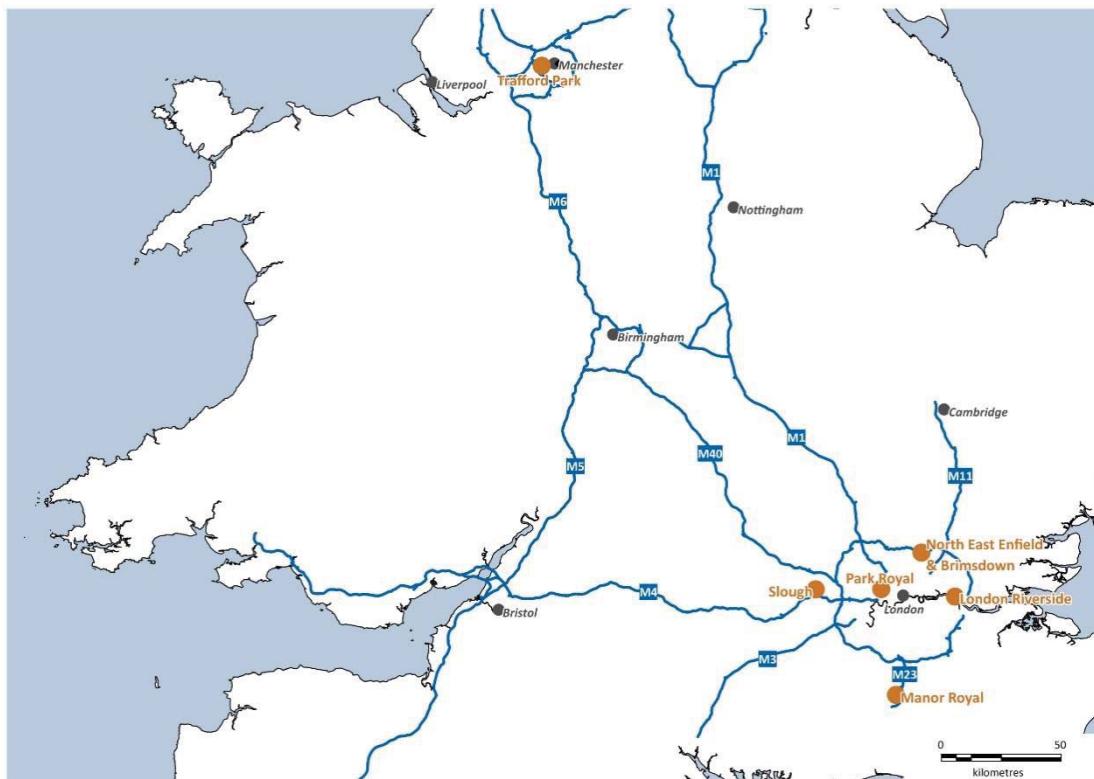
- 2.3 A long list of potential case study locations was shared with the steering group at a meeting in May 2016. The following case study areas were included on the long list (with further information about these provided in Appendix B):

- 1) Team Valley, Gateshead
- 2) Trafford Park, Manchester
- 3) Slough Trading Estate, Slough
- 4) London Riverside, London
- 5) Knowsley Industrial Park, Liverpool
- 6) Hillington Park, Glasgow
- 7) Sandyford, Dublin
- 8) Manor Royal, Crawley
- 9) Brimsdown, London
- 10) The Bridge, Dartford
- 11) Wrexham Industrial Estate, Wales
- 12) Aycliffe, Durham
- 13) Parc industriel de la Plaines de l'ain, Lyon
- 14) Kassel Industrial Park, Kassel
- 15) Parisud Senart, Paris

2.4 Following discussions with the Steering Group, it was agreed that the focus for this study should be on a smaller number of estates, focusing on those which were most comparable to Park Royal and those which were considered to be most successful and could generate lessons for OPDC. The following case studies were agreed and are illustrated in Figure 2.1 below:

- **Trafford Park Industrial Estate**
- **Slough Trading Estate**
- **London Riverside**
- **Manor Royal**
- **North East Enfield including Brimsdown (Upper Lee Valley)**

Figure 2.1 Location of Case Studies



Source: Regeneris Consulting

2.5 In addition to these case studies, it was decided that there were two locations which OPDC would like to learn more about but which should not be assessed fully using the assessment framework described below. A qualitative assessment has been made of these areas which include the following:

- **A40 Corridor** including Greenford, Alperton/Perivale and Staples Corner – in recognition of the areas proximity to Park Royal and that it sometimes competes with this area.
- **Copenhagen Clean Tech Park** – recognising OPDCs interest in the Clean-tech sector.

Assessment Framework

2.6 In order to provide an accurate assessment of Park Royal and its competitive position relative to other industrial estates, an assessment framework has been developed. This draws upon a range

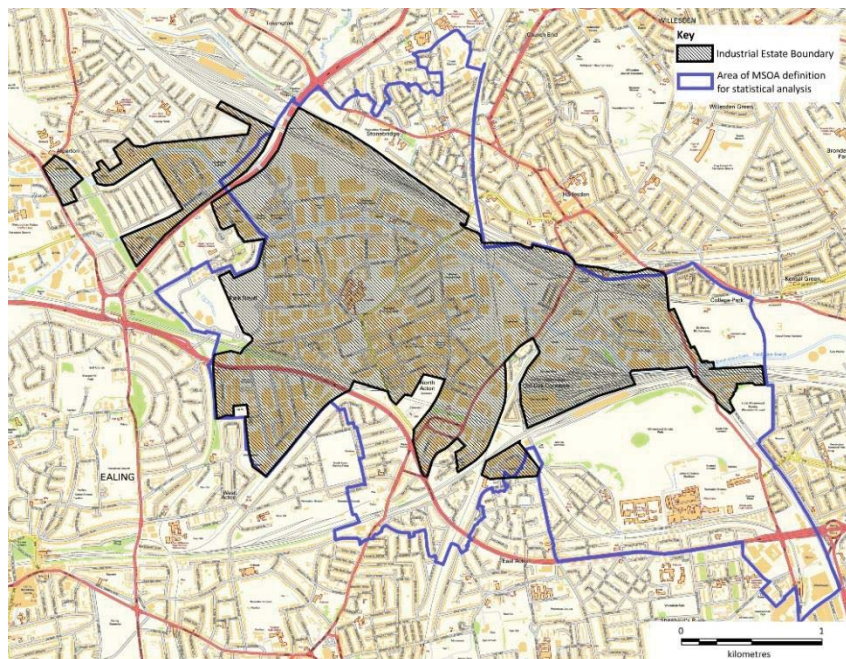
3. The Opportunity

Overview of Park Royal and Old Oak

Park Royal is the largest industrial estate in London, occupying approximately 584 hectares of land and employing around 52,300 people¹. It is one of London’s primary industrial areas and performs a vital role in supplying and supporting the London economy. It largely consists of industrial land uses, although there are small pockets of residential uses, a hospital and a supermarket on site, in addition to numerous transport uses (including National Rail, Overground, Tube lines, the A40 and the North Circular).

Park Royal is located across the three London boroughs of Brent, Ealing and Hammersmith & Fulham giving it complex geographical boundaries. The Old Oak and Park Royal Development Corporation (the local planning authority) has been tasked with developing the area in the future. It is expected to be one of London’s largest regeneration projects over the next decade, with over a billion pounds invested in transport infrastructure. Park Royal’s proximity to Old Oak (the envisaged HS2 and Crossrail interchange) will create a catalyst for future development with over 25,000 new homes and 65,000 new jobs envisaged for the combined area². Around 10,000 of these new jobs are expected to be created through the intensification of Park Royal.

Figure 3.1 Map of Park Royal Industrial Estate with geographies for analysis

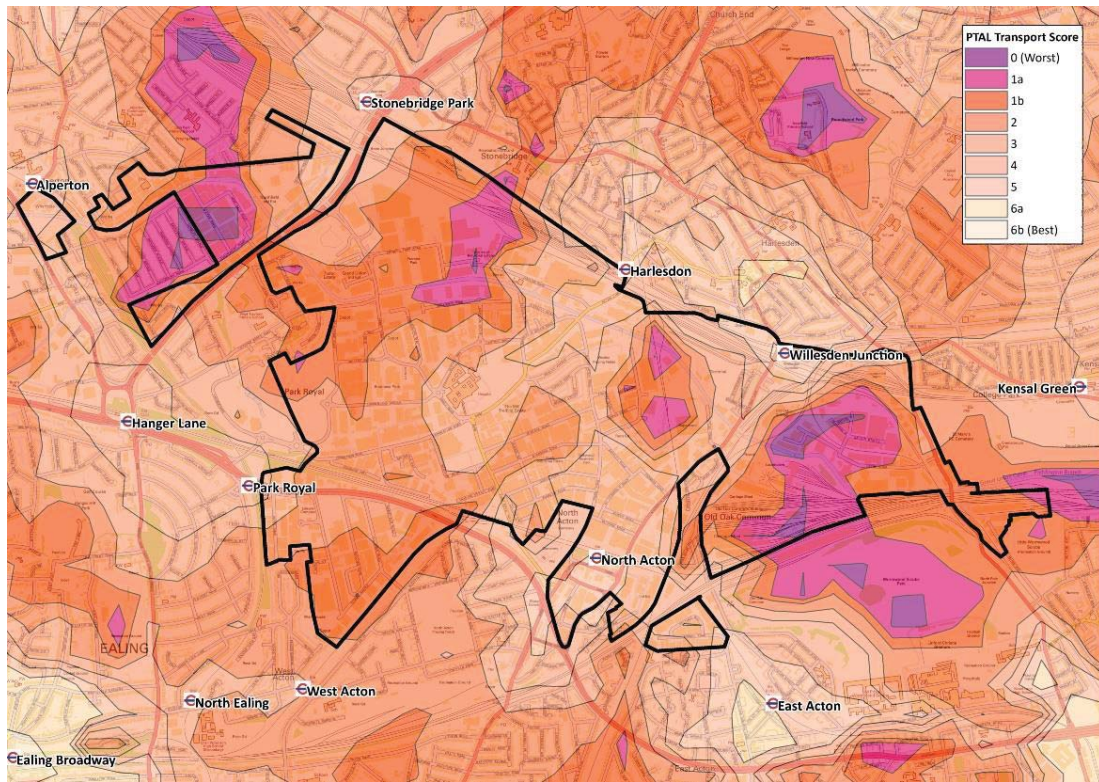


Source: Regeneris Consulting

¹ Data from ONS, BRES (2014) for three MSOAs

² OPDC Local Plan (2016)

Figure 3.2 Public Transport Accessibility Level in Park Royal



Source: Transport for London, 2011

Physical

- 3.17 The majority of the premises within the OPDC area are designated for mixed industrial usage (B1, B2, B8). The average size of premises is 7,800 sq ft¹⁴, the smallest average size out of all industrial estates examined by some margin. This reflects the diversity of the units available in Park Royal, with a large number of smaller office units alongside a number of very large units, which house some of the area's largest firms that specialise in food manufacturing, warehousing and logistics, which typically require more floorspace.
- 3.18 The site typologies in Park Royal reflects the high density of the estate and the high level of activity in warehousing and transport. Figure 3.3 shows the distribution of site types across Park Royal. It reveals that Park Royal has the largest proportion of dense industrial employment sites¹⁵ amongst all the case study sites (21%). This makeup reflects the high employment density in Park Royal. In addition, Park Royal has the highest proportion of residential sites (3%) showing the diversity of uses within the industrial estate. There is a notable absence of large plots of vacant land in Park Royal.
- 3.19 By sector, transport storage occupies the largest proportion of the site at approximately 14%¹⁶. 11% of the site is associated with food manufacture and 8% with vehicle sale and repair. Food

¹⁴ Based on Valuation Office Agency Data

¹⁵ Dense industrial sites (as defined in Appendix C) are defined as having between 90 and 190 employees per hectare and have a typical unit size of 250 – 2,500 sqm.

¹⁶ Valuation Office Agency, 2016

manufacturing is primarily clustered towards the north of the site along Waxlow Road and North West along Elveden Road.

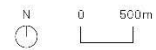
- 3.20 Using Estates Gazette data on live property listings, the number of vacant units within Park Royal as of June 2016 was 117 units totalling 1.9 million sq ft (equivalent to around 3.6% of units). Around half of these premises (49%) were identified as mixed industrial usage (B1, B2, B8), and the average floor space of these units was 28,066 sq ft. This is significantly above the average premises size for the entire park. The buildings are a patchwork of ages and qualities, and although the majority are fit for present purpose, they lack the flexibility to cater for a wide range of business activities.
- 3.21 Public realm in Park Royal was assessed in the OPDC Industrial Land Review¹⁷, which identified 43% of the area within the Park Royal industrial estate having a low level of business street presence, with a further 19% identified as having a very low business street presence. Nearly half of the premises (45%) are identified as having a low level of impact on the local environment, and 29% are identified as having a neutral impact on the environment. Anecdotal evidence from consultations has indicated that there has been a marked improvement in the quality of public realm over the past decade with respect to cleanliness and frontages of sites, although signage was identified as a potential issue. In addition, the maintenance of infrastructure and landscaping is still an issue amongst local businesses. Overall though particular aspects of the public realm are considered to be poor and could be improved.
- 3.22 Data from the Metropolitan Police reveals there are relatively high levels of crime occurring within the Park Royal estate area. Within the month of April 2016, 126 crimes were reported and identified to have taken place within the Park Royal industrial estate. 26 of these crimes were classified as theft, 22 anti-social behaviours, and 17 related to violence and/or sexual offences. The majority of the crime was associated with Central Middlesex Hospital.

¹⁷ OPDC Industrial Land Review, 2016

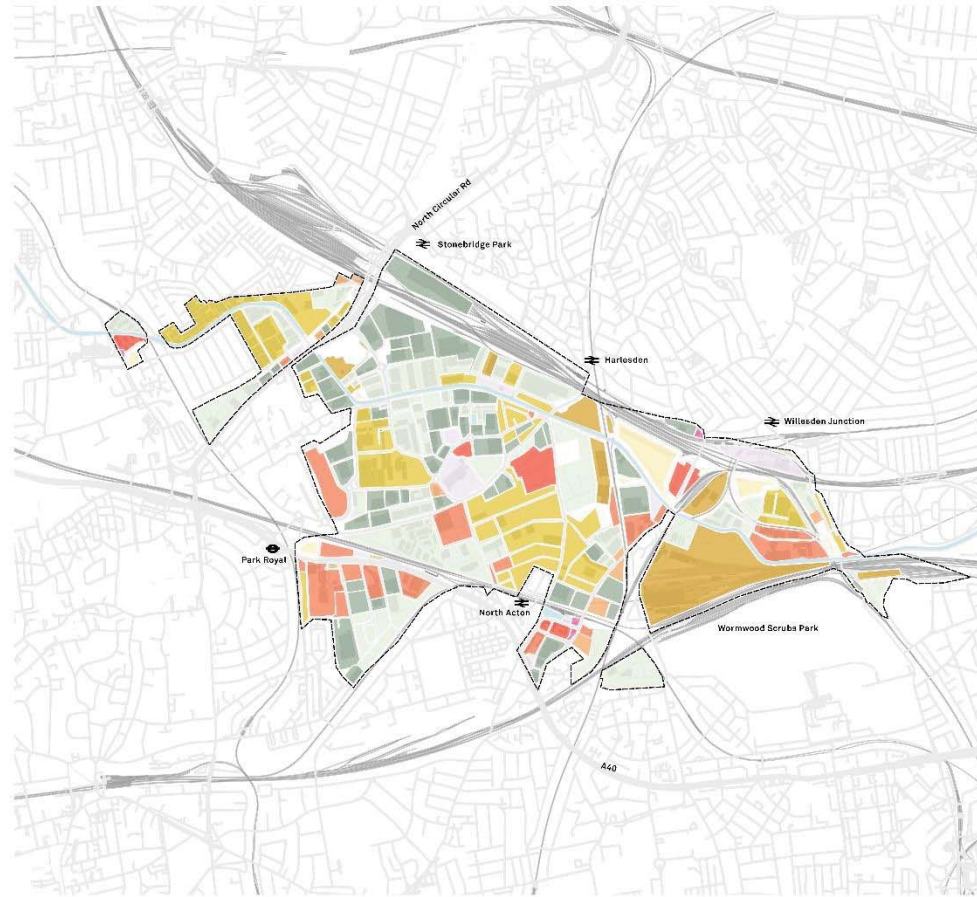
Figure 3.3 Site Typologies in Park Royal

PARK ROYAL
INDUSTRIAL ESTATE

- Key
- Standalone Warehouse
 - Industrial Estate
 - Dense Industrial
 - Bospoke Industrial or Utilities
 - Open Industrial Land
 - Retail Park
 - Business Park
 - Office
 - High Street
 - Community Uses
 - Residential
 - Retail Station
 - Under Construction
 - Parking
 - Vacant Land
 - Other
 - Green Space
 - Case Study Site Boundary



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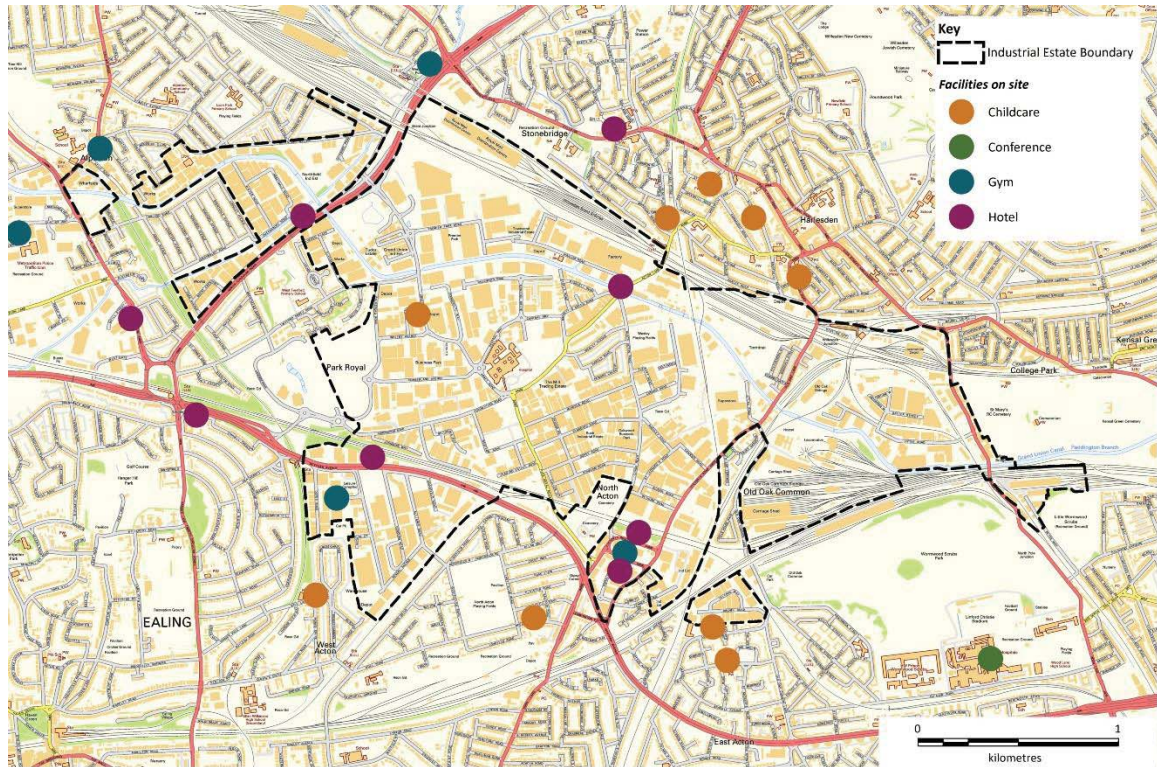


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Source: We Made That

- 3.23 Park Royal currently suffers from a lack of facilities on site for businesses and employees, with only one nursery, two gyms, four hotels and no conference facilities. This presents a problem when trying to attract businesses into Park Royal, with some other industrial estates (e.g. Manor Royal and Trafford Park) having more facilities available for staff and businesses.

Figure 3.4 Facilities in Park Royal



Source: Regeneris Consulting

Access to Infrastructure

- 3.24 The draft OPDC Draft Local Plan (2016) finds that areas within Old Oak Common and Park Royal have poor digital communications infrastructure and lacks access to ‘next generation broadband’ or ‘superfast broadband’ services. Current digital communication infrastructure within Old Oak will not be sufficient to meet the envisaged rising demand for data capacity.¹⁸
- 3.25 Large-scale regeneration at Old Oak and intensification in Park Royal will place increasing demands on the energy network. The current network is not capable of accommodating future energy requirements and this will need to be addressed to enable timely delivery. Integrated delivery of a decentralised energy network at the scale that could be achieved at Old Oak presents a significant opportunity for sustainability.¹⁹
- 3.26 The area’s sewer network is old and has insufficient capacity in places to serve the planned growth and regeneration for the purposes of foul-water and surface water drainage. There is a need to manage the increasing demand for clean ‘potable’ water resulting from new development and population growth, to reduce the deficit in water supply-demand balance and improve water

¹⁸ Old Oak Common and Park Royal Development Corporation Draft Local Plan (2016)

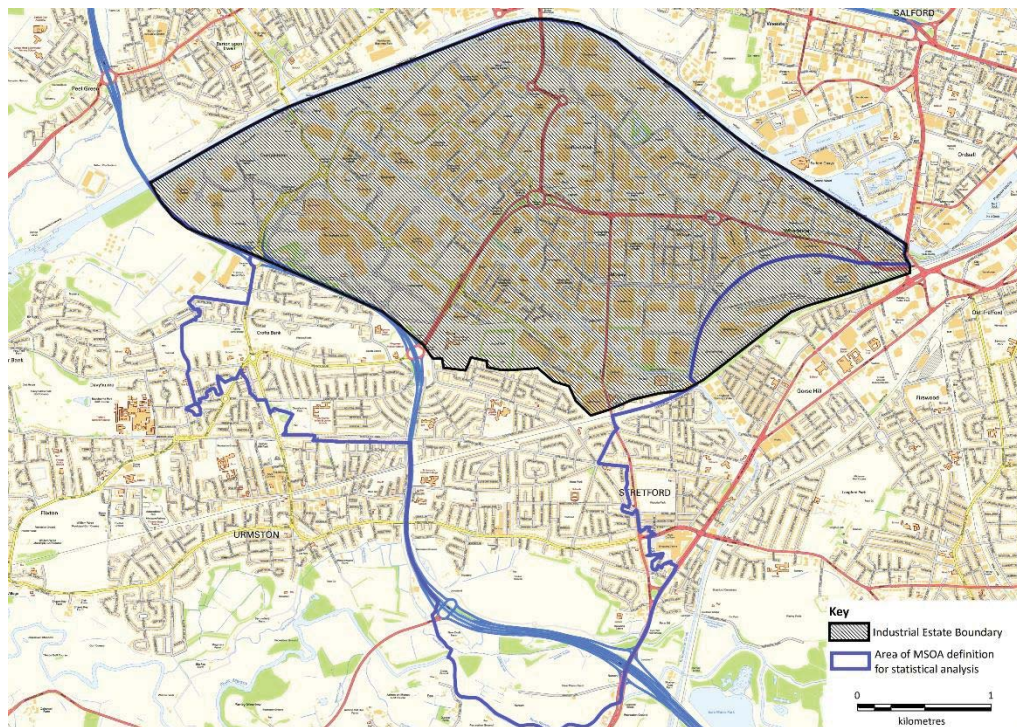
¹⁹ Old Oak Common and Park Royal Development Corporation Draft Local Plan (2016)

4. Case Studies

Trafford Park Industrial Estate

- 4.1 Trafford Park is one of the largest industrial estates in Europe, covering approximately 785 hectares of space²³ and accounting for over 1,500 businesses²⁴. It is recognised as being the first planned industrial estate in the world²⁵, with a history of engineering and manufacturing. Its close connections to the Bridgewater Canal and Manchester Ship Canal helped to establish it as a major industrial site with good connections. Despite a decline between the 1960s and 1980s, the establishment of the park as an Enterprise Zone in 1981 has helped to spur new development in recent years. Trafford Park has a number of influences which have affected the mix of the site, including Trafford Centre (the largest indoor shopping centre in the North West), combined with Old Trafford Stadium and Media City UK on the periphery of the site.

Figure 4.1 Map of Trafford Park Industrial Estate with geographies for analysis



Source: Regeneris Consulting

Economy

- 4.2 Trafford Park currently employs around 40,100 people²⁶ across a variety of sectors, but still retains its historic specialisms in manufacturing and engineering. Trafford Park is a relatively productive

²³ Based on analysis undertaken by We Made That

²⁴ Using data from ONS UK Business Count across the area marked with a blue boundary in Figure 4.1

²⁵ Herron, A., "Manchester's Trafford Park, the world's first industrial estate", The Guardian, 29th October 2015

²⁶ Using data from ONS BRES across the area marked with a blue boundary in Figure 4.1

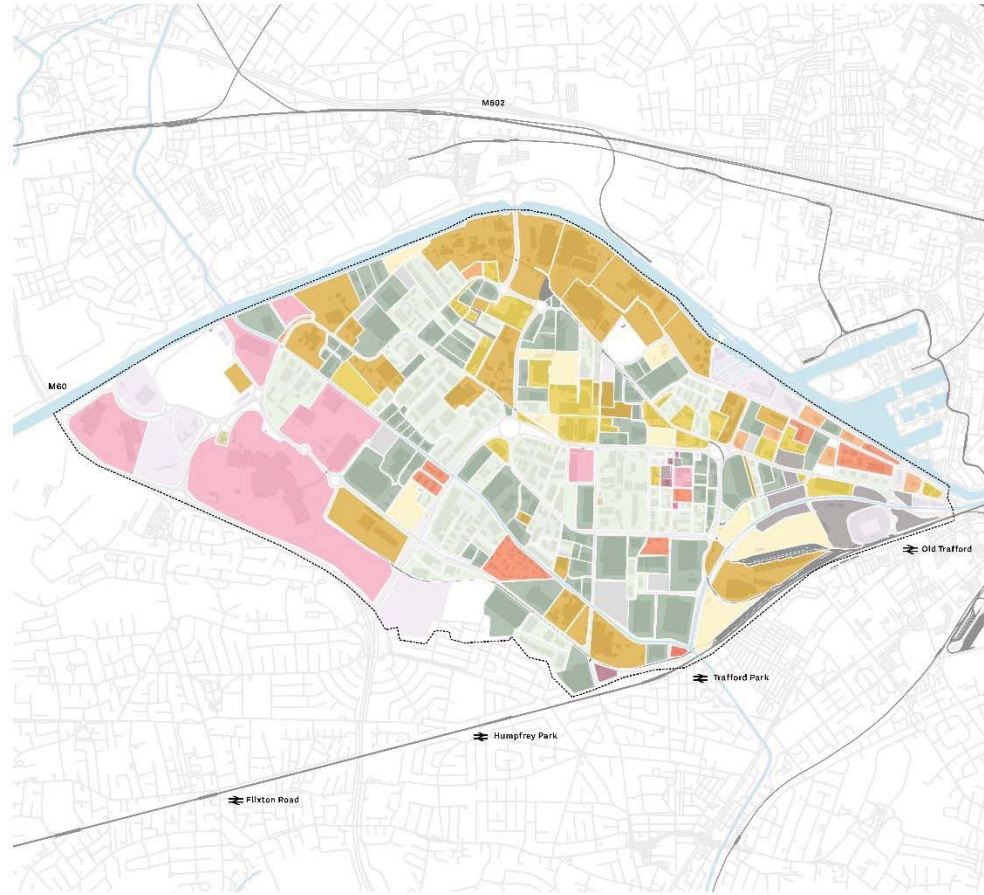
utility. The average size of unit within the industrial estate is 18,640 sq ft, larger than the average unit size across the industrial estates assessed.

- 4.15 Trafford Park has the highest proportion of retail units (13% of land area) out of all the case studies examined³⁰. This is largely due to the presence of the intu Trafford Centre and developments around it. The influence of Old Trafford Stadium to the East of Trafford Park, has resulted in significant amounts of parking. The new developments around Salford Quays (linked to MediaCity UK) has seen an increasing amount of office space developed around this area³¹. This has led to a very diverse mix of units in Trafford Park. The majority of industrial and utilities units are concentrated around the Manchester Ship Canal, reflecting the historic past usages of Trafford Park.
- 4.16 Information on live property listings compiled by Estates Gazette shows there are currently 147 vacant units to let within the industrial estate totalling 3,022,710 sq ft. This results in a vacancy rate of approximately 5% within the site. The vacancy rate is slightly higher than Park Royal with respect to the total vacant space and the number of vacant units (Park Royal's vacancy rate = 3.6%). The majority of industrial stock within Trafford Park is second hand / refurbished sites, and consultations with agents in reveals that there is a high level of investment by landowners on the industrial stock to ensure it remains competitive and adequate for the evolving needs of businesses. Most of the vacant stock tend to be older and more inflexible industrial stock which is harder to shift.

³¹ Information obtained by consultations with Trafford Council and JLL

Figure 4.3 Site Typologies in Trafford Park

TRAFFORD PARK
INDUSTRIAL ESTATE



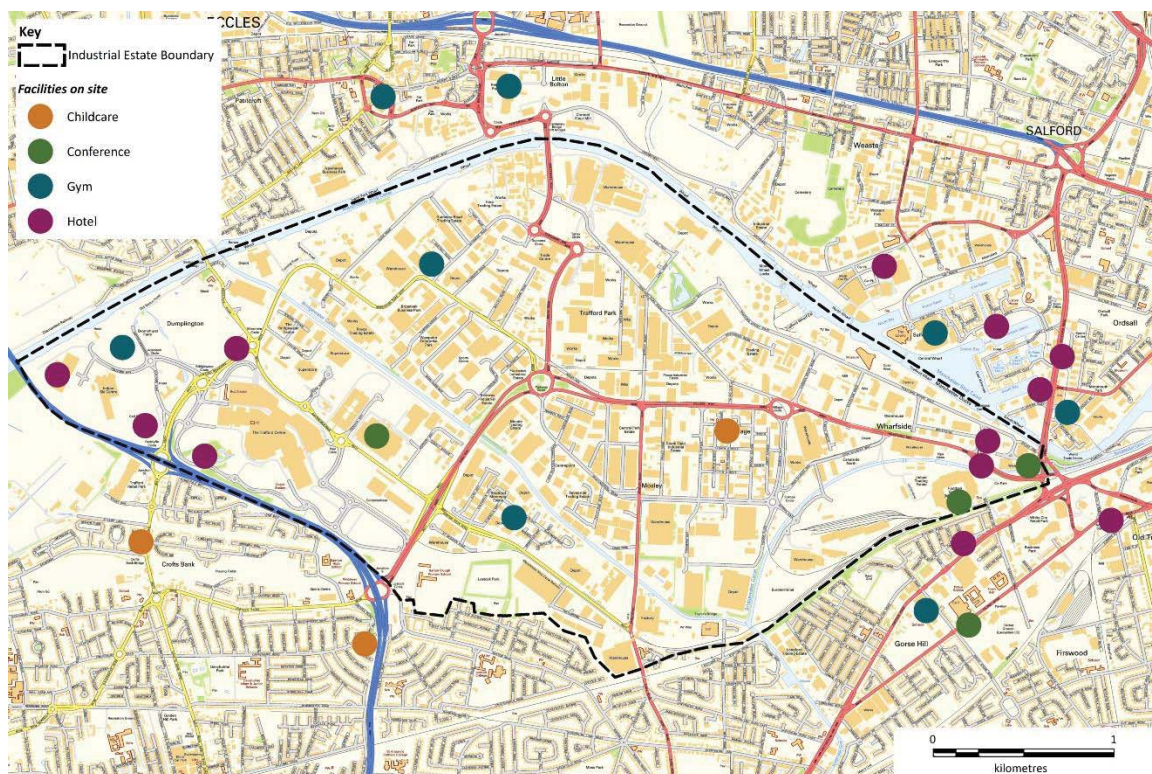
133 070C Industrial Estate Study
WE MADE THAT

P 7

Source: We Made That

- 4.17 The majority of the industrial park has a low level of public realm or green space³², with no co-ordinated effort to develop public realm, except in the area around the Trafford Centre which has significant amounts to attract shoppers to the area. The only exception to this is Trafford Ecology Park, to the North of the estate, which is a registered Site of Biological Importance, providing a wildlife oasis within the industrial estate alongside an educational centre.
- 4.18 Trafford Park has a relatively good level of facilities on site for businesses and employees, although most of this is located at the extremities of the site in close proximity to the Trafford Centre and Old Trafford. There are six hotels located in the site, three gyms, three conference facilities (including EventCity, the second largest exhibition space outside London) and one nursery.

Figure 4.4 Facilities in Trafford Park



Source: Regeneris Consulting

- 4.19 The road ways around the Trafford centre are relatively busy, with congestion at peak times, especially on the entry to the industrial estate in the AM peak, and the M60 in the PM peak³². Roads in Trafford Park are generally in a good condition.
- 4.20 Trafford Park has relatively good access to broadband, energy, waste and water infrastructure. The following table provides more details on each of these types of infrastructure.

Table 4.1 Access to Infrastructure

Broadband	Information provided by British Telecom reported that adequate telecoms infrastructure is currently available in Trafford.
------------------	--

³² Information obtained by consultations with Trafford Council and JLL

Energy	There are 5 main gas transmission assets located within Trafford Park, along with 4 main electricity transmission assets and 3 major electricity sub-stations. Information from DNOs The Trafford Park Masterplan suggests that developments in Trafford Park would not in principle represent a major issue for either the gas or electricity network, however no detailed network utilisation or capacity information was provided to substantiate this.
Waste	A range of waste management facilities exist within Trafford Park. The Greater Manchester Joint Waste Development Plan will explore the need for further waste management facilities across the sub-region, the types of facilities required and potential sites.
Water	Feedback from United Utilities has suggested that no major potable water provision issues are envisaged for Trafford Park under current anticipated growth levels, although more localised network reinforcements may be required in the event of any significant new developments on the Park. In terms of wastewater, there is a major wastewater treatment facility (WWTP) located in Davyhulme, adjacent to the Park. This serves a large area across south and west Manchester, and has been significantly upgraded over the past 10 years following investment by United Utilities. Whilst there are no current issues in terms of wastewater capacity on the Park, and the Davyhulme waste works currently has scope to accommodate an amount of additional capacity, there is limited scope to increase capacity at the works beyond this. This means that the nature and scale of development and associated future increased demands across a large area - and not just Trafford borough - have the potential to impact upon wastewater service provision in Trafford Park.

Source: Trafford Park Masterplan Baseline Assessment, Ekosgen (2008)

- 4.21 Crime levels in Trafford Park are relatively high with 138 crimes reported and identified to have taken place in April 2016³³. Of these crimes, 52 were classified as shoplifting, 17 as other thefts, and 16 related to violence and/or sexual offences. The majority of the crime in Trafford Park is associated with the Trafford Centre shopping centre, which explains the high proportion of shoplifting that occurs in the area.

Development Potential

- 4.22 Within the past six and a half years, nine planning applications have been put forward within the area. Recent applications include: a change of use from storage and distribution to use as an office in order to form a Head Office facility for Regatta Limited; and the erection of a temporary site office and compound facility for a four-year period for the construction of the Metrolink Trafford Park Line. Work on the Trafford Park Metrolink is due to begin in 2016 and is targeted to be complete in 2019/20.
- 4.23 The limited number of planning applications in recent years reflects that Trafford Park is full, with very few sites available for development³⁴. No land is expected to be released in the near future for new developments and this constraint is further compounded by pressures to redevelop industrial land for retail and residential uses, especially in proximity to Trafford Centre and Salford Quays.
- 4.24 A masterplan³⁵ was created for the Park in 2008 with ambitions to redevelop Trafford Park. Property market analysis anticipates a period of transition from industrial usage to higher value mixed use developments focused around office, retail / leisure and residential. This would enable Trafford Park to shift away from its traditional manufacturing and distribution role and moving

³³ Using data from Police.UK

³⁴ Confirmed by consultations with Trafford Council and JLL

³⁵ Trafford Park Masterplan Baseline Assessment, Ekosgen (2008)

towards a more sustainable future attracting businesses in the digital, media, financial, high-value manufacturing, multi-modal logistics, leisure and visitor sectors of the economy.

Management and Ownership

- 4.25 Trafford Park is an extremely fragmented estate in terms of its ownership³⁶. The ownership structure includes a wide range of parties, including institutional investors, national property companies, local property companies, high net-worth individuals, owner-occupiers, and football-related interests³⁶.
- 4.26 There is currently no centralised management organisation in Trafford Park, with the Trafford Park Development Corporation being dissolved in 1998. The council has recently been considering the role that a BID could have in Trafford Park, and has been exploring potential options for establishing one in the near future.

Lessons Learned for Park Royal

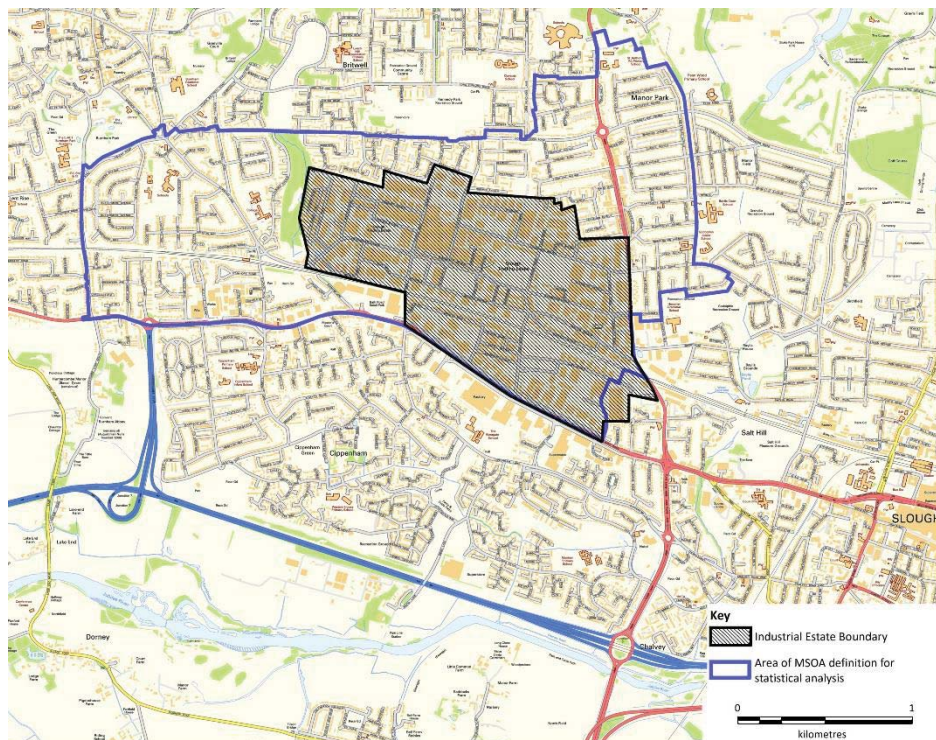
- 4.27 The key lessons for Park Royal from this assessment are summarised below:
- There is a perception that Trafford Park feels much more open than Park Royal given the lower density of development in the area, which makes it more attractive to businesses. This is an important consideration for Park Royal given proposals for intensification and it is important that this is done in a way which is sensitive to the local area and which does not impact on its attractiveness.
 - Trafford Park has very good access to groups of employees with Level 1, Level 2 and Apprenticeship qualifications which match the types of businesses located on the industrial estate. Park Royal should play to its strengths with respect to the skills base of the local population living within a commutable distance.
 - Access to Trafford Park by the labour force is primarily achieved through road access, and relatively low levels of congestion on the site and very good access to the local motorway network have allowed this to happen. Park Royal currently suffers significant levels of congestion around the site which limits the ability of workers to access the site by car. Whilst public transport surrounding the site is excellent, within parts of the estate itself, this is less strong. Connections with the tube and overground could be improved (e.g. through improved bus services).
 - Future development in Trafford Park isn't constrained by utilities and transport, removing these barriers to expansion for businesses. The main constraint for development in Trafford Park at present (which is also an issue in Park Royal) is the lack of land available for development.
 - Finally, there is a better range of amenities at Trafford Park compared to Park Royal with retail, hotels and leisure stronger here. A greater level of amenities at Park Royal could improve the attractiveness of the area.

³⁶ Trafford Park Masterplan, Ekosgen (2008)

Slough Trading Estate

- 4.28 Slough Trading Estate, founded in 1920, is the largest industrial estate in single private ownership in Europe³⁷, spanning 197 hectares³⁸ and being under the ownership and operation of SEGRO. It is located around 20 miles to the west of Central London in close proximity to Heathrow Airport and along the M4 corridor, home to a number of significant high-technology firms.

Figure 4.5 Map of Slough Trading Estate with geographies for analysis



Source: Regeneris Consulting

Economy

- 4.29 Slough Trading Estate employs around 19,000 people in over 900 businesses³⁹, and hosts a number of internationally-recognised businesses including Fiat Group Automobiles, Centrica, Yell, Electrolux, GlaxoSmithKline, Mars Confectionery, Akzo Nobel, Virgin Media and O2.
- 4.30 Of the 19,000 jobs at Slough Trading Estate around one in five are in ICT and creative media, reflecting the large number of international technology firms which have set up their UK headquarters in Slough and its location on the M4 corridor. There is also a major presence in wholesale and retail (21%) and professional services (10%). Sectors which have a very high specialisation of employment relative to nationally include in ICT and creative media (with a location quotient of 5.4), advanced manufacturing (2.3) and manufacturing (2.2).

³⁷ SEGRO website, www.segro.com/slough/why-ste/why-ste

³⁸ Based on analysis undertaken by We Made That

³⁹ ONS UK BRES (2014) and ONS UK Business Count (2015)

- 4.37 Slough Trading Estate is accessible to 4.4 million working age people within a commutable driving distance and this provides it with a very good access to human capital. This is particularly useful for Slough’s knowledge intensive industries, especially ICT and Creative Media. Over a third of people within commutable distance have a Level 4 qualification (36%/1.9 million) compared to 40% in Park Royal. Approximately 138,000 people hold an apprenticeship qualification, which is more than twice as much as Park Royal.
- 4.38 Slough Trading Estate has a limited number of people able to access the site by public transport, given that bus connections are required to access the train station from the trading estate. Around 200,000 people are able to reach the site by public transport within one hour.

Transport Access

- 4.39 Slough has very good access to the strategic road network, being located within 2 miles of J6 and J7 of M4 which provides good access to London and other parts of the UK. The trading estate also has very good access to Heathrow Airport by road, which although it is the same distance away as Park Royal (12 miles), typically only takes 15 mins to drive. The closest ports to Slough are the Port of Tilbury (1h 21 mins) and the Port of Southampton (1h 26mins).
- 4.40 Public transport access within the site is good, as it is served by the buses 1b and 2 run which run through the estate. Both buses provide access to Slough train station, which has an intensive service to and from London Paddington with trains continuing westwards to Reading and Oxford. Slough is set to benefit from Crossrail when the full route opens in 2019, with better connections to Central London and Canary Wharf.

Physical

- 4.41 An analysis of the site typologies in Slough Trading Estate (as illustrated in Figure 4.7) shows that a large proportion of Slough Trading Estate is classified as business park site type (22% of land area), with a high concentration of this along Bath Road. This reflects the large number of multi-national headquarters located in the Trading Estate, which typically have a high employment density and with the majority of jobs in non-industrial type uses. There is a relatively even distribution of scale of employment sites.
- 4.42 Evidence from the Valuation Office Agency shows that the average unit size in Slough is 13,700 sq ft, much higher than the average unit size in Park Royal (7,800 sq ft).
- 4.43 Data on commercial property transactions collected by Estates Gazette shows that the cost of office and industrial/distribution floorspace in Slough is very comparable to Park Royal, and reflects the strong demand for space in this trading estate. Office space costs an average of £21 per sq ft (compared to £22 per sq ft in Park Royal), and industrial/distribution space costs £12 per sq ft (compared to £13 per sq ft).
- 4.44 Data from Estate Gazette also shows that currently there are 35 vacant units to let on the site totalling 486,031 sq ft. This is equivalent to a 2.2% vacancy rate.

Figure 4.7 Site Typologies in Slough Trading Estate

SLOUGH
TRADING ESTATE



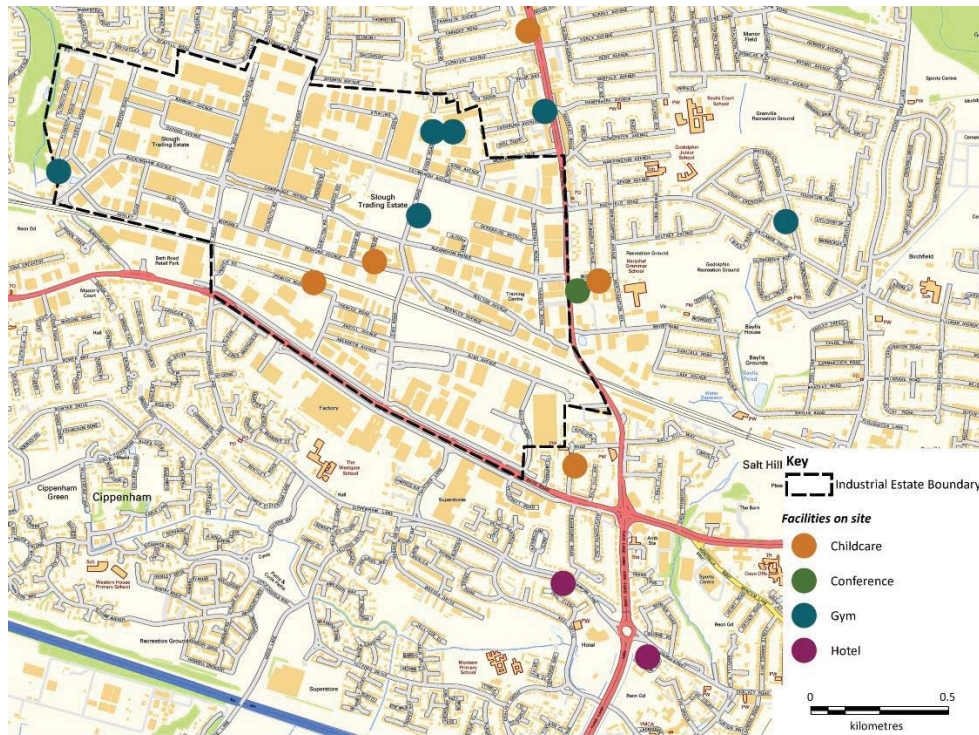
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Source: We Made That

- 4.45 Anecdotal evidence suggests public realm in Slough Trading Estate is generally of very good quality, with maintenance provided by SEGRO and many streets lined with trees and street furniture. Operations managers are provided by SEGRO for each tenant within the site to handle day-to-day enquiries, building alterations, signage, additional space requirements, relocation, estate services and building maintenance⁴⁵.
- 4.46 Slough Trading Estate has an average provision of facilities on site for employees and businesses. There are four gyms on site and two nurseries on site, with a number of other facilities located in close proximity to the site including two hotels, a conference centre and three nurseries.

Figure 4.8 Facilities in Slough Trading Estate



Source: Regeneris Consulting

- 4.47 The table below considers access to utilities and infrastructure and demonstrates that (where information was available) Slough Trading Estate has good access to these, with SEGRO helping to ensure that there is a good level of provision across the whole site.

Table 4.2 Access to Infrastructure

Broadband	There is no specific intelligence on how good broadband infrastructure is in Slough, however the large presence of data centres on the estate suggests that broadband and electricity connections are secure and reliable.
Energy	Slough Power Station (owned by Scottish and Southern Energy) is located on Slough Trading Estate however at present this does not directly supply the site with electricity. It recently obtained permission to expand its operations using more sustainable methods of generation, and is currently the UK’s largest dedicated biomass plant which burns wood chips, biomass and waste paper. The plant supplies steam and hot water to local businesses.

⁴⁵ Source: <http://www.segro.com/slough/why-ste/committed-to-serving-your-business>

Waste	There was no specific information provided by the council on the recycling initiatives on Slough Trading Estate. All buildings built as part of the SPZ (condition 4) must be sustainable in their construction and recycling is one aspect of this.
Water	No information on water supply was available on Slough Trading Estate

Source: Slough Borough Council

- 4.48 Based on national crime statistics (available at Police.UK), overall crime levels within the industrial estate have been assessed as low. Within the month of April 2016, 15 crimes were reported and identified to have taken place within the Slough Trading Estate of which 3 were antisocial behaviour, 3 other thefts, and 2 related to criminal damage.

Development Potential

- 4.49 SEGRO and Slough Borough Council have had a Simplified Planning Zone ('SPZ') agreement in place for Slough Trading Estate over the last 10 years that will now continue for the next ten years⁴⁶. It enables the rapid creation of new buildings on Slough Trading Estate, with full planning permission automatically granted for the construction of industrial buildings - including warehouses, data centres, and research and development facilities - provided that the development is in accordance with the SPZ scheme terms. These terms mainly relate to density of development, height of buildings near to residential areas and building sustainability.
- 4.50 During the 2005-2014 SPZ period, 1.6 million sq ft of new space has been delivered on the Trading Estate, rejuvenating 23 per cent of its built space⁴⁷. A similar amount of space is expected to be developed over the coming five years.
- 4.51 Since 2000, 16 planning applications have been put forwards within the area. Applications include: bridge strengthening works on the Leigh Road Bridge; a change of use of from a business use (use class B1) to a single mixed use unit on Yeovil Road; and an increase in the height of a Telecoms tower. SEGRO have committed to a significant amount of investment within the area to strengthen its position as one of the top trading estates in the UK. After having completed the £10 million infrastructure investment on the Leigh Road Bridge there is reputed to be a plan to spend a further £110 million within the next four years⁴⁸.

Management and Ownership

- 4.52 Slough Trading Estate is solely owned by SEGRO which allows it to make investment decisions which benefit the whole estate and has a vested interest in ensuring the estate is well looked after to ensure low vacancy rates. SEGRO is able to undertake 'whole estate' branding and future proofing its offer so it remains competitive internationally, and provides sustainable transport and training to businesses located in the park (e.g. subsidised rail and bus travel, parking restrictions, cycle promotion, and the Aspire centre; signage, landscaping, services for employees). Based on discussions with local stakeholders, this has led to a welcoming business environment, helping to attract more knowledge based industries to the site, such as data centres and company headquarters.

⁴⁶ Simplified Planning Zone Scheme 2014-2024 (Adopted November 2014), Slough Borough Council

⁴⁷ Information provided by Slough Borough Council Planning Department

⁴⁸ Source: <http://www.segro.com/media/press-releases/2015/14-10-2015>

Lessons Learned for Park Royal

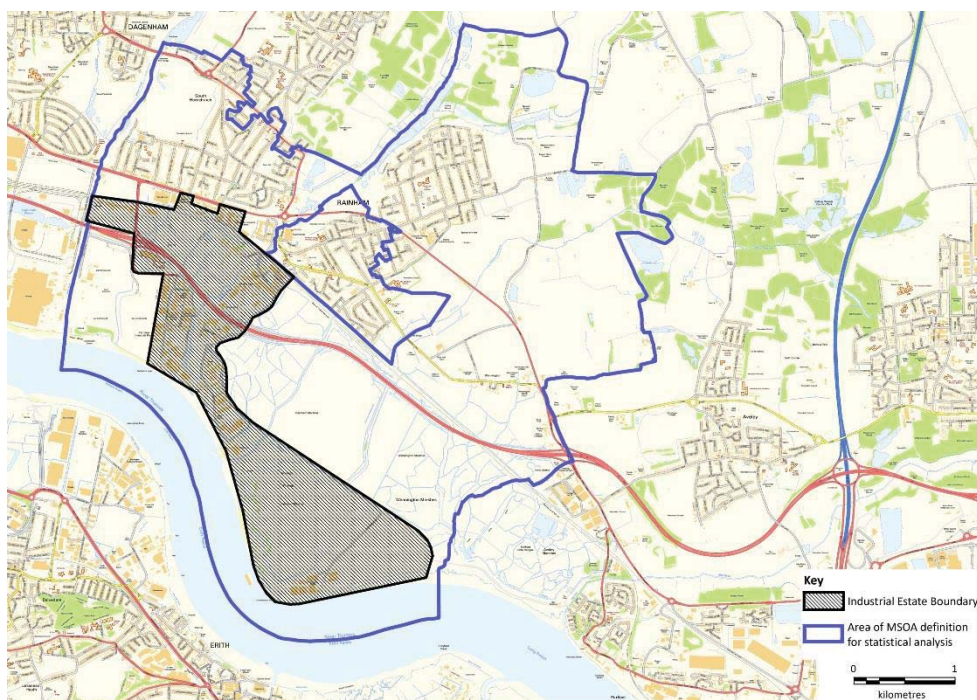
4.53 The key lessons for Park Royal from Slough Trading Estate are as follows:

- Slough Trading Estate has very good access to high skilled labour which corresponds very closely to the sites comparative advantage in ICT. This is likely to be sustained by increased rail capacity in the future. Park Royal also has a highly skilled workforce in close proximity, which suggests that there is potential to create higher value employment opportunities locally which meet these skills needs (particularly at Old Oak where this is a priority).
- The centralised management of the estate by SEGRO has enabled the coordination and implementation of investment in the buildings, public realm and transport infrastructure. This has led to lower levels of crime and vacancy rates on the site, and public realm is of a much higher quality with operations managers able to address any concerns local businesses may have. More integration and coordination within Park Royal is likely to prove crucial with maintaining the status of the site, as well supporting the ultimate expansion and intensification of land and attracting higher value uses.

London Riverside Industrial Area (BID)

- 4.55 London Riverside Industrial Area is a 309-hectare site⁴⁹ south of Rainham in the East of London. It is the third largest Business Improvement District (BID)^{50,51} in the UK with 300 businesses currently on site⁵². It was established in March 2007 and in the BID's first five-year term it achieved the largest additional external income compared to all the other industrial BID's in the UK⁵¹. The BID was renewed by a successful ballot in 2012, for a further five-year term.
- 4.56 The London Riverside (BID) is a key part of the Mayor's London Plan (2011) and falls within the London Riverside Opportunity Area. The site has been identified as holding Strategic Industrial Land by the GLA, primarily within Beam Park and the London Sustainable Industry Park (LSIP), which is planned to form a crucial bedrock for the relocation and consolidation of heavy industries in East London.

Figure 4.9 Map of London Riverside with geographies for analysis



Source: Regeneris Consulting

⁴⁹ Based on analysis undertaken by We Made That

⁵⁰ A Business Improvement District (BID) is a geographical area which the local businesses have voted to invest collectively to improve their environment. BIDs provide additional or improved services as identified and requested by local businesses. BIDs are business-led organisations funded by a mandatory levy on all eligible businesses following a successful ballot.

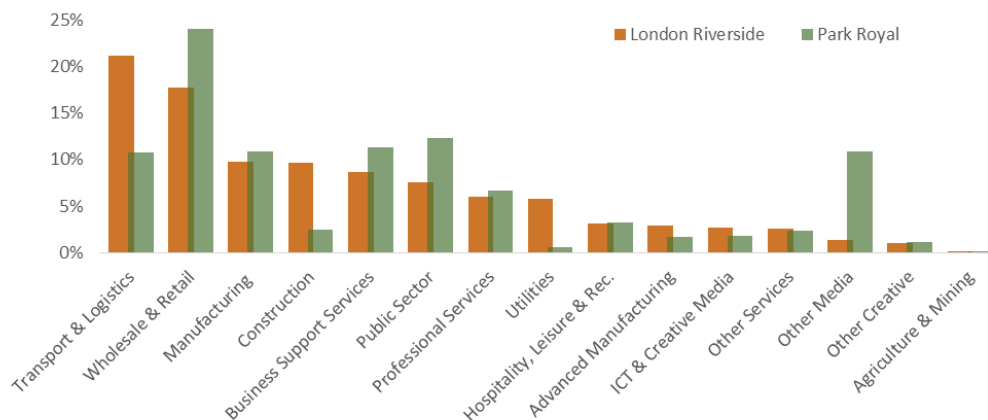
⁵¹ <http://www.londonriversidebid.co.uk/>

⁵² Our research suggests approximately 600 businesses; this is because the smallest region we could draw data down from exceeds the exact London Riverside BID.

Economy

- 4.57 Currently, there are approximately 8,160 people employed in London Riverside⁵³. Combined they produce around £614 million GVA per annum⁵⁴ or £75,340 GVA per capita, which is higher than Park Royal (£67,000 GVA per capita). This high productivity is due to relatively high levels of employment within some of the UK's most productive sectors including utilities and transport & logistics, which have location quotients of 6.1 and 4.7 respectively. Reflecting this high level of productivity, 45% of total employment is in the most highly productive sectors.
- 4.58 London Riverside has the lowest employment density out of all the industrial estates examined, with 27 employees per hectare. This reflects the large landfill site which occupies a large area of the industrial estate. This is a third of the employment density in Park Royal.
- 4.59 The median wage for the area is £30,900⁵⁵ which is similar to the median wage for the Park Royal Industrial Estate (£31,000) and higher than the median wage for the Brimsdown Industrial Estate (£26,100). This reflects a strong performance within the local labour market.
- 4.60 The largest employers in London Riverside are Veolia (provider of environmental solutions), Tilda Rice, SGT Magnet Technologies (specialist magnetic products) and The Centre for Engineering and Manufacturing Excellence (CEME). CEME is a centre providing research and business support for businesses within the engineering, manufacturing, science and technology centre with a view to improving education and business development within these sectors.

Figure 4.10 Key sectors in London Riverside Industrial Area relative to Park Royal



Source: ONS BRES, 2014

- 4.61 Given that there are less businesses in London Riverside, its business rate contributions are relatively low, and evidence from the Valuation Office Agency shows the site contributes a total £30.6 million in business rates per year, compared to £106.8 million in Park Royal.

⁵³ Once again draw down area is a problem with the BID estimating a total of 4,520 being employed.

⁵⁴ Calculated using UK Regional Accounts (2015) and ONS BRES (2014) data

⁵⁵ Annual Survey of Hours and Earnings, ONS, 2015

Proximity to Key Markets and Workforce

- 4.62 London Riverside has access to a relatively large market with 308,290 businesses whom employ 3.3 million people within a 25km radius⁵⁶, although this is smaller than Park Royal's catchment given its peripheral location relative to Central London.
- 4.63 The London Riverside (BID) area is accessible by 4.3 million working age people within a commutable distance by car⁵⁷. Of these, over a quarter (28%/1.5 million) have reached a Level 4 qualification. Approximately 151,000 people hold apprenticeship training, which is more than twice the number of apprentices within commutable distance of Park Royal (71,000). A fifth of the population living within a commutable distance hold *no qualification*, compared to 16% in Park Royal.
- 4.64 London Riverside's relatively poor public transport (as covered in the following section) means that only 350,000 working aged people are able to access the site within one hour using public transport (compared to 2.9 million in Park Royal).

Transport Access

- 4.65 A key route for London Riverside is the A13 which is in the immediate vicinity of the site and connects to the M25 six miles to the East. This also gives London Riverside a dual-carriageway connection to Central London. The nearest airport is London City Airport which is typically 20-minute drive (9 miles) from the site and Stansted Airport (34 miles/45 mins). The key ports for London Riverside are Tilbury and Felixstowe, which are typically 25 mins and 1h 30 mins drive respectively.
- 4.66 Rainham Station is the nearest railway station to London Riverside, and is served by the C2C railway line. This line routes via Barking to Fenchurch Street Station and heads out to Tilbury and Southend to the East. There are currently proposals to build a new station at Beam Park alongside the new mixed-use development there.⁵⁸ The site is partially served by the 174 bus route which stops at CEME and Fairview Industrial Park to the upper North West. Overall public transport connectivity within the area is very poor, and PTAL scoring produced by Transport for London shows that the site has a mix of 0, 1a, 1b (on a scale from 0 to 6, with 0 being the worst). See Figure 4.11 for more detail.
- 4.67 As a result of the poor public transport access, only people with cars can easily access the site. Anecdotal evidence suggests this is a major issue for attracting employees to the site, especially for apprentice training, which is restricting some of the potential of firms at present.

⁵⁶ Calculated using ONS UK Business Count (2015) and ONS BRES (2014) data

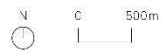
⁵⁷ Calculated using ONS Census (2011) data using 'Get Travel Time' maps

⁵⁸ More information available here: <https://www.london.gov.uk/press-releases/mayoral/mayor-announces-beam-park-developer>

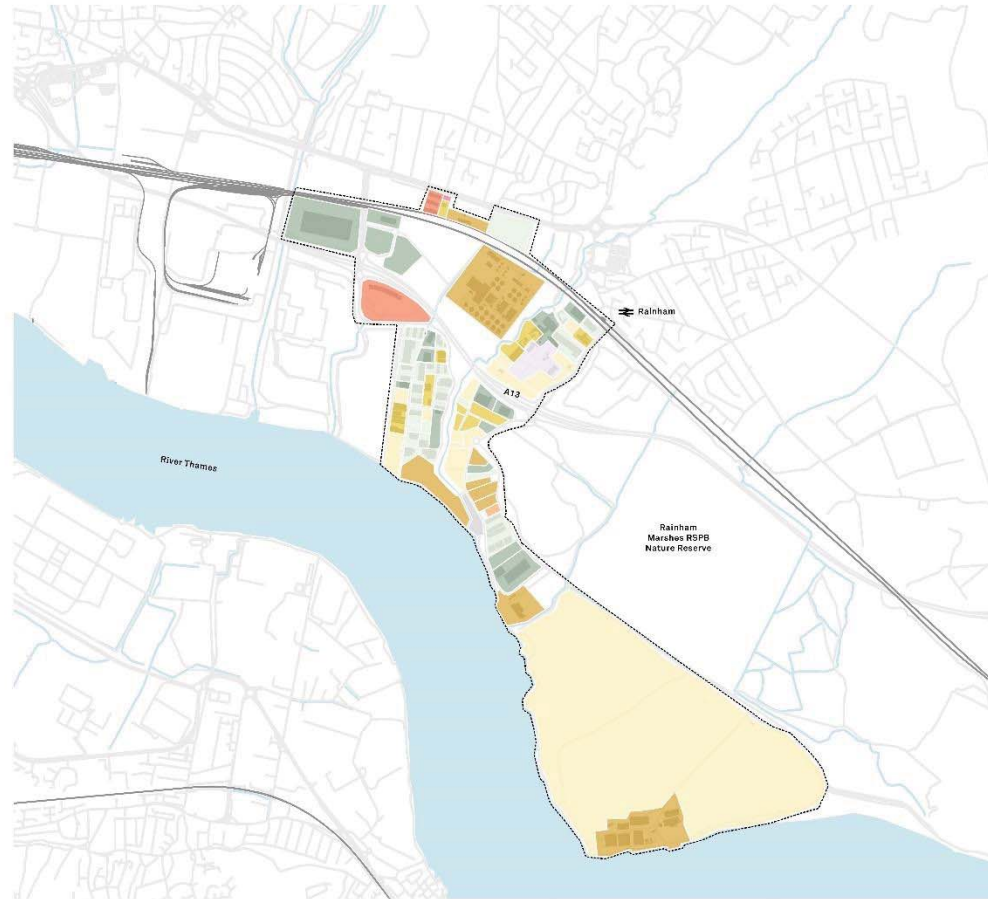
Figure 4.12 Site Typologies in London Riverside

LONDON RIVERSIDE
INDUSTRIAL ESTATE

- Key
- Standalone Warehouse
 - Industrial Estate
 - Dense Industrial
 - Bespoke Industrial or Utilities
 - Open Industrial Land
 - Retail Park
 - Business Park
 - Office
 - High Street
 - Community Uses
 - Residential
 - Petrol Station
 - Under Construction
 - Parking
 - Vacant Land
 - Other
 - Green Space
 - Case Study Site Boundary



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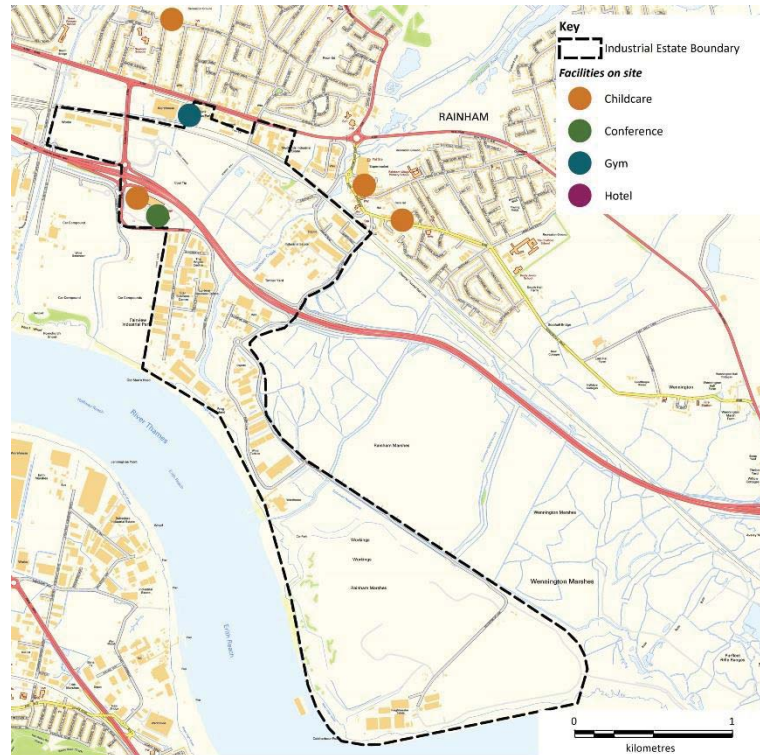


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Source: We Made That

4.73 London Riverside has a relatively poor provision of facilities available on site, with one nurse, one gym and one conference centre (located within CEME) available for businesses and employees. There is no hotel located on site, with the nearest hotel located over three miles from the industrial estate on the outskirts of Rainham.

Figure 4.13 Facilities in London Riverside



Source: Regeneris Consulting

4.74 Anecdotal evidence suggests that severe congestion is a problem around the site, especially if an incident causes traffic to be diverted down the A13. In terms of on-site congestion, some sites are better equipped than others to deal with HGVs etc. The newer sites tend to have wider roads and more turning space to prevent congestion build ups.

Infrastructure

4.75 Evidence from the London Riverside Business Improvement District Development Opportunity Review (2014) conducted by BPP, shows there are a number of infrastructure constraints affecting the area. Key insights from the report include:

- Much of the BID area has a contaminative history, ranging from chemical works to timber yards. The highest remaining risk appears to be around the GLA’s landholding at Ferry Lane South and the southern end of the Fairview Industrial Park.⁶⁰
- The BID lies within the flood plain of the River Thames, with some of its tributaries running through the site. There is unlikely to be adequate capacity in current drainage, water and energy infrastructure to cater for significant intensification of the BID area. A network assessment will be required to understand reinforcement requirements based on the scale

⁶⁰ London Riverside Business Improvement District Development Opportunity Review, BPP (2014)

and nature of development envisaged. Where network upgrades cannot feasibly be delivered by the development scheme itself, they will need to be delivered by the public sector ahead of private sector development.⁶¹

- Many of the areas most affected by engineering constraints have been developed in recent years, remaining sites affected by these constraints will inevitably incur increased abnormal costs, which may have an impact on viability and delivery timescales⁶².

Public Realm

- 4.76 London Riverside is rich in open spaces⁶³. However, connectivity to these green spaces is limited due to the physical constraints cutting across much of the area and ultimately limits the areas potential as a whole. The redevelopment of large sites at Beam Park, including the addition of a new station on the C2C line, will require the creation of new walking routes and streets and it is important these are integrated within the existing network and key desired lines in order for it to foster sustainable growth.
- 4.77 Within the industrial estate itself, anecdotal evidence suggests that some landlords see the value of maintaining the buildings while others seem less concerned. There are large portions of the estate with poor roads, broken lighting and damaged drains.

Crime

- 4.78 Data from the Metropolitan Police reveals that in the month of April 2016, 29 crimes were reported and identified to have taken place within the London Riverside BID. Ten of these crimes were classified as violent and/ sexual offences, seven anti-social behaviours, and four related to vehicle crime. Overall crime levels are low relative to the other industrial estates in this paper.
- 4.79 However, consultations with local stakeholders reveals that crime is an issue on the site. The primary concern for businesses is people breaking into the buildings and occupying them. The costs to the businesses of these type of break-ins has varied from £15,000 to £100,000. Fly tipping from commercial organisations is also an issue, as is street car racing at the weekends.

Development Potential

- 4.80 Within the past six and a half years, there have been 71 planning applications within the area including: 32 on Marsh Way; 6 on Creek Way; 6 on Barlow Way; 23 on Coldharbour Lane; and 4 on Ferry Lane. Significant applications include: a new data centre, a biogas generation plant and the extension of an existing waste management facility. SEGRO are a significant investment partner for the region⁶⁴ seeking to deliver the sites: Beam Reach 5 (2016), Jenkins Lane (2017), Ferry Lane (2018), LSIP London Sustainable Industries Park (2019), and Beam Reach 6 (2021). Further development is dependent on negotiations with the key land owners who are the Greater London Authority and Rainham Steel.
- 4.81 At present key sector assets for the site include The Centre for Engineering and Manufacturing Excellence (although there is currently little interaction with businesses on site) and the Havering Construction College nearby.

⁶¹ London Riverside Business Improvement District Development Opportunity Review, BPP (2014)

⁶² London Riverside Business Improvement District Development Opportunity Review, BPP (2014)

⁶³ London Riverside Urban Design Strategy

⁶⁴ Source: <http://www.segro.com/media/press-releases/2015/08-10-2015>

4.82 At present the industrial area does not have the facilities needed to support employment growth in the area (e.g. child care provision, facilities, public realm). As such the London Riverside BID is currently working with GLA and SEGRO to see if subsidised childcare facilities could be provided on site. They are also working to ensure that new buildings developed on site are 100% accessible to the disabled.

Management and Ownership

4.83 Management is undertaken by the BID, SEGRO and the GLA but there is not a joined up enough approach at present. SEGRO and the BID do market the site but this is disjointed and could be made more co-ordinated. There is a need to wait for GLA deputy manager to be appointed before they will collectively know what their approach will be. Overall ownership of the sites within the area is fragmented.

Lessons Learned for Park Royal

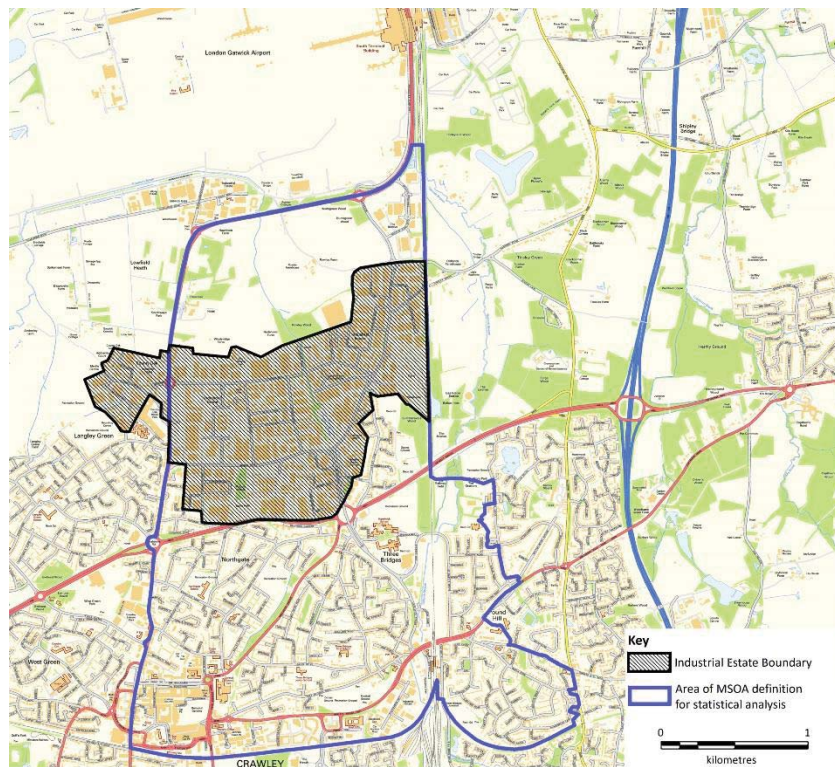
4.84 The key lessons for Park Royal are as follows:

- The BID has had some success in reducing recorded crime and helping to improve co-ordination with the local council to address any issues which may arise (such as fly tipping). The BID also achieved the largest additional external income compared to all other industrial BIDs in the UK in its first five years which is also positive.
- It is reported that the lower cost of housing in surrounding areas compared to more central London locations means it is easy for businesses to recruit local employees at the lower end of the pay scale in line with current skills demand.

Manor Royal

- 4.85 Manor Royal is a 181-hectare site⁶⁵ located two miles south of Gatwick Airport which was created in 1950 in parallel to the development of Crawley following the New Towns Act in 1946. Its growth has been heavily influenced by the expansion of Gatwick Airport. More recently, the Manor Royal Business Improvement District (BID), was established in June 2013, and is the UK's largest "industrial" Business Improvement District. The site is home to approximately 500 businesses⁶⁶.
- 4.86 The Manor Royal is part of the wider Gatwick Diamond economic area - which stretches from the southern edge of London to the northern boundaries of Brighton and Hove - and is an important employment site hosting 19% of the group's total employment⁶⁷. Global companies such as Virgin Atlantic, CGG, Thales, Varian Medical Systems, Elekta, Vent-Axia, Doosan Babcock Energy and Grant Thornton are key employers on the site and their presence corresponds closely to the *vision* for Manor Royal to become an important driver of the UK's knowledge economy.

Figure 4.14 Map of Manor Royal with geographies for analysis



Source: Regeneris Consulting

Economy

- 4.87 Currently 29,000 people are employed on the site which produces £2.56 million GVA per annum or £89,600 GVA per capita⁶⁸. The site is more productive than Park Royal which produces at £67,000 GVA per capita. Relative to the rest of the UK, key competitive advantages are in the Public

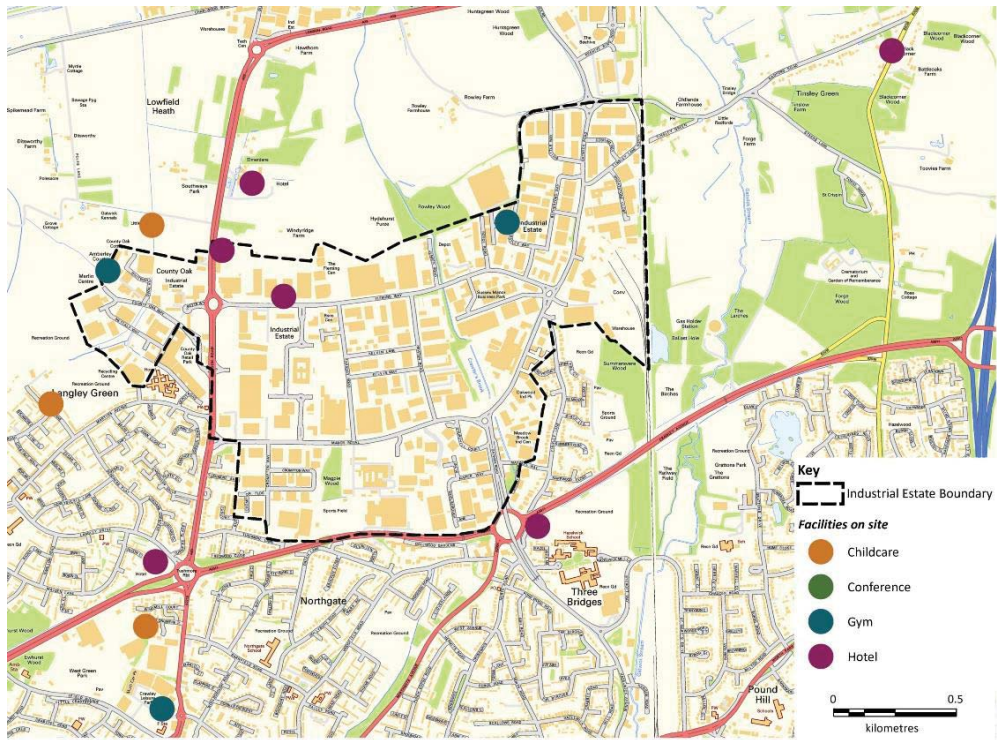
⁶⁵ Based on analysis undertaken by We Made That`

⁶⁶ Based upon information from the BID. Our data draw down indicates 1455 businesses.

⁶⁷ Source: http://manorroyal.org/pages/index.cfm?page_id=21

⁶⁸ Based on ONS BRES (2014) and ONS UK Regional Accounts (2015) data

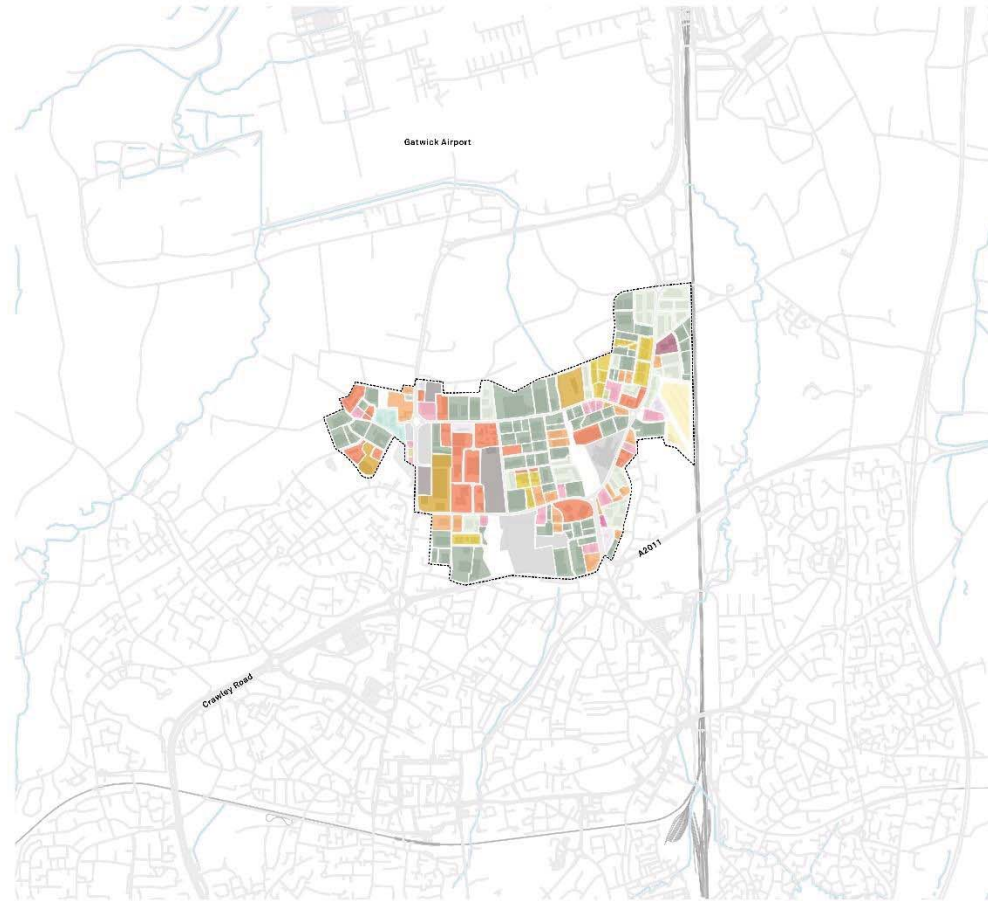
Figure 4.16 Facilities in Manor Royal



Source: Regeneris Consulting

Figure 4.17 Site Typologies in Manor Royal

MANOR ROYAL
INDUSTRIAL ESTATE



© 2013 OPDC Industrial Estate Study
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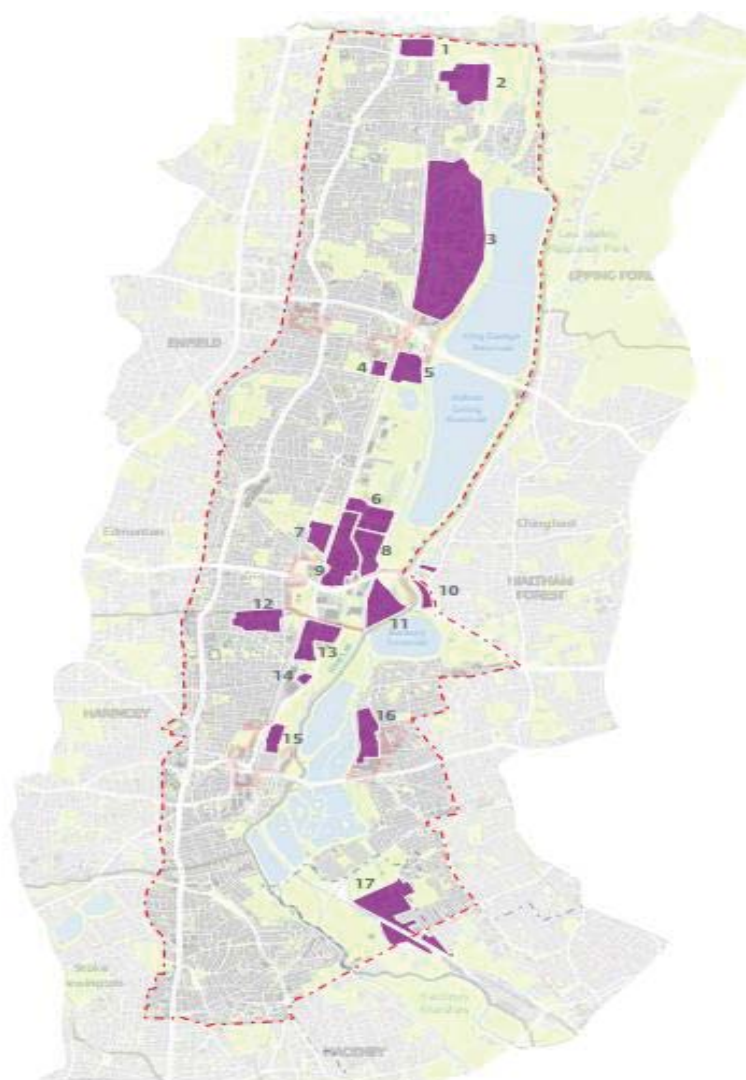
p. 13

Source: We Made That

North East Enfield including Brimsdown (Upper Lee Valley)

4.112 The Upper Lee Valley Industrial area, located in North London, is a 360-hectare area⁸⁰ composed of 16 different sites which fall within four London Boroughs (namely Enfield, Hackney, Haringey, and Waltham Forest - see Figure 4.10 for details). The Upper Lee Valley Opportunity Area is an important part of the Mayor of London's regeneration plans with 15,000 new jobs planned by 2031, and a new green industrial hub and heat network which will be established as part of the Edmonton Eco Park. The major redevelopments are linked to the A10, and in particular the Tottenham High Road Corridor and Northumberland Park redevelopment.

Figure 4.18 Map of Upper Lee Valley Area



Source: Upper Lee Valley Opportunity Area Planning Framework (2013)

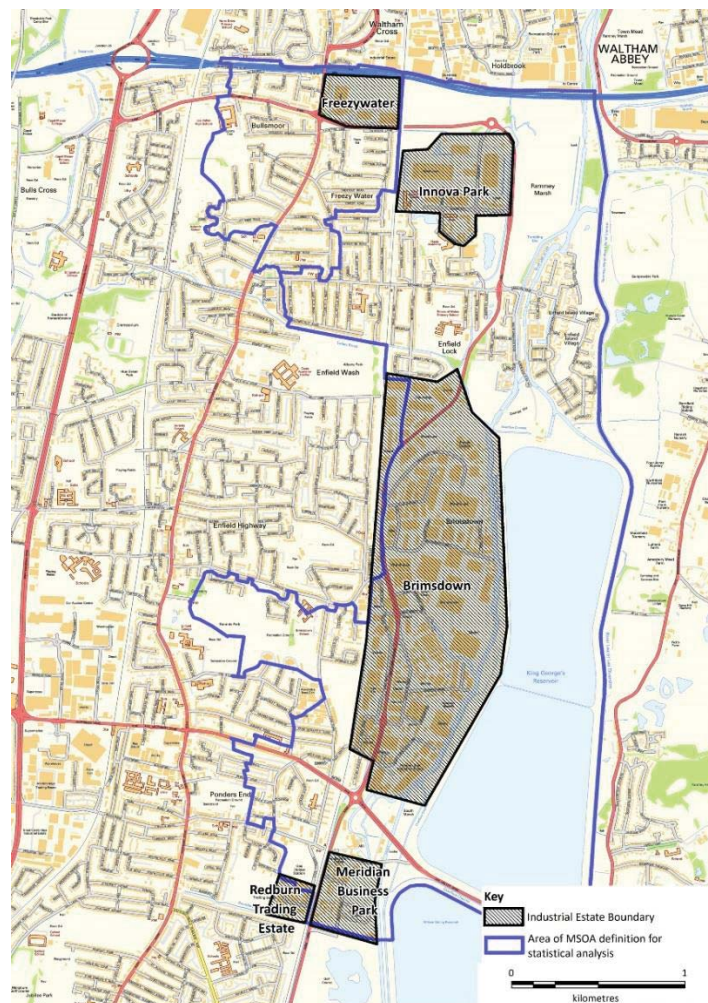
4.113 The North East Enfield Area forms a key section of the Upper Lee Valley area and consists of 5 industrial sites, namely:

⁸⁰ Based on analysis undertaken by We Made That

- 1) Freezywater
- 2) Innova Park
- 3) Brimsdown
- 4) Redburn Trading Estate
- 5) Meridian Business Park

4.114 Combined, these account for a total area of 168 hectares. Figure 4.19 provides more detail on the location of the individual sites.

Figure 4.19 Map of North East Enfield (including Brimsdown) geographies for analysis



Source: Regeneris Consulting

Economy

4.115 Approximately 12,920 people are employed by 625 businesses⁸¹ between all of the sites which collectively produce £965 million GVA per annum⁸² or £74,600 GVA per capita. The sites are more

⁸¹ ONS BRES (2014) and ONS UK Business Count

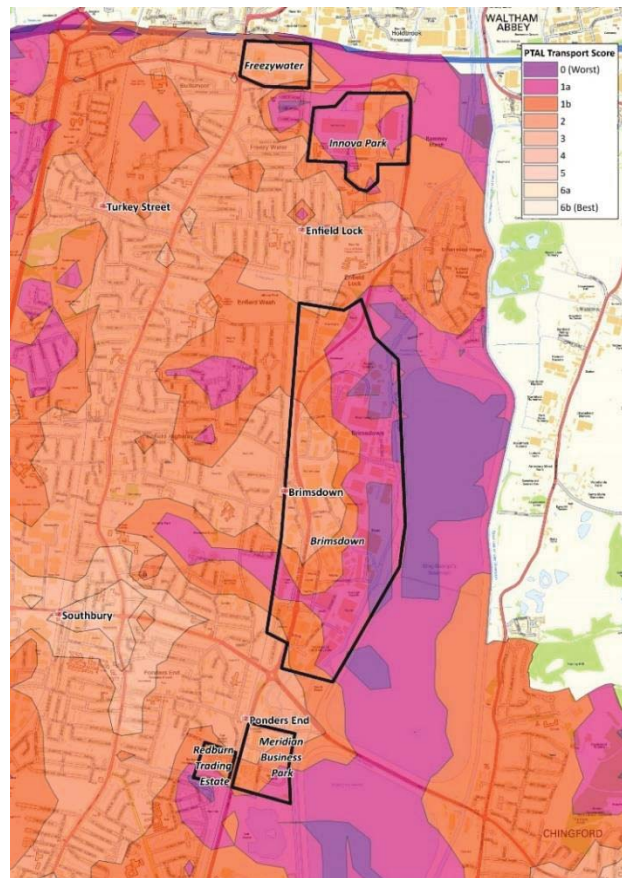
⁸² Calculated using UK Regional Accounts (2015) and ONS BRES (2014) data

Although this is the second highest level across the estates analysed, it is still considerably behind Park Royal (2.9 million).

Transport Access

- 4.123 The Upper Lee Valley's primary access routes are the A10, and the A1055 (which joins the North Circular to the M25). Traffic congestion is a major issue for the estate when there are problems on the A406 or M25. The nearest airport is London Stansted which is typically a 31 min drive from the centre of the Brimsdown site. The key nearest harbours are Tilbury and Felixstowe, which are typically 42 mins and 1h 30 mins drive respectively.
- 4.124 The area is served by the Lee Valley railway line with services on London Overground and Abellio Greater Anglia. This line offers connections to Liverpool Street Station via Tottenham Hale Station. Overall public transport connectivity within the with the area is very poor, and rated by Transport for London⁸⁴ as having a mix of 1a, 1b, with spikes of 2 (on a scale from 0 to 6, with 0 being the worst). See Figure 4.21 for more detail.

Figure 4.21 Public Transport Accessibility Level in North East Enfield region including Brimsdown.



Source: Transport for London, 2012

⁸⁴ Using TfL WebCAT toolkit for PTAL (2011) data

Physical

- 4.125 Analysis undertaken by We Made That of the different typologies within North East Enfield (as shown in Figure 4.22) identifies that standalone warehouse space is by far the most predominant land use, accounting for 54% of the total area (much higher than 21% in Park Royal). A further 15% of the area is industrial and 11% is bespoke industrial or utilities space. Data from the Valuation Office Agency indicates that the average unit size is 10,500 square feet, larger than in Park Royal (7,800 sq ft).
- 4.126 Current listing on available commercial property⁸⁵, shows there are currently 26 vacant units to let in the area totalling 1,029,178 sq ft. This accounts for 3.5% of the total site area, similar to Park Royal (3.6%). There are some clusterings of dense industrial sites, which accommodate a range of specialised manufacturing activities related to the skilled workforce.
- 4.127 Data from the Metropolitan Police shows that overall within North East Enfield there are average levels of crime compared to other industrial parks in this study. In the month of April 2016, 43 crimes were reported and identified to have taken place in North East Enfield. Eleven of these were classed as anti-social behaviours, 7 related to violence and / sexual offences and 3 related to criminal damage and arson.

⁸⁵ Compiled by Estates Gazette

Figure 4.22 Site Typologies in North East Enfield / Upper Lee Valley Industrial Estates

UPPER LEE VALLEY



105 QPDC Industrial Estate Study
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p 11

Source: We Made That

4.128 The table below considers the site’s access to utilities and infrastructure and demonstrates that North East Enfield has a good level of access. This is detailed in the table below:

Broadband	The broadband infrastructure in North East Enfield is relatively good (according to discussions with council representatives), with recent investment from the Mayor’s Broadband scheme helping to improve the speeds of broadband in the area.
Energy and Gas	<p>Haringey, Enfield and Waltham Forest are all considering implementing decentralised energy systems. These would localise the production of energy, and could enable heat to be provided to properties via heat networks transporting water or steam. Locations and indicative costs for decentralised energy systems have been provided by the boroughs, who are leading the development of the designs. For all the decentralised energy schemes, work is still underway to investigate feasibility, develop the design and potentially produce business cases.</p> <p>There is currently sufficient capacity in the high voltage transmission system in the southern Upper Lee Valley to accommodate the anticipated growth, as this was upgraded to serve the Olympics and Olympic Legacy. There is currently some capacity in the network at the northern end and National Grid have already obtained the necessary consents for network and transformer upgrades to meet future growth. This scheme is currently on hold until the demand is likely to be triggered.</p> <p>UK Power Networks operate the gas storage and distribution networks in Upper Lee Valley. They have indicated that there are no existing or envisaged capacity constraints in the network or local storage capacity to meeting current or likely future growth needs. This is on the proviso that the houses built are energy efficient with “Good” or “Excellent” BREEAM rating or similar standard, and that the proposed employment uses do not have high energy demands - either for gas (such as heavy manufacturing industry) or electricity (data centres).</p>
Waste	The North London Waste Authority (NLWA) submitted the North London Waste Plan (NLWP) for an independent examination in February 2012. The inspector found that the NLWA had not fulfilled the legal requirement of the Duty to Co-operate under S33A of the Planning and Compulsory Purchase Act 2004 in the preparation of the NLWP and so recommended non-approval of the plan in March 2013. As such, the NLWP is currently being re-drafted and details of the likely sites, schemes and costs are not yet known.
Water	<p>Thames Water expect that the planned development in the Upper Lee Valley will result in capacity problems in both the fresh and waste water systems. Of particular concern is the impact on the trunk mains. Thames Water have been provided with the list of developments and locations in order to assess this development in their own capacity assessment models. The results of this work have not been provided at the time of writing this report, but the GLA are continuing the relationship established and encouraging their involvement in planning for the Upper Lee Valley.</p> <p>Thames Water stressed the importance of managing demand by encouraging efficient use of water, and are interested in how the planning system could be used to intensify the application of new technologies in development sites. Thames Water have been granted planning permission for a significant upgrade to Deephams Sewage works. The upgrade is a complete replacement of the current works, on a phased basis within the current site. The scheme will replace aging assets, increase the capacity of the works, reduce the odour and meet new quality standards set by the Environment Agency. This is anticipated to be funded by Thames Water and therefore the costs and funding are netted in the model.</p>

Source: Upper Lee Valley Opportunity Area Development Infrastructure Study (2015)⁸⁶

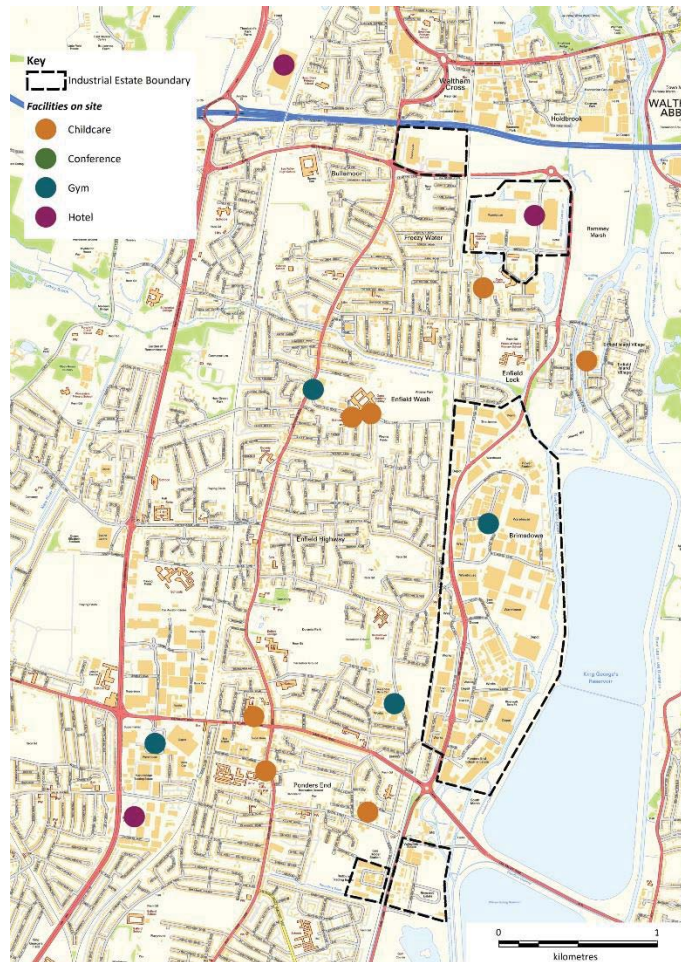
4.129 Consultations with local stakeholders suggests that public realm in the North East Enfield estates is relatively good, with the area benefitting from its close access to the Lee Valley Regional Parks.

⁸⁶ <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/opportunity-areas/opportunity-areas/upper-lee-valley>

Recent investment has also been made in recent years, including a new pocket park in Meridian Business Park and the establishment of the Brimsdown Linear Park Walk, a 9 metre strip of land adjacent to the Upper Lee Valley, which is being developed through Section 106 contributions.

- 4.130 Facilities in the North East Enfield industrial estates are relatively poor, with one gym located in Brimsdown and one hotel located in Innova Park. There are no nurseries or conference facilities available at any of the sites.

Figure 4.23 Facilities in Upper Lee Valley



Source: Regeneris Consulting

Development Potential

- 4.131 Within the past six and a half years, a handful of planning applications have been made across the North East Enfield sites. SEGRO have recently completed premises at Morson Road, and Innova Park and sites along the northern end of Mollison Avenue have seen recent investment.
- 4.132 The re-development of land at Meridian Water to the south of North East Enfield is likely to play a significant role in the providing extra housing and infrastructure in the local area. Part of this includes £25million in capital funding to provide extra rail services from Angel Road and Northumberland Park stations to Stratford via Tottenham Hale. The area is also set to benefit from Crossrail 2, which is likely⁸⁷ to pass through the area towards Tottenham Hale station. Discussions

⁸⁷ The route has yet to be finalised

with Enfield Council, revealed that it is expected that future developments around the Crossrail 2 stations may lead to an increase in the number of industrial to residential conversions. Lost industrial land may be compensated by releasing green belt land for industrial purposes.

Management and Ownership

- 4.133 There is no formalised management across North East Enfield at present. Smaller organisations which have been set up to manage the sites includes the Brimsdown Business Association, which helps provide some co-ordination between businesses, and the Meridian Business Partnership, who receive some money from Section 106 contributions to help fund small improvements on the site (including a new pocket park).
- 4.134 Enfield Council are about to establish a new Inward Investment Team, which aims to attract investment into the area (as well as the rest of Enfield) with a focus across all sectors. This may help to improve the marketing of the site to potential investors.
- 4.135 Anecdotal evidence suggests that across nearly all the estates in North East Enfield, there is a wide range of landowners, presenting challenges for co-ordinating investment programmes. Redburn Trading Estate is the only exception to this, being half owned by the council.

Lessons Learned for Park Royal

- 4.136 The key lesson for Park Royal is that with respect to Transport and Logistics, North-East Enfield is likely to be Park Royal's nearest competitor for the location of distribution depots of growing firms whom are yet to establish large distribution networks although seek good access to Central London. This is particularly the case if more land is made available for development.

Brimsgdown

4.138 Brimsgdown is the largest site within the North East Enfield Industrial area and lies within the London Borough of Enfield. It is the second largest industrial estate in London and has very similar characteristics to Park Royal, with strengths in food manufacturing, wholesale, warehousing and logistics.

Economy

4.139 Brimsgdown covers an area of 116 hectares⁸⁸, and contains 285 businesses whom employ 7,500⁸⁹ people. The site is home to the greatest concentration of industrial activity in the area, with key clusters of logistics, retail and smaller-scale industrial activities whom operate within a close proximity. The Brimsgdown area shows the greatest degree of diversity of uses; with each activity sector and building type represented. Key employers within Brimsgdown include Warburtons, Coca Cola and Johnson Matthey.

4.140 The site produces £721 million GVA per annum or £96,330 GVA per capita⁹⁰, making it around 45% more productive than Park Royal which produces an average of £67,000 GVA per capita. Sectors in Brimsgdown which are more highly specialised than nationally include manufacturing, construction, and utilities⁹¹ which have corresponding location quotients of 5.6, 3.2 and 3.2. The most productive sectors within Brimsgdown account for 37% of the total employment in the area, a much higher proportion than in Park Royal (29%).

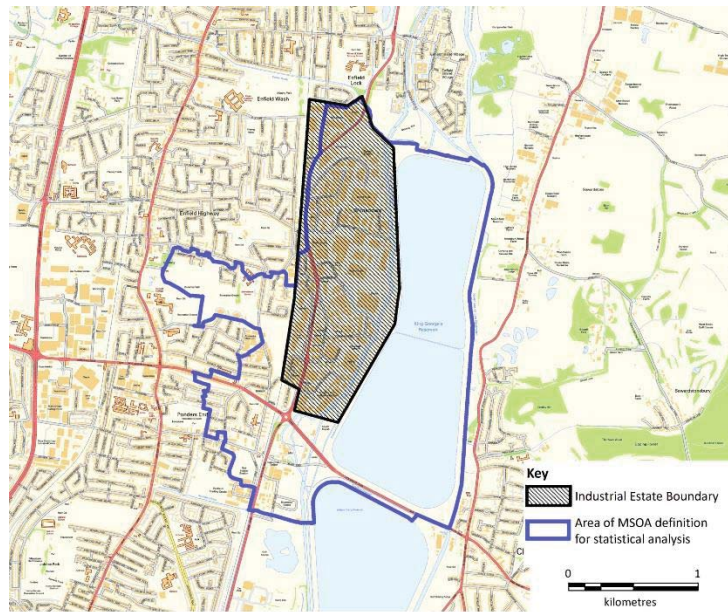
⁸⁸ Based on analysis undertaken by We Made That

⁸⁹ ONS UK Business Count (2015) and ONS BRES (2014). 236 businesses and 6940 people identified in Enfield Employment Land Study, 2016

⁹⁰ Calculated using UK Regional Accounts (2015) and ONS BRES (2014) data

⁹¹ It is important to note that the Enfield Energy Centre is based on this site which employs 27 people and has any extremely high value added multiplier.

Figure 4.24 Map of Brimsdown with geographies for analysis



Source: Regeneris Consulting

- 4.141 Employment density is relatively low in Brimsdown, with 65 employees per hectare, which is below the combined North East Enfield estates (77 employees per ha) and Park Royal (90).
- 4.142 The average salary in the local area is £26,130⁹², lower than for Park Royal (£31,000) and nationally (£27,800) and this reflects the relatively deprived nature of the surrounding area, especially in the east of Enfield.
- 4.143 Data from the Valuation Office Agency suggests that businesses in Brimsdown contribute a total of £47.6 million in Business Rates per year, which is less than half the value contributed by firms in Park Royal (£106.8 million).
- 4.144 Recent data on commercial property transactions in Brimsdown⁹³, show that units are typically cheaper to rent than Park Royal, and are on average a third lower in cost. Office units in Brimsdown are around £15 per sq ft, compared to £22 per sq ft in Park Royal. Industrial / distribution units are typically around £8 per sq ft, compared to £13 per sq ft in Park Royal.

Transport Access

- 4.145 Primary access to the site is through Mollison Avenue, and congestion remains a significant issue for businesses operating in the Brimsdown area. This is mainly due to traffic on the M25 and North Circular. In terms of public transport, the site is primarily served by Brimsdown train station on the Lea Valley Line. The 491 bus route serves the western side of the industrial estate. Overall public transport access is very poor and rated by Transport for London⁹⁴ as having a mix of 0 and 1a, (on a scale from 0 to 6, with 0 being the worst). See Figure 4.21 for more detail.

⁹² ONS Annual Survey of Hours and Earnings (2015)

⁹³ Compiled by Estates Gazette

⁹⁴ Using TfL WebCAT toolkit for PTAL (2011) data

Physical

- 4.146 Using data from the Valuation Office Agency, it is estimated that around two-thirds (65%) of the total area is classified as warehouse space (much of which has been built post-2005); 13% of the area is factory space and a further 5% are storage. The average unit size is 13,300 sq ft, larger than in Park Royal (7,800 sq ft). Whilst the current vacancy rate on site is 11%⁹⁵, it is important to note that some of the largest warehousing sites within the Brimsdown cluster are currently available to let or have been recently let following refurbishment. This has temporarily increased the vacancy rate, which is currently much higher than Park Royal's (3.6%).
- 4.147 Data from the Metropolitan Police shows that overall levels of crime within the Brimsdown industrial estate are low and in the month of April 2016 11 crimes were reported and identified to have taken place within the site of which two are related to drugs, two related to public order and one related to anti-social behaviour.
- 4.148 The facilities available to businesses and employees in Brimsdown is relatively poor. There is only one gym located on Brimsdown, with no hotels, conference facilities or childcare available.

Development Potential

- 4.149 Brimsdown is set to benefit from Crossrail 2, which is likely⁹⁶ to pass through the area calling at Brimsdown station. It is expected that future developments around the Crossrail 2 stations may lead to an increase in the number of industrial to residential conversions. Lost industrial land may be compensated by releasing green belt land for industrial purposes. Improved connections to Central London (more than the current half-hourly service) may bring about a change in the types of businesses using the estate.

Management and Ownership

- 4.150 The Brimsdown Business Association meets quarterly to discuss some of the key issues affecting the estate. This has had a decreasing role over the last few years, with longer gaps between meetings due to reduced participation from local businesses.
- 4.151 Anecdotal evidence suggest that the site has a wide range of land owners, which has made co-ordination on investment challenging.

Lessons Learned for Park Royal

- 4.152 The key lessons for Park Royal are as follows:
- Brimsdown is one of Park Royal's main competitors within London, catering for similar types of businesses in the transport, logistics and food manufacturing sector as well as offering good transport connections to the motorway network and central London. Cheaper rents in Brimsdown (about a third lower than in Park Royal), make the estate attractive to businesses.
 - Lower levels of crime and better public realm (than Park Royal) have made the estate attractive for local businesses.

⁹⁵ Using data from Estates Gazette

⁹⁶ The route has yet to be finalised

- Brimsdown has the ability to expand into the green belt, which offers future development potential. However, this will only be done in the long term if developments arising from Crossrail 2 result in current industrial units converting to high density residential.

Other Industrial Estates of Interest

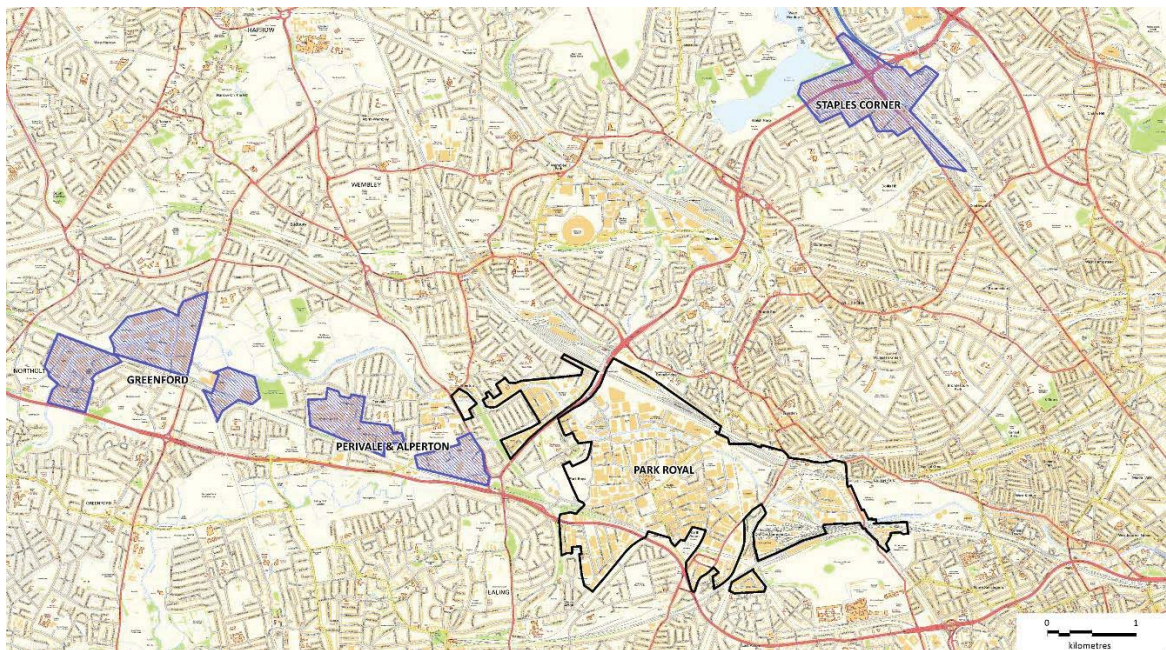
4.153 In addition to the key case studies examined above, we have also undertaken a qualitative assessment of two further industrial estates which are of interest to the OPDC.

- The A40 Industrial Estates, which are the closest geographically to Park Royal
- The Copenhagen Clean Tech Park, which is an example of how Clean Tech can be developed in an industrial estate.

A40 Industrial Estates

4.154 The A40 industrial estates comprise of a cluster of sites around the A40 corridor. These are illustrated below and include Greenford, Alperton, Perivale and Staples Corner industrial estates.

Figure 4.25 Map of A40 Industrial Estates



Source: Regeneris Consulting, 2016

Greenford Industrial Estate

4.155 Greenford Industrial estate is within close proximity to the A40 and was identified as a key competitive area for Park Royal. The combination of capacity and quality factors play a leading role for the site's competitive advantage over other A40 industrial estates.

- Overall proximity to the A40 which provides very good access to markets in central and Greater London, and company's such as Jack Wills, Sainsbury's and Tesco have located distribution depots on the site. Greenford Station, served by National Rail and the Central Line rail services, provides good access to labour.
- There are several significant individual industrial estates on the site including Greenford Park and Metropolitan Park Industrial estates developed by SEGRO. These sites are of Grade A standard and the average unit size is approximately 45,000 sq ft.

- The site has several large units on the site above 80,000 sq ft, which Park Royal cannot always supply. Brompton Bicycles have recently moved into an 86,000 sq ft site in Greenford Park.
- Consultations with agents suggests the area is often considered as an alternative to Park Royal with companies locating here due to the limited space on offer in Park Royal
- Local agents indicated that for industrial space, the average price per sq ft is around £2 cheaper at Greenford compared to Park Royal.
- Whilst there exists capacity for the expansion of the Greenford Industrial estate space, through moving into the Old GSK site, it appears that much of this space has been earmarked for a housing developments. The site area was not identified as a Strategic Industrial Location (SIL) in the London Plan.

Alperton and Perivale Industrial Estates

4.156 Perivale and Alperton Industrial estates are both within close proximity of one another and the A40. Whilst they are both relatively large in their own right, ownership is fractionalised and there is little spare capacity.

- Overall proximity of the estates to central London provides it with very good access to markets, although it is an additional 10 mins from central London in comparison to Park Royal. Closer proximity to Central London is a key competitive advantage for Park Royal over these estates.
- Within Alperton and Perivale estates there is a 50/50 split between industrial and office space⁹⁷. Site sizes range from 8,000 sq ft to 80,000 sq ft. Key sectors for the estates are vehicle sales, storage and repair, and film related industry.
- The estates have very good access to labour markets which is facilitated through the London Underground Stations of Alperton and Perivale on the Piccadilly and Central Underground Lines respectively. Furthermore, they both have very good access through regular bus services.
- Capacity and intensification are both significant constraints for the estates as the roads are narrow and there is a large amount of housing enclosing the spaces⁹⁷. Public realm is of a substandard quality in the Alperton Estate, and good quality in the Perivale Estate⁹⁷.

Staples Corner Industrial Estate

4.157 The Staples Corner Industrial Estate is significantly further away from the A40 than Greenford, Perivale and Alperton Industrial Estates. Whilst it lies on the North Circular and is only 4 miles away from the edge of the Park Royal industrial estate, journey times can be high due to heavy congestion at peak times.

- Staple Corner's prominence on North Circular means that it is likely to be discussed when firms are looking for industrial space due to the constraints on Park Royal. However, it is not a primary destination for businesses who would be aiming to rent space in Park Royal⁹⁷.
- Anecdotal evidence has described the Staples Corner industrial estate as being 'not in the same class' as Park Royal or the other A40 competitors.

⁹⁷ Based on consultations with local agents

- Within the Staples Corner Industrial Estate there is a major presence of self-storage and construction companies. The largest site is the Harp View Business Park which is 250,000 sq ft in size and consists of office, small warehouses and distribution warehousing units.
- Much of the older warehouse space has been developed into out-of-town shopping space due to limited capacity at Brent Cross shopping centre.

Lessons for Park Royal

- The primary competitors for Park Royal are the Greenford Industrial Estates. Whilst firms are fundamentally demanding space at Park Royal, its inability to provide the types and quality of space required has enabled Greenford Industrial estates to thrive following investment.
- The industrial estates at Alperton, Greenford, Perivale are better serviced by public transport and in turn have a greater access to a pool of labour in comparison to Park Royal.

Copenhagen Clean Tech Park

- 4.158 The Copenhagen Clean Tech Park developed out of a collection of business within the Greater Copenhagen region jointly identifying themselves as part of the Copenhagen Clean Tech Cluster (CCC). The Copenhagen Clean Tech Cluster (CCC) is a group of businesses who work to develop and deliver solutions which aim to tackle challenges relating to improving *efficiency* in the life cycle of products. For example, through ensuring that the by-products of production can be captured and used to support other manufacturing processes. The dialogue to develop an industrial park began in 2008/9.
- 4.159 The Copenhagen Clean Tech Park was opened in 2012 and is situated in the Frederikssund Municipality to the North West of Copenhagen, Denmark. The park is part of a wider city development project which is expected to add 14,000 inhabitants, 6,000 jobs and 6,000 homes to the area. The Cleantech Park's buildings and infrastructure will be positioned to be integrated into the city, in order to make the best possible use of state-of-the-art energy and environmental technologies to enable the city to become a green city. This is in line with the City of Copenhagen's commitment to become Carbon Neutral by 2025.
- 4.160 Currently, the Copenhagen Clean Tech Park does not have a centralised identity. Businesses are scattered around Frederikssund, although within 2km of one another, and currently occupy an area likely to be less than 50 hectares in total size at present. However, 370 hectares of space has been assigned to the Copenhagen Clean Tech Park in line with the city Masterplan.

Figure 4.26 Copenhagen Clean Tech Park



Source: Localization of a data centre in Vinge, Frederikssund Kommune

- 4.161 At present 12 – 15 Clean Tech companies operate in the area and employ around 1,300 people. The businesses themselves stretch across different sectors, although they primarily operate amongst advanced manufacturing, research and development, and waste & recycling sectors. Haldor Topsøe is the largest business located in the park.
- 4.162 The primary reason for businesses locating themselves on the park has been the proximity to key stakeholders and the fostering of a *triple helix* cooperation process. The *Triple helix* cooperation process, is a 3-way innovation coordination system between stakeholders representing: companies and investors, educational and scientific institutions, and public authorities⁹⁸. This ultimately enables firms to integrate production and investment as well as identify and fund areas for research and development (R&D).
- 4.163 R&D support is provided through the central government, municipalities and close cooperation with Universities. Important stakeholders relating to R&D include: Technical University Denmark (DTU), Roskilde University, IT University of Copenhagen, Copenhagen Business School, Copenhagen University, The Foundation of Entrepreneurship Denmark, Copenhagen Business Services, Venture Cup Denmark, and Symbion.
- 4.164 Vacancy levels within the park are high with regards to the 370-hectare area allotted for development. Average rental rates are not known. The park has a fragmented ownership, although all of the developable space is owned by the municipality. Primary management through the joint group of Copenhagen Clean Tech Cluster, Copenhagen Clean Tech Park, Municipality of Roskilde and Municipality of Kalundborg. High levels of coordination on the park enable the transfer of by-products.
- 4.165 Transport links for the town of Frederikssund are good. The site is approximately 40km from Copenhagen and 50km from Copenhagen Kastrup Airport. On average it takes 50 mins and 1 hour to travel by either road or public transport respectively.

⁹⁸ <http://cleantechincubation.eu/wp-content/uploads/2012/07/Cleantech-Incubation-Practice-and-Practice-Handbook.-June-2014.pdf>

- 4.166 Infrastructure capacity within the area is very good. The power supply of the estate is based on renewable energy such as thermal heat systems, wind power, solar cells etc. Furthermore, businesses reutilise waste products in other local processes minimizing the overall energy consumption as much as possible.⁹⁹ The symbiotic nature of infrastructure has been designed with careful consideration to businesses. At present 60% of the heat within the township during the winter is provided by reusing the waste heat from the Haldor Topsøe manufacturing plant.
- 4.167 Recycling takes place within close proximity to the park, and the circular economy is playing a strong role in conceptualisation. Digital infrastructure has been established with support from Cisco and the Copenhagen Municipality, where Cisco has entered into an innovation partnership with Greater Copenhagen to test and develop future digital infrastructure.¹⁰⁰
- 4.168 Current demand for the space within the Copenhagen Clean Tech Park is *flat*. The main development goal for the park is to continue to attract investment, gain further investment from central structural funds and foreign investment. There is an observed trend in Denmark for companies to be bringing back production from China and Eastern/Central Europe in order for the supply chain to be closer as this allows firms to be able to more closely monitor and implement change. As such there is a plan for the park to provide space to implement and closely monitor new products and mechanisms in the Clean Tech sector.
- 4.169 Key weaknesses for the park include: a lack of a population/ skilled workforce living in the local area; the need to co-integrate the processes within the site; and the need for firms to have the incentives to voluntarily engage with clean technology and industry.

Lessons for Park Royal

- 4.170 The key lessons for Park Royal are as follows:
- ‘Clean Tech’ does not necessarily mean that production has a low level of impact upon the public environment. The Haldor Topsøe plant, which is an explosives manufacturer, is evidence of this. Clean Tech is a collection of firms whom aim to improve overall efficiency in the life cycle of a product.
 - High levels of co-operation and planning between stakeholders is crucial for the development of a Clean Tech Industrial Park. Crucially, this often involves a flexible energy grid and levels of integration between firms. Firms make use of local supply chains and resources which is also a valuable lesson for other areas which wish to emulate this model.
 - It is vital for there to be access to a pool of research and development (R&D) institutions including higher education institutions.

⁹⁹ <http://stateofgreen.com/files/download/646>

¹⁰⁰ <http://www.copcap.com/invest-in-greater-copenhagen/case-stories/cisco-expands-innovation-activities-in-copenhagen>

5. Summary and Conclusions

A Summary

- 5.1 To help draw comparisons between the individual industrial estates and to generate the conclusion and implications for Park Royal Industrial Estate, this section pulls together much of the key evidence for each of the six key case studies above, in addition to Park Royal.

Economy

- 5.2 The analysis shows that Park Royal is the largest industrial estate examined in terms of jobs and businesses out of the industrial estates analysed. It is also one of the largest in size, with only Trafford Park covering a larger area. Given the large number of jobs located on a smaller site than Trafford Park, employment density in Park Royal is relatively high – second highest only to Manor Royal (which has a high density given the presence of a relatively high level of offices).
- 5.3 Park Royal produces a total of £3.5 billion GVA per year¹⁰¹, which is the highest out of all the industrial estates analysed. However, it is only average in terms of GVA per employee (£67,100), and although it is above Trafford Park (£54,600), it has the lowest productivity of all the industrial estates analysed in the London/South-East area. In part. This is due to the presence of Middlesex Hospital with the health sector displaying relatively low levels of GVA per employee.
- 5.4 Linked to this lower productivity, higher value employment only accounts for 29% of total employment. Only Trafford Park and NE Enfield have lower proportions of higher value employment.
- 5.5 Rents in Park Royal¹⁰² are the highest out of all the industrial estates examined for both office and industrial / distribution space. Office space in Park Royal costs around £22 per sq ft in 2015, having overtaken the rental values of Slough Trading Estate in 2012. Slough is the next highest (£21 per sq ft), which has decreased from a peak in 2010 (£27 per sq ft). Industrial / distribution space in Park Royal is an average of £13 per sq ft and has experienced a significant increase over the last two years, bucking stagnant trends experienced on the other industrial estates analysed.
- 5.6 Rents are a key indicator of performance and success and reinforce the popularity of Park Royal as a site, given its proximity to London.

¹⁰¹ ONS UK Regional Accounts, 2015 and ONS BRES, 2014

¹⁰² Based on commercial property transactions data from Estates Gazette

Figure 5.1 3 Year Rolling Average Rental Rates for **Industrial Units** (£/ft²), 1983-2015

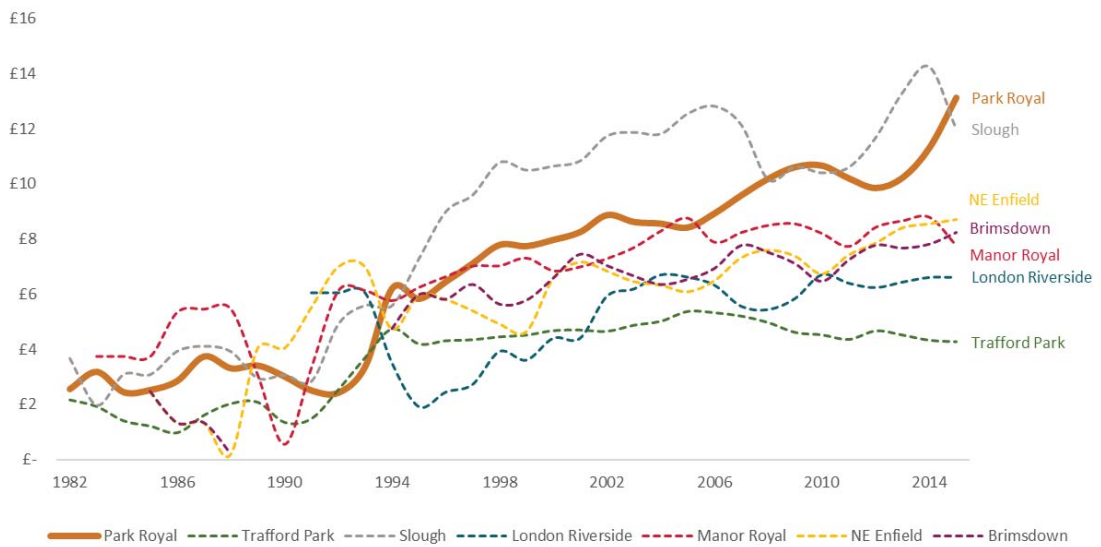
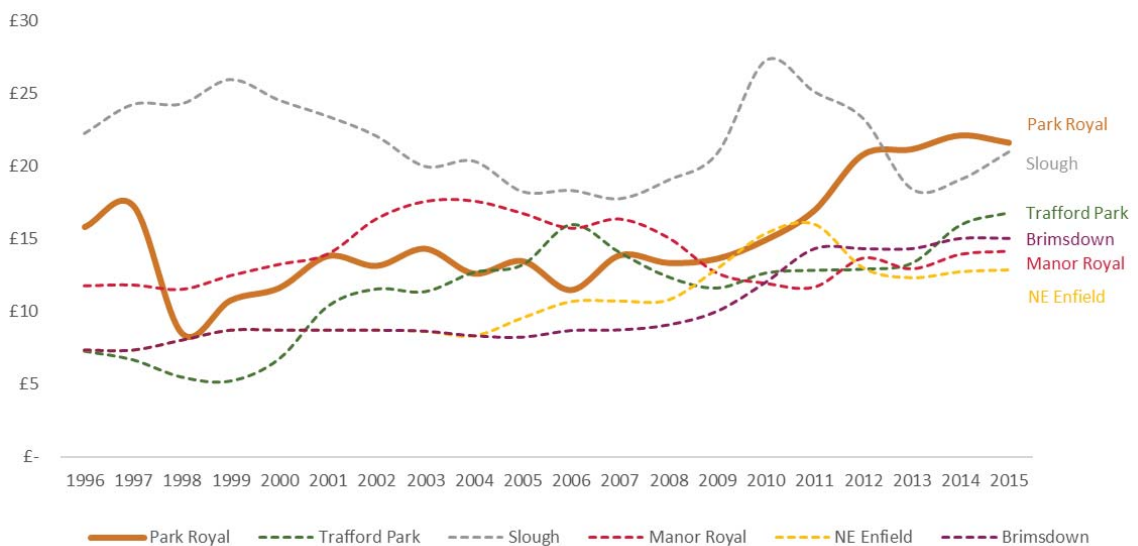


Figure 5.2 3 Year Rolling Average Rental Rates for **Office Units** (£/ft²), 1996-2015



Source: Estates Gazette (EGi)

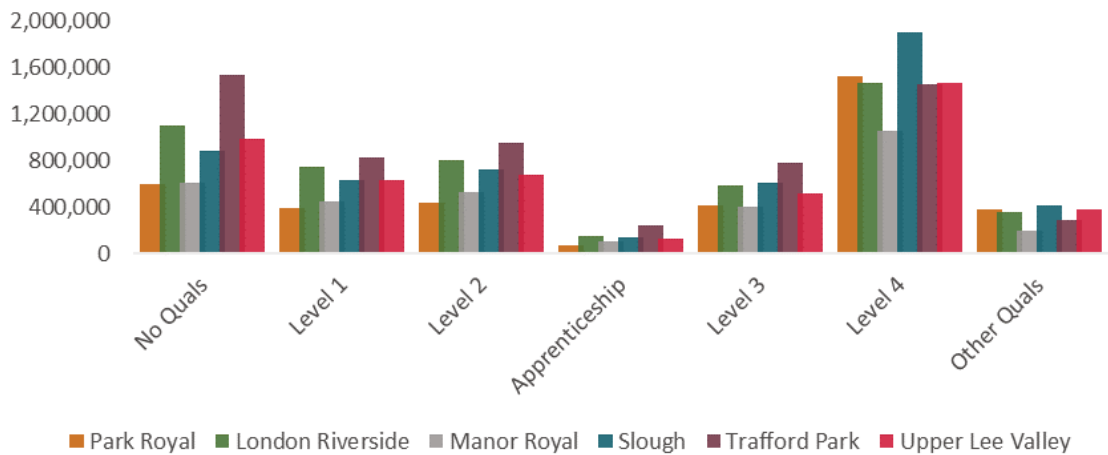
- 5.7 Data from the Valuation Office Agency shows that businesses in Park Royal pay the highest combined level of business rates out of all the sites, and reflects the good performance of local businesses and the total size of the business base. This presents an opportunity for Park Royal in the future, with a large amount of money potentially available for investment into the site, particularly through a Business Improvement District (BID) or similar vehicle.
- 5.8 Sectors which perform strongly in Park Royal are other media, manufacturing and transport and logistics. The strength in manufacturing can largely be attributed to the strong food manufacturing presence in Park Royal. By comparison, other industrial estates have higher proportions of jobs in advanced manufacturing, which has helped to increase the overall productivity of these industrial estates.

Proximity to Key Markets and Workforce, Transport Access

- 5.9 The findings from our analysis on industrial estates' proximity to key markets and workforce and access to transport reveals that Park Royal performs relatively well, although high levels of congestion in and around the site are restricting business's access to a wide pool of talent.
- 5.10 Park Royal has arguably the best access to Central London out of all the industrial estates examined and this provides a very large market for businesses to engage with. The large size of Park Royal itself presents opportunities for businesses through local supply chains. Park Royal has the largest number of businesses and employees within a 25km radius out of all industrial estates presenting significant opportunities.
- 5.11 One area of concern for Park Royal is the high congestion in AM and PM peaks, which means Park Royal has a low number of employees within a drivable commuting time (50% less than Trafford Park). Even when taking into account better public transport access to Park Royal, it still has around 900,000 less people within a commutable distance from Park Royal than Trafford Park. This congestion also affects the ability of businesses to access markets, and the high proportion of Park Royal's businesses reliant of good road access (e.g. food manufacturing, transport and logistics) means that efforts should be made to reduce congestion. Congestion was less of an issue at other industrial estates examined in this study, with the exception of Upper Lee Valley, where efforts are being made to improve the local interchange with the M25.
- 5.12 Public transport access to Park Royal is generally very good, with over four million people able to reach Park Royal within one hour. This is five times greater than the next highest industrial estates (Upper Lee Valley = 850,000) and reflects the wide range of public transport available in and around Park Royal. However anecdotal evidence suggests that public transport accessibility is an issue in some areas of Park Royal, which are not as well served as others. For this reason, it has been rated as average (as opposed to good). To ensure that all businesses in Park Royal are able to benefit from future transport investments, easy access must be provided.
- 5.13 Although Park Royal has access to a smaller pool of labour, proportionally labour is much higher skilled than across other industrial estates, with 40% educated to degree level (or above)¹⁰⁷. This bodes well for Park Royal's aspirations to attract sectors which require higher skill levels. There is a lower proportion of people educated to A Level (or equivalent) in Park Royal's catchment area, which may present some challenges when trying to recruit people at this skill level.

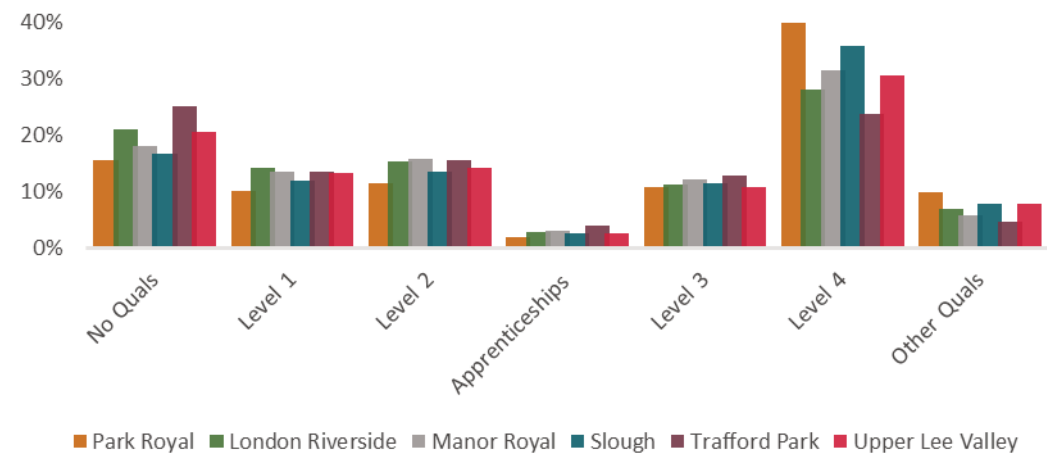
¹⁰⁷ ONS Census, 2011

Figure 5.3 Skills base within a commutable distance to industrial estate (absolute)



Source: ONS Census, 2011

Figure 5.4 Skills base within a commutable distance to industrial estate (proportional)



Source: ONS Census, 2011

Physical

- 5.14 As revealed in the economy analysis, Park Royal is a very dense industrial estate and analysis of the site typologies shows that 21% of the site is classified as dense industrial¹⁰⁹ (three times higher than any other site examined). Other common typologies in Park Royal, which are typically high in other industrial estates include standalone warehousing and industrial estate. Slough Trading Estate is the most diverse industrial estate examined, with a high proportion of business park space (22%) alongside traditional industrial estate spaces.
- 5.15 The average size of units in Park Royal is much smaller than across all other estates (7,800ft²) and this reflects the diversity of uses in the estate.
- 5.16 The vacancy rate of units in Park Royal is around average compared to other sites, with 3.6% of units presently vacant. Only Trafford Park (5%) and Brimsdown have higher (5.6%) vacancy rates, although it is very comparable to the Upper Lee Valley Estates (3.5%).
- 5.17 Energy, water and broadband infrastructure in Park Royal is sufficient at present, however it may be unable to cope with the intensification expected in Park Royal in the near future. Most other sites (with the exception of London Riverside) largely have the infrastructure capacity for future expansion, although this tends to be through ad-hoc extensions to the existing system.
- 5.18 There are relatively high levels of crime in Park Royal with over 120 crimes recorded in April 2016. Although a large proportion is associated with Central Middlesex Hospital, it is higher than experienced in comparable sites, however the majority of sites do have issues with crimes. For example, London Riverside and Upper Lee Valley have a number of non-recorded crimes such as squatting, which have been an inconvenience for local businesses.

¹⁰⁹ Dense industrial (as defined in Appendix C) are defined as having between 90 and 190 employees per hectare and have a typical unit size of 250 – 2,500 sqm.

Table 5.3 Summary of Case Study Assessment - Physical

Industrial Estate	Type of premise	Average size (ft ²)	Vacancy levels ¹¹⁰	Access to infrastructure	Quality of public realm	Facilities on site	Crime levels
Park Royal Industrial Estate	28% ind. estate 21% dense ind. 21% standalone ware.	7,800	1,937,000 sq ft 3.6%	Average	Sub-standard	Sub-standard	Substandard
Trafford Park Industrial Estate	19% ind. estate 19% standalone ware. 19% bespoke ind.	18,600	3,023,000 sq ft 5.0%	Good	Average	Good	Substandard
Slough Trading Estate	28% standalone ware. 22% business park 22% ind. estate	13,700	486,000 sq ft 2.2%	Good	Good	Average	Good
London Riverside	58% open ind. land 16% bespoke ind. 12% standalone ware.	43,100	272,000 sq ft 1.3%	Sub-standard	Sub-standard	Sub-standard	Good
Manor Royal	33% standalone ware. 13% business park 12% ind. estate	14,000	877,000 sq ft 3.4%	Good	Good	Average	Average
Upper Lee Valley / North East Enfield inc. Brimsdown	54% standalone ware 15% industrial estate 11% bespoke ind.	10,800	1,029,000 sq ft 3.5%	Good	Good	Sub-standard	Average
Brimsdown	-	13,300	701,000 sq ft 5.6%	Average	Good	Sub-standard	Good

Source: ONS BRES (2014), Industrial Estates Websites, VOA (2014), EGi

¹¹⁰ Vacancy rate generated as a ratio of EGi registered available lettable space to the overall site size.

Other

- 5.19 Other factors which were examined include the development potential, management and ownership of the industrial estates.
- 5.20 Our analysis found that there was highly fragmented land ownership in Park Royal compared to other sites. This has led to issues co-ordinating investment in the site, and has also led to a lack of concern for the public realm around units. In Slough, which is relatively unique given that it is solely owned by SEGRO, there is a much better effort to co-ordinate investment decisions with what is required on site by businesses.
- 5.21 Currently Park Royal has no platform for the 'day to day' management of Park Royal which could address issues around security and improving public realm.

Conclusions

- 5.22 This study has analysed a number of industrial estates in the UK to understand how they perform relative to Park Royal and how Park Royal can improve its competitive position. The evidence shows that Park Royal performs strongly as an industrial estate, supporting a large number of jobs and businesses in addition to supplying London's economy across a range of sectors, including through food manufacturing and transport and logistics. Despite the positives surrounding Park Royal's performance, there are a number of factors where Park Royal is not as competitive as comparator industrial estates, with a number of physical issues including high crime rates and poor public realm in addition to congestion and infrastructure constraints.
- 5.23 Some of the key points which should be considered by the OPDC to inform the Park Royal Industrial Estate work programme as well as other OPDC strategies and documents (including the Local Plan) are:
- Park Royal is likely to remain attractive to businesses in the future due to its proximity close to Central London and the reduction in industrial space available in other locations across London. There is a need to ensure there are sufficient sites and premises in Park Royal which can meet modern needs, and ensure that existing sites are protected to maintain the area's competitiveness.
 - Park Royal's economy is particularly niche and appears to be focused around manufacturing, storage and distribution linked to supplying Central London. This is likely to remain a strength, though if rents continue to rise this could prohibit new firms moving into the area.
 - There is a need to protect industrial land in response to pressure from other uses. Other industrial estates have reported losing industrial land to residential and office-led developments, which Park Royal should resist, and potentially stands to gain from if businesses are forced out of other estates.
 - Intensification needs to happen in a way which is sympathetic to the area to maintain Park Royal's attractiveness, especially given that employment is already relatively dense. A clear plan is required to identify the key sectors and locations for intensification.
 - A BID (or something similar) could help to address some of the issues that Park Royal currently faces, including high crime levels and poor public realm. Experience from other industrial estates shows that BIDs can be successful at pooling resources together for investment and helping to improve co-ordination between key stakeholders.

- There is a need to address some of the other factors which could constrain growth particularly infrastructure and congestion. Park Royal has one of the lowest number of people able to access the site (by both car and public transport), and this means it is not fully able to take advantage of the wide range of labour and skills available across London.
- Access to infrastructure such as energy, water and broadband could become a real limiting factor which hinders intensification and growth at Park Royal. Most other sites (except London Riverside) have the capacity to expand and the absence of this at Park Royal could affect its competitiveness. A plan should be put in place to address this and ensure that capacity is in place over the short term (next five years).
- Improvements to public transport at Old Oak are also important to open up the area to investment and improve the number of people able to access the site. Whilst public transport is good around Park Royal, within the site itself this could be improved. A new High Speed 2 and Crossrail interchange at Old Oak will improve matters but it is important that there are good connections across the estate (e.g. through buses).
- OPDC should help to ensure a greater diversity of unit sizes to allow a range of businesses to locate at Park Royal. Provision of space for SMEs will be particularly important due to pressure from alternative uses and move on space which can allow smaller firms to remain in the area will also be required. This could be achieved through careful planning policy and is particularly important in light of rising rents, which could prohibit start-up firms moving into the area.
- Access to amenities (such as retail, food and drink, hotels and leisure) has also been identified as being inadequate at Park Royal. Planning policy should encourage these uses to be developed e.g. through identifying suitable spaces.
- Relative to other London industrial estates, Park Royal has a lower productivity per worker (in part due to the presence of some lower value sectors such as food manufacturing). The OPDC could consider ways to raise productivity levels, for example developing the area's current strength in manufacturing towards more advanced forms of manufacturing. The OPDC Future Growth Sector Employment Study will consider this issue in more detail, identifying the key sectors which are likely to drive employment growth in the future and the potential to support higher value employment. Attracting higher value employment opportunities would enable Old Oak and Park Royal to capitalise on the highly skilled pool of labour locally.

Appendix A - Geographical Definitions

A.1 To define each of the industrial estates examined in this report, the following MSOAs were used to define each one.

Table A.1 Geographies Used for Statistical Analysis		
	Statistical Code	MSOAs
Park Royal	E02000119	Brent 027
	E02000252	Ealing 015
	E02000372	Hammersmith and Fulham 001
Trafford Park	E02001260	Trafford 002
	E02001264	Trafford 006
	E02001266	Trafford 008
	E02003408	Slough 002
	E02003409	Slough 003
London Riverside	E02000491	Havering 028
	E02000492	Havering 029
Manor Royal	E02006578	Crawley 004
	E02006579	Crawley 005
Upper Lee Valley	E02000277	Enfield 001
	E02000279	Enfield 003
	E02000290	Enfield 014
Brimmsdown	E02000290	Enfield 014

Appendix B - Case Study Area Selections

- B.1 To enable the selection of case studies used as part of this study, an initial overview of industrial sites across the UK was undertaken to determine which sites were the most comparable to Park Royal or sites which had particular lessons that Park Royal could learn from. A summary of each site is provided in the table below.
- B.2 In addition to these UK case studies, some international industrial parks were also analysed to determine if there was enough information available to be able to offer lessons for Park Royal. The Oberbruch Industry Park in West Germany, the Höchst Industrial Park near Frankfurt and Nor Pas 3iem Rev near Paris were examined, however there was insufficient evidence available to be able to undertake a full examination of each site.
- B.3 Based on these findings it was determined that Trafford Park, Manor Royal, London Riverside, Slough Trading Estate and the Upper Lee Valley Estates would be the best case studies for comparing against Park Royal.

Table B.1 Case Study Locations

Name of Estate	Brief Description	Location	Size (ha)	No. of busi	No. of jobs
Park Royal Industrial Estate	<ul style="list-style-type: none"> • Large mixed-use industrial estate • Majority are independent, micro-businesses • Key sectors include vehicle sale & repair, food manufacturing and distribution, creative industries professional services. • 40% businesses in offices, 40% warehouses, 15% workshops, 5% retail 	<p>London, LB of Ealing, Brent and Hammersmith & Fulham</p> <p>9 miles to city centre</p> <p>Close proximity to over ground, tube stations, the North Circular and A40.</p>	700	1,200	31,000
Team Valley trading estate, Gateshead	<ul style="list-style-type: none"> • Large mixed use industrial site • Single freehold ownership • Key sectors: Engineering, manufacturing, food manufacturing, • Also includes service facilities (hotel, gym, convenience retail and serviced offices) • Similarities: size and service offer, strong manufacturing base, proximity to a large city. • Differences: Recent work to develop a portion of the industrial park into a retail centre. • Learning Points: Retail centre development and investment 	<p>Gateshead</p> <p>5 miles from Newcastle city centre</p> <p>Close proximity to A1</p>	700	700	20,000
Trafford Park Industrial Estate	<ul style="list-style-type: none"> • Large mixed-use industrial estate • 65% of the park is medium and large companies, just 9% micro • Split into 9 locations with distinct sector clusters • Key sectors include retail, food, drink and leisure to the west, manufacturing and distribution in the centre and creative industries to the east. • New developments including Trafford centre, Salford Quays and MediaCity have impacted dynamics • Similarities: size, strong food manufacturing, proximity to City, accessibility • Differences: size of businesses, distinct clusters • Learning Points: New funding secured for transport access, push for private investment, modernisation of old buildings. 	<p>Trafford, Manchester</p> <p>5 miles to city centre</p> <p>Close proximity to the M602, M60 and M62</p>	500	1,400	35,000
Slough Trading Estate	<ul style="list-style-type: none"> • Large mixed use site with a focus on tech & professional services • Single private ownership by SEGRO 	<p>South Buckinghamshire, Slough</p>	500	500	20,000

	<ul style="list-style-type: none"> • Majority of units are small in size • Key sectors: telecoms, biotech, pharma, auto, IT, R&D, logistics, data centres, food manufacturing • Large occupiers include Mars, Telefonica, O2, Fiat, Ferrari • Similarities: employment numbers, proximity to London and Heathrow • Differences: less industrial focussed, smaller unit size, more focussed on offices • Learning Points: Regeneration programme, new office, retail, conference and hotel development underway. 	Close proximity to M4, M40, M25			
Sandyford, Dublin	<ul style="list-style-type: none"> • Composed of 4 distinct business estates and sites • Focussed on office space and technology • Key sectors include, I.T., finance, healthcare, utility services • The County Council and now Dun Laoghaire Rathdown Co. Council remain as Landowners and retain an interest in the estate. • A range of industrial and warehouse buildings in Sandyford have been redeveloped as office locations in recent years. • The industrial estate has been revamped by the construction of many office and apartment blocks such as the Beacon South Quarter development which includes the Beacon Hotel and Beacon Hospital. • The offices of Microsoft Ireland which employs approximately 1,200 people are located at the estate, this is the EMEA Operations Centre • Similarities: proximity to large city • Differences: More focussed on technology and professional services. • Learning Points: redevelopment of industrial land, increase in concentration of office space, attraction of large multinationals. 	Dublin, Ireland Close proximity to city centre	200	500	20,000
Wrexham Industrial estate	<ul style="list-style-type: none"> • Large mixed use industrial site. • High concentration of food & drink manufacturing • Not located near a major city • Large occupiers include Kellogs, JCB, Calypso drinks • Similarities: size, sectors • Differences: not located near a major city • Learning Points: types of companies that can be successful in a more rural estate 	North Wales	550	330	7,000

Hillington Park Business and Industrial Park	<ul style="list-style-type: none"> • Key Sectors include: manufacturing, distribution, technology and service sectors • Similarities: size, proximity to large city • Differences: majority of units below 15,000 sqft, more focus on light industrial use and office use. • Learning Points: shift to lighter industrial, technology/service sector use. 	<p>Glasgow</p> <p>Close proximity to M8</p>	<p>420</p>	<p>500</p>	<p>8,000</p>
Knowsley Industrial Park	<ul style="list-style-type: none"> • Majority 1950s/60s buildings • Has an adjoining business park employing 5,000 people • Key sectors: include manufacturing, distribution and retail, transport and communication. • Strong performing industrial estates • Similarities: size, sectors, proximity to large city • Learning Points: strong performing industrial estate 	<p>Liverpool City Region</p> <p>proximity to major transport infrastructure, including the M57 and the A580</p>	<p>400</p>	<p>600</p>	<p>10,000</p>
London Riverside	<ul style="list-style-type: none"> • Largest industrial Business Improvement district in London • Five adjoining industrial estates • Key Sectors: manufacturing (especially food & beverage), data centres, advanced engineering, freight forwarding • Similarities: proximity to City, strong manufacturing base, accessibility • Differences: smaller size, distinct industrial estates • Learning Points: successful BID 	<p>London, LB Newham to LB Havering</p> <p>7 miles to city centre</p> <p>Close proximity to tube stations, the North Circular and A12.</p>	<p>400</p>	<p>300</p>	<p>N/A</p>
Belvedere/Erith/Thamesmead East	<ul style="list-style-type: none"> • Smaller mixed use industrial site • Concentrated industrial and warehousing employment • Strong demand from storage and distribution operators, low demand for smaller industrial units and v little demand for office use. • Key sectors: Manufacturing, transport, logistics and storage. • Similarities: strong manufacturing base, proximity to London • Differences: smaller size 	<p>London, LB Bexley</p> <p>Proximity to the A206 corridor and M25</p>	<p>300</p>	<p>1,000</p>	<p>8,000</p>
Manor Royal	<ul style="list-style-type: none"> • 75% manufacturing and industrial use, 18% office use, 7% retail/vehicle sales and leisure. • Large occupiers include Virgin Atlantic, Thales, CGG • Struggling to attract new tenants • Similarities: employment size, strong manufacturing base and a number of vehicle sales/repair businesses • Differences: high vacancy rates 	<p>Crawley, West Sussex</p> <p>Close proximity to Gatwick</p>	<p>240</p>	<p>500</p>	<p>30,000</p>

	<ul style="list-style-type: none"> • Learning Points: understanding why the park is struggling to attract new tenants, 				
Brimsgate	<ul style="list-style-type: none"> • Smaller mixed-use industrial estate • Key sectors: manufacturing, warehouse, retail & heavy industry. • Large occupiers include Volkerlaser, Warbutons and Enfield power station • Similarities: strong manufacturing base, proximity to London • Differences: smaller size • Learning Points: Attraction of large occupiers 	London, LB Enfield	140	240	8,000
Wembley	<ul style="list-style-type: none"> • Cluster of 3 industrial estates (Second Way, Drury Way and Great Central Way) • Key Sectors: Logistics, food industries and service sectors Mix of larger warehouses and large 1970s office developments • Similarities: proximity to London • Differences: smaller unit size, more focussed on offices 	London, LB Brent	70	N/A	N/A
Aycliffe	<ul style="list-style-type: none"> • Large mixed use industrial park • Recently received investment from Hitachi to build a £82m train-building plant • The University of Sunderland wants to open the region's first Technical College on the park. • Large occupiers include: ThyssenKrupp Tallent, Husqvarna, Ebac, Permold • Similarities: size, mixed use, mixed ownership • Differences: further from major city, • Learning Points: Significant investment from Hitachi 	Durham Close proximity to A1	400	250	8,000
Dartford – The Bridge Industrial turned science park	<ul style="list-style-type: none"> • Modern industrial estates started in the 2,000's • Large warehouses, minimum size 25,000 sqft • Focus on knowledge based industries. Specialist science park accommodation • Focus on industrial, office, science & tech and leisure • The Bridge also offers 1,500 new homes together with a range of services and leisure facilities • Similarities: proximity to transport and large warehouse units • Differences: different sectors, although lessons could be learnt from these. • Learning Points: Focus on knowledge based industries. 	Proximity to the M25	250	N/A	N/A
Beddington Industrial Area	<ul style="list-style-type: none"> • A diverse range of businesses located in trade parks / industrial parks / depots / distribution centres and factories. • Uses range from heavy industry including the National Grid substation and Thames Water sewage treatment work sites, to road haulage companies, 	London, LB Sutton	100	190	N/A

	<p>aggregate businesses, manufacturing companies and retail outlets. Waste-related activities take up a large proportion of land.</p> <ul style="list-style-type: none"> • Currently plan to form a Business Improvement District with 25 different industrial estates and trading parks included in the BID. • Similarities: location, proximity to London, mix of businesses • Differences: smaller, clusters different industrial estates 	<p>Access to strategic roads such as the M25 is via the A237</p>			
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Appendix C - Site Typologies

- C.1 The site type classification method involves categorising employment sites by a set of defining characteristics such as:
- specific premises features
 - building footprints
 - business activity uses
 - access routes
- C.2 Grouping together various buildings into coherent identifiable sites allows for a cohesive analysis of the makeup of industrial clusters and uncovers relevant geographies constitutive of wider study areas.
- C.3 The site types detailed alongside have been identified through previous studies of the following prominent industrial sites: the Old Kent Road, the Upper Lee Valley and Park Royal. These previous studies have allowed for a set of characteristics to be established for each site type, including:
- average employment densities
 - footprint ratios
 - individual unit sizes
- C.4 Serving as broad guidelines, these estimates support preliminary assumptions about each individual site types and their contribution to the overall study area. These assumptions relate to individual site characteristics; for instance, business parks tend to have higher employment densities than retail parks, and dense industrial stock has a higher footprint ratio than standalone warehouses.
- C.5 The site type methodology allows for a more comprehensive spatial representation of study areas, as well as offering a preliminary insight into the character, economies and issues facing each individual site.

Table C.1 Site Typologies

Site Type	Defining Physical Structures and Uses	Employment Density (employees/ha)	Footprint Ratio	Typical Unit Size ¹¹¹ (sqm)
Standalone Warehouse	Large warehouses occupied by a single business, typically with gated access to private large external yard space and car parking. Accommodates more space-hungry industries such as logistics and warehousing.	60-110	0.40-0.70	2,000-10,000+
Industrial Estate	Terrace warehouse units occupied by multiple businesses, accessed off of a shared yard space.	80-140	0.50-0.70	500-10,000
Dense Industrial	Older stock of industrial units which have been subdivided and re-purposed over a number of years. Generally accommodates 'messier' types of uses such as manufacturing and vehicle-related activities.	90-190	0.60-0.80	250-2,000
Bespoke Industrial or Utilities	Purpose-built industrial buildings or utilities sites for uses such as waste management or power supply plant and associated yard space	Variable	Variable	Variable
Open Industrial Land	Large open space with only a few built structures. Usually used for construction purposes such as concrete mixing.	30-50	0.07-0.10	Variable
Retail Park	Large, single storey retail sheds. Can be distinguished by the large amount of customer parking that sprawls out for the warehouses.	50-60	0.30-0.40	1,000-10,000
Business Park	Typically provide a large number of small office units within a single building. Parking is generally provided. Accommodates service-sector types uses such as professional services.	170-350	0.40-1	250-1,000
Office¹¹²	Large office space typically hosting a single business in its premises.	Variable	Variable	Variable
High Street¹¹³	Traditional high-street with small retail units on the ground floor and office / residential above. This also includes smaller retail parades found in more residential areas.	220	0.8	<250-500
Community Uses¹¹³	Businesses found within residential blocks and/or areas that are primarily residential. These businesses are typically schools, doctor's surgeries, some small retail and community centres	80	0.6	<250-2,000
Under Construction	Entire site under construction, typically demolishing of existing building stock or speculative development.	N/A	0	N/A
Vacant Land	Land which is currently unused, and has few or no built structure on it.	N/A	0	N/A
Other	Varied range of units that remain unclassified typically due to their singularity. Examples include pubs, hotels, museums, etc.	N/A	N/A	N/A

Source: We Made That

¹¹¹ Typical average unit size ranges based on Industrial Baseline Study: <250 sqm, 250-500 sqm, 500-1000 sqm, 1000-2000 sqm, 2000-10,000 sqm, 10,000+ sqm

¹¹² Business Park site type estimates can serve as general guidelines for Office sites, although these can include large-scale headquarters as well as smaller individual branches or businesses so are a greatly variable site type

¹¹³ Average employment density and footprint ratio estimates taken from single source: Old Kent Road employment study.

Appendix D - Consultees

D.1 To inform this research, a number of important stakeholders were consulted for each of the industrial estates to gain more detail on the sites and any specific interventions which have been beneficial for other estates.

Table D.1 Site Typologies

Industrial Estate	Name	Position	Organisation
Park Royal	Josh Peter	Agent	Gerald Eve
Park Royal / A40 Corridor	James Miller	Associate Director, Industrial Agent	JLL
	Jon Sleeman	Director, UK Logistics & Industrial Research	JLL
Trafford Park	Andrew Lynn	Director	JLL
	Mike Reed	Growth and Masterplan Manager	Trafford Council
Slough	Shabnam Ali	Economic Growth and Enterprise Manager	Slough Borough Council
London Riverside	Ilker Dervish	BID Chairman	London Riverside BID
Manor Royal	Steve Sawyer	BID Executive Director	Manor Royal BID
North East Enfield / Brimsdown	Andy Bell	Brimsgdown Business Area Manager	Enfield Council
Copenhagen Clean Tech Park	Hans Peder Wagner	Investor Relations & Strategic Projects	Copenhagen Clean Tech Park

Source: We Made That



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