Newham Employment Land Review Part 2: Demand Assessment

Final report

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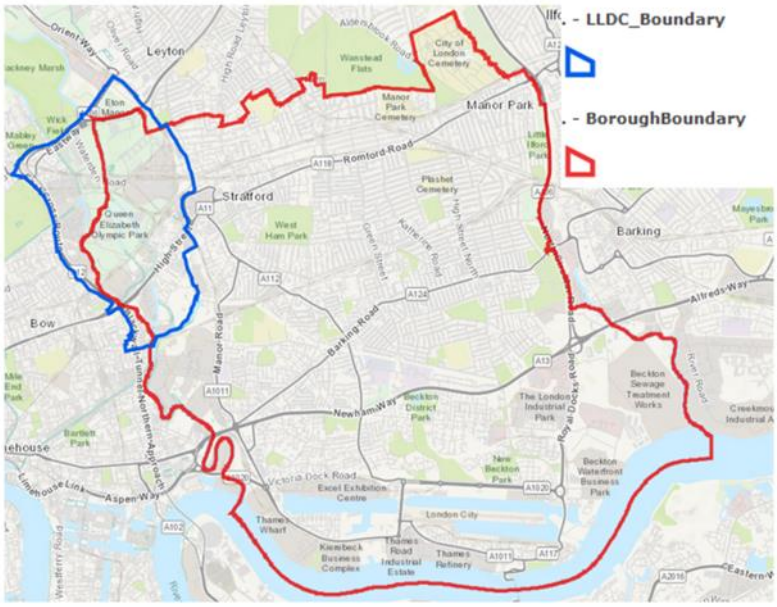
1 INTRODUCTION

1.1 The Council has commenced preparation of a new Local Plan for Newham, publishing an Issues and Options consultation document earlier this year, and will publish a Draft Plan document later in the year that will inter alia contain revised policies and designations to guide economic development, and allocate sites for employment uses. This Employment Land Review (ELR) study will provide the evidence base to guide those revisions to policies, designations and allocations.

1.2 Earlier this year the Council with input from the GLA prepared Part 1 of an ELR - an audit of the current supply of employment sites. To complete the ELR, and to fulfil the requirements of national guidance, an assessment of future demand for employment space over the Plan period is also needed, alongside identification of how any future demand can best be met. The purpose of this report is to complete these 'Part 2' tasks.

1.3 The London Borough of Newham (the Borough) has been the focus for a lot of nationally significant regeneration in recent years, most notably in respect of the Olympic Park. The London Legacy Development Corporation has responsibility for the planning of that area (shown in blue on the map below) that includes the Stratford City shopping centre and land in four boroughs. Consideration of the LLDC area is beyond the scope of this study, and whilst most of the datasets used in this study do not distinguish between the LLDC area and the Newham LPA area, in considering the future employment planning of the LPA area we do our best to separate out data between the two areas.

Figure 1.1 LB Newham boundary and LLDC Boundary



1.4 Regeneration is not restricted to Stratford and the Lower Lea Valley, the Royal Docks and Beckton Riverside are designated an Opportunity Area of pan-London significance. An early working draft Opportunity Area Framework was issued last

year for targeted consultation and set out a high level regeneration target of 25,000 new homes and 60,000 jobs for the area.

1.5 Whilst some of the regeneration that has been undertaken in the past has necessitated the release of traditional employment space, Newham does have a comparatively large amount of vacant industrial land and buildings, which means there continues to be opportunities to relocate existing occupiers and provide opportunities for new entrants to better suited and more efficient premises, whilst also rationalising and freeing up land for non-employment related regeneration activity.

1.6 This study explores the extent of the release of industrial land in the Borough to date, and the potential for further managed release required to help facilitate the regeneration plans in the emerging Local Plan.

1.7 The regeneration and mixed use redevelopment of some of the Borough's industrial land resource delivers positive benefits, critically providing homes and infrastructure improvements, and making much more efficient use of land. But it can also have negative consequences for some employment activity/occupiers. Most noticeably the continued availability of industrial and warehousing facilities is important for the local economy, and critical to the functioning of the wider London economy. Some occupiers need industrial space close to the City/Inner London to service the growing residential and businesses community. Servicing delivery needs is absolutely vital for the City's continued functioning as recognised in the London Plan. Newham is one of just a handful of boroughs that has the strategic advantages and the required space to service the City.

1.8 The fierce competition for land has driven up values particularly for commercial, retail and residential uses, to the extent that industrial and warehouse uses that require large floorplates are less able to compete for land, and are in danger of being priced out of the Borough.

1.9 With this in mind in considering the future for the Borough's employment land resources there is a balance to be struck between the various competing uses that needs to weigh the strategic economic benefits and the more local employment needs against the benefits from regeneration.

Study objectives and report structure

1.10 This study focuses on identifying current and future market conditions, and together with the Part 1 work that was undertaken by the Council, reviews the employment land designations and land allocated for employment use, to enable the Council and the GLA to plan for the right amount of land in the right locations to meet the need from within the Property Market Area for new employment in the Borough over the Plan period.

1.11 The brief sets out a number of questions broadly addressing the pattern of demand for employment space and the options for supply for this study to answer. The report structure responses to these whilst ensuring an appropriate long term and sub-regional view is taken. It commences (chapter 2) with a review of the local economic geography that shows employment markets do not neatly correspond with borough

boundaries, and then Newham's socio-demographic characteristics and trends, then a brief review of the policy context for employment planning in the Borough. Then in chapter 3 the Borough's employment structure (jobs and floorspace) is analysed - past, present and future through a review of historic trends and future labour demand forecasts. This quantitative assessment is then followed by chapter 4 that considers the market perspective, providing an occupier/developer view on demand, the existing supply, and rents / vacancy levels. Thus these two analysis chapters together provide both a quantitative and qualitative assessment of future employment change in the Borough. Overlain in all the foregoing is consideration of the wider employment markets in which Newham is located. Finally, in chapter 5 the report draws the evidence together and considers how this relates to the recently published GLA employment land evidence that also has the benefit of considering the wider sub-regional context. Then the spatial options proposed in the Local Plan Review are considered, and finally this study's policy recommendations are identified.

2 BACKGROUND AND CONTEXT

Introduction

2.1 This chapter reviews Newham's economic geography and considers the Borough's socio-demographic characteristics and trends before briefly outlining the policy context for employment land use planning in the Borough.

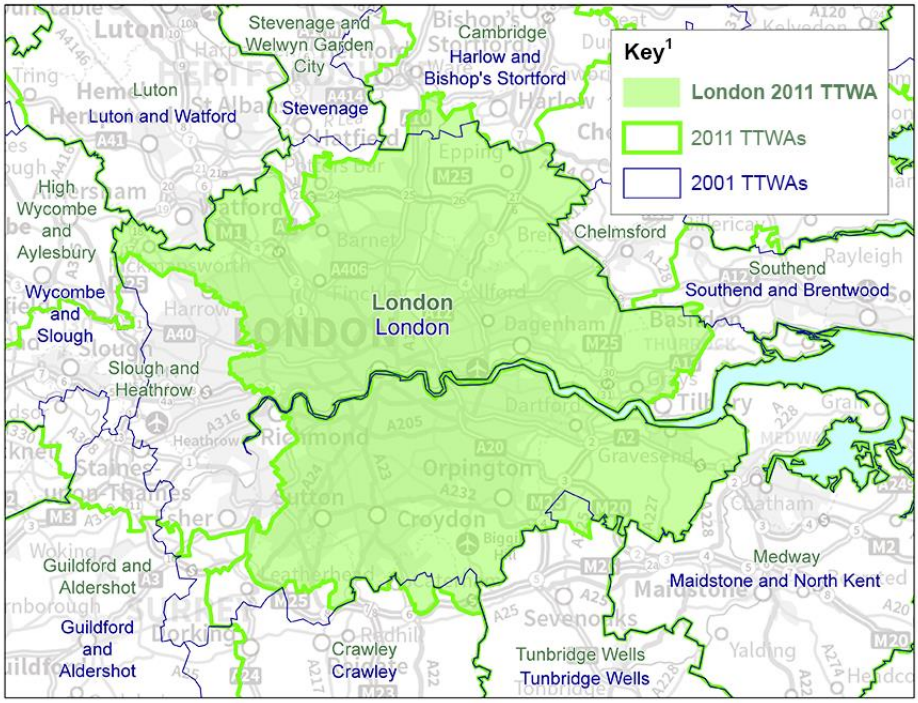
Economic Geography

2.2 The NPPF requires Councils to define their Functional Economic Market Area (FEMA), which should ideally be a self-contained geography where commuting and economic moves are largely internalised.

2.3 The Planning Policy Guidance refers to a number of data sources that can help identify discrete FEMAs, but when it comes to hard data suggests just a single source for defining FEMAs - the ONS Travel-to-Work Areas (TTWAs).

2.4 The figure below shows the London TTWA that generally extends outwards beyond the outer London borough boundary. Newham sits firmly within the London TTWA, and the TTWA geography reinforces the need for economic strategies to be developed and set at the regional level.

Figure 2.1 London - Travel to Work Area



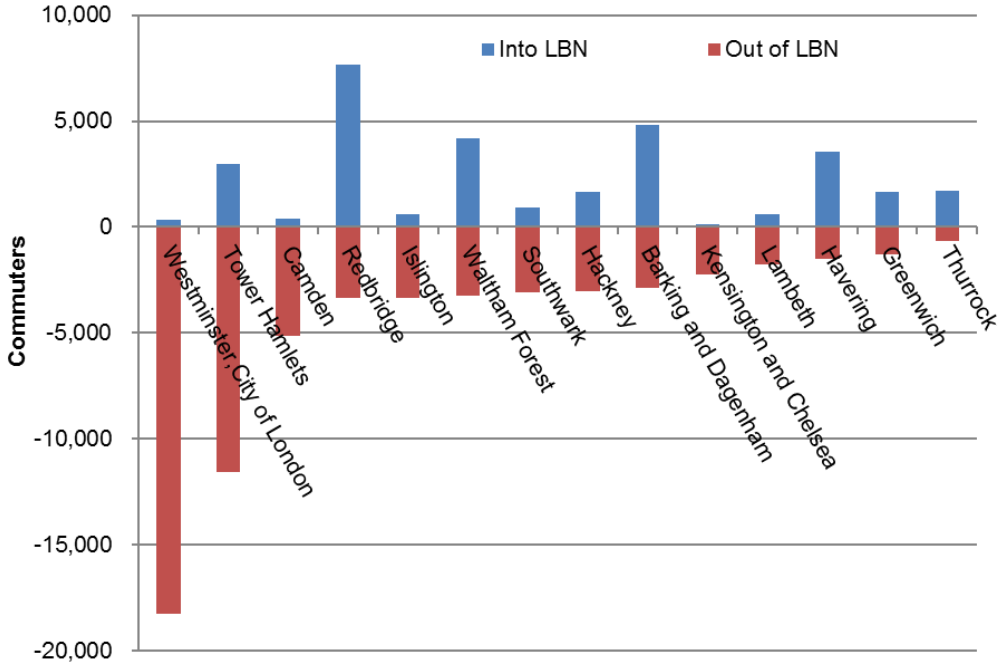
1 Travel to Work Area (TTWA).

2.5 Commuting in London is complex because the City, sitting at the centre of the FEMA draws in such large labour flows from all boroughs and a large hinterland in the greater Southeast. So the boroughs don't function independently or in groups, but are

part of a London-wide FEMA. In actual fact most boroughs, including Newham have at least two market areas, with the second serving a much more local economy.

2.6 The table below shows the strongest commuting links in and out of Newham based on 2011 Census data. The negative commuting numbers are the flows out of the Borough. By far the largest flows are into the City and Tower Hamlets, which together account for 40% of all Newham's commuting out flows.

Figure 2.2 Newham – Commuting flows (in and out of the Borough)



Source: ONS, 2011 Census WU01UK - Location of usual residence and place of work (2011)

2.7 Flows out of Newham (totalling 77,000) exceed in-flows (49,000) by almost 60%. This is a comparatively high ratio for an inner London borough. Neighbouring Tower Hamlets has the reverse of this ratio, 60% higher in-flows.

Figure 2.3 Commuting self-containment - 2010-11 Newham

Origin (trips from)	**Destination (trips to)**			
	Newham	Elsewhere	Total trips from Newham	**Origin containment**
Newham	24,781	77,346	102,127	**24%**
Elsewhere	49,269			
Total trips to Newham	74,050			
Destination containment	**33%**			

Source: ONS, 2011 Census WU01UK - Location of usual residence and place of work (2011)

2.8 Newham's self-containment rates are well below the two-thirds rule of thumb applied to commuting containment, and demonstrates that Newham like most of the London boroughs is firmly within the London FEMA.

Property Market Areas

2.9 In recognition of these difficulties LILD identifies five broad property market areas where London's industrial activity is concentrated. Newham is in two PMAs. The LLDC area and the British Gas/Cody Road area on the west side of the Borough is in the Lea Valley PMA, which is characterised as a major industrial and warehouse location, notably between the North Circular Road and the M25 and focused on Enfield. The remaining two-thirds of the Borough is in the Thames Gateway PMA, which has developed as a significant location for large-scale warehouses and logistics facilities, notably along the A13 corridor, where a number of major new developments have been constructed over recent years.

2.10 Clearly Newham has important locational advantages, particularly road connectivity that are important for the storage and distribution sector, but also the A13 corridor is important in servicing the Central Activity Zone.

Socio-demographic characteristics

Population and jobs

2.11 The latest ONS[1] estimate for the Borough's population (2016) was 341,000, 14% higher than in 2010, and much higher growth than Great Britain (4.6%), and London as a whole (9%). The GLA have recently published trend based population projections, which are extremely close to the ONS data shown in the table below, but do not provide projections of the economically active, and hence this assessment is based on ONS data.

2.12 The number of economically active residents[2] in 2016 was 177,700, which was a third higher compared to 2010. This is a huge increase, and proportionally significant as 73% of the working age group (16-64) in the Borough are economically active up from 62% in 2010. The proportion is closer to, but still behind the London and GB averages (both 78%).

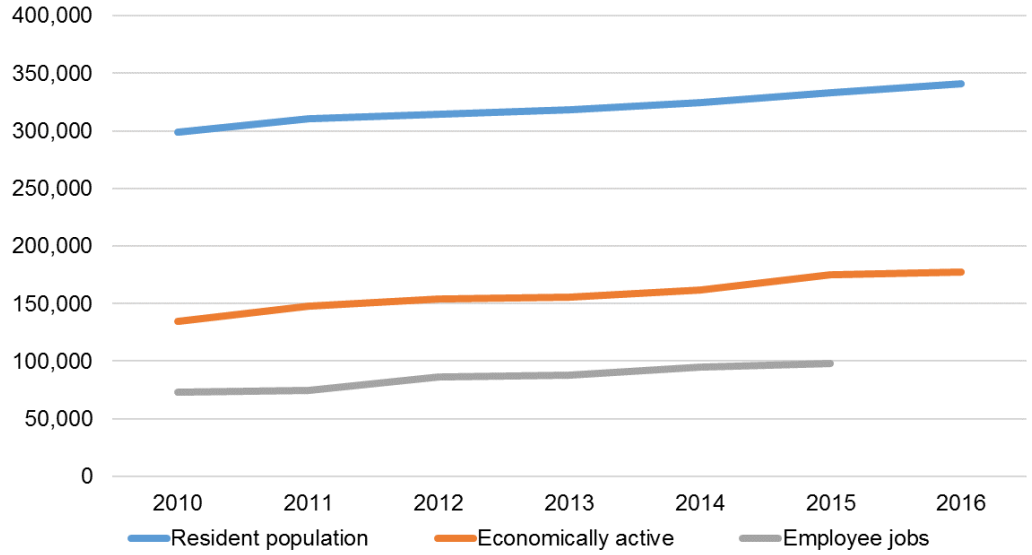
2.13 The rise in employee jobs[3] in the Borough has been in line with the number of economically active residents to stand at 98,000 in 2015 (no data for 2016), a third higher than the 2010 figure.

[1] 2016 Mid-year estimates

[2] economically active residents – residents available for work (includes employed and unemployed).

[3] Employee jobs – jobs in the Borough excluding self-employed, government-supported trainees and HM Forces.

Figure 2.4 Population, economically active and employee jobs in Newham - 2010-2016



Source: Population: ONS mid-year estimates (Nomis), Economically active: ONS annual population survey, Employee jobs: latest Business Register and Employment Survey (BRES) no data as yet for 2016, Table 6 (release 28th Sept 2016),

Nb employee jobs exclude self-employed, government-supported trainees and HM Forces.

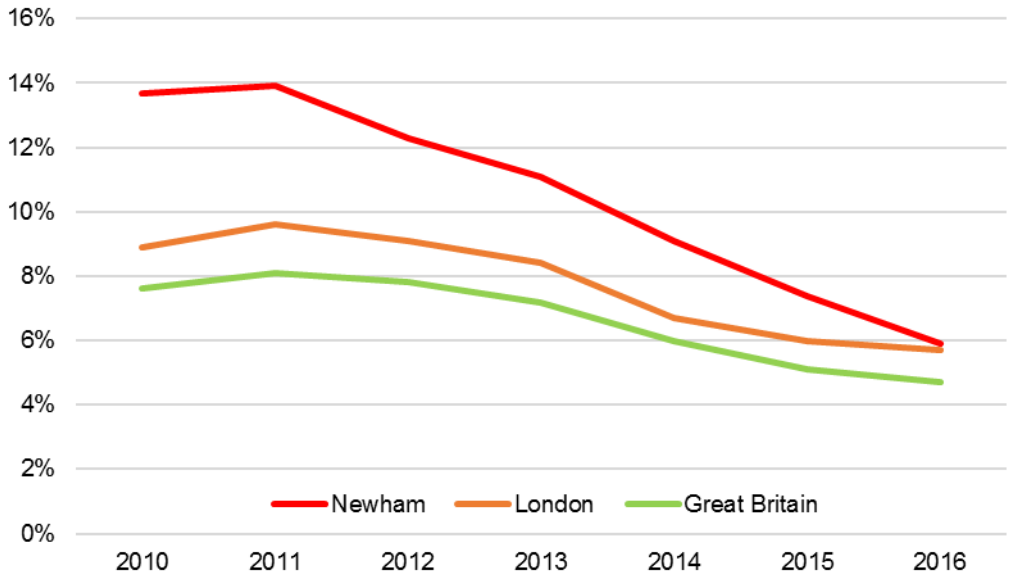
2.14 The most up to date data on place of work of Borough residents is the 2011 Census. In 2011 Newham's resident workforce[4] at that time was 102,000, of which just a quarter work in the Borough, and three quarters commute out of the Borough to work elsewhere. This is a high level of out commuting, reflecting the availability of jobs in Central London, which as we see below generally offer higher earnings.

Labour market

2.15 As referred to earlier the economic activity rate has improved in recent years. The improvement in economic activity has been accompanied by a dramatic reduction in unemployment rates in the Borough, to a point where rates are now at the London average and only marginally above national average. However, whilst overall unemployment in the Borough averaged 6% in 2016 down from a high of 15.6% in 2011, persistently higher levels of unemployment are experienced by the younger age groups. Unemployment amongst the 16-24 age group peaked at 33% in 2009 and was little changed by 2015, however it dropped substantially to 14.5% in 2016.

[4] Resident workforce – residents in employment. This differs from economically active because it excludes those unemployed but available for work.

Figure 2.5 Unemployment



Source: ONS Annual Population Survey. Percentages are a proportion of economically active.

2.16 Moreover, the proportion of the Borough's economically active holding degrees (NVQ 4 equivalent and above) is 47%, below the London average of 52%In addition, 9% hold no qualifications at all, which is above the London average of 6.5%.

2.17 Table 2.1 below shows that Newham's workforce is very different to London as a whole, with lower proportions in the managerial and professional categories and higher proportions in the trades, customer service and industrial unskilled work categories.

Table 2.1 Resident workers' occupation profile

Standard Occupation Category	Newham	London	Great Britain
	percent	percent	percent
SOC 1: managers, directors and senior officials	10.2	12.2	10.7
SOC 2: professional occupations	16.3	25.5	20.4
SOC 3: associate prof & tech occupations	11.8	17.8	14.2
SOC 4: administrative and secretarial occupations	8.0	9.6	10.2
SOC 5: skilled trades occupations	11.2	7.0	10.4
SOC 6: caring, leisure and other service occupations	7.0	7.5	9.1
SOC 7: sales and customer service occupations	11.4	6.6	7.5
SOC 8: process, plant and machine operatives	7.4	4.5	6.3
SOC 9: elementary occupations	16.8	9.0	10.7

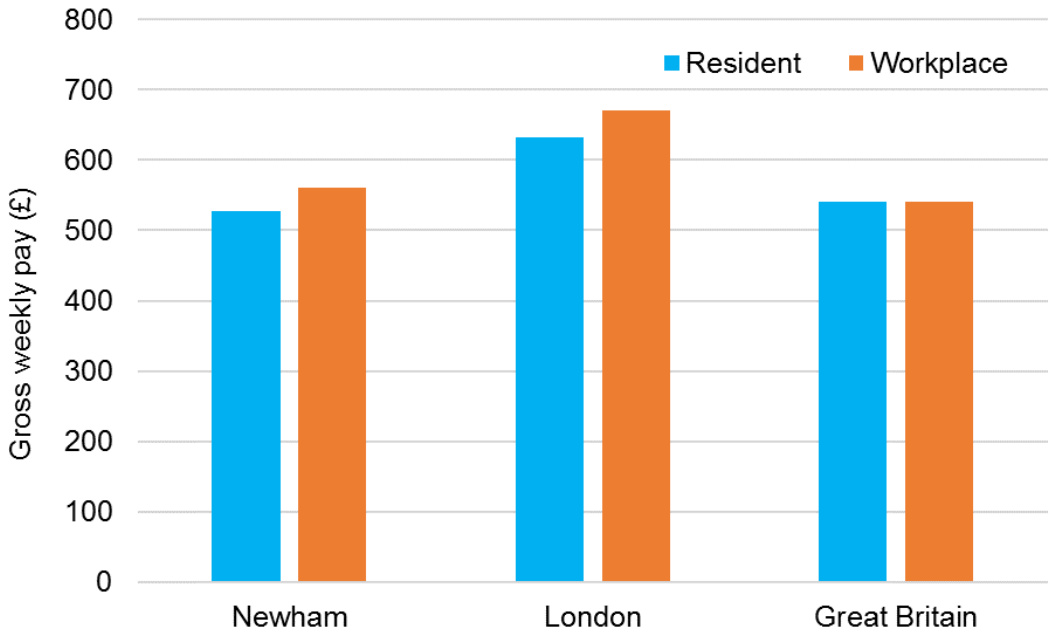
Source: ONS, Annual Population Survey, 12 months to Sept 2016

2.18 Linked to the qualifications and job category profile, Newham residents' average gross weekly earnings are lower than both London and GB. There is a considerable

20% pay gap between Newham residents and the average for London residents (blue bars below), which unlike the unemployment gap has not improved since 2010.

2.19 The same differential applies to workplace wages (brown bars) compared to the London average. Whilst workplace wages in are a little higher (6% higher) than resident earnings, the average is still below the London average.

Figure 2.6 Mean gross weekly earnings - 2016



Source: 2016 Annual Survey of Hours and Earnings (Provisional), ONS

Employment sectors

2.20 Table 2.2 below shows employee jobs in Newham by industrial sector[5]. The BRES data is survey based and outlying data tends not to be smoothed between years, and therefore the data can be 'lumpy'. Thus, we focus on longer term trends and the overall sector mix.

2.21 The data shows that overall job numbers in the Borough have risen rapidly over the first half of the decade, achieving a 25% increase between 2010 and 2015. The biggest increases, accounting for half the growth, have been in retail and business admin which will be due to the opening of Stratford City and new office floorspace. These are relatively low qualification low waged jobs, which are reflected in the lower than London average wage and the Borough's labour profile that is higher in the low skilled occupation categories. However, diversification away from a focus on public sector employment (currently accounting for 40%) will strengthen the Borough's employment base. What is also notable, is a growth in manufacturing and other industrial type jobs, reversing decades of decline.

[5] The table does not include the self-employed or those in the armed forces.

Table 2.2 Employee jobs by industry sectors - Newham 2010-2015

Broad Industry Group	2010	2011	2012	2013	2014	2015	
1 : Agriculture, forestry & fishing (A)	0	0	0	10	0	5	0.0%
2 : Mining, quarrying & utilities (B,D and E)	1,250	1,500	1,750	1,250	1,750	1,500	1.5%
3 : Manufacturing (C)	3,500	3,000	3,000	3,000	3,500	4,500	4.5%
4 : Construction (F)	3,500	4,000	4,500	4,500	6,000	4,500	4.5%
5 : Motor trades (Part G)	700	700	600	700	700	900	0.9%
6 : Wholesale (Part G)	2,250	2,500	2,500	3,000	3,000	2,500	2.5%
7 : Retail (Part G)	9,000	10,000	14,000	15,000	16,000	17,000	17.0%
8 : Transport & storage (inc postal) (H)	5,000	4,500	5,000	4,500	5,000	5,000	5.0%
9 : Accommodation & food services (I)	5,000	5,000	8,000	9,000	9,000	9,000	9.0%
10 : Information & communication (J)	1,500	1,750	1,750	2,250	2,500	2,500	2.5%
11 : Financial & insurance (K)	900	1,000	1,000	1,000	1,000	1,000	1.0%
12 : Property (L)	3,000	2,500	2,250	2,250	2,250	3,000	3.0%
13 : Professional, scientific & technical (M)	2,250	3,000	3,500	3,500	4,500	4,500	4.5%
14 : Business administration & support services (N)	7,000	7,000	7,000	7,000	8,000	11,000	11.0%
15 : Public administration & defence (O)	6,000	6,000	6,000	6,000	6,000	6,000	6.0%
16 : Education (P)	12,000	11,000	11,000	12,000	12,000	12,000	12.0%
17 : Health (Q)	9,000	9,000	10,000	10,000	11,000	11,000	11.0%
18 : Arts, entertainment, recreation & other services (R,S,T and U)	3,500	5,000	4,500	4,500	5,000	4,500	4.5%
Total	**75,000**	**77,000**	**88,000**	**90,000**	**96,000**	**100,000**	**100%**

Source: NOMIS Business Register and Employment Survey: open access. Data includes employees plus the number of working owners. BRES therefore includes self-employed workers as long as they are registered for VAT or Pay-As-You-Earn (PAYE) schemes. Self-employed people not registered for these, along with HM Forces and Government Supported trainees are excluded.

Nb the totals do not sum the sectors due to rounding. 2016 data not yet available.

Productivity

2.22 The GVA data benchmarking shown below indicates Newham's productivity, like that of the other east London boroughs with the exception of Tower Hamlets is behind the UK, and substantially behind the London average. This data accords with the other indicators, showing that whilst economic activity rates have increased Newham residents are employed in comparatively lower waged jobs. Indeed, GVA for all the East London boroughs, including Tower Hamlets has fallen between 2010-16 while the London and UK averages have held constant.

Table 2.3 Gross Value Added per resident worker - 2016

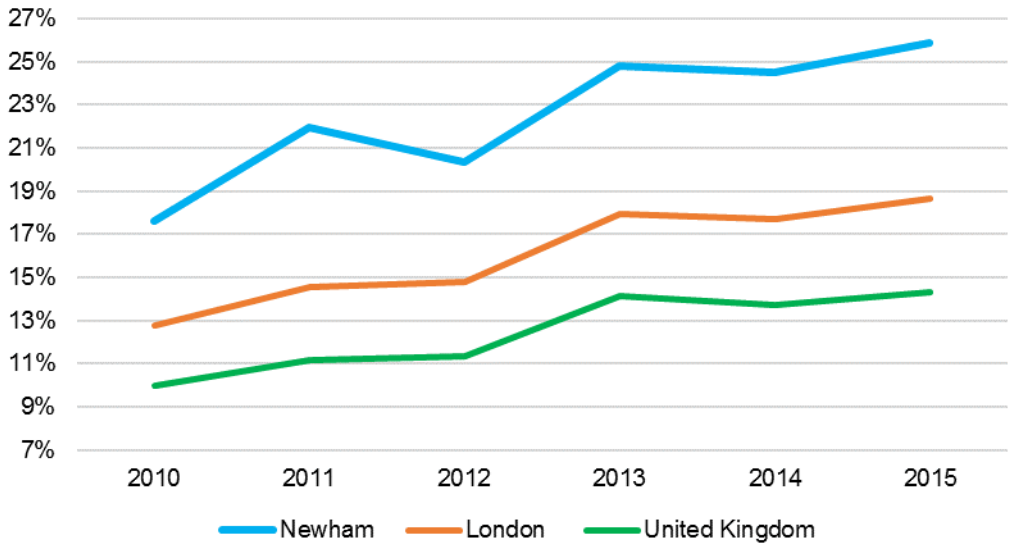
	2010 GVA per residence based employment (£)	Relative to the UK (UK=100)	2016 GVA per residence based employment (£)	Relative to the UK (UK=100)
Tower Hamlets	199,923	391	176,405	334
London	80,659	158	84,225	159
United Kingdom	51,136	100	52,869	100
Newham	**53,336**	**104**	**48,380**	**92**
Hackney	50,311	98	48,244	91
Barking & Dagenham	41,713	82	41,117	78
Redbridge	34,855	68	34,913	66

Source: Experian (June 2017)

Business demography

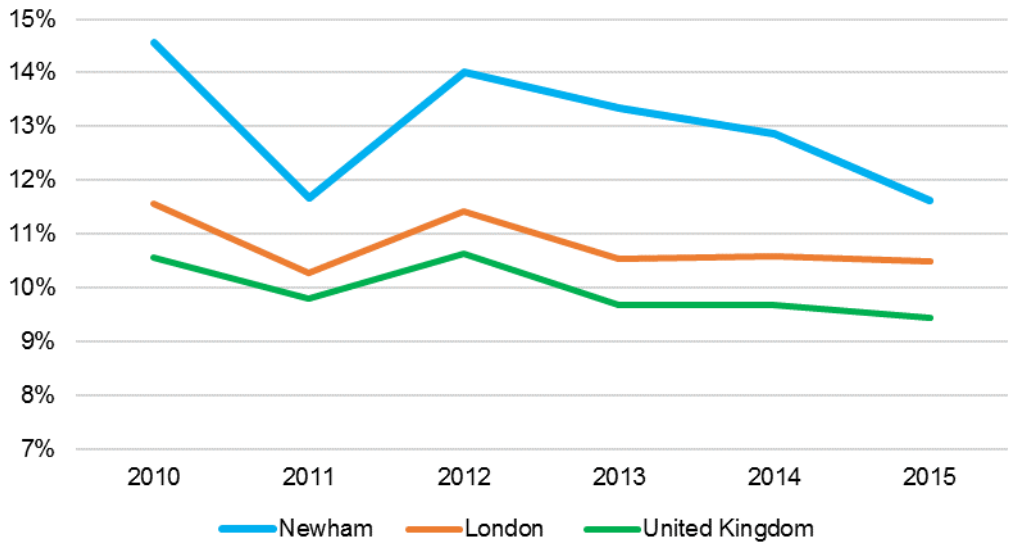
2.23 The rate of business formation in the Borough since 2010 has been at a consistently higher rate compared to London and UK. While business closures were also running at correspondingly high rates, which is to be expected given the risks associated with business start-ups. encouragingly the rate of Newham business closures has reduced in recent years to a rate approaching London and the UK, while start-ups remain more buoyant.

Figure 2.7 Business formation rates - 2010-15



Source: Business demography 2015, ONS, produced from an extract taken from the Inter-Departmental Business Register (IDBR)

Figure 2.8 Business closure rates - 2010-15



Source: Business demography 2015, ONS, produced from an extract taken from the Inter-Departmental Business Register (IDBR)

2.24 In Newham the rate of business start-up is more than double that for business closure, and a 26% start up rate as of 2015 was 7% higher than the London average where closures are more than half the rate of start-ups.

2.25 The annual net gain in businesses (difference between start-ups and closures) in Newham has risen dramatically since 2010 when 210 businesses were added, to an extra 1,000 in 2013 and nearly 1,600 in 2015. This rise in start-ups will have generated employee jobs, but it is likely that its biggest impact will have been to increase the number of self-employed in the Borough. Such rates of business start-up are extremely high.

2.26 The data doesn't identify the residence of these entrepreneurs, but does show that Newham is a place where new businesses thrive, many of which will be micro and small businesses. Nor does the data identify where the new start-ups are locating, but given there is a general lack of space available and suitable accommodation, it is likely than a high proportion are working from home. It is also relevant to recall that the Mayor of London is committed to promoting opportunity for SME firms so these trends are to be further encouraged.

Policy context

National Policy/Guidance

2.27 The NPPF advises LPAs to plan positively to meet the area's development needs and support sustainable economic growth, including support for existing and new employment sectors likely to locate in the area. Plans should avoid the long-term protection of employment sites where there is no reasonable prospect of them coming forward.

2.28 The PPG advises the evidence base should assess the need for land and floorspace for economic activity based on projections of past take up or forecasts; these forecasts should be both quantitative and qualitative and they should be broken down into sectors or market segments, and seek to identify and encourage emerging employment sectors. The guidance recognises that economic areas generally extend beyond a single borough boundary, and the demand and supply of employment land is therefore something to consider on a sub-regional basis.

London Plan

2.29 The current (2015) London Plan 2011-36, which is now under review, seeks to promote economic growth across all parts of London, but in terms of perception of economic opportunity and infrastructure investment focuses on the CAZ office market. In many areas the Plan encourages the managed release of office as well as industrial stock.

2.30 For the record the overall, now dated growth projection for the Borough on which it was based was 16,000 jobs of which 6,000 were projected to be office jobs, but the other B class employment categories (B1c-B8) were expected to continue to decline. Target industrial land release in Newham was 106 ha, much the highest in London.

2.31 The Borough's key industrial locations, the Strategic Industrial Locations (SILs) are identified as the British Gas Site/Cody Road, the London Industrial Park and Thameside East and West, where industrial uses are promoted, managed and, where appropriate, protected.

2.32 The Royal Docks & Beckton Waterfront is identified as an OA that encompasses 1,100 ha, and was identified for 6,000 jobs including the significant ABP London development. The March 2016 early working draft OAPF document raised the aspiration to 60,000 jobs, comprised of 37,000 jobs with planning permission, and the remainder on new development sites, many derived from employment land release; however, this strategy is now under review given new evidence base.

2.33 The London Plan review is now underway and the Mayor has signalled his 'direction of travel' for the London Plan in *'A City for all Londoners*'.

'A City for all Londoners'

2.34 Published in late 2016 'A City for all Londoners' is very pro-business, with the Mayor declaring his intention to be *"the most pro-business Mayor ever*". His priorities are to continue to develop Central London as a top global business city, increase participation in economic success for all Londoners by supporting business in Outer London, and also to provide particular support for small and medium sized businesses (SMEs), which the Mayor recognises create a large number of jobs.

2.35 The Mayor will deliver on his economic aim of accommodating growth by protecting land used for employment across the City, especially protecting existing and identifying new workspace areas for SMEs.

The new evidence

2.36 The GLA have commenced preparation of a full review of the London Plan. Critically for this study two new evidence base documents were released in June 2017 by the GLA. The first is an updated Industrial Land Demand study that as referred to above amongst other things places Newham in two Property Market Areas, and the second is an updated London Office Policy Review[6]. Both these studies draw upon the London labour market projections 2016[7], produced by GLA economics.

2.37 The significance of these documents for employment planning in the Borough is discussed in a later chapter. Here we simply compare the new office jobs and industrial land projections for the Borough compared with the projections, referred to in paragraph 2.30**Error! Reference source not found.** above that informed the current London Plan.

2.38 The new London Plan projections for the whole Borough are an increase to 2032 of 60,000 jobs. This is much higher employment growth than all the neighbouring boroughs with the exception of Tower Hamlets where the projection is double the figure for Newham, and much higher than the 16,000 jobs projected in the current London Plan.

2.39 LOPR's projected growth in office jobs in the LB Newham as a whole is 12,000 jobs over the new London Plan period (2016-41) that generates a requirement for 134,400 sq m of additional floorspace[8] This compares with an additional 6,000 jobs and 73,000 sq m in the 2014 LOPR report.

2.40 LILD takes a different approach and projects changes in the need for industrial land rather than changes in jobs. As in previous iterations, LILD identifies possible industrial land release benchmarks for each borough, in Newham's case a modest reduction on previous levels, but by far the highest in London (4.6 ha/a). The vast majority of the land included in the benchmark release calculation is land that LILD considers to be surplus vacant industrial land, beyond that needed to meet jobs growth projections.

2.41 However, in response to the much higher rates of industrial land release in recent years across London, Newham has been reclassified as a 'limited release' borough, a new category with a different emphasis from the Borough's previous 'managed release' categorisation.

2.42 LILD suggests that the release figures should be considered at the sub-regional or property market area level rather than at the borough level, so that the availability of land within the broad PMA can be taken into account when allocating or releasing industrial sites.

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[6] London Industrial Land Demand study, CAG/GLA, June'17

London Office Policy Review, CAG/GLA, June'17

[7] London labour market projections 2016

[8] Figure 9.16, LOPR June 2017

The Local Plan

2.43 Currently the Local Plan comprises the 2012 Core Strategy and the 2016 Detailed Sites and Policies DPD alongside the 2012 Joint Waste Plan. The Core Strategy 2012-27 included a strategy for managed release (policy J2) that re-designated 77.3 ha of employment land, 20.8 ha of which was SIL, the remainder mostly long standing opportunity areas, with release to occur through the development of Strategic Sites. This was partially revised by the DSDPD which re-instated protection of some locally significant employment areas (LILs) and introduced a concept of employment-led Local Mixed Use Areas on some employment land closer to/set within residential areas.

2.44 The Borough is preparing a new Local Plan, and in February 2017 published Issues and Options documents (Part 1 policies and Part 2 sites) for public consultation.

2.45 Employment issues identified in the Part 1 document included recognition that there is demand for commercial and industrial uses in the Borough, including 'last mile' uses. However, whilst vacancy rates for employment premises are low, there are large expanses of underused employment land in SILs, and these need to be reviewed.

2.46 The Part 1 notes that residential land values are almost four times higher than industrial. This reflects the demand for housing in the Borough, but is an issue of concern because it could encourage owners of industrial land to hold out for residential 'hope value'. There is demand for further SIL site releases for housing in addition to those SIL Strategic Sites allocated for release. The issue is how to manage the further release of employment land, whilst continuing to provide sufficient land to meet demand for business growth.

2.47 The Council sets out an option for how the balance between providing for business needs and the need to find more land for housing can best be managed, set against a 'do nothing more than existing policy' position. This study is designed to help refine these options.

Conclusions

2.48 Newham is part of two Property Market Areas, both of which are focused on logistics and warehousing activity that principally serves London's Central Activity Zone, as well as more local needs. Access to principle road routes is the key factor, with the A13 and North Circular particularly important to warehousing uses in the PMAs, and therefore giving Newham a strong advantage as a location for this form of activity. The Borough is therefore likely to see strong demand for warehousing and may need to identify land to serve both a local and City/Inner London need to support economic growth.

2.49 The commuting statistics, which tend to focus on office jobs indicate Newham's level of self-containment is very low, largely because of the out-flows to the City and Tower Hamlets, but also because the number of jobs in the Borough is comparatively low relative to the working age population. Whilst commuting outflow is very high, the

opportunity to stem this is likely to be limited because local office jobs will not be able to compete on a salary basis with jobs in the CAZ unless there is a step change in the Borough's office/employment offer.

2.50 The Borough's socio-demographic profile is different to the London average. Residents are generally less skilled and take up jobs with less responsibility, and as a consequence resident wages are comparatively low.

2.51 Jobs in the Borough are also lower waged than the London average, but are slightly higher waged than Borough residents' wages. This is explained by a high proportion of residents' commuting out of the Borough to jobs elsewhere (75% of residents), but overall they are commuting mostly for lower than London average wages reflecting the generally low skilled roles and are less qualified nature of employment for Borough residents compared to other London boroughs. The low waged economy can only be improved by addressing and improving worker skill sets.

2.52 The rates of residents available for work and the availability of jobs in the Borough have however risen sharply in the first half of the decade, and at a much faster rate than the London average. Conversely unemployment has dropped significantly, down to a level in line with the London average, though is persistently higher amongst younger people.

2.53 This improvement in employment rates will in part be because of the very healthy rates of business start-ups and correspondingly low levels of business closures. Unemployment rates amongst the young have recently started to improve which is likely to reflect improved job opportunities, particularly new opportunities around Stratford, notably in retail. Retail jobs now dominate in the Borough, followed by jobs in business administration, education and healthcare, diversifying away from a previous public sector dominance. An increase in manufacturing and other industrial jobs is also notable in recent years, reversing decades of decline.

2.54 All these trends and factors will be influencing demand for employment space. However, they will also be further mediated by economic development objectives and interventions: there continues to be a desire to attract new inward investment and to enable residents to work in higher paid, higher skilled jobs, and to enable business start-ups not only to survive but to grow in the Borough alongside other businesses. This is particularly relevant with the ability to retain business rates in the Enterprise Zone, and more broadly in the near future.

2.55 The National Planning Policy Framework makes it clear that business demand should be the major driver directing local economic strategies, and this study goes on to review the quantitative (from the perspective of labour market forecasts) and qualitative (from the perspective of the property market) demand for labour and floorspace in chapters 3 and 4.

2.56 The emerging London Plan is going to identify very challenging employment growth projections for LB Newham as a whole (including the LLDC) – 60,000 jobs across all use classes to 2031/2. The recently published London Plan evidence documents indicate that there is more than enough existing land capacity to deliver both new office and new industrial space to accommodate the B class complement of these

additional jobs, displaced demand from elsewhere, and some further release of vacant industrial land. Similarly, the Local Plan Review Issues and Options identifies potential areas for further industrial land release, and areas where industrial activity could continue to be concentrated. This study subsequently explores whether the conclusions in the London Plan evidence are robust and appropriate, and in turn what industrial release/protection should carry forward into the revised Local Plan.

3 QUANTITATIVE DEMAND FOR EMPLOYMENT FLOORSPACE

Introduction

3.1 This chapter assesses the Borough's quantitative demand for economic development over the plan period 2015-32 in accordance with the advice set out in the PPG. It complements the more qualitative review of demand set out in the market appraisal chapter that follows in this report. It also views the socio-economic and functional economic geography characteristics and policy objectives highlighted in the last chapter through these lenses: translating them into spatial implications.

3.2 Consideration is given to:

- past trends for jobs and the quantum of different types of employment floorspace and land (where possible split by land use - office, industrial & storage and distribution), which are used to test projections and forecasts of future change;
- the GLA projections of future employment floorspace/land need in the Borough, drilling down into the data that was introduced in the previous chapter.
- job demand forecasts that reflect the economist's view of future growth in the local economy, that we use to identify the demand for future employment space. These jobs data, provided by Experian Economics will be used to sense check the GLA projections, the past trends data and the Borough's socio-economic and functional economic geography.
- Other relevant policy objectives such as those concerning business growth, targeting of higher waged/skilled jobs, space efficiency, self-sufficiency, air quality, and infrastructure improvements.

3.3 The quantitative data together with the more qualitative assessment that follows in the next chapter will help address the question of whether the Council's strategy of protecting existing LIL sites, intensifying use on SILs and pursuing mixed use on Strategic Sites that involves SIL releases is appropriate.

3.4 All floorspace data are gross internal area (GIA) measurements to be consistent with development management calculations.

Past trends

3.5 We look firstly at historic employment rates and then floorspace, as this can help inform views of future land needs. The assessment uses data on jobs sourced from Experian and the GLA for total jobs[9], and floorspace sourced from the VOA. The VOA floorspace data is useful because it is collected on a consistent basis, is available over a time series commencing in 2000/01 and can be used to compare with other Local Authority areas.

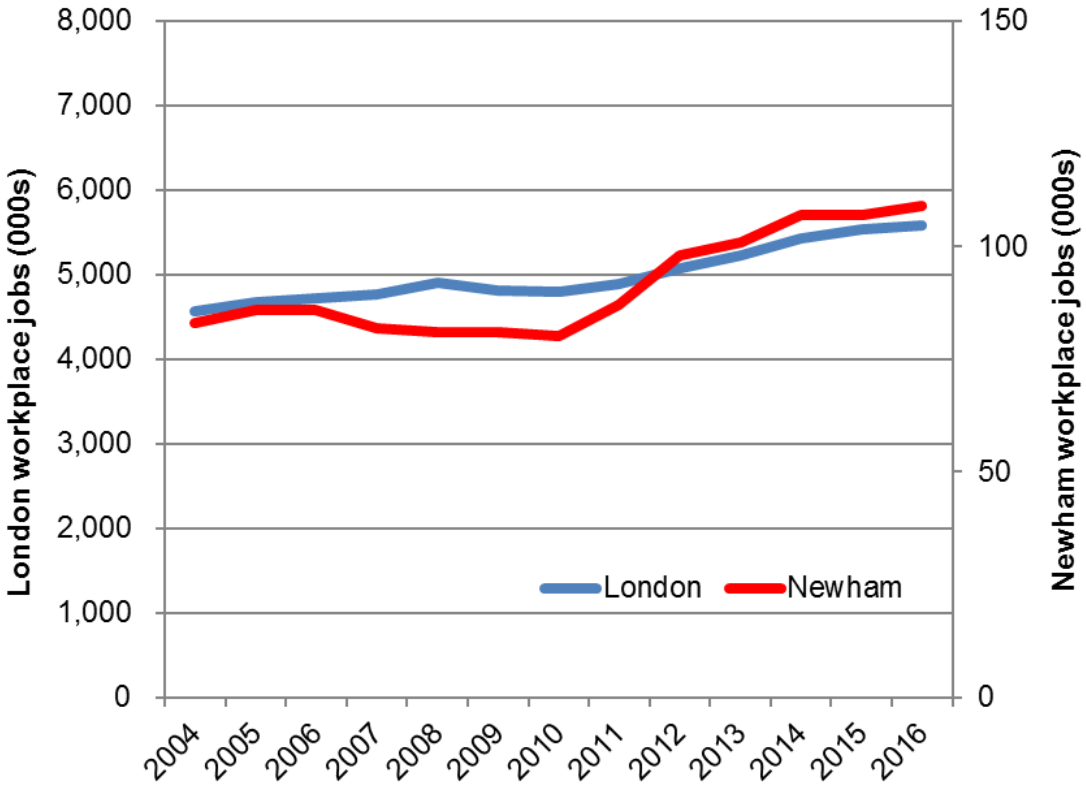
[9] GLA Economics, London labour market projections 2016

3.6 The Experian jobs data contains 38 employment sectors covering all employment activities, all use classes, and is primarily a forecast of total jobs (see Appendix A). We start with analysis of total jobs, and then we convert these data into land use categories using the latest BRES data[10] and our bespoke category to land use mapping (see Appendix B) so that we can drill down in to the B class activities. We can subsequently compare past job change with past floorspace change, in the same way as undertaken by LOPR.

Past trends - jobs

3.7 The chart below tracks historic data for total jobs for Newham and London using data published by GLA Economics. The comparison shows job numbers declined in Newham in the second half of the 2000s in contrast to steady growth in London as a whole, but since 2010 growth in jobs accelerated in Newham faster than for London as a whole.

Figure 3.1 Newham - total jobs – 2004-2016



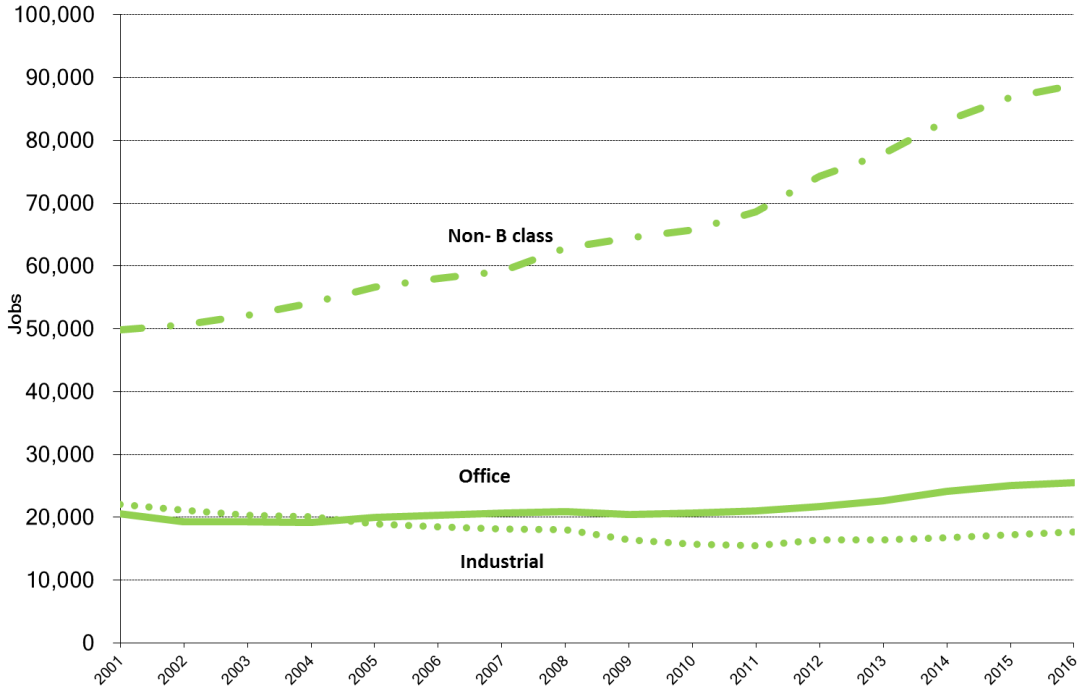
Source: GLA Economics, London labour market projections 2016

3.8 Figure 3.2 below shows trends in office, industrial and non-B class jobs (activities such as health and education) in the Borough since 2001. The graph shows that total job change has been largely driven by the non-B classes, the main categories being retail, education and health. Office jobs (solid line) have steadily risen since the recession, but at a much more gradual rate compared to non-B class jobs. The

[10] Latest release 28th Sept 2016

decline in industrial jobs stopped in 2010/11, since when job numbers have risen marginally, returning to the 2008 level.

Figure 3.2 Newham - B (and non-B) class jobs – 2001-2016



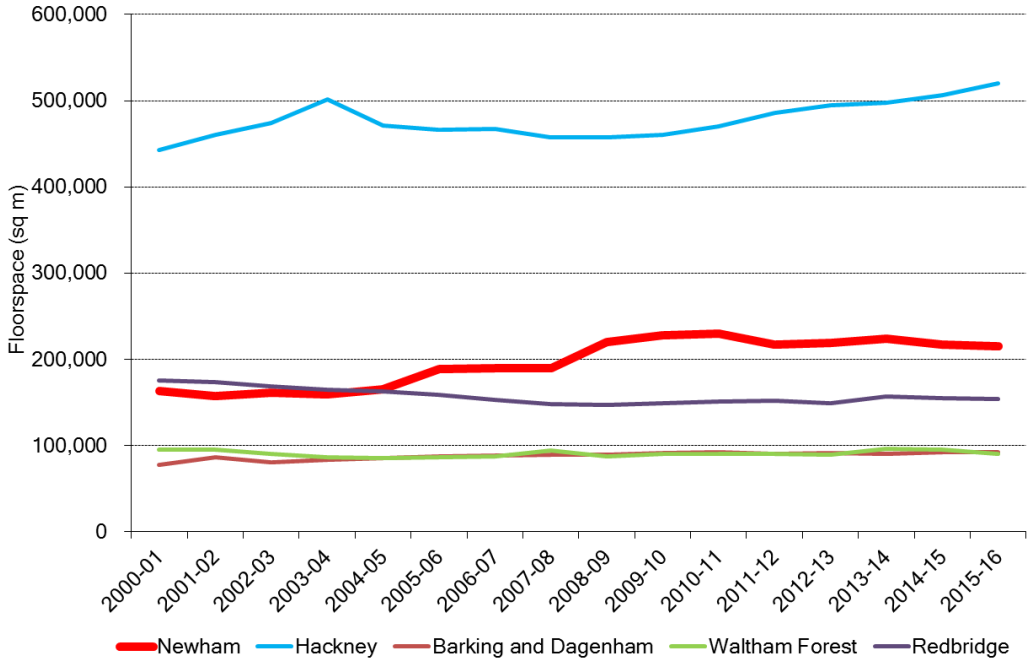
Source: Experian March 2017, Use classes - using PBA's employment sectors to land use mapping technique.

Past trends –office floorspace

3.9 Now we turn to trends in the supply of office floorspace using published data from the VOA. The data is supplied by property owners for taxation purposes, and for this reason is more likely to be a more accurate estimate, reflecting in particular floorspace losses/reductions better than planning or building control records that do not always include or accurately reflect demolitions.

3.10 Figure 3.3 compares office floorspace change in Newham with other East London boroughs. Newham's office stock has gradually risen over the period since 2001, but at approximately 200,000 sq m is a minor player in the London office market, compared with Hackney (top line on the chart) and Tower Hamlets (not included on the chart), which has over twelve times as much office floorspace as Newham.

Figure 3.3 Office floorspace -Newham and other East London boroughs

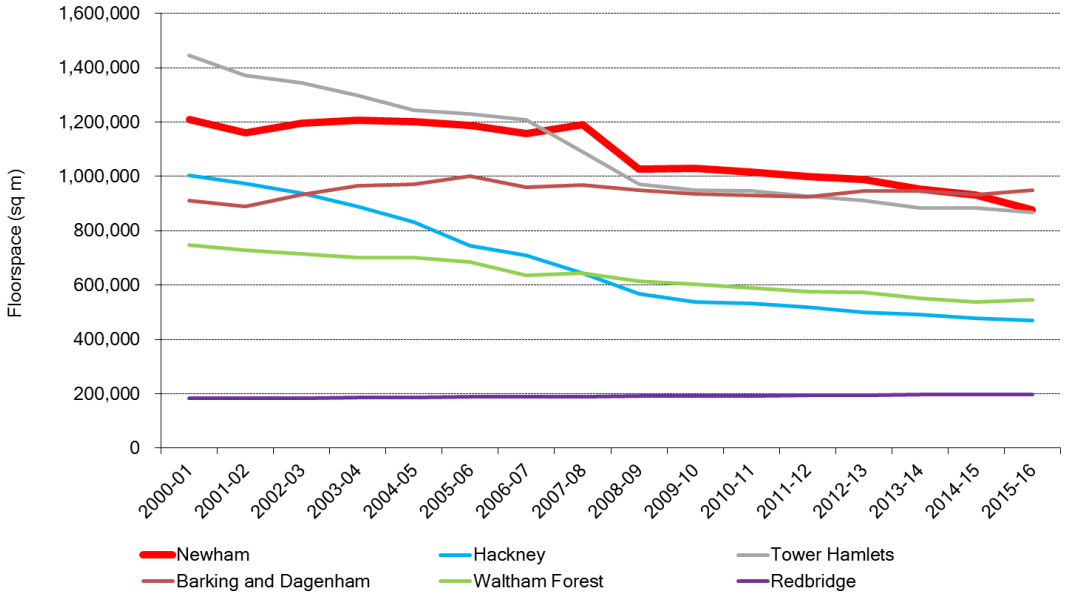


Source: VOA

Past trends - industrial floorspace

3.11 Figure 3.4 compares industrial floorspace in Newham with a number of other East London boroughs. Newham and most other boroughs have seen a steady decline in industrial floorspace over this period, with most boroughs experiencing a sharp dip during the financial crisis, and slower rates of loss in the period since. Barking & Dagenham is the best performer, being very resilient to floorspace loss and according to the latest data having the most floorspace of these boroughs. Redbridge has also performed well with a marginal gain in floorspace, but at a much lower order compared to the other boroughs.

Figure 3.4 Industrial flrspace - Newham and other East London boroughs



Source: VOA

Past trends – conclusions

3.12 The comparison between office jobs and floorspace shows a broadly consistent profile, with both showing a long term steady increase, albeit floorspace has plateaued over the past five years, which is likely to reflect greater worker density/floorspace efficiencies in the existing stock.

3.13 Past trends for industrial jobs and floorspace again broadly match, showing a gradual decline to 2011. However, the marginal increase in jobs over the last five years is not reflected by an increase in floorspace. Indeed, floorspace continues to decline albeit more slowly than before.

3.14 It is likely that the increase in industrial jobs has also been accommodated by higher worker to floorspace densities in the existing stock, and occupation of former vacant space. This would reflect the increased pressure on the industrial stock in London, where users need to rationalise how they use their space, and the opportunity cost of underutilising industrial space, compared to seeking residential permission for example, has increased. It is also the case that many users have 'blurred' the lines between industrial and office activities with a push towards flexible space that may be industrial in character, but utilised more akin to office space.

3.15 While the Borough has lost a lot of traditional industrial and manufacturing activity the review in the earlier chapter indicates that new business generation is happening at a high pace, and small new firms are surviving in increasing numbers, and those businesses occupying industrial space are likely to do so in a more intensive way compared to the traditional occupiers in studios and workshops. In addition, however, it is likely that some start-ups are operating from entrepreneurs' homes.

3.16 In the case of both office and industrial activity, the trends are clear and can test what would happen to jobs/floorspace if the past were to be rolled forward. This assessment will be set out in the next section. So far however, this analysis of past trends does not suggest B class job growth will stimulate growth of 60,000 jobs in total over the Local Plan period, highlighting the continued reliance on retail, education and health, and potentially the need for significant interventions (e.g. step changes in infrastructure, accommodation, other attractors/incentives) to alter past trends if this level of growth is desired.

The future

3.17 Now we look to the future – how will job numbers change in the Borough over the next Plan period, and in what sectors and land use areas, and what will this mean in floorspace terms for the B class uses?

3.18 As referred to earlier we have the very recent GLA projections for office employment growth, and the new GLA benchmarks for change in industrial land. Below, we review these data in the London-wide and Newham context and then we compare these trend based projections against a future scenario based on economic forecasts

from one of the leading forecasters, Experian. This is in line with the approach set out in the PPG.

3.19 Projections and forecasts take different approaches to estimating the future, and there are strengths and weaknesses with both approaches, and comparing the outputs from both can help establish which is likely to be more accurate. The GLA projection approach (as set out in LOPR and LILD) is based on past trends and then tested against the supply pipeline, but does not consider future economic growth, which could be very different from past trend. Economic forecasters on the other hand base their forecast on a combination of past trend and economic forecast, but do not take account of land supply.

Trend based future floorspace demand projections - office

3.20 The new LOPR presents borough-level employment and floorspace demand projections that will inform the next London Plan covering the period 2016-41. The projections are based on historic trends in employment[11] and past trends for office floorspace.[12]

3.21 The trend based employment projections are significantly higher than the previous set of projections that informed the last (2012) LOPR and the current London Plan. For London as a whole, the projected growth in office jobs is 619,000, an increase of 45% (comparing the 2011/36 period), with the key growth sector being 'professional scientific and technical services'. LOPR identifies that this level of growth generates a requirement for 6.1m sq m of office floorspace. For Newham the trend based jobs figure for the 2016-41 period is 14,900, which translates to floorspace demand of 182,000 sq m.

3.22 LOPR compares past trends jobs change against floorspace change using VOA floorspace data for the 2001/16 period. There should be a discernible relationship between change in jobs and change in floorspace both in the past and in the future. Indeed, our analysis set out earlier comparing past trend in office jobs/floorspace for Newham using Experian data and VOA floorspace showed a broad correlation. However, LOPR projects the office floorspace trend forwards to 2041 and produces an increase for London of 3.4m sq m, which is a much lower figure compared to the jobs based floorspace projection. The same discrepancy applies for Newham where the change based on historic floorspace trend is 86,700 sq m, a figure less than half the jobs change based floorspace projection.

3.23 LOPR attributes the difference in large part to the intensification of existing office use, more office based activity taking place in other employment sectors and self-employment and homeworking.

3.24 To address this inconsistency LOPR averages the two trend based projections (floorspace and jobs). This 'composite' projection is applied to London as a whole, and generates a composite projection of 4.7 million sq m.

[11] LOPR jobs trends uses the London Labour Market Projections 2016 – GLA Economics, 2016

[12] LOPR floorspace analysis uses the latest VOA data, 2016

3.25 The composite is applied to most boroughs including Newham (where the average figure is 134,400 sq m). The three sets of floorspace projections for Newham are set out below.

Table 3.1 LOPR floorspace projections for Newham

Employment based	Trend based	Composite
sq m	sq m	sq m
182,041	86,700	134,400

Source: London Office Policy Review 2017, Ramidus GLA, June 2017

LOPR Supply

3.26 After arriving at a London, and Borough, demand estimate (134,400 sq m for Newham) the London Office Policy Review moves on to compare demand and supply using data from the London Employment Sites Database 2016[13].

3.27 The database includes all recent office completions and outstanding permissions, but also data on some of the longer-term site aspirations, such as Royal Docks.

3.28 London-wide supply is estimated at 7.86 million sq m, which comfortably exceeds the forecast demand (4.7 million sq m).

3.29 Newham's capacity is estimated at 986,490 sq m (enough to support 87,300 jobs), with half this figure relating to growth in the LLDC area. The overall Newham supply figure is seven times greater than the composite floorspace need projection, one of the highest disconnects in London.

3.30 For both London as a whole, and especially Newham, the data suggests a possible oversupply of office space with pipeline supply exceeding estimated demand.

3.31 However, this assumes that all the pipeline is built out, and historically this has not been the case. Part of the reason is that much of the pipeline is held by owners almost as a strategic reserve, waiting favourable market conditions and tenant interest. In some boroughs, including Newham, the pipeline can be compressed into a small number of 'mega schemes' and the implementation of a small number of these can make a significant dent in any one borough's pipeline. This is also reflected in a LOPR warning / caveat which notes that the vacancy rate (or built stock) is close or below the ideal vacancy rate of 8%. So while the pipeline supply may be high, the market, in terms of built space, is generally balanced. So the boroughs should continue, where possible, to protect existing space from loss.

3.32 For Newham it is also relevant that LOPR recommends Stratford should be considered as a 'potential CAZ reserve' and the Royal Docks a location where speculative office development could be promoted (a category 'A' location)[14]. We are also aware that some of the pipeline is being specifically targeted at inward

[13] London Employment Sites Database, CAG Consultants (2016)

[14] Appendix 6, LOPR June 2017

investment to the UK and intended to open up new markets and so new sources of supply. This includes proposals to attract a new Asian market to the proposed office space in the Enterprise Zone.

3.33 Therefore, the success of these major components of the supply are dependent on London-wide (and global) strategic demand as opposed to Newham's own indigenous demand. For this reason, it would be rash to conclude that the Borough does not need these sites and they should be released. However, the scale of the Newham pipeline, compared to the estimated demand, is such that a clear conclusion - that Newham does not need to seek additional office space through the new plan - can be drawn.

Conclusion - office

3.34 The headline conclusion from LOPR is that Newham does not need to seek additional office supply. The London Plan and Newham Local Plan work to different periods, but working on a pro rata basis the new London Plan projections equate to a positive jobs change of 8,000 jobs with a floorspace requirement of 90,000 sq m to 2032. Newham's pipeline supply is nearly 1 million square metres.

3.35 The LOPR report contains a significant number of caveats, some increase demand (e.g. where the space is targeting a new to London market), other caveats decrease demand (e.g. Brexit). But compared to the supply imbalance in Newham these caveats do not change the headline conclusion.

3.36 For the Local Plan this suggests that there is a risk of far too much pipeline office supply chasing far too little demand, marginalising weaker office locations in the Borough over time – a position which could worsen should additional supply be forced through the planning system. It also highlights the risk that demand is likely to flow to the areas that are most established and best able in terms of infrastructure, accessibility and key office attractions such as town centre facilities, to support further office provision.

3.37 What LOPR cannot do, as a strategic document, is understand the local drivers of demand and the qualitative offer needed to meet local demand. For many local firms the 'on paper' pipeline does not mitigate the need to robustly test potential releases of already built space. For occupiers the pipeline supply is of little value unless it is built and available to them, at the right price and in the right location. It is also the case, that much of the local market cannot (or does not wish to) pay for new space. The secondary market meets their needs well. So for these occupiers the pipeline of space is not materially relevant; and well delivered new space would let at a higher and less affordable rent.

3.38 We return to these local dynamics later in this report; but here it is worth noting that despite the large supply the Council should continue to protect 'local' and secondary space because these meet a different occupier market. Also for the industrial and Mixed Use proposals emerging through the plan (and DM policies) the large oversupply of space strongly suggests that the Council should be cautious about accepting 'vanilla' office space in lieu of other types of employment generating space.

3.39 In the past it was common for mixed use redevelopments to replace industrial or workshop space with offices – citing, for example, that the replacement office space offers the same employment generating capacity. But this approach fails to address the market demand for space and often does not differentiate the offer from the near one million square metres of pipeline; so not, in practice, delivering the type of space needed.

Trend based future floorspace demand projections - industrial

3.40 The 2017 London Industrial Land Demand report (LILD) provides new industrial land demand projections over the course of the next London Plan (2016-41). It is the companion document to the London Office Policy review.

3.41 The industrial study provides a separate view for general and light industrial, warehousing, waste management, utilities and wharves. Below, we look at each of these areas in turn reviewing firstly what is projected for the Borough and then looking across the two PMAs (Thames Gateway and Lea Valley) in which the Borough is located.

General and light industrial demand

3.42 To project demand for industrial land release LILD averages an employment based and a floorspace trend based approach. The employment based approach uses BRES[15] to establish the current borough-level jobs sector breakdown and applies London-wide jobs sector growth forecasts to arrive at a jobs projection. The floorspace trend based approach is derived from the average annual change in floorspace stock over the period 2008-15. These two approaches are then averaged and translated to a land requirement by applying average floorspace and plot ratios to the job total.

3.43 Overall London has a negative industrial land requirement of -167 ha. Newham is one of just a handful of boroughs where LILD projects a positive job change, and the 1,500 jobs by 2041 for Newham generates an industrial land requirement of 12.9 ha, the largest requirement of all the boroughs. However, in the boroughs around Newham, within the GLA defined Property Market Areas, there is a small decline. Both the Thames Gateway and Lea Valley PMAs have negative projections for traditional industrial land demand, -16.7 ha and -14.9 ha respectively. However, as with LOPR the industrial evidence includes a number of caveats which could influence the headline numbers. Unlike offices these caveats almost always increase the demand for land.

3.44 Firstly, the LILD does not include the construction sector in the industrial land calculation, this is generally positive and will increase the demand for industrial sites. Also, the report notes that the boundary between industrial and other types of space is increasingly blurred. Because industrial space tends to be cheaper than new office (or other types of property) some firms are changing their property requirement so they can occupy what would, in the past, be viewed as industrial property. For

[15] BRES – Business Register and Employment Survey, ONS annual survey

example, many technology or creative firms are moving into older industrial property and the rise of 'warehouse style' offices. The report notes that for the two Property Market Areas around Newham, this 'creep' could generate demand in excess of the -16.7 ha and -14.9 ha noted above. This newer type of occupier, could turn expected losses of what is traditionally considered industrial space into small positive demand.

3.45 For Newham, which already shows some positive demand, the prospect of new types of demand crowding out more traditional activities only strengthens the need for the Borough to take a positive approach to industrial space.

3.46 This runs counter to the historic pattern where industrial land (and decline) was generally assumed to free up land for other uses. The GLA evidence suggests a small positive demand. In addition to the core (or central) demand scenario the LILD report runs some alternative scenarios. For the boroughs these scenarios are useful, they show an alternative future from that expected to underpin the London Plan. But only one, the past trends scenario shows a higher release benchmark for Newham. The other scenarios all show more demand, and so more limited releases.

3.47 For London as a whole the past trends scenario (2006/15) would result in a huge uplift in the London-wide benchmark release figure, to 1,630 ha of industrial land, or 65.2 ha pa. Newham's benchmark release would rise under this scenario to 187 ha. However, under the planned pipeline scenario (with and without planned 'big ticket' future strategic infrastructure projects such as Crossrail 2) the Borough benchmark reduces to 83.5 ha. Another scenario - increasing densities up to current London average, and accounting for substitution, reduces Newham's benchmark from 115.7 ha to 102.2 ha of industrial land.

Warehousing demand

3.48 Demand for warehousing has been calculated differently, reflecting its more footloose nature compared to industrial activity. LILD uses only the floorspace trend based approach projecting forward borough-level 1998-2008 floorspace growth rates to the 2016-41 period. Based on an ambitious plot ratio of 9,000 sq m/ha in Central boroughs and 6,500 sq m/ha elsewhere (including Newham), London has a positive requirement 280 ha, which under sensitivity testing (using the current 4,000 sq m/ha) would rise to 402 ha.

3.49 As discussed above Newham is located within two PMAs, which over the London Plan period have a positive warehouse requirement for 200 ha+. However, oddly Newham is projected to have a negative floorspace requirement of -88,000 sq m, which converts to a land requirement of -13.5 ha. The reason for this oddity is the period used to identify a floorspace trend. Newham, like a number of other boroughs experienced decline in warehouse floorspace in the period prior to the financial crash (1998), but has experienced growth in the period thereafter.

3.50 Thus, the negative requirement for Newham seems very much at odds with the wider positive requirement in the PMA. It is instructive that LILD caveats the borough-level projections, stating these should be treated as indicative because demand can readily transfer between boroughs in the same property market area depending on the availability of premises/sites.

3.51 Also, pragmatically, it is almost impossible for many neighbours closer to Central London to accommodate a positive demand for warehousing space; especially given that the evidence suggests that industrial demand will be more robust in the future, and so former industrial sites cannot so readily be recycled into warehouses.

3.52 All this suggests that the Borough level (indicative) decline in demand for Newham should be treated with caution. It does not necessarily reflect how we may expect the market to respond in the future.

Utilities, transport and waste management

3.53 The amount of land in London dedicated to the provision of utilities has remained largely unchanged at around 1,000 ha since the turn of the millennium. The future is likely to see little change, as growth in facilities for water provision and data stores for IT are likely to be cancelled out by opportunities for release of land used for energy generation.

3.54 In terms of land required for transport LILD does discuss some infrastructure projects, but does not make borough or sub-regional projections, and concludes that demand is difficult to assess. Across London the report estimates around 200 ha of additional land for transport may be needed. But some of this could be accommodated through intensification of exiting transport sites. LILD notes that in Newham an additional 5 ha of depot space may be required for DLR expansion at Beckton, there is also reference to a land requirement for a commercial boatyard to maintain river boat service vessels, and that this is anticipated in Newham at Albert Island (though the space requirement is not quantified).

3.55 In respect of wharves, LILD refers to the one-third increase in tonnages in London since 2011, much of which is aggregates and building material related. No allowance for this is made in the LILD calculations, but the Council estimate 5.3 ha of [currently vacant] employment land will be needed for this safeguarding or bringing back into use to accommodate this demand at Peruvian Wharf and Royal Primrose Wharf, albeit partly accommodating uses likely to be displaced from Thames Wharf. It is unclear to what extent this positive demand overlaps with more general (positive) demand for industrial space because the Wharves are expected to handle and distribute building materials. The reactivated Wharves could free up alternative (non-Wharf) facilities that current handle similar flows.

3.56 The amount of land used for waste management in London has remained constant for some time at approximately 280 ha. However, on the basis that the amount of waste arisings into the future is now projected to be lower than previous estimates, LILD considers land requirements to manage waste will reduce, and in Newham's case this reduces from 27.8 ha to 10.7, a reduction to 2036 of 17.1 ha. With LILD surmising that progress to a circular economy could further increase the amount of land for release.

3.57 However, although the GLA evidence suggests that the Borough could release waste sites; when auditing the data, the Borough has identified only 11.3 ha of waste sites safeguarded to meet the apportionment for which the land take is modelled, not the 27.8 ha estimated by LILD, suggesting the surplus also needs to be factored down.

Given uncertainties about future policy direction on this point and a separate waste development plan, this figure is set aside for the purposes of this report.

Summary – industry & warehousing

3.58 For London as a whole the GLA evidence shows a reversal of what many have come to expect. Across London industrial land has been viewed as a reservoir which can be released for other uses. But the evidence suggests a reversal of this; overall the demand for industrial land is growing. This is mainly driven by the demand for warehousing and logistics space (+279.6 ha 2016-2041) and this exceeds the estimated decline in demand from more traditional industrial activities (-166.5ha). Across all the industrial uses the evidence suggests a demand for an additional 102.1 ha of land.

3.59 For Newham the London evidence of Industrial demand is not always easy to follow. As with office demand almost all stages of the overall assessment are heavily caveated (which reflects the huge uncertainty in this type of exercise). But unlike offices, where the caveats are both positive (more demand) and negative (less demand) the industrial balance is more towards the positive.

3.60 The 'raw' data in LILD suggests Newham has positive demand for new industrial users (+12.9 ha) which is offset by a similar (-13.5 ha) decline in warehousing. But, as noted above, a number of neighbouring boroughs within the Property Market Area, have a positive demand for warehousing and no realistic way to meet this. So the prospect that demand for warehousing in Newham may decline needs viewing with caution, as must the GLA estimate that waste uses will release land, because the calculation of land for waste is a separate exercise.

'Surplus vacant' land

3.61 The calculation of 'benchmark release' (which is the amount of land that can be released because of falling industrial demand) in LILD is largely based on high level assumptions about the amount of 'surplus' vacant land in the boroughs (that is over-and-above vacant land that is needed to meet projected demand including an allowance for market choice and friction).

3.62 For Newham the GLA made an assumption that the Borough accommodates a large quantity of vacant industrial land - 90.1 ha of vacant land/land with derelict buildings and 14.4 land with vacant buildings, a grand total of 104.5 ha equivalent to 34% of the land available to core industrial uses and 20% of the land available to core and wider industrial uses such as transport and waste[16]. These rates of vacancy are more than would be needed for market choice or friction, for which the 'rule of thumb' to allow for efficient market operation are around 5% for vacant industrial land and around 8% for vacant industrial floorspace. This was based on a high level survey of the Borough which looked at the physical characteristic of the land and recorded consents as at early 2015.

[16] Table 2-4, GLA London Industrial Land Supply & Economy Study 2015, Aecom 2016

3.63 But in Newham's case, the land may appear vacant (former) industrial land, and available for release in the new plan round, but most is already proposed for release by the existing Local Plan: Core Strategy (and may be why the land may appear vacant) with discussions in train to progress this (but not necessarily yet at consent or implementation stage).

3.64 When looked at in detail most of what is considered by the GLA as surplus vacant space has, for the purpose of the next plan round (i.e. Local Plan Review) essentially already been lost from the supply. So there is a real risk of double counting these releases.

3.65 Across London, moreover if all the pipeline industrial land releases go ahead, London would in aggregate terms lose 604.4 ha more than the amount LILD identifies as being surplus to demand, a pattern replicated in the two property market areas that Newham is part of. Given that the industrial land vacancy figure is 355 ha, almost half of the losses would be of occupied stock.

3.66 We cannot, as part of this work recast the LILD data in detail. We don't know, for example, how successful the GLA or the other Boroughs maybe in securing replacement industrial space as part of these active proposals. But for Newham the scale of proposed losses in the wider market, in excess of what the GLA consider surplus vacant space, can only increase demand side pressure on the remaining portfolio of sites.

3.67 Some of this demand may be displaced outside of London, and this is one scenario the report discusses. Sites outside the Greenbelt may act as London's industrial 'safety valve'. But for many firms their first choice will remain a site within London.

3.68 So, even if land and property to meet London's needs can be found elsewhere it will not reduce demand for land and property in Newham. All indications are that, with the planned releases progressing and the only other supply of new industrial land outside London, the demand for the remaining stock in Newham will be greater than the LILD numbers may suggest.

3.69 As far as the GLA LILD evidence goes, setting aside the estimates of surplus vacant space which we consider to be rather 'off the mark', the demand for future industrial land is certainly not strongly negative. If anything it looks slightly positive. And as with London as a whole, even moving to 'net zero' additional releases of industrial land will be very challenging, given the established trend for boroughs and the GLA to view employment land as a source of new land for housing as is reflecting in the pipeline of consents and extant allocations

Summary

3.70 LILD's overall demand assessment for London is a 102 ha requirement for industrial, warehousing, waste and utilities/transport[17]. For the Thames Gateway and Lea Valley PMAs combined the demand is 117 ha, which with positive demand in the

[17] Table 13.2, London Industrial Land Demand study, CAG/GLA, June 2017

Park Royal and Wandle Valley PMAs counter-balances the substantial negative demand projected in the Central Services PMA, balancing out to 102 ha overall.

3.71 For Newham, LILD projected growth in industrial demand is cancelled out by a reduction in warehousing demand, and neutral change for utilities and transport, but the reduction in forecast waste arisings in London means that LILD's overall demand for employment land in Newham is -17.7 ha.

3.72 A cautionary note is needed for two reasons –

- firstly, on LILD's own admission caution should be exercised with the warehousing projections at the borough level, and consideration should be at the sub-regional/PMA level. A key task for the economic needs assessment and the market appraisal work will be to explore if Newham's past trend reflects a lack of demand or a constrained supply. It is very relevant to note that Newham is located within both the Lea Valley and Thames Gateway PMAs[18], which collectively have a positive demand for 200 ha+ of warehousing.
- Secondly, LILD's assessment for Newham does not factor in land needed for utility, waste and transport needs, and appears to be significantly skewed by a waste methodology which is based on many assumptions which need to be critically reviewed, most logically in a separate waste planning exercise. These uses are important employment generators as well as infrastructure essential to London's future growth prospects.

3.73 Supporting London's economic growth prospects by allocating land for employment in London will stem the leakage of business and jobs to locations in the Greater Southeast providing local job opportunities for London residents. This will also keep industrial uses close to their business markets, rather than remote in locations beyond London that would have negative air quality and local economic development/sustainability implications.

Economic forecasts

3.74 In this section we calculate employment floorspace forecasts using data from economists Experian Economics that can subsequently be compared with the GLA's past trend / land supply based projections. This is a useful cross check to the GLA's own analysis in LILD.

Method

3.75 In overview, Experian provide annual job forecasts for a twenty year forward time horizon, broken down into 38 different workforce job categories (see Experian data at Appendix A). The data is part of a time series extending back to 1997, which means we are able to observe past trends over 20 years as well as 20 year forecasts.

3.76 PBA use the data to aggregate from job categories to B class land uses (split - office, industrial and storage & distribution) using our sector-to-space mapping technique

[18] Table 13.2, London Industrial Land Demand study, CAG/GLA, June 2017

that is based on data from the latest ONS Business Register and Employment Survey (an explanation of this mapping technique is provided at Appendix B).

3.77 Job change forecasts for the B class categories are then calculated in broadly five year tranches over the Plan period (2015-32).

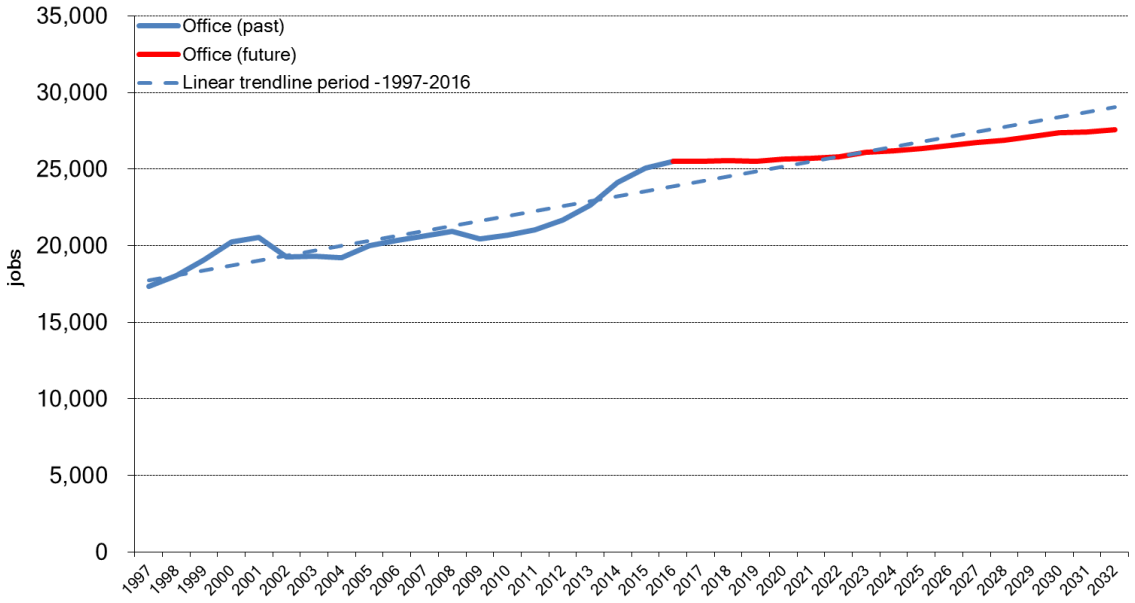
3.78 Then to turn the B class job forecasts into floorspace we apply employment densities for the different land uses[19], boosted by an additional 8% to allow for frictional vacancy in the new stock. This calculates the net floorspace demand resulting from jobs growth, and is converted to a land area requirement by applying standard plot ratios – 90% for office and 40% for industrial and warehousing[20]. The land area figures are the data that is comparable to the GLA projections in LOPR and LILD.

3.79 Below, we firstly calculate office floor space, then industrial and finally warehousing. It is important to note that the Experian forecasts include all types of industrial activity, so include waste, utility and transport jobs which the GLA separate out and apply different methods.

Office

3.80 The chart below covers 20 years past and 15 years in the future covering the Plan period, and includes a trend line projection based on the past (dotted line). The chart indicates the forecast job change is marginally below trend. When compared to the charts for the other land uses it also shows office jobs account for 60% of all B class jobs (25,000 jobs compared to 18,000 for industrial and warehousing combined).

Figure 3.5 Office jobs



Source: Experian March 2017

[19] sourced from the 2015 HCA report Employment Density Guide, prepared by GVA Grimley

[20] Plot ratio = the ratio of a building's total floor area (gross internal area) to the area of land upon which it is located.

3.81 The table below sets out the job change figures and net floorspace demand generated in tranches and in aggregate over the Plan period.

Table 3.2 Office jobs and net floorspace demand

2015-19		2020-24		2025-29		2030-32		2015-32	
Jobs No.	F'space sq m	Jobs No.	F'space sq m	Jobs No.	F'space sq m	Jobs No.	F'space sq m	Jobs No.	F'space sq m
454	6,769	688	10,247	931	13,875	469	6,996	**2,542**	**37,887**

Floorspace = jobs x 13.8 sq m + 8% addition to allow for frictional vacancy

Source: HCA Employment Density Guide, 2015, table section 6 - 12 sq m NIA figure + 15% to convert from NIA to GIA = 13.8 sq m GIA.

3.82 Job numbers increase in each forecast period, with total growth over the whole Plan period of 2,500 jobs (an increase of 10% from current levels). This jobs growth generates a demand for 38,000 sq m office floorspace, and at a plot ratio of 90% equates to a land take of 4ha.

Comparing forecast and projection for offices

3.83 The economic forecast for the whole Borough is growth of 38,000 sq m office floorspace and 2,500 jobs. This is substantially below the GLA's composite floorspace/jobs trend projection for the whole Borough of 90,000 sq m (for the Local Plan 2015-32 period) that could accommodate 8,000 jobs.

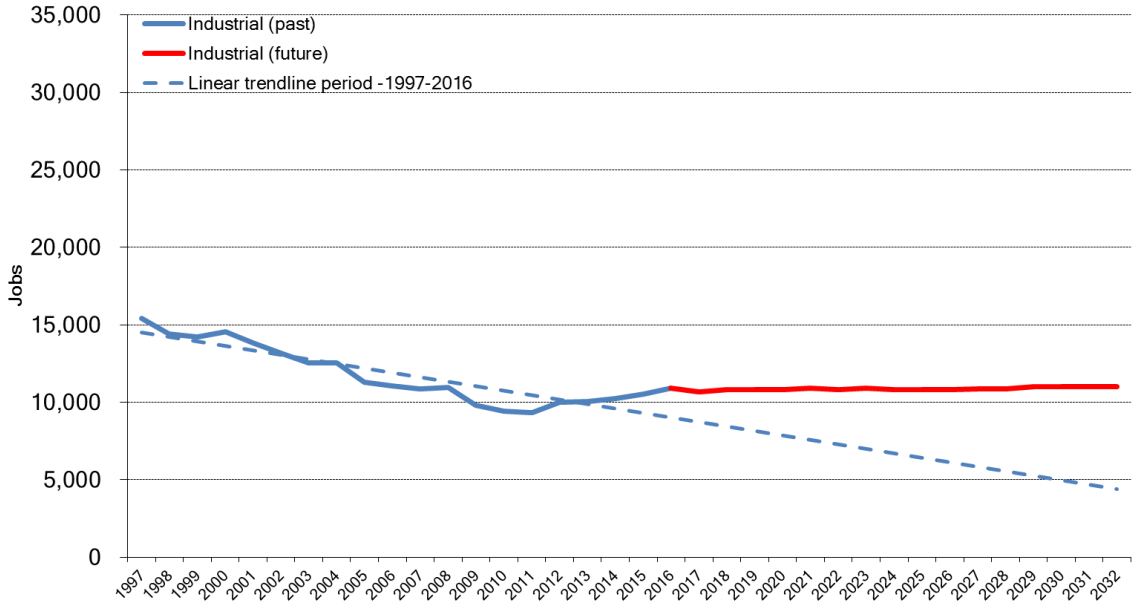
3.84 This wide variance between the forecast and the projection is explained by the methodological differences, and critically the GLA projection factors in future planned supply that the forecasters are not aware of. In the GLA model the large pipeline of office space in Newham attracts demand to the Borough (at the expense of boroughs with a more limited pipeline). This mechanism is absent in the economic models such as Experian who share office demand more equally, in line with past performance blind to the future pipeline.

3.85 The Experian forecasts therefore indicate future job change in the Borough resulting from a combination of macro and micro economic change and past trends, and they do not account for future planned interventions. Whilst through the factoring in of past trends, the forecasts do account for an element of past infrastructure interventions, never-the-less the Experian forecasts should be considered as a base minimum figure.

Industrial

3.86 The forecast for future industrial jobs is substantially above trend, and although maintaining a flat trajectory into the future this does represent a significant turning point from the past, and a need to ensure there is sufficient land identified for industrial uses.

Figure 3.6 Industrial jobs



Source: Experian March 2017

3.87 The forecast change in industrial jobs in Table 3.3 below shows an inconsistent pattern between the Plan period tranches, which may smooth over time. A Plan total of 500 additional jobs is a modest overall increase, equating to a 5% increase, but is significant because industrial jobs have been declining for many years. These additional jobs generate a floorspace requirement of 25,000 sq m, which at a 40% plot ratio generates a 6ha land requirement.

Table 3.3 Industrial jobs and net floorspace demand

2015-19		2020-24		2025-29		2030-32		2015-32	
Jobs No.	F'space sq m	Jobs No.	F'space sq m	Jobs No.	F'space sq m	Jobs No.	F'space sq m	**Jobs No.**	**F'space sq m**
287	13,949	27	1,313	178	8,641	17	806	**508**	**24,709**

Floorspace = jobs x 45 sq m + 8% to allow for frictional vacancy

Source: HCA Employment Density Guide 2015, table section 6. Average of B1c 47 sq m NIA + 15% to convert from NIA to GIA plus B2 36 sq m GIA = 45 sq m.

Comparing forecast and projection for industrial

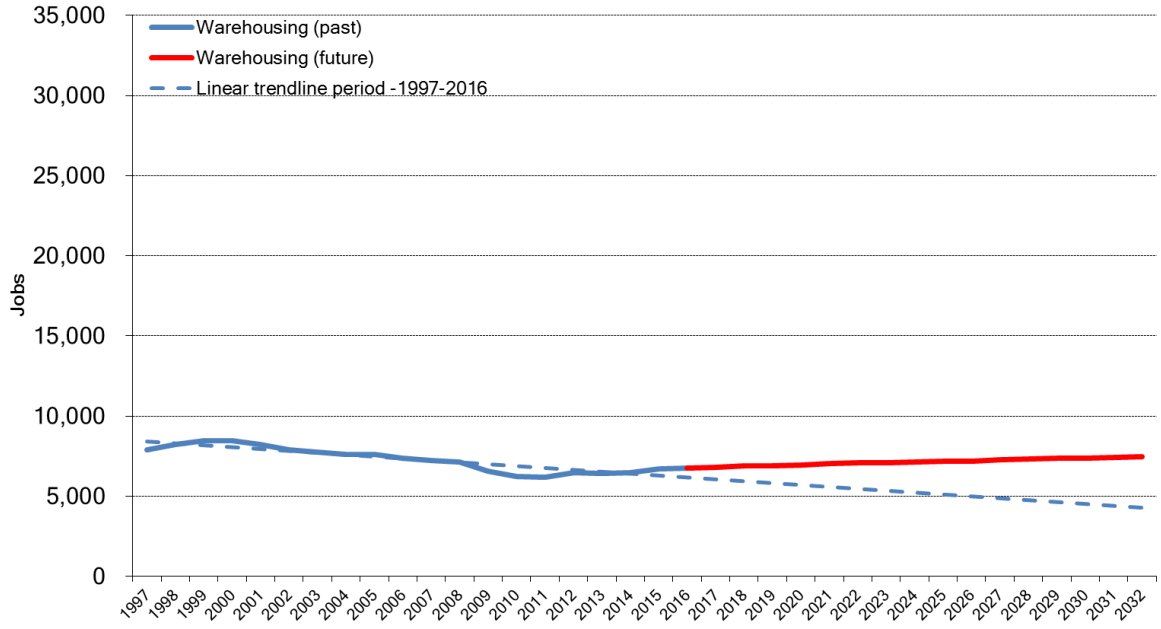
3.88 The labour demand economic forecast is broadly in line with the LILD projection that is based on borough-level employment projections. The forecast identifies a modest increase in demand of 6 ha to 2032, a little lower than the LILD projected 9 ha requirement.

The conclusion is that the Local Plan needs to retain the Borough's overall quantum of occupied industrial floorspace, and allocate between 6-9 ha of industrial land to meet the Borough's future growth requirements.

Warehousing

3.89 The forecast for warehousing shows a similar profile to that for industry, albeit the trend (dotted line based on the past 20 years) is much shallower than in the equivalent for industrial jobs. The jobs forecast is positive (red line), continuing an upward trend started in 2010, and more positive than the forecast for industrial jobs.

Figure 3.7 Warehousing jobs



Source: Experian March 2017

3.90 The jobs forecast shows a steady rising profile over the Plan period, although the increase reduces a little in the final period. Overall an additional 800 jobs are forecast that increases the workforce in this sector by 12%. This level of growth requires 62,000 sq m of additional floorspace with very particular locational requirements. At a plot ratio of 40% this generates a need for 16 ha of land.

Table 3.4 Warehousing jobs and net floorspace demand

2015-19		2020-24		2025-29		2030-32		2015-32	
Jobs No.	F'space sq m	Jobs No.	F'space sq m	Jobs No.	F'space sq m	Jobs No.	F'space sq m	**Jobs No.**	**F'space sq m**
202	16,023	219	17,374	265	21,072	98	7,745	**784**	**62,214**

Floorspace = jobs x 73.5 sq m + 8% to allow for frictional vacancy

Source: HCA Employment Density Guide, 2015, table section 6. Average of B8 'final mile' 70 sq m GEA plus regional 77 sq m GEA.

Comparing forecast and projection for warehousing

3.91 The economic forecast identifies positive demand for approximately 800 future jobs in warehousing, which generates a land requirement of 16 ha, which is at odds with the -9 ha GLA projection that is based solely on past take up.

3.92 It is relevant to note that the LILD report cautions against considering the borough-level projections as anything other than indicative, because demand for warehousing is footloose and largely dependent on supply with the right accessibility characteristics. It is also relevant to note that LILD places Newham within two PMAs that both are characterised by a focus on warehousing, which Newham is very well placed to provide because of its strategic location.

3.93 LILD does explain that in recent years some of London's warehousing needs have been met outside London, and we think this may have skewed the projection for Newham. To test a little further whether there is or is not likely to be future demand for warehousing we have considered the latest DfT road freight forecasts for London[21]. This will help identify if land in Newham were to be made available for warehousing would there be demand for it. The DfT freight forecasts consider a number of future change scenarios that could impact differently on LGV, rigid and articulated lorry mileage. We present the low and the high forecasts from these scenarios below.

Table 3.5 Cumulative change in freight mileage - London

Vehicle type	2015		2020		2025		2030		2035	
	low	high	low	high	low	high	low	high	low	high
Light Goods Vehicle	8%	8%	11%	39%	19%	59%	27%	78%	34%	95%
Rigid lorries	-3%	-2%	-10%	10%	-11%	17%	-12%	23%	-14%	31%
Articulated lorries	4%	0%	3%	20%	7%	33%	12%	47%	18%	53%

Source: Transport Analysis and Strategic Modelling (TASM) Division of the Department for Transport using the National Transport Model (NTM), March 2015

Base year 2010.

3.94 In London freight mileage is dominated by LGVs. In 2010 these accounted for 80% of all freight mileage, and as shown in the table LGVs are forecast to be the big growth area for freight mileage. The table indicates that by the end of the Newham Local Plan period (2032) LGV freight mileage will have increased by between approximately 30-80%. The rigid and articulated lorries account for a relatively small proportion of freight mileage, and although accommodating larger vehicles is more challenging the much smaller forecast change in mileage will have much less land use impact. Increases in mileage may not translate exactly to the same proportional increases in vehicles, but the scale of predicted growth in vehicle movements,

[21] Source: Road Traffic Forecasts, Department for Transport, 2015

reflecting the forecast growth in home/workplace delivery is very likely to require more land to accommodate expanding and new logistics and distribution businesses.

3.95 The DfT forecasts suggest that demand for warehouse floorspace in London will increase over the period to 2032 and beyond. Whilst some of this demand will continue to be met outside of London, the LILD report suggests that this is not out of choice, and if sites were available in London they would in all likelihood be taken up in preference to sites outside. LILD also identifies demand for warehousing within the two PMAs that cover Newham of more than 200 ha to 2041. Therefore, from a quantitative analysis perspective we recommend planning on the basis of a future requirement for at least the 16 ha of warehousing land that will be generated by local demand.

3.96 The economic forecasters, such as Experian are able to identify local demand for warehousing to serve local needs, but it is much more difficult to identify demand of a more strategic nature (sub-regional or regional) because it is essentially footloose and is not tied to any one particular locality. The LILD report comments on this point, stating that regional demand to serve the whole of London will flow to the areas with the best strategically located sites. Newham has accommodated large regional distribution facilities in the recent past in Prologis Park where Amazon and J Sainsbury have regional distribution hubs, and there may be further opportunities.

Conclusions

3.97 In this chapter we have compared the GLA future demand projections with the employment change based economic forecasts from Experian Economics. Our assessment concludes:

- For office - the pipeline of office floorspace supply in the Borough, which is predominantly aimed at the corporate market is considerably higher than the demand for new offices as projected by the GLA and forecast by Experian, both of whom consider demand will be relatively modest over the 2015-32 Local Plan period, - ranging between 38,000 sq m to 90,000 sq m to accommodate between 2,500 – 12,000 jobs.
- The current pipeline of future office floorspace supply within the Borough (excluding the LLDC) is sufficient to support 43,900 additional office jobs.
- Given this large pipeline there is no need for the Borough to seek additional office related allocations; and no need to consider new offices as an acceptable replacement offer for other economic land uses as part of redevelopment proposals.
- Although the pipeline is large the data does not suggest that the Borough needs to release existing stock nor proactively remove sites from the pipeline where owners are happy to promote them. This is because:
    - The ‘paper’ pipeline is not an adequate substitute for the existing built stock; and vacancy rates in the existing stock are not excessive (around 8%). So releasing built stock, and especially secondary stock where occupied at less

than viable new build rents, cannot be 'made good' from the pipeline of new space.

  - Some of the supply identified in LOPR, such as the 179,000 sq m at Royal Albert Dock (ABP London) that could support 20,000 office jobs, has a specific new entrant end user in mind. This, should it be successful, will attract a new type of demand / user to the Borough (and possibly London). This demand is outside both Experian the GLA estimates, and could be viewed as additional demand (with the supply to match).
  - Some of the supply in LOPR, is flagged as possible CAZ overspill supply. So may attract demand from outside the Borough and outside the Borough's own LOPR (and Experian) estimates of demand.

- So – there is scope for the Borough to release some of the large pipeline of space because supply undeniably exceeds known sources of demand. But this is a policy choice for the Council; reducing the paper supply makes it more difficult for the Borough to attract footloose demand and outperform the GLA and Experian estimates of demand.
- Regarding the existing stock; the concern for Newham is that it currently has very healthy business generation, which indicates premises must be available and at an affordable rate, albeit that it is likely that many start-ups are home based. Any tightening of supply leading to increasing rents could make it much more difficult for start-ups and SMEs to establish and expand.
- For industrial – both the GLA projection and the Experian forecast conclude that there will be a modest demand for between 6-9 ha of additional land for industrial uses.
- However, this requirement only addresses demand generated from growth within the Borough, and does not consider demand from displaced businesses elsewhere within the PMAs, and also from within the CAZ. The scale of displacement and the land that could be identified to accommodate this form of demand is impossible to gauge, and is better addressed from the consideration of how much existing employment land is it appropriate to release under the LILD categorisation of Newham as a 'limited release' borough. This is considered in the next chapter that addresses the property market, and then conclusions drawn in the final chapter.
- Again for industrial and warehousing as with office, the structural economic changes in recent years mean a new breed of technology, media and telecoms businesses are being accommodated in former traditional industrial and manufacturing buildings at much higher intensity in workshops and studio spaces. The next chapter will explore these spaces in more detail, but it is clear that the SME industrial sector is critical for Newham, and a supply of appropriate space needs to be maintained to allow this activity to continue to thrive.
- For warehousing the GLA projection is for a decline in warehouse jobs and floorspace over the Plan period, but this study has looked at a range of evidence including DfT freight forecasts that suggests that Experian's view of steady jobs growth and demand for 16 ha of land is much more plausible than the decline

projected in LILD. Indeed, LILD issues a cautionary note to its borough level projections, recommending that warehousing demand is considered at PMA level. Newham is within two PMAs that together have a combined demand for 200 ha+ over the London Plan period.

- Again as for industrial demand, the LILD projection does not build in demand from displaced activity from more central locations, which has in the past led to activity serving London from the southeast, and indeed LILD estimates that it is economically viable still to do so from up to a 90-minute drive time. Thus, the policy choices relating to allocating land for employment use go beyond job generation overlapping with air quality, transport planning and local sustainability considerations. The next chapter considers if sites are allocated for warehouse use – both those serving a more local customer base and those of regional significance - would the market take them up?

3.98 For other industrial type activities – including waste, transport and utilities these are already included within the Experian forecasts for industrial and warehousing space. The GLA treats them differently, and in planning going forward locally-specific requirements/allowances will need to be made.

3.99 Overall, the assessment shows no demand or need for additional office space or land. Instead careful management of the existing stock of built space, recognising that the pipeline of space may not meet local needs and especially those in the secondary market. It highlights the risk that pipeline is largely dependent on attracting demand from elsewhere in London (and globally) to be delivered. Should the London market weaken, more central (and market attractive locations) will deliver enough additional space to meet their demand in full, or should global demand fail to materialise the Borough may need to rationale the pipeline to make better use of its limited land resource.

3.100 For industrial land our estimate is that around 26 ha of additional land needs to be brought into industrial use; over and above that in use today. This includes up to 9 ha of additional industrial land, (including waste uses) 16 ha of warehouse / logistics land (including depot uses) and an additional 5% land allowance for frictional vacancy. The GLA and Experian both broadly agree about industrial demand and we, for reasons set out above, expect positive (Experian based) warehouse demand.

3.101 It is important to note that the 26 ha is a net figure, as it does not include any displaced demand from other boroughs, nor displacement from release sites in Newham that are already in the pipeline and which don't involve like for like replacement. Should other boroughs not balance their own demand, which seems likely given the existing pipeline of release) this will produce a higher gross demand figure in Newham. Newham, and other boroughs with potential supply may wish to pursue accommodating displaced demand for other policy reasons such as providing job opportunities for residents and reducing negative impacts on air quality.

3.102 The 26 ha figure does not account for the potential to use existing employment land more intensively and more efficiently, which would reduce the net requirement. We do not do this because the GLA projections are expressed as land requirements not

in job or floorspace, and historically industrial uses have not intensified in the same way that office has been able to. Indeed, because modern occupiers place high value on having ample yards and circulation space, redevelopment of many industrial uses tends to be at lower plot ratios than the stock that it replaces.

3.103 A positive 26 ha is contrary to the headline LILD numbers which suggest Newham can release additional land. However, this is not only because of a low demand estimate and the inclusion of assumptions around waste handling and planning that are as yet not agreed, but also because, as the Borough's own site assessments show, the baseline data informing the LILD, (the 2015 London Industrial Baseline Study) is now dated.

3.104 This specifically relates to the 'surplus vacant space' which on close examination does not account for allocations, post 2015 consents and other ongoing development management, economic development and infrastructure planning activity. Those pre-existing negative commitments are already managing down vacant land with very limited new provision of new employment space other than office (and retail).

3.105 Using the Borough's estimate of its employment land stock (including what is vacant), applying our more nuanced estimate of demand, the Borough needs to add stock (the 26 ha) to balance the market. This picture is elaborated on qualitatively in the next chapter, before being translated into spatial implications in the final chapter.

4 THE PROPERY MARKET

Introduction

4.1 In this chapter, we review the property market for employment space in Newham. We have analysed three different types of employments uses separately:

- Offices (B1a)
- Light Industrial (B1c), general industry (B2), and warehousing (B8)
- Flexible space – fall in both (B1a), (B1c), (B2), and (B8). Some occupiers can require multiple uses from a single premise

4.2 We initially consider the demand for floorspace, reviewing patterns in occupiers, sectors and requirements, prior to considering supply and understanding the balance between the two.

4.3 The purpose of this study is to build on the previous work undertaken by the Council[22]. As such we have not sought to verify or challenge any of the data or assumptions used in these studies and for the purpose of our assessment it is assumed the information contained in these studies are correct.

4.4 Our assessment of demand in this chapter is a predominately qualitative to understand what type of occupiers are taking space and the type of space and location they require. We have undertaken agent and developer telephone consultations which has been supplemented with an agent/developer workshop. We have also undertaken analysis and review of published data from Estates Gazette Interactive (EGi); reports from developers and commercial agents such as SEGRO and JLL, and the Council's previous documents stated above.

4.5 This research shall help us determine the balance of the current market. If rents are high and availability is low, there will be demand for more land. Conversely, if take-up is low, the market will likely have a surplus of floor space with rents too low to support viable new development ore refurbishment of old space, land may be surplus to requirements and could have the potential to be realised for other uses. In property market context take-up means the occupation of business floorspace, by contrast, in a planning context 'take-up' means the land developed to provide new floorspace

4.6 The property market in the London Borough of Newham is diverse. In recent years Stratford has emerged as an office location through the large-scale regeneration of the Olympic Park. The majority of office space is located within LLDC boundary but there is some impact on the market on the western edge of the study area. Flexible space used by creative industries is seen throughout London and is beginning to move as far east as Newham. There is a large amount of industrial stock in Newham, with a mix of large traditional occupiers and modern light industrial and distribution uses. As with all inner London Boroughs, employment land in Newham is under

[22] An Employment Sites Audit, 2017, London Borough of Newham, and a Commercial and Industrial Property Market Assessment for Specific Locations in the London Borough of Newham, May 2016, BNP Paribas Real Estate

increasing pressure from higher alternative uses such as residential. According to Land Registry, average house prices in Newham have risen by 65% over the last five years, representing a significant increase in prices.

Offices

Overview

4.7 During the recession in the latter years of the 2000s, speculative office development in the UK came to a standstill. As the national economy began to improve (around 2010), speculative office building restarted. This occurred firstly in London and followed by a number of core regional cities such as Manchester and around the Thames Valley. However, office development is only currently viable and financeable - typically with pre-let in place to a blue-chip covenant on a long lease. This structure gives sufficient security to their investment to enable funding to be obtained. Demand for office space is generally coming from professional services and TMTs (Technology, Media and Telecommunications).

4.8 In London, Quarter 1 2016 was a time of high demand for space and a lack of new space. The lack of new space is caused by the time-lag of the development market not keeping pace with demand. JLL reported that vacancy rates for offices in Central London in 2016 was 3.4%.[23] The EU Referendum vote has had a direct impact on the London office market, creating uncertainty in the financial sector – a large occupier of office space. This has led to a slowdown in take-up with the Central London; Knight Frank report[24] that Central London office vacancy in Quarter 1 2017 was 7.1%: vacancy in the City was 7.2%, Docklands was 6%, and vacancy rates in the West End was 7.2%

Demand

4.9 In a London context, the Borough of Newham has typically not been considered as an office location, with demand for office space low when compared to other areas. But now Stratford is emerging as a recognised office location, the area in recent years has attracted small and medium emprise (SMEs), quasi-public-sector organisations and TMTs. Occupiers include: National Rail, Nursery Midwifery Council, Financial Conduct Authority, TFL, and Legal & General.

4.10 Demand elsewhere in the Borough is from a range of occupiers, with agents reporting that there is not one specific sector driving demand. But a significant proportion of demand is from SME's which are taking space around Stratford fringe, Canning Town and Royal/Albert Docks. In general SME occupiers are already in Newham, but in some cases demand is coming from business already in East London priced out of more central locations.

4.11 The Borough sees less demand from financial services than compared to neighbouring Boroughs to the west and south-west (the City, Canary Wharf, Mid-town

[23] JLL (Q4 2016) *Central London Office Market Report*

[24] Knight Frank (Q1 2017) *Central London Office Market Report*

etc.). Agents report this is due to these areas being strong established office locations. Agents report despite suitable space being available in Newham it is not possible to pull occupier requirements from these established locations further east.

4.12 Demand for office space in the Borough is for a variety of floorspace sizes, which is a reflection of the wide range of type of occupiers taking space. In general, larger requirements of 7,000 sqft to 10,000 sqft plus are being met outside the study area in the LLDC part of Stratford, with agents reporting that there is a strong level of demand for space less than 10,000 sqft in the study area.

4.13 Occupiers seeking space need good connectivity, this is reflected in the relative success of Stratford. Other locations are less connected meaning that these are relatively secondary office locations i.e. Canning Town, Royal Docks etc.

4.14 Agents report that there is strong owner occupier demand for space, attracted by the availability of cheap finance and the security tenure freehold (or virtual freehold) brings. The strong freehold demand has resulted in SMEs buying 1980s stock, which may not be ideal in terms of location or specification, but because the stock is available there are prepared to purchase.

Supply and market balance

4.15 Agents report that the office market in the Borough is generally in balance but there are concerns that some of the smaller stock is underprovided for in the Borough. However, smaller office space is generally less viable/financeable then larger space because:

- SMEs will not commit to pre-lets.
- SMEs are generally weaker covenants and prefer to take short-term leases therefore presenting lower investor returns.
- Smaller units have higher build costs, this combined with weaker investor returns means that developers of these smaller units cannot competitively bid for sites.

4.16 This is also supported in the BNP Paribas[25] 2016 report which identified only 4,000 sqft of available space in Royal Docks South and East, an area which has stock which can accommodate SME requirements.

4.17 Current SME stock is located in secondary, purpose built offices around Stratford High Street, Canning Town and Royal Docks. There is a small amount of local office space in the town centres, although the total size and concentration of this is small and does not capture a wider market.

4.18 Only one LMUA has existing office space of any significance that is suitable to satisfy requirements from SMEs. Waterfront Business Studio is owned by GLE Properties and located in the Silvertown Arches LMUA. It has units ranging from c.150 sqft to c.1000 sqft. Other LMUAs have almost no office stock, and there is no evidence to support viable development in these areas for SME office space except as part of

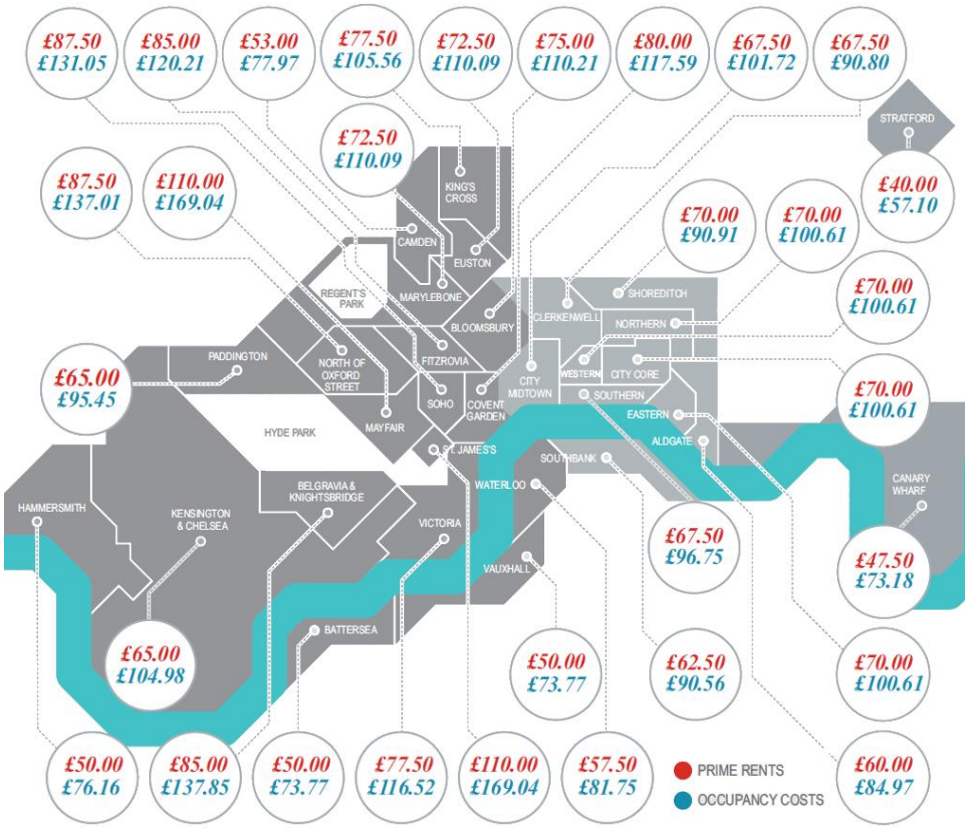
[25] BNP Paribas (2016), *Commercial and industrial market assessment for specific location in the London Borough of Newham*

mixed use redevelopments given the allocation for employment-led mixed use. Mixed use development could provide space, but in general developers will see development in untested areas unattractive with funding being difficult to secure. In fact, recently, in Canning Road West LMUA, office space was lost through an office to residential conversion. But it is uncertain to what extent this was down to a lack of demand or was from pressure from a higher value residential conversion opportunity in the Stratford area. There are other LMUAs closer to town centres however that may present better future opportunities (e.g. those around Forest Gate, Stratford, Ilford and Canning Town).

Rents

4.19 Figure 4.1 shows that total occupational costs in the Borough of Newham are lower than costs in the CAZ. The lower total occupancy costs make Stratford an attractive location to some occupiers. However, agents report that despite the price differential in total occupancy costs, the perceived fringe nature of the Borough as an office location out-weighs the cost savings companies can make.

Figure 4.1 London prime office rents Q4 2016 (JLL, 2016)



4.20 Figure 4.1 also shows that prime office rents in Stratford are £40 psm. This is supported by EGi research which shows that advertised rents at International Quarter, One Stratford Place and Two Stratford Place Stratford Place are around £30-£40 psf. At these levels development is marginally viable.

4.21 Rents fall to £20-£30 psf around the high street, this space is secondary in nature e.g., Burford Business Centre, 4 Cam Road etc.

4.22 BNP Paribas[26] 2016 testing of three office locations identified the following rents:

- Canning Town - £20.00 psf
- Royal Docks South and West - £25.00 psf
- Royal Docks North and East -£22.50 psf

4.23 At these lower rents, it is economical to refurbish premises but not sufficient to stimulate new build development.

Development opportunities

4.24 Development opportunities in the non-LLDC part of the Borough for offices are focused on the large-scale regeneration of the Royal Albert Dock around City airport. Proposals here are for large-scale mixed-use developments to include 3.3 million sqft of office space. These developments have the opportunity to change the dynamics of the office market in Newham through providing purpose-built Grade A space over large floorplates with good communications links created by Crossrail. This specification of space and connectivity will suit large corporate occupiers. The first phase of the development is underway and is being marketed as *'London's third Financial/Business District',* albeit one targeted at the Asian market.

4.25 Due to the land use pressure for residential development, opportunities for new build offices elsewhere in the Borough are limited. Agents report that new office space elsewhere in the Borough will only likely come forward as part of a mixed-use development.

4.26 There is little opportunity for new build office development in the 12 existing designated LMUAs and the two new allocations. Most of the LMUAs are B2, B8, trade counter or sui generis uses. To develop office space in these locations, wider regeneration would be required. The LMUA designation has the potential to act as a catalyst to transition an area from industrial to office/flexible space based occupiers. B1 development in any of these LMUAs, would have viability issues with the increased costs needed to regenerate the whole area. These extra costs, even with increased rents from flexible space occupiers, would likely render most development unviable, unless cross-subsidised with residential.

4.27 Currently Waterfront Business Studios is the only office development of any significance in any of the LMUAs. This LMUA has little scope for expansion and at current office rents combined with the covenant profile and lease terms SMEs development would not be viable.

4.28 If existing designated industrial land were to be reallocated as mixed-use there would be limited opportunities for office development. To attract occupiers and to make development viable office development would have to be part of a master-planning process and a wider regeneration effort, to include residential use to help cross-subsidise the development. Each individual site will have its own constraints and the

[26] BNP Paribas (2016), *Commercial and industrial market assessment for specific location in the London Borough of Newham*

due to the mechanics of the market any cross subsidy would have to be determined based on the future costs and values relevant at the time.

Surplus to requirements

4.29 There are no areas identified where office space is surplus to requirements. The office market in Stratford is emerging with the rest of the Borough tending to be a more secondary market. The secondary market tends to provide smaller suites and it is these smaller suites that agents report is less catered for in the Borough

4.30 The Borough has not seen the same the quantity of office to residential conversion through Permitted Development Rights then compared to other Boroughs. This is because the more industrial nature of the Borough means it has not had a large quantity of secondary office stock available for conversion, much was converted before the new rights came in and what remaining stock there is has generally been viable to maintain for offices.

Conclusion: offices

4.31 Newham is generally considered a fringe office market and as a result it is more sensitive to changes in the economy than compared to more central locations. The Newham market performs well when the more central locations become overheated and space becomes too expensive. Conversely when the market cools fringe market demand falls at a faster rate and takes longer to recover than central locations.

4.32 With the market cooling post the EU referendum, agents indicate that the amount of space proposed in the Royal Docks, could be affected by other London locations' weakening demand. The quantum of development proposed means there is much uncertainty on how successful the Royal Docks will be as an office location. It will take a number of years and multiple property cycles to attract occupiers to the area, and development phasing reflects this: the best comparison is Canary Wharf, which took more than 20 years to mature. However, the Enterprise Zone status of Royal Docks should act as a market stimulus for development. The mixed-use nature of the development proposals will be an important element to help support any future office development in this area because occupiers will want good quality facilities close-by, as will the particular market being targeted by ABP.

4.33 The combination of availability and proposed space around Stratford and Royal Docks means that larger corporate occupiers will be well catered for across the plan period and beyond. There is more uncertainty with the SME and local business' sectors because they are currently less catered for in the Borough and given the profile of occupiers it is more challenging for developers to viably provide. But demand for this space remains strong. SME and local business flexible space should be considered as part of mixed-use development whereby higher value uses (e.g. residential) cross subsidises the offices. The quantum of flexible SME and local office space included in a mix uses scheme would need to be determined by site specific circumstances, including site size, constraints, location, and local market conditions.

4.34 This market shortage for built space adds weight to our quantitative conclusions set out in the earlier chapter where we noted a large pipeline of new space (on paper),

but no oversupply when it came to the built stock. The occupier market was much tighter. We noted that the large pipeline supply did not justify releases of today's built, and occupied stock. Nor did it weaken the policy recommendation to continue protecting secondary space that is available at rents below that needed to provide new built space.

Industrial

Overview

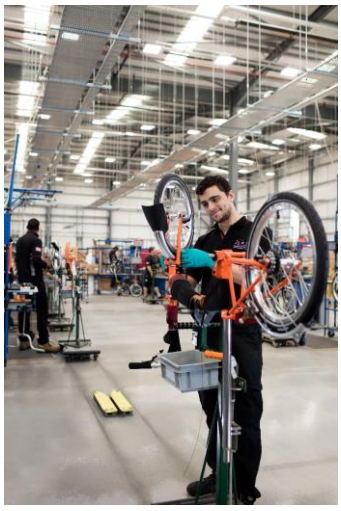
4.35 Nationally, the industrial market has been performing well due to strong occupier demand from retailers and third-party logistics companies (3PLs) created with demand from online retailing. E-commerce is a growing sector and now accounts for a large proportion of retail trade. Consumer demand is such they are demanding goods at ever shorter timescales, which in turns needs an efficient supply chain. These types of occupiers are seeking warehousing of a range of sizes.

4.36 Occupiers tend to seek space in speculative build opportunities rather than build to suit as this better responds to immediate requirements. However, the market has not kept pace with demand due to availability of finance and the development risk speculative build brings.

4.37 London is seeing some of the highest demand for industrial space in the country. This has been driven by population growth, tightening of industrial land supply, demand from e-commerce and the need for services to support the capital's global economy.

4.38 Figure 4.2**Error! Reference source not found.** provides examples of the high quality new build industrial units that developers are providing to meet occupier requirements in London.

Figure 4.2 Examples of new build light industrial supply in London (SEGRO, 2017)



Brompton Bikes, Greenford

Japan Centre, Victoria Industrial Estate

	
The Quad, Park Royal	Skyline, Heathrow

4.39 Agents report that operators in London have had to innovative and take unconventional approaches to service the market. This has led to occupiers using a network of smaller units across the city rather than a central distribution hub.

Demand

4.40 Newham is a well-established industrial location and is seen as the last inner London Borough to service the CAZ because:

- The north circular which runs along the eastern boundary of the Borough acts as both a mental and physical barrier to the market.
- Newham is the last Borough to benefit from the DLR and Jubilee line meaning it has good public transport for staff.

4.41 Demand for industrial units in Newham comes from a variety of occupiers and sectors, with no one sector in the Borough driving demand. Agents report that it is common to find different sectors located in adjacent units. Notwithstanding this, three major sectors operating in Newham are; urban logistics, delivery operators and services sectors.

4.42 In general, there is demand in the Borough for all sizes of industrial space, but can be grouped as follows:

- Sub 2,000 sqft
- 2,000 – 3,000 sqft
- 10,000 – 20,000 sqft
- Up to 30,000 – 40,000 sqft - particularly on the east side of the Borough with access to the north circular
- Anything over 50,000 sqft - again particularly on the east side of the Borough with access to the north circular.

4.43 Developers report that industrial space needs to be flexible to meet their requirements, which could change over the course of the time they are in occupation. Agents and developers report that demand for industrial space in the Borough is no longer from traditional “dirty” industrial users and is now from much “cleaner” more modern users. This is leading to a blurring of the lines between industrial and office users. This is reflected in occupiers in smaller industrial units requiring a higher

percentage of office space compared to traditional occupiers. Traditional industrial occupiers would require circa 10% of the floorspace for offices but agents and developers report that new build development in Newham, and inner London, generally have much higher percentages as follows:

- 500 sqft 80 -100% of the industrial units is offices.
- 7,500 sqft 50% of a unit is offices.
- 50,000 sqft 10 -15% of the unit is offices.

4.44 Demand from new occupiers are those seeking space in inner London or those relocating from central locations, including the Borough itself.

4.45 Requirements seeking new space in inner London can be contract led requirements or those seeking to service the inner London market. Examples include (i) Tahles (a contractor on the Jubilee Line) – contract led requirement that needed 25,000 sqft. They would not take any space that wasn't located extremely close to a DLR or Tube station. (ii) DPD (Delivery company) - aggressive and very keen to identify sites. Before taking a pre-let in the Borough, DPD had been looking for space in Newham for 4-5 years.

4.46 There are some examples in the Borough of larger units being let to corporate companies e.g. Amazon, Sainsbury's etc. These requirements do not make the bulk of the market but it is more the case that they will take whatever space of a suitable size that becomes available due to the tight nature of the market.

4.47 There is limited evidence of a clear pattern of where SMEs and start-ups prefer to locate in the Borough. Notwithstanding this, there are some specific locations that have seen start-ups/SMEs take space in recent years. The Forest Gate Arches, on the northern boundary of the Borough with the London Borough of Waltham Forest, let two units to Hawkes Alcoholic Ginger Beer (Brewing) and the Brettell's (Woodturners). The former is a start-up brewery, and the latter, a woodworking company recently returned to the area.

4.48 Agents report there is a lot of pent up demand from prospective new occupiers in the Borough. These occupiers often will have to wait a number of years prior to finding a suitable site, in some circumstances if the space is not available the requirement remains unsatisfied. This is the case for both large corporate and smaller SME requirements.

4.49 Other occupiers, especially smaller companies, relocating from central locations or from within the Borough, do not have much time to find new space because they are usually given a short notice period to vacate. This means that they cannot wait for space to be built and need premises almost immediately. Occupiers pushed-out from more central locations or the Borough itself will consider Newham, or to the north (e.g. Leytonstone, Walthamstow) but usually won't go further east or south of the river.

4.50 This market dynamic is leading to occupiers taking space on short temporary leases e.g. as short as 12 months. This is unusual as occupiers would usually require the security of a longer tenancy of 3-5 years' minimum. If space is not readily available,

these occupiers will seek space out-with the Borough – this recently occurred with the English National Opera who were based in Silvertown and wanted to stay in Borough but couldn't find alternative accommodation. They ended up relocating to Greenwich because there was no large space available.

4.51 There is reportedly a phenomenal level of demand for freehold property, though agents have not provided any specific examples. But agents do state that purchasers of freehold, or long leasehold, property are less concerned about specific location. Demand for freehold property is driven by a number of factors:

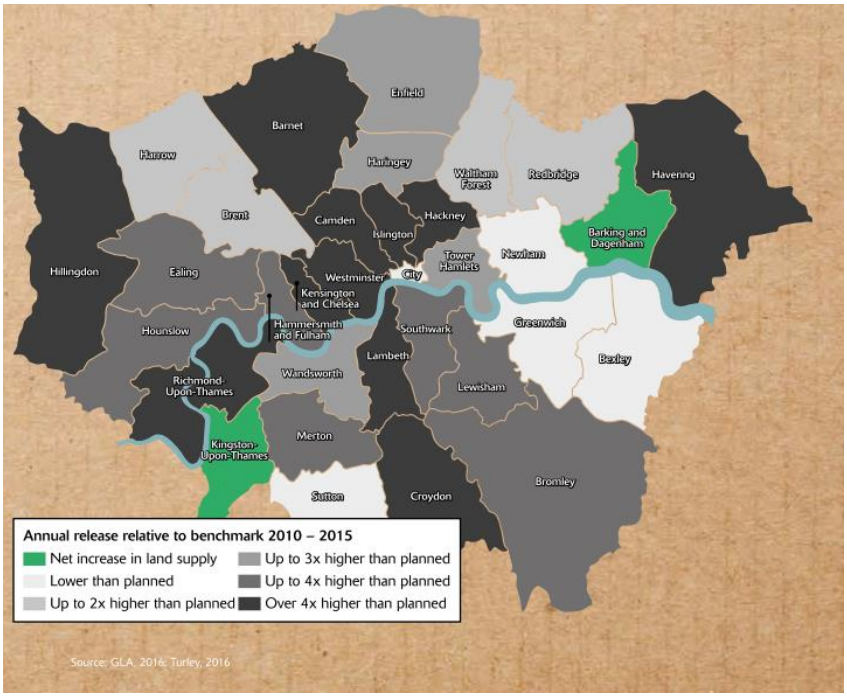
- Lack of general market opportunities due to tight market.
- Occupiers prefer security of tenure which ownership brings.
- Current low interest rates mean that the cost of borrowing is low – this enables company directors to purchase the property through their pension funds and lease back to the company.

Supply and market balance

4.52 It is acknowledged that the industrial market is not in balance, with demand outstripping supply, exacerbated by some vacant sites not coming forward for development.

4.53 Similar to stock in the CAZ, Newham's industrial stock is under pressure for redevelopment from residential use. The tightening of supply elsewhere is placing further pressure on the Newham market. The pressure of the CAZ industrial market is illustrated in Figure 4.3- this shows that most CAZ boroughs have been losing industrial land at a much higher rate than planned from 2010 to 2015.

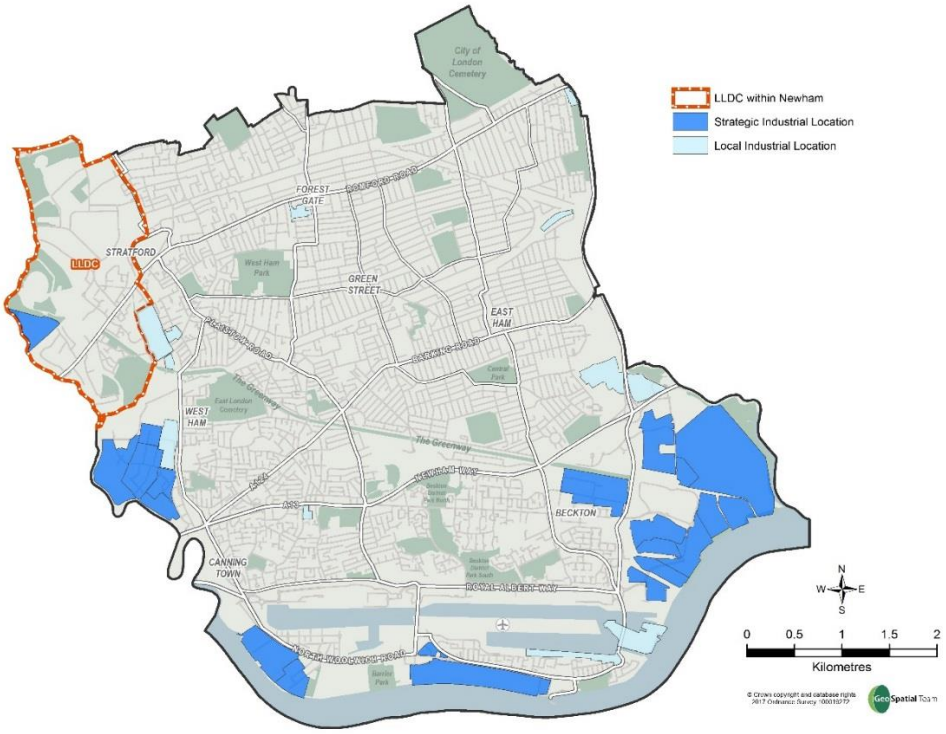
Figure 4.3 Loss of industrial space against benchmark release



Source: GLA, Turley, Segro 2016

4.54 Industrial units in Borough are predominantly found on existing estates in the Strategic Industrial Locations (SILs) and Local Industrial Locations (LILs). Figure 4.4 and **Error! Reference source not found.** show that the SILs and LILs are predominantly located around the western, southern and eastern fringes of the Borough boundary.

Figure 4.4 Locations of LB Borough of Newham's SILs and LILs



Source: LB Newham

4.55 The industrial accommodation to the west is found around Cody Road in at Pylon Trading Estate, Datapoint Business Centre, Europa Trade Park, and Prologis Park. Occupiers here include; parcel delivery company TNT, thermal insulation production SIG Technical Insulation, printing company Park, and pre-packed sandwich maker Greencore Food to Go, together with recycling and engineering firms.

4.56 In the south east of the Borough, mixed industrial estates are found around Beckton. Occupiers here include Britvic parcel delivery company Parcelforce and plant and machinery hire company Marwood Group. The adjacent Gemini business Park is home to occupiers such as Fed Ex Express Station, Babcock International and Royal Mail. In addition, there is a large industrial-type sewage treatment and desalination plant. To the south along the Thames, occupiers include an extensive Tate and Lyle sugar refinery, Nuplex resins, and concrete batching plants.

4.57 With the exception of Prologis Park and Gemini Business Park, the majority of industrial accommodation found in the Borough is generally, good quality purpose built secondary stock.

4.58 Table 4.1 shows that industrial floorspace vacancy rates across the Borough are around 6%. Given that agents report the market is very tight we would expect the

vacancy rate to be lower. Nevertheless, the vacancy rate is still below the frictional vacancy rate of 8% of floorspace outlined by the GLA, and substantially lower than that identified in the GLA reports that are based on 2015 data[27] The higher than expected vacancy rate shown in Table 4.1 is likely be due to:

- Some of the vacant units now being let (this concurs with the conclusions of Chapter 3 above on demand), and/or
- Landowners holding out for redevelopment of their sites therefore having no intention of continue use for industrial and happy for the unit(s) to remain vacant.

Table 4.1 Vacancy for B2, B8 and Sui Generis space by area designation

Designation	Total Floor Space sq m	Total vacancy sq m	Vacancy as percentage of floorspace
LIL	96,884	6,524	6.73%*
LMUA	34,461	2,058	5.97%
PIL/SIL	516,716	30,706	5.94%

Source: LB Newham Audit Data, 2016 & AVL, 2017

* 6,215 sq m of vacancy is at LIL 1 Stephenson Street. The figure of 6.73% vacancy is misleading with the true figure across the LILs being much lower.

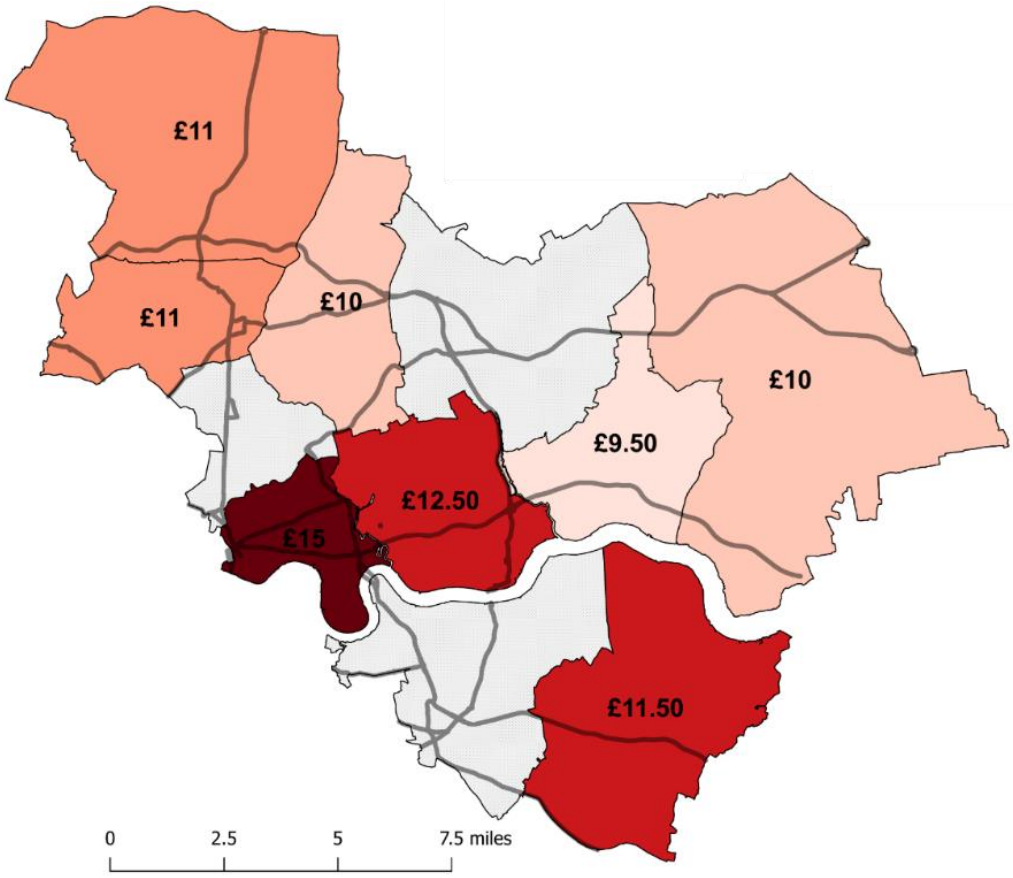
Rents

4.59 There has been little new build industrial development in recent years in Newham so agents report that it is difficult to put a specific figure on prime industrial rents in the Borough. But agents and developers report that tenants in the Borough have paid £12.50 psf and would likely pay £15 psf if new space was available. They state that development is viable at these rents, if you ignore any "hope value" from landowners for residential development. Agents also stated that a recent new build scheme out-with the Borough in Leytonstone consisting of small units from 500 – 2,000 sqft achieved up to £24 psf and indicate a scheme of this nature could achieve similar rents in Newham.

4.60 The rents reported is supported by the research from commercial agents Colliers – see Figure 4.5. The Collier's data shows current headline rents for new build small sheds in East London. The data shows that Newham is expensive when compared to Barking and Dagenham to the east and Waltham Forest to the North. But is cheaper than Tower Hamlets, a Borough that has little industrial stock left.

[27] GLA London Industrial Land Supply & Economy Study 2015, Aecom 2016,

Figure 4.5 East London industrial rents H1 2017



Source: Colliers, AspinallVerdi, 2017

4.61 The rents reported by agents is also consistent with the BNP Paribas 2016 report. They used the following rents in their viability assessment for the testing of three industrial locations, these were based on evidence from second hand transactions:

- Canning Town - £13.00 psf
- Royal Docks South and West - £12.50 psf
- Royal Docks North and East - £10.00 psf

4.62 Both second-hand rents and new build values are at such a level to enable existing stock to be maintained.

Development opportunities

4.63 Development opportunities for industrial space in the Borough are predominantly focused on the SILs and LILs. Existing industrial sites out-with these areas have too much residential hope value to make these attractive to be retained for industrial use. Even with the policy protection of SILs/LILs agents report that developers are speculating on sites in these areas for residential use i.e. taking a long-term view that eventually these sites will be released for development.

4.64 As stated previously, industrial development is viable once residential hope value is ignored – but this is affecting land availability. An example includes the National Grid site at Beckton Riverside, agents/developers feel they could speculatively build here

and the units would let. But this site is not being actively marketed for industrial development. Agents and developers are however realistic that industrial uses need to compete against other land uses. As such the industrial market needs to innovate and respond to the changing nature of occupier requirements.

4.65 There are other sites that have also potential for development including the East Plus redevelopment plans for land owned by the GLA through a number of East London boroughs. The regeneration initiative is a joint venture between SEGRO and the GLA. Some sites are coming forward for predominantly employment use, such as Jenkins Lane and others such as the BT site and the Crossrail site at Thameside East have the potential to generate a number of jobs and have a positive economic impact.

4.66 Agents report there could be potential to intensify existing industrial sites utilising vacant land, but this must not be at the expense of yard space, a vital component to many occupiers.

4.67 With regards mixed-use development, there are not many examples of mixed-use with developers acknowledging that this idea needs to be explored further. But developers see that the market does need to innovate to ensure land is available for industrial use in locations close to the CAZ. There is some precedence for 'mixed-use horizontal' (i.e. side by side) in other areas i.e. SEGRO development in Hayes and Meridian Water. For vertical mixed-use (i.e. in the same building) there are fewer examples, though with changing demand dynamics (i.e. cleaner more compatible uses with higher office content), development opportunities are being explored. Agents indicate mixed-use industrial development on a vertical basis could be suitable with private rented or student accommodation on the upper floors.

Building typologies

4.68 A 2015 LLDC study[28] also provided design guidance for different types of employment space:

- Studios are ideally provided in redeveloped former industrial buildings, and must provide at least 450 sq m. Can be on multiple levels as servicing is not required on a regular basis, and accommodate units of around 10 sq m for micros, and up to 500 sq m for large studios.
- Small industrial / warehouse space is typically up to 500 sq m, single storey with ceiling heights 4.5m – 8m, space at the higher end to allow mezzanines. 4 m loading bay. The servicing requirements mean yardage is a requirement.
- Large industrial / warehouse space - >500 sq m with large open ground floor floorplates that allow for sub-division. Double height ceilings 6-8m and loading bays/yardage to accommodate frequent delivery / collections. Manufacturing uses tend to be 'active' and noisier compared to warehousing where noise/air quality issues are confined to vehicle movements.

[28] LLDC, Employment Space Study, 2015 Aecom and We Made That

Surplus to requirements

4.69 Due to the tightening of supply, increasing rents and very high levels of demand no floorspace is technically surplus to requirements. There is some undeveloped land in SIL sites. This land is not vacant due to lack of demand, but is down to 'hope value' for residential development. Based solely on demand for industrial use, the Borough should resist the loss of vacant SIL land. But, where there are overriding regenerative benefits from releasing SIL sites, there may be SIL that can successfully be released or partially released without compromising the future use of the remaining stock.

Conclusion: industrial

4.70 There is strong demand for industrial space across the Borough which is not currently being met. However, the pressure for residential development is such that landowners are prepared to speculate and take a long-term view that sites (including those in SILs and LILs) will be released for development.

4.71 Newham is a strategically important industrial location for London. It has the balance of infrastructure to enable businesses to adequately service the CAZ before it becomes too challenging and enable staff to easily travel by public transport. The latter will be enhanced by Crossrail.

4.72 Development is viable throughout the Borough but the lack of development coming forward is reportedly down to a combination of perceived weaknesses in policy and unrealistic landowners' expectations created by residential hope value. The quantitative viability assessment completed by BNP Paribas in 2016[29] concurs with agents' opinions, finding that in the three areas tested (Canning Town, Royal Dock South and East, Royal Docks North West) development was viable. Since the study rents have improved and agents report that new build space in the Borough could achieve much higher than current headline rents, thus likely improving viability since the BNP Paribas assessment.

4.73 Developers consider horizontal mixed use residential and industrial development (i.e. side by side) is common and is proven to work, but vertical (i.e. stacked in the same building) is less proven. However, from a planning perspective, this horizontal mixed use is not really mixed use, but instead the product of splitting a larger site into two smaller (one employment, one housing) sites. The net amount of land available to industrial users still falls. Going forward vertical mixed-use will be more appropriate for some sites in the Borough to ensure that industrial uses are protected, and new mixed use property provides ground floor access and servicing to employment units – allowing them to be used (occupier willing) for more industrial type activates than a simple office building may allow. Future vertical mixed-use will need to be carefully planned to ensure it does not result in unlettable ground floor space, and does not come forward as office space because the greatest demand is for industrial space. The Council should also consider, when exploring mixed use options, that some layouts and configurations of space place added burdens on employment occupiers,

[29] BNP Paribas (2016), *Commercial and industrial market assessment for specific location in the London Borough of Newham*

which makes the space less useable and attractive. A common example is where industrial (or workshop) space is serviced via goods lifts as opposed to direct access from street (or yard) to unit. Moving goods through buildings, via lifts and ramps, increases occupier costs.

4.74 Collaboration between residential and commercial developers is essential to ensure that the employment space delivered is fit for purpose, and let at reasonable market rent. Our analysis has shown that requirements for smaller units (up to circa 7,500 sq ft) require a high percentage of office space, and it is this combination that we see working best as part of vertical mixed-use schemes.

Flexible space

Overview

4.75 In most employment studies the space we define as 'flexible' would usually be included as part of the industrial section and to a lesser extent within the office section. However, other London Boroughs, including Tower Hamlets, directly west of Newham has seen industrial and low-grade office space used by creative industries. In recent years, we are also seeing modern office space "stripped-out" to "feel" more industrial and provide flexible working.

4.76 Creative industries prefer space that can be used flexibly, it typically includes space for offices, studio, packing, light manufacturing, break-out areas, and refreshment areas. Creatives also prefer space that is "quirky" in nature to reflect their company identity and does not look or "feel" like traditional space.

4.77 Where office space is being stripped-out this starts to blur the lines again between office and industrial space. Because the rents are higher for this type of space, compared to industrial users, it attracts established creative industries, technology, media telecommunications (TMTs) and those larger companies who don't want to portray a corporate image to their staff.

Demand

4.78 Agents state that there is less demand pressure on existing industrial space from creative industries in Newham compared to adjacent Boroughs. This is because the type of existing accommodation does not meet their requirements and is potentially not being marketed to this sector. Out-with the Borough (e.g. Tower Hamlets, Hackney, Shoreditch etc.) there has been demand for space from craft beer companies (using space for brewing, bar area and informal easting), art studios and recording studios. GLA and LB Newham regeneration teams are however working to cultivate some of this demand through meanwhile use schemes at the former Carlsberg-Tetley brewery, and North Woolwich station sites.

Supply and market balance

4.79 In the local area, but outside the study area, Here East is the best example of new space being used by creatives industries. Here East was the media centre used during the Olympics, but is now occupied by a variety of sectors including TMTs,

Education and creatives. Occupiers include BT Sport, UCL, Space Studios- visual arts and Dance Studio Wayne McGregor. A key demand driver in Here East is the exceptional digital infrastructure and the quality and flexible nature of the space – this is illustrated in Figure 4.6.

Figure 4.6 Flexible space, Here East

Source: Here East, 2017

4.80 Agents report that if supply was to come forward in a similar style to Here East, i.e. purpose-built space, it is likely there would be a reasonable level of demand.

4.81 With regards current stock in the Borough there is not the type of stock which typically attract creative industries in the core industrial areas. This is because the stock is relatively modern purpose built industrial units and does not provide the "quirkiness" that creative industries seek. Notwithstanding this, there are some units in Micro Business Opportunity Areas. This designation allows change of use, intensification or redevelopment for floorspace up to 570 sq m, if employee numbers are 10 or less. The policy covers a variety of areas across the Borough.

4.82 Similarly, LMUAs have some units which can be regarded as flexible space, but this is in the minority at present with the majority of space still being used by traditional B2 occupiers. This is a reflection of the fact that a lot of the existing stock in Newham is not necessarily immediately suited for creatives/TMTs so may require redevelopment/ reconfiguration, perhaps cross-subsidised by residential as the allocation intends. One exception is Forest Gate Arches where there are already tenants including a florist/architectural reclamation yard and embroidery workshop. The type of stock here generally does not attract B1a office occupiers, and is more suited to creatives looking for flexible/studio space or B1c light industrial occupiers.

4.83 But due to a lack of available suitable stock, in the right locations, that meets their requirements, flexible space not the current focus of the Newham market. This is unlike Tower Hamlets, where aspirations of property owners have swung from more traditional B2 industrial uses towards a more flexible offering B1c/B2. This is partially down to stronger demand and higher rents, but also because stock in more central locations tends to suit occupiers needs better. This has allowed more central

locations to create a critical mass. In the future, there may be potential for Newham to capture displacement of creative industries from other more central boroughs. But currently there is limited evidence of this happening and the market is untested.

Rents

4.84 There is little supply of creative space in the Borough so it is difficult to estimate current rental levels. Based on experience in other London Boroughs we would expect rents to fall somewhere between industrial and office rents. Rents in boroughs such as Tower Hamlets and Hackney, have seen rent increases in recent years due ever increasing demand and tightening of supply of suitable stock. In Newham, where the space is still more industrial in nature and there is not such strong demand from creatives, the flexible space here is achieving rents more akin to industrial space rather than a premium. Rents for the new flexible workspace at the former Carlsberg Tetley building on Dock Road are between £20-25 sq ft, which is mid-range for office rent, and high-end for industrial. This suggests that this type of industrial space is very much in demand from creatives and SMEs that are taking space such as photographers and music studios, are prepared to pay a reasonable 'office' rent for premises that meet their needs. Interestingly a large proportion of the new tenants are new to the Borough, having been displaced from other parts of London, but with a wish to be located in East London. This also provides some support for the GLA view that the boundary between industrial and office users is increasingly blurred and demand for industrial space is coming from a much wider portfolio of firms than just those we traditional associate with industrial markets.

Development opportunities

4.85 The Borough has a number of areas which have plans or aspirations for redevelopment for flexible/creative space. These are the Royal Docks and Beckton Riverside Opportunity Area which includes the former Millennium Mills on Silvertown Quays and various meanwhile use schemes underway at the former Carlsberg Tetley brewery and North Woolwich Station, as well as on Silvertown Quays.

4.86 Current LMUAs in the borough have some potential to be [re]developed incorporating more flexible space. The business activities of flexible space occupiers are usually compatible with residential uses. Forest Gate Arches still has a number of vacant units, along with traditional occupiers like car mechanics etc. Across London Network Rail are upgrading Arches and often they found they can receive higher rents for occupiers requiring flexible space over more traditional industrial uses.

4.87 Other LMUAs such as Nursery Lane, Sprowston Mews, Dulcia Mills, Aldersbrook and Canning Road West, St Marys Industrial Estate, Grove Crescent could all benefit from intensification, and with the right level of investment could provide flexible space, particularly those closes to town centres and transport connections as part of mixed use schemes. But, this is an untested market so is unlikely to be high volume.

4.88 As the flexible space market is small compared to other areas in London it is unlikely that MBOAs will have enough critical mass to create a new market for flexible space. There is some capacity in existing MBOAs to convert space i.e. A1 retail shops to

workshop/studio space, but these are spread out and located in areas dominated by low value retail. A market for flexible space is unlikely to be crystallised on a piecemeal basis in these locations. MBOAs are a useful allocation to protect areas for small scale local employment uses, but are not a mechanism to be used to stimulate growth of the creative/flexible space market.

Building typologies

4.89 The changing nature of industrial demand, with clean high-tech activities replacing the more traditional single use forms that needed more land and have largely left London, means there are less 'bad neighbour' issues and more opportunities to share buildings. Modern industrial buildings are adapting to be more flexible to allow for different business activities within the same building shell, whether single or multiple users. LILD provides specifications for four hybrid flexible building typologies, which we set out below

Table 4.2 Flexible industrial building formats

Production	Client-facing	Workshop	Goods handling
Occupier priorities			
Power supply	Quality image	Natural light	Eaves height
Fire protection	Comfort	Comfort	Loading bays
24-hour operation	Accessibility	Security	Column free
Security	Security	Car parking	Secure yard
Retail trade	Car parking	Local amenities	Turning space
Parking & access	Local amenities	Power supply	Parking

Source: LILD Figure 6,.12.

4.90 LILD states buildings need to be flexible to accommodate the needs of the different types of occupier. Typical market activity is broadly divided between businesses requiring up to 1,000 sq m (with the micro-businesses at the up to 100 sq m end of this range), and businesses requiring 1-3,000 sq m. This floorspace can be provided over 1-3 storeys with a mix of single (4.5m) and double heights (8m). Adequate building depth is 13/18m to allow open plan use and options for sub-division. Fit out can be basic to allow occupiers to adapt to their own specific needs.

Surplus to requirements

4.91 Due to the limited supply in the Borough there is not space surplus to requirements for creative industries. This market is currently emerging and proposals are to increase the supply of space suitable for creative industries.

Conclusion: flexible space

4.92 Currently the Borough does not have the type of stock available to attract a significant amount of creative industries. The introduction of refurbished space at Royal Docks and Beckton Riverside Opportunity Area is likely to help change the market to enable the Borough to attract more creative industries, as may increasing displacement from more inner London boroughs.

4.93 We do not see that the existing industrial stock elsewhere in the Borough will be under pressure from creative industries as seen in a relatively small number of

boroughs, because the space does not fit their requirements. In the mid to longer term if creatives cannot find premises in the CAZ or areas immediately beyond, their search for space could extend to Newham's industrial stock, but there is currently limited evidence of this. There are some potential areas that could be suitable for flexible space, but current stock is not fit for this purpose, especially for high end creative or TMT occupiers. With investment and wide scale regeneration of existing LMUAs and indeed the need for 'buffering' some potential SIL releases there may be potential to meet flexible space requirements in the future.

Industrial land viability testing

Overview

4.94 Based on the evidence set out in the market report we have carried out a development appraisal for a generic site in the London Borough of Newham to assess whether industrial development is viable without residential hope value.

4.95 The BNP Paribas 2016 report found a variation in rents between their tested locations but our evidence does not support such a variation. This is because BNP Paribas based their rental evidence on comparable evidence of second hand stock. There are a number of factors that will impact rents of second hand units including, quality of stock, age, and specification. Our assessment shows that there is much less variation of new build rental values in the Borough, this is mainly due to the new build market being very tight and there is less variation in the quality of new build compared to second-hand stock.

4.96 We have assessed a generic site rather than look to specific areas within the Borough because agents and developers active in Newham and neighbouring boroughs have stated that industrial rents (currently £15 psf on new build industrial space) are not locational sensitive within the Borough due to the very tight nature of the industrial market in the CAZ. Whilst there will be differences in rents between very small units and medium/large units as evidenced by smaller space in Leytonstone. attracting circa £24 psf, rent is not sensitive to location within the Borough.

4.97 The hypothetical scheme is a good broad indication of viability without getting into the complexity and detail of accounting for site specific constraints.

4.98 The 2016 report by BNP Paribas[30] contained development appraisals for different locations in Newham; Canning Town, Royal Docks South and East, Royal Docks North West. The market report attached to the viability testing provided evidence of recent lease transactions for second hand units, supplemented with informal conversations with agents. Our analysis has sought to build upon this assessment.

4.99 Since the 2016 BNP Paribas report, the market has tightened further placing more pressure on availability leading to rents increasing. During our engagement with stakeholders, developers and agents; it has become apparent that despite very

[30] BNP Paribas, 2016, *Commercial and Industrial Property Market Assessment for Specific Locations in the London Borough of Newham*

strong demand there has been few new build units in the borough occurring. Agents report that any new build units in the future would likely set a new market tone. Agents confirm that new build units in the borough could achieve at least £15 psf. Due to the lack of supply across the borough occupiers would pay this in most locations. On this basis, we have updated the BNP Paribas viability assessment.

Appraisal assumptions

4.100 In our assessment, we have assumed a building of 25,000 sqft GIA, on a site of one acre, equating to a developable area of 57%. This size is pretty standard and flexible, and could be used to fulfil both B2 and B8 occupier requirements. A developable are of 57% is in a range confirmed by developers for a scheme of this scale. Consultation confirmed that one of the key requirement for occupiers is yard space and this is often being lost, but this ratio builds in yard space.

4.101 Whilst research into potential site specific constraints (such as land ownership, site configuration; access; contamination etc.) would be needed to categorically state whether the template scheme would fit on to existing sites in their current format, in general terms multiples of this one-acre template would fit on to sites such as Grantham Road, Folkestone Road and Canning Road East LILs, as they are all comfortably over the size threshold.

4.102 All the assumptions are outlined in the table at Appendix C.

Appraisal results

4.103 On the assumptions listed above we have run a hypothetical appraisal producing the following results. Our assessment shows the development generates a residual land value of £3.05 million, this figure does not take into account any site abnormals, s106/ 278 costs or site clearance.

Viability conclusions

4.104 Based on our assessment, industrial development is viable in Newham, ignoring hope value for residential (i.e. the gross development value of a new build unit far exceeds build costs, fees, profit etc.). This also is consistent with agent and developer feedback. Therefore, if sites are released/protected for industrial use and there is no hope value attributed for residential, sites will come forward for industrial development. As previously highlighted, if second-hand rents stay at the same level occupier interest will remain strong and properties can be viably maintained and as industrial space.

Conclusions

4.105 Newham is a fringe office market and is not as attractive to occupiers/developers compared to more central locations. Given current macroeconomic uncertainty it is likely to take a number of years and multiple property cycles to establish the Royal/Albert docks as a key office location, though new target markets, Crossrail and Enterprise Zone incentives may help.

4.106 It is challenging to provide office type accommodation for the SME and local business' sectors even though there is strong demand, chiefly because other uses, and particularly housing generate much higher values. But conversely there is little evidence that SME businesses are not able to find office accommodation. Thus, presently needs are largely being met by the available built stock, but if more space for SMEs were to be delivered it may attract new occupiers from outside the borough. In line with the Mayor of London's emerging strategy, SME and local business space should be required as part of mixed-use development whereby higher value uses (e.g. residential) cross subsidises the provision of office space.

4.107 For the Council, and the Development Plan, both our quantitative analysis in the earlier chapter, and this market facing chapter highlight the challenge in filling the large office pipeline. In current market conditions there is not enough demand to justify a pipeline of nearly a million square metres of new space.

4.108 But this pipeline is very different to the market evidence on the ground today. The office market, for built space, is much tighter. This is partly because many occupiers demand secondary space for offices and other SME type units. The pipeline of new space cannot meet this demand, so this stock needs careful management so that it is not lost faster than it can be replaced.

4.109 There is strong unmet demand for industrial space and little available floorspace across the Borough. This will only increase due to Newham's strategic importance inside the North Circular, allowing businesses to service the CAZ. Industrial development is viable throughout the Borough, as demonstrated in this report and a recent BNP Paribas report. Landowners are reportedly holding back however, because of the expectation that higher land values can be had through redevelopment for other uses. The key for Newham is to be able to see sites redeveloped for industrial use meeting local needs and the ever increasing occupiers pushed out of more centrally located boroughs. It will be for the London Plan and Local Plan policy to end the scope for any further releases beyond that which is specifically planned for. Overall it is this 'hope' value that holds back industrial delivery, not lack of demand.

4.110 This suggests that our 26 ha of positive demand, calculated from the GLA and Experian forecasts is certainly in the right (positive) direction. It also highlights scope for the Borough to capture displaced demand from elsewhere in London should the Borough wish to overprovide land. However, this displaced demand cannot be accommodated anywhere, and is most likely to require sites which have good transport links back into more constrained boroughs, and also the strategic road network outside of London. This is because the largest driver of growth is for logistics and warehousing demand; as opposed to smaller manufacturing demand.

4.111 The demand from the creative industries for space in Newham is not as strong as it is in boroughs more centrally located, and the space generally available does not fit the creatives' requirements. However, refurbished space in the Royal Docks or at Beckton, near to town centres and Crossrail stations could as part of the wider regeneration strategy attract the creative industries.

5 REVIEW OF THE EVIDENCE - RECOMMENDATIONS & CONCLUSIONS

Demand supply balance

5.1 The report has considered the employment land demand assessment undertaken by the GLA for office and industrial jobs and land assessment, and compared this with land requirements based on job change forecasts derived from Experian Economics. The office assessment indicated that the GLA are more optimistic than Experian in terms of jobs and floorspace growth, although this is heavily caveated. However, given the large pipeline of office supply there is no need or rationale to seek additional office capacity in the new plan using any source of demand. But instead manage the stock and especially the secondary stock (incl. space for SMEs).

5.2 There is however a need to seek additional land for industrial uses. For industrial and manufacturing both sources have some positive demand for land. They show between 6-9 ha of positive demand. But their opinions diverge when it comes to warehousing. The GLA projects decline, and the Experian forecast equating to a demand for an additional 16 ha. Our assessment strongly suggests that the Borough plans for the higher Experian number – there is no market evidence to support a decline in warehouse or logistics demand in the Borough.

5.3 So the data suggests that the Borough needs to accommodate around 26 ha of additional land in industrial employment use.

5.4 This 26 ha of land is over and above that in use today. Assessing the ability to meet it is a separate calculation from summing the allocated employment sites as it needs to account for those which are available for industry and warehousing (as distinct from B1a or utilities say) and those with existing employment uses on site that require netting off, albeit with some potential for intensification. It is also different from calculations that just look at vacancy, as these fail to account for master-planning and other commitments on these sites, though clearly vacant sites will be an important source of capacity as if vacant for some time they will not form part of estimates of future demand.

5.5 Obviously, any losses of land currently in employment use, either planned or windfall, will increase this demand. Also, given we expect displaced industrial demand from elsewhere in London this 26 ha number identified above should be considered a minimum. But quantifying this displaced demand is almost impossible because we cannot second guess how neighbouring boroughs will respond. Our market review shows that where Newham can offer accessible sites, accessible to inner London Boroughs and the strategic road network (A406 and outwards to M25) they could capture displaced demand from other boroughs.

5.6 In this chapter we identify the capacity of the Borough's existing employment portfolio to accommodate the identified demand. We are looking at where there is undeveloped land within the Boroughs protected employment portfolio which could, or

should, continue to be protected to help meet the positive demand for more land in employment use over the plan period.

Existing sites – with development capacity

5.7 We have identified a number of parcels of land which are currently protected for employment use, but do not currently accommodate industrial uses or could be intensified. Were these sites to continue their protection; and be developed for industrial use, they would contribute to the (approx.) 26 ha of new land demand we have identified above.

Peruvian Wharf (and backlands)

5.8 This is an area of SIL focused around Peruvian Wharf. The land is cleared and developers have come to expect it to be released from the industrial supply. But the Wharf is in the process of being reactivated to handle aggregates, and further wharf consolidation onto a site just east of it is planned to handle similar heavy industrial goods, waste and other related 'heavy' industrial uses.

5.9 We estimate that there is around 8.05 ha of land in total, comprising 2.75 ha of cleared land to the rear of the Wharf, and a further 3.63 ha of land which will be re-occupied by the Peruvian Wharf plus 1.67ha that will be reoccupied at Primrose Wharf.

5.10 With a change in circumstance - the reactivation of the Wharf, SIL release is clearly inappropriate. The 'backland' site would appear to be a sensible addition / retention to the Wharf itself as it provides access to HGVs to / from the re-activated Wharf and may only, at best, be partially suitable for non-employment uses given the externalities of the Wharf and other industrial uses.

5.11 Because this is cleared and vacant land it will not form part of either the GLA nor Experian baselines. So the re-occupation of the site for a new (or reactivated) industrial use would count as net additional industrial land compared to the baseline data.

North Woolwich Gateway

5.12 This 2.7 ha site includes the cleared BT site in west (1.6 ha - a former satellite station) which forms part of the SIL, and also a further depot site used for Crossrail works (0.94ha) which is also existing SIL, adjacent to an area currently used for low intensity metal recycling.

5.13 The BT site was proposed for SIL release in the Issues and Options, but more recently BT have advanced a proposal for an engineering shed on the southern part of the site suggesting that is should be retained as SIL. The cleared site, once vacated by Crossrail also presents a SIL development opportunity.

5.14 The eastern half, is a longer term redevelopment opportunity linked to the cessation of the ferry activity, currently expected to close in 15 years' time (so within the plan period).

5.15 The site in general has good separation from other uses due to the rail line that arcs round on the north and eastern sides and river to the south, The Thames Water pumping station occupies a prominent location in the middle of the site.

5.16 We understand that the original intention was that the area should be redeveloped for mixed use, and the former BT site and the Crossrail depot site would provide a buffer between the SIL and the redeveloped ferry land further east. But, with BT now seeking to retain the site in an employment use, and the fact that the wider site area is largely separated from conflicting uses, there is merit in retaining the western part (west of the Pumping Station) in an employment site. Given that there are residential schemes proposed as per the existing allocations (non-strategic residential) in the eastern part of the site (east as the pumping station, which can to some extent buffer the SIL uses to the west), we suggest that this area is appropriate to identify for mixed use including higher (employment) density more local employment opportunities - such as studios and workshop spaces on ground and lower floors.

5.17 The area available for new employment uses is therefore the 2.7 ha cleared SIL land (BT/Crossrail/), that should be returned to employment use.

Albert Island

5.18 This is a 12.7 ha former dockland area that has been under-utilised for many years and is now largely cleared. The Island's main employer is a concrete batching plant that has been relocated more than once locally, and operates from a 3 ha area. Some of the land on the Island is used for open storage and it is debatable whether redeveloping this land would be genuinely net additional to the Borough's stock. But we understand from the Council's assessment of the site that where land is used for storage, this is very low density and almost 'casual' in nature; occupiers are not making genuine economic use of the land and were the site to be redeveloped they would rationalise their land take. Thus, new employment uses of this land and the land where current operations do not benefit from a planning permission can be treated as net additional employment land.

5.19 This site epitomises the challenges facing industrial uses in densely populated areas. Whilst the Island is a relatively large area capable of accommodating a mix of uses including industrial, the regeneration of the surrounding areas with residential and marina developments, has drawn sensitive uses closer in, which can raise conflicts.

5.20 However, the Island is within the Airport Public Safety Zone. This limits the potential for some uses, but does not constrain the use of the area for industrial activity. Also, in favour of industrial use on this site is the good road connections via the Woolwich Manor Way, which together with the airport activity means that it is one of the better parts of the Borough to accommodate uses that are not fully compatible with residential.

5.21 The final employment land yield from the redevelopment of the site depends on the extent to which the main existing employment use (concrete batching plant) could be intensified on or off site: if the plant is relocated and not intensified from its current 3 ha operation, the Island will yield circa 9.7 ha net additional employment capacity.

Beckton Gateway (Jenkins Lane)

5.22 This 7 ha site with direct access on to the A13 and North Circular is an excellent location for warehousing serving the Central Activity Zone. It is currently being developed through a partnership between site owner the GLA and SEGRO predominantly for warehousing. A 4,300 sq m warehouse is currently under construction on the northern-most part of the site, with a current planning application for 10,700 sq m of warehousing on the larger southern part of the site.

5.23 This site is therefore contributing 15,000 sq m of B8 floorspace over 6.4 ha, with the remainder proposed for hotel use.

Grantham Road

5.24 This is a relatively small (0.5 ha), but very well located LIL that is currently occupied by low intensity uses including car rental and car storage and a gym. The site's strategic location means it is very suited to more intensive uses, possibly small to medium warehousing or industrial uses requiring high accessibility.

5.25 Redevelopment would potentially yield 0.5 ha additional employment.

Folkestone Road

5.26 The 10 ha Folkestone Road Council depot site is located at the junction of the A13 and North Circular, and like Beckton Gateway would be a strategically advantageous location for industrial / warehousing activity, albeit the site does not have direct access presently onto either route. The location is very suited to servicing the Central Activity Zone from the A13 radial connection, but also orbitally on the Circular and indeed M25. However, the majority of the land is currently used for low intensity Council depot activity.

5.27 The Council considers that through the reorganisation of the very low intensity uses at least 2 ha of land could be freed up for other uses. This land would be attractive and suitable for industrial activity, particularly to local warehousing, and would be compatible with the surrounding uses, and as shown earlier in the report is viable. Reorganisation of this site will yield a minimum of 2 ha net of employment land.

Summary

5.28 Between the sites discussed above the Borough has, within the established SIL boundaries a number of possible options to accommodate positive demand for industrial uses. We estimate this to be around 29.37 ha comprising the following sites:

Table 5.1 LB Newham LPA area – potential from existing employment sites

	Supply (ha)
SIL	
Peruvian backlands	2.75
Peruvian and Primrose Wharves	5.30
N Woolwich G'way (BT & Crossrail)	2.71
SIL TOTAL	***10.76***
LIL	
Albert Island	9.70
Folkestone Rd	2.00
Grantham Rd	0.50
Beckton Gateway (Jenkins Lane)	6.41
LIL TOTAL	***18.61***
SIL and LIL total	**29.37**

Source: PBA analysis

SIL site options (releases) & other Strategic Sites

5.29 In managing its stock of employment land through the review of the Local Plan the Council in its Issues and Options document suggested scope for additional SIL releases. Below, we review these proposals in light of the foregoing demand assessment and recent development activity.

Sites east and west of Peruvian Wharf

5.30 The Issues and Options proposed SIL releases to the east and west of the Wharf; Lyle Park West and Thameside West / Silvertown Landing. Here we examine these proposed releases in light of the demand for industrial land, and also the re-activated Wharf.

Thameside West (Silvertown Landing)

5.31 The site has riverside frontage, but is currently crossed by the Emirates Cable Car, is on the route of the proposed Silvertown Tunnel Crossing and is subject to airport safeguarding height restrictions. Whilst local roads are congested, the area has excellent access to the strategic road network, though further road network complexity may arise if the Silvertown Crossing goes ahead. A new local centre and DLR station are planned as part of an adjacent Strategic Site allocation. Current occupiers are heavy industrial activities such as concrete batching and manufacturing.

5.32 Although suggested for potential release in the Issues and Options due to low intensity use and possible conflict with the wider strategic vision on the adjacent Thames Wharf Strategic Site, there is reason to question whether the site should be released in its entirety from the employment stock, or instead retained and regenerated with less heavy industrial actives. The rationale for this is that, newer, modern industrial use could form a buffer between the retained SIL uses (which could include some of the existing uses so these don't need to be re-accommodated off-site), and new housing and make use of strategic road connectivity.

Thameside West (Lyle Park West)

5.33 The issues and options report promoted the release of up to 4.57 ha of the Thameside West SIL (in addition to that already identified for release as part of the current Minoco Wharf Strategic Site, which would be partially re-drawn into this site).

5.34 The site is currently used for open aggregates storage and general industry, but also includes some vacant sites. Immediately to the west is the large imposing Tate & Lyle syrup factory and the re-activated Wharf.

5.35 The site effectively forms a zone of transition between what could be high value residential land, adjacent the park and river frontage, and the SIL including Peruvian Wharf, the proposed consolidated wharf (Royal Primrose Wharf) and syrup factory.

5.36 As a transitional zone releasing the site from SIL would appear to be sensible and as with Silvertown West site, seeking lighter employment uses which can be accommodated closer to residential to act as a buffer.

5.37 Industrial use buffers in this location could take the form of small to medium sized distribution and/or trade counter uses that do not need large distance separation, and this accords with the generic scheme we have viability tested. So replacing any units lost should be viable. But here proximity to public transport, a potential new local centre at Silvertown West, and the new neighbourhood at Royal Wharf, suggest an additional/ alternative opportunity to provide space for SMEs and creatives on this site – including on upper floors to create height in the 'buffer' area. As we have seen earlier in this report, these uses are generally unviable, however could be delivered if cross funded by residential and given the unique site constraints, which may require taller buildings to act as the buffer between the activated and extended consolidated Wharf and new residential, this site presents one of the few opportunities to deliver multi-storey industrial or workshop space.

5.38 The buffering requirements could also deliver a substantial amount of new industrial space in the form of small scale workshops, studios in multi-storey format and general industrial/B8 space for distribution operators on lower floors.

5.39 Hence, there is a potentially advantageous symbiotic relationship between residential development in this area and the provision of SME/creative workspace.

5.40 Given the site constraints, and the unknown size (and scale) of any buffer needed between the uses we cannot quantify how much and where the full extent of the buffer should be. But as a mixed use proposal the objective should be that the buffer area seeks to replace any floor space lost and ground floor space includes space for

small scale logistics and warehousing uses with associated access and servicing, secured through any residential elements or preferably via the Wharf site.

5.41 The release, even with provision via a buffer, is likely to result in a small loss of industrial land – around the 4.3 ha originally envisaged.

Thameside East (Connaught Riverside)

5.42 Local Plan Issues and Options proposed the release of SIL at the Thames Road Industrial Estate, and consolidation of industrial activity within the St Marks Industrial Estate re-designated as a Strategic Site. Approximately 6.5 ha was to be released (for mixed use) with the balance retained as a new local employment site.

5.43 These riverside release proposals are not impacted to the same degree by remaining SIL compared with the proposed releases in Thameside West that are impacted by the reactivation of Peruvian Wharf. Whilst there will still be a need to buffer between a core SIL use (the Tate & Lyle factory) and future new homes, there are already sheds containing cleaner and quieter activity located within the outer limits of the SIL. The scale of the additional buffer required to preserve the flexibility to use the SIL for its intended purpose is likely to be smaller than elsewhere. So given we have scope to release a small amount of land as set out in our site analysis above, there remains scope to release the majority of the 6.5 ha envisaged in the Issues and Options.

5.44 As part of the mixed use redevelopment proposal an employment 'cluster' may be preferable, as opposed to small units scattered through the site. This may allow the employment units to better share purpose-built access and servicing arrangements at the ground floor.

5.45 The release of the Thames Road Industrial Estate site for mixed use redevelopment would provide the opportunity for better transition to the residential area immediately to the west and make better use of the waterfront. The predominant warehouse uses currently on the site would be better located on sites with better access to the strategic road network.

5.46 The physical separation of the St Marks Estate from the rest of the SIL to the south of North Woolwich Rd and its current light and general industrial occupiers suggests a re-designation to LIL remains appropriate, as would be the extension of the boundary to include the storage unit northwest of the railway.

Beckton Riverside

5.47 The former gas works site covers a large area, over 50 ha, of which the Issues & Options proposed the release of 40 ha which is largely vacant; accommodating no jobs nor industrial activity.

5.48 Of this 40 ha previously proposed for release we now expect between 5-10 ha to be needed for an extended DLR depot; so this land will be brought back into an industrial use.

5.49 We also understand that reconfiguring the warehouse units south of the main site (referred to as the Kessler site off Armada Way) could yield 2.15 ha of land which could be made available for new industrial uses. This land is currently vacant, within

river crossing safeguarding area. So; assuming the DLR depot brings land back into an employment use, and the 2.15 ha is also made available then this wider area has capacity to deliver 12.15 ha of new industrial type activity.

5.50 Capacity for new industrial uses could be higher if the 6.8 ha waste allocation comes forward; as with the wider site this land is not currently in any form of industrial type use, but if developed would add to the Borough's industrial land stock. However, this site allocation is to be re-visited as part of a Joint Waste Plan Review, and given this and other apparent priorities for the area, it is not counted at present as part of the land 'reservoir'.

5.51 The vacant SIL land in the area has many advantages for employment uses given that it is part of a wider area of SIL with general separation from sensitive receptors, and for which there is viable market demand (as there is across the Borough as a whole). The area's transport links are excellent with immediate access to the North Circular and the CAZ via the A13., The area is therefore ideal for continued SIL protection and could significantly bolster the employment land reservoir, were a strategic decision made to pursue this rather than or alongside other uses.

Alpine Way/London Industrial Park

5.52 The 3.5 ha Beckton Retail Park on Alpine Way abuts the London Industrial Park SIL, and is acknowledged to be under-performing. The retail park was identified as a potential Strategic Site in the Issues & Options consultation for mixed uses including employment.

5.53 The site benefits from buildings and infrastructure that are suitable for conversion to employment use, particularly trade counter construction related employment given the current retail uses. At least 1 ha of the northern-most part of the site should be identified for employment use.

British Gas/Cody Road (Canning Town Riverside)

5.54 The Issues and Options proposed the release up to 1.96 ha of SIL plus LMUA presently in open storage use to the south as part of a wider strategic site, helping to secure the Leaway and Lea River Park along the river and deliver housing.

5.55 The SIL site (and the undesignated area to the south (occupied by EMR scrap metal company) is currently used for a mix of low intensity open storage/waste processing and enclosed operations. It borders the River Lea to the west and the Bidder St LMUA to the east. The boundary with the river and A13 provides good separation from other uses. There is direct access on/off the A13 trunk road. The safeguarded wharf is un-used and given navigational difficulties, raises little prospect of use.

5.56 Whilst improving accessibility to the riverside is no doubt a benefit and the site is close to public transport and Canning Town, the site's immediate surroundings are industrial units on three sides and the Newham Way flyover. Given the need to avoid integrating potential conflict next to industrial areas and especially SIL the area would better serve warehousing activity. The excellent access to the strategic road network (A13), will continue to make this site attractive to employment uses and storage and

distribution activity in particular. The A13 provides direct access into London, Canary Wharf and the City, and out to the North Circular and M25.

5.57 Whilst a relatively small site, at 3.5 ha, its excellent road network connections makes it an ideal site for warehousing activity. The underutilised site could accommodate relocations from elsewhere in the Borough, and/or it could absorb some of the unmet need in Tower Hamlets and beyond, though at present it seems that it may be challenging to re-locate EMR from the northern part of the site due to lack of alternative site availability of a suitable scale, though the sites discussed above offer some options.

5.58 From a purely employment perspective the future redevelopment of the site for warehousing would be best managed through the existing SIL designation. The open storage land to the south could provide scope for a 1.5 ha addition to SIL. However, we are aware that the Council considers that the site, if redeveloped for mixed use, could help the regeneration of Canning Town. So despite the site being useful to the employment portfolio, planning balance may direct at least a partial release, albeit potentially an employment-led one if the LMUA designation is retained.

Summary

5.59 The sites discussed above can contribute 13.15 ha for industrial uses, and Beckton could contribute a further 6.8 ha via the waste allocation. Thus in total (excluding the waste site) we estimate the LPA area can contribute 42.52 ha for industrial activity, as identified in Table 5.1 above and Table 5.2 below.

Table 5.2 LB Newham LPA area – potential from proposed Strategic Sites

	Supply (ha)
SIL/Strategic Sites	
Beckton Riverside	
DLR depot expansion (could range 5-10 ha)	10.00
Kessler site relocations	2.15
SIL/Strategic Sites TOTAL	***12.15***
LIL/Strategic Sites	
Alpine Way	1.00
LIL/Stategic Sites TOTAL	***1.00***
Strategic Sites total	**13.15**
Local Planning Authority area total	**42.52**

Source: PBA analysis

Conclusions

5.60 The demand assessment identified a need for between 6-9 ha of industrial land and 16 ha to accommodate warehouses, with a further hectare added to account for 5% frictional vacancy. There is ample capacity available to accommodate future office demand, and no need to allocate land for this use.

5.61 With the tightening of supply set out in LILD and the likelihood of business displacement from more centrally located boroughs, Newham may not be able to accommodate current levels of business formation, and could also start to see its own local business base reduce if there weren't sufficient employment capacity.

5.62 How much space should be allocated to meet the demand from displacement is impossible to gauge, but given there are very few boroughs in London that are able to contribute very much at all, in the interests of supporting the economic success of the CAZ, and to benefit its own economic and sustainability objectives, the Borough should identify as much land as possible, accepting the approach of seeking to buffer the existing SILs to consolidate SIL and provide opportunities for regeneration for the Borough's residents.

5.63 Our assessment shows that to balance the market 26 ha of additional land for industrial and warehouse uses is needed in the Borough as a whole (ie including the LLDC area). The market and sites analysis in the LPA area suggests that the combination of sites shown in Table 5.1 and Table 5.2 above plus small scale LMUA redevelopment are capable of delivering new industrial floorspace, including depot space, new wharves, new warehousing and other industrial floorspace.

5.64 Beckton Riverside has a large potential employment land 'reservoir', but the proposed transport and waste uses are low intensity and require a comparatively large land take. Such uses are essential to the future functioning of London's economy and need to be accommodated as a priority, and the need for other land uses will need to be balanced with any further employment (industrial and warehousing) provision. However, as discussed above a site at Beckton is identified for future expansion for waste management facilities, which will be reviewed through a separate Waste Plan process.

5.65 Overall we estimate that the LPA area has a reservoir of around 42.5 ha of land to meet its needs over the plan period, and allow flexibility to release poorer performing sites. This includes partial release of industrial land at Lyle Park West, full release at Connaught riverside and release (to employment led mixed use) at Canning Town Riverside.

5.66 While this broadly balances the Newham demand for industrial land, drawing on Experian and the GLA demand analysis (demand of 26 ha and available supply of 42.5 ha), it means that contrary to the GLA LILD, the Borough does not have significant spare 'industrial' capacity (just 16.5 ha) to assist other boroughs by taking cross-boundary demand.

5.67 Indeed, it follows that, the assertion, that Newham has an oversupply of industrial land of 104.5 ha[31] ('surplus vacancy') needs treating with extreme caution as much is already accounted for through the Local Plan: Core Strategy and subsequent planning activity on Strategic Sites. The LPA's extensive site audit work shows that the total amount of available 'vacant' employment land is much lower, at around 42.5 ha, and we conclude that with positive demand, and some limited releases, the residual (16.5 ha) could not be considered 'surplus'.

5.68 This suggests that the demand for the remaining stock of land will remain acute and, as with London as a whole, the Borough needs to very rigidly protect the remaining stock and ideally consider further protection/retention of SIL in some well-located areas.

5.69 This study suggests that there is no need to promote additional large office sites in the plan, and possible scope for the Borough to prioritise new housing (and possibly some industrial in selective cases) on sites previously promoted for offices, so meeting the need for new homes while not risking the office market balance. Where the Council re-negotiates the mix of any site priority ought to be given to securing smaller, affordable office units and workshop property because, while in demand, our analysis shows this type of property is challenging to deliver without some mixed use elements.

5.70 Turning to industrial land, the study does not generally make an assumption or build in an allowance for more intensive use of the current stock of industrial land through redevelopment or renewal. Only where the sites are Council owned or existing uses are of very low intensity do we factor in land release through reorganisation/ intensification. Generally, in our opinion, building in intensification is not a sound assumption for the plan to make given the Borough does not control the stock of sites and multi storey or other higher density industrial forms of development struggle to be viable in the current market. The risk to the industrial supply is that an assumption such as this is 'hardwired' into the assessment and sites released on the assumption that others will intensify - but the market fails to deliver the higher density space needed.

5.71 But, with a tightening market and increasing rents it is possible that over the plan period newer, more intensive forms of industrial development become viable and in more universal demand from developers and occupiers. In preparation emerging policy should seek to encourage more intensive use of sites and applicants challenged to demonstrate that they have maximised the industrial capacity of their land. Those promoting single storey warehouse units should, for example, be challenged to consider whether better use of upper floors can be made to accommodate other employment generating uses.

[31] GLA 2016 ibid

APPENDIX A EXPERIAN WORKFORCE JOBS RAW DATA

Workforce Job Categories
(thousands of jobs)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Accommodation & Food Services	2.3	2.7	3.1	3.3	3.5	3.8	4.2	4.5	4.9	5.2	5.5	6.1	6.3	6.9	7.4	8.5	9.5	10.3	11.0	11.2
Administrative & Supportive Services	7.6	8.4	9.0	9.8	10.0	9.5	9.1	9.1	9.2	9.2	9.5	9.4	8.7	8.9	9.2	9.5	9.7	10.7	11.6	11.8
Agriculture, Forestry & Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Air & Water Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chemicals (manufacture of)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Civil Engineering	0.7	0.9	0.8	0.9	1.0	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.1	1.1	1.1	1.3	1.4	1.3	1.3	1.4
Computer & Electronic Products (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computing & Information Services	0.9	1.0	1.2	1.3	1.4	1.3	1.3	1.2	1.3	1.5	1.6	1.7	1.5	1.6	1.9	1.9	2.1	2.5	2.6	2.7
Construction of Buildings	0.4	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.5	1.7	2.0	2.2	2.5	3.0	3.6	3.9	4.5	4.8	5.0
Education	7.2	7.5	8.1	8.3	8.0	8.5	9.1	9.7	9.8	10.3	10.9	11.5	13.1	13.3	13.5	14.0	14.3	15.2	15.6	15.8
Extraction & Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Finance	2.2	2.2	2.4	2.6	2.7	2.5	2.4	2.2	2.0	1.9	1.8	1.7	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1
Food, Drink & Tobacco (manufacture of)	2.1	2.1	2.2	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.7	1.7	1.8	1.7	1.7
Fuel Refining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Health	5.2	5.2	5.1	5.5	5.9	6.0	6.3	6.6	7.0	6.8	6.5	7.3	7.7	7.5	7.8	8.2	8.4	8.6	8.6	9.0
Insurance & Pensions	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Land Transport, Storage & Post	9.5	9.8	9.8	9.8	9.6	9.1	8.8	8.4	8.6	8.3	8.1	8.0	7.5	7.1	6.8	6.9	6.8	6.9	7.0	7.1
Machinery & Equipment (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Media Activities	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
Metal Products (manufacture of)	0.9	0.9	0.8	0.8	0.7	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Non-Metallic Products (manufacture of)	1.0	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2
Other Manufacturing	1.2	1.2	1.2	1.3	1.2	1.1	1.0	1.1	1.0	1.0	0.9	0.9	1.1	1.0	0.8	0.9	0.9	1.0	1.1	1.1
Other Private Services	2.2	2.3	2.5	2.6	2.6	2.6	2.8	3.0	3.0	3.0	3.1	3.2	3.1	3.2	3.4	3.4	4.1	4.2	3.8	4.1
Pharmaceuticals (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Printing and Recorded Media (manufacture of)	1.0	0.9	1.0	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5
Professional Services	2.7	2.9	3.0	3.2	3.4	3.3	3.3	3.3	3.5	3.6	3.6	3.6	3.6	3.7	3.7	4.0	4.5	5.0	5.4	5.5
Public Administration & Defence	6.0	6.1	6.4	6.6	6.4	7.0	7.4	7.5	8.3	8.2	8.1	8.1	8.2	7.9	7.7	7.6	7.7	7.7	7.6	7.5
Real Estate	1.7	1.6	1.6	1.7	1.6	1.5	1.5	1.5	1.6	1.8	2.0	2.3	2.5	2.7	2.7	3.0	2.9	2.9	3.3	3.4
Recreation	2.0	2.0	2.3	2.4	2.5	2.7	2.6	2.6	2.8	3.0	3.0	3.4	2.9	3.2	3.4	3.7	3.7	4.2	4.4	4.6
Residential Care & Social Work	3.5	3.4	3.4	3.6	3.7	3.7	3.9	4.0	4.3	4.3	4.1	4.5	5.0	4.9	4.9	5.2	5.6	5.7	5.6	5.8
Retail	7.5	8.1	8.7	9.2	9.5	9.7	9.9	10.4	10.9	11.4	11.8	12.3	12.4	12.7	13.7	15.7	16.7	18.3	20.1	20.2
Specialised Construction Activities	3.1	3.5	3.4	3.8	3.8	3.9	4.0	4.2	4.4	4.5	4.6	4.7	4.0	3.6	3.8	4.3	4.4	4.2	4.4	4.6
Telecoms	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Textiles & Clothing (manufacture of)	2.5	2.3	2.0	1.8	1.5	1.3	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
Transport Equipment (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilities	1.2	1.2	1.2	1.3	1.3	1.2	1.1	1.1	1.1	1.2	1.2	1.4	1.4	1.6	1.7	1.8	1.7	1.8	1.8	1.9
Wholesale	4.7	4.9	5.2	5.2	5.0	4.9	4.9	4.9	4.8	4.7	4.6	4.5	4.1	3.9	4.0	4.3	4.3	4.3	4.5	4.5
Wood & Paper (manufacture of)	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**82.6**	**84.9**	**88.2**	**92.1**	**92.4**	**91.0**	**91.8**	**93.4**	**95.5**	**96.8**	**97.9**	**101.9**	**101.3**	**102.1**	**105.1**	**112.4**	**117.0**	**124.0**	**129.1**	**131.9**

Source: Experian Mar 2017
Data: thousands of jobs

Workforce Job Categories
(thousands of jobs)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Accommodation & Food Services	11.3	11.5	11.7	11.9	12.1	12.3	12.4	12.6	12.7	12.8	13.0	13.1	13.3	13.4	13.5	13.7	13.8	13.9	14.0	14.1	14.2
Administrative & Supportive Services	11.9	12.1	12.1	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2	13.4	13.6	13.7	13.9	14.0	14.2	14.4	14.5	14.7
Agriculture, Forestry & Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Air & Water Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chemicals (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Civil Engineering	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Computer & Electronic Products (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computing & Information Services	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Construction of Buildings	4.9	4.9	5.0	5.0	5.0	5.0	5.1	5.1	5.1	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.4	5.4	5.4	5.5	5.5
Education	15.7	15.9	16.1	16.4	16.6	16.9	17.2	17.5	17.7	17.9	18.2	18.5	18.7	19.0	19.2	19.5	19.8	20.0	20.3	20.6	20.8
Extraction & Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Finance	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Food, Drink & Tobacco (manufacture of)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6
Fuel Refining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Health	9.0	9.1	9.2	9.3	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.8	10.9	11.1	11.3	11.4	11.6	11.7	11.9	12.0
Insurance & Pensions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Land Transport, Storage & Post	7.1	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.5	7.5	7.6	7.7	7.8	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.4
Machinery & Equipment (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Media Activities	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Metal Products (manufacture of)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Non-Metallic Products (manufacture of)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Manufacturing	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Other Private Services	4.1	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.6	4.6	4.6	4.6
Pharmaceuticals (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Printing and Recorded Media (manufacture of)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
Professional Services	5.6	5.6	5.6	5.6	5.6	5.6	5.7	5.7	5.8	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.2	6.2	6.3	6.3
Public Administration & Defence	7.3	7.2	7.1	7.1	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.4	7.4
Real Estate	3.4	3.4	3.4	3.5	3.5	3.5	3.6	3.6	3.6	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.9	3.9	3.9	4.0	4.0
Recreation	4.8	4.9	4.9	5.0	5.0	5.0	5.1	5.2	5.2	5.2	5.3	5.4	5.4	5.5	5.5	5.6	5.7	5.7	5.8	5.8	5.9
Residential Care & Social Work	5.9	6.0	6.1	6.2	6.3	6.5	6.7	6.8	7.0	7.1	7.3	7.4	7.6	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.7
Retail	20.3	20.4	20.5	20.6	20.7	20.8	21.0	21.1	21.2	21.3	21.5	21.6	21.7	21.8	21.9	22.0	22.1	22.2	22.3	22.5	22.6
Specialised Construction Activities	4.4	4.5	4.5	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3
Telecoms	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Textiles & Clothing (manufacture of)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Transport Equipment (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilities	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Wholesale	4.6	4.7	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.0	5.0
Wood & Paper (manufacture of)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**132.0**	**133.2**	**133.9**	**135.1**	**136.2**	**137.4**	**139.0**	**140.2**	**141.2**	**142.4**	**144.0**	**145.2**	**146.9**	**148.2**	**149.1**	**150.6**	**151.9**	**153.2**	**154.4**	**155.9**	**156.8**

Source: Experian Mar 2017
Data: thousands of jobs

APPENDIX B JOB CATEGORY TO LAND USE MAPPING

APPENDIX B JOB CATEGORY TO LAND USE MAPPING

SECTOR TO LAND USE

1. Economic statistics and forecasts tell us nothing directly about employment space, because they do not classify jobs according to the type of space they occupy. Rather, the statistics split jobs into economic sectors (industries and services), according to the Standard Industrial Classification (SIC). To estimate how many jobs will be based in offices and industrial space, and how many in 'non-B' spaces such as retail premises, schools and hospitals, we need to translate sectors into land uses.

2. As the starting point for this translation we recommend a method developed by Roger Tym & Partners (now PBA) over a series of employment land reviews and tested in a large-scale study of the Yorkshire and Humber region in 2010[1]. To our knowledge there is no other published empirical research on the relationship between activity sectors and land uses.

3. The tables below show the sectors that are classified to industrial space and offices respectively. The names and numbers that identify each activity sector are from the UK Standard Classification of Economic Activities 2007 (SIC 2007)[2].

[1] Roger Tym & Partners with King Sturge for Yorkshire Forward, Planning for Employment Land: Translating Jobs into Land, March 2010

[2] http://www.businessballs.com/freespecialresources/SIC-2007-explanation.pdf

Table A1 Industrial sectors

Manufacturing		
Manufacturing and repairs	10-33	All manufacturing
	95.00	Repair of computers and personal and household goods
Other industrial		
Construction	43.2	Electrical, plumbing and other construction installation activities
	43.3	Building completion and finishing
	43.9	Other specialised construction activities not elsewhere specified (nec)
Motor vehicle activities	45.2	Maintenance and repair of motor vehicles
	45.4	Sale, maintenance and repair of motor cycles and related parts and accessories
Sewage and refuse disposal	37	Sewage
	38	Waste collection, treatment and disposal activities
Employment activities (part)	78	
Warehousing		
Wholesale trade except of motor vehicles and motorcycles	46	
Freight transport by road	49.41	
Removal services	49.42	
Storage and warehousing	52.10	
Other supporting land transport activities	52.21	
Cargo handling	52.24	
Post and courier activities	53.00	
Packaging activities	82.92	
Employment activities (part)	78	

Note

SIC 78, Employment Activities, covers workers employed through agencies in all activity sectors. They should be redistributed across the whole economy, both to B-class sectors and other sectors, in proportion to each sector's share of total employment.

Table A2 Office sectors

Office sectors		
Publishing	58	Motion picture production activities
Motion picture, video and TV programme activities	59.11	Motion picture, video and TV programme production activities
	59.12	Motion picture, video and TV programme post-production activities
	59.13	Motion picture, video and TV programme distribution activities
	59.20	Sound recording and music publishing activities
Programming and broadcasting activities	60	
Computer programming, consultancy and related activities	62	
Information service activities	63	
Financial service activities except insurance and pension funding	64	
Insurance, reinsurance and pension funding except compulsory social security	65	
Activities auxiliary to financial services and insurance activities	66	
Real estate activities	68	
Legal and accounting activities	69	
Activities of head offices, management consultancy activities	70.	
Architectural and engineering activities, technical testing and analysis	71	
Scientific research and development	72	
Advertising and market research	73	
Other professional, scientific and technical activities	74	
Renting and leasing activities	77.40	Leasing of intellectual property and similar products
Employment activities (part)	78	
Security and investigation activities	80	
Office admin, office support and other business support activities	82	
Public administration and defence; compulsory social security	84.1	Administration of the State and the economic and social policy of the community
	84.3	Compulsory social security activities

Note
SIC 78, Employment Activities, covers workers employed through agencies in all activity sectors. They should be redistributed across the whole economy, both to B-class sectors and other sectors, in proportion to each sector's share of total employment

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4. On a technical note, most economic forecasts show around 20-30 broad activity sectors, a much coarser-grained classification than the SIC sectors in the table above. For example, the table counts as a B-space activity only part of the Construction industry (SIC 43.2, 43.3 and 43.9), whereas forecasts typically show only Construction as a whole (SIC 43). To estimate future employment in sub-sectors such as SIC 43.2, we assume that the share of each sub-sector's employment in its 'parent' sector stays constant.

5. There are two further technical difficulties with the relationship of sectors to land uses. The first is that the line between production space (factories and workshops) and warehousing is blurred. This is not surprising, because manufacturing and warehousing largely occupy the same kinds of buildings, many units combine both functions in proportions that vary over time, and smaller buildings are allowed to shift between the two without planning permission.

6. In setting total land provision targets, therefore, factories, workshops and warehouses, should be merged into a single 'industrial' category. This should not cause any problems, because these uses operate in similar buildings and at similar employment densities, except for very large units including strategic warehousing. In areas where they form a significant part of the stock, these large units should be allowed for separately.

7. The other problem with the tables is that some of the jobs which the table allocates to industrial space are in fact in offices. These jobs are probably in administration, sales and marketing functions of industrial and related businesses. A construction or plumbing business, for example, will often have an office that deals with orders, appointments, record-keeping and the like. In some cases this will be ancillary to an industrial unit and therefore not count as office space, but in other cases it will be free-standing. If the business is small, the office may be its only premises.

8. In total, the Yorkshire and Humber survey found that around one tenth of the jobs which our method allocates to industrial space (factories, workshops and warehouses) are in fact in offices. For a large area such as the region, this is too small a proportion to distort land provision targets. But in some local authority areas, especially the more highly urbanised, it is likely that the distortion is significant. Employment land reviews should aim to correct these distortions, using local knowledge to adjust the relationships shown in the tables above.

9. There are many other, place-specific factors why the sector-to-land-use relationships in the tables above may be invalid. For example, in some places large business units are assigned to the wrong sector or the wrong side of the local authority boundary. In other places, particular sectors are untypical and do not occupy the kinds of space that one would normally expect. In one local authority area in England, for example, there are many jobs classified to Other Supporting Land Transport Activities, SIC 52.21, which normally would occupy warehousing in the local authority area. But in

this case most of the SIC 52.21 jobs relate to railway maintenance and the people concerned work all over the country, mostly outdoors.

10. Where such anomalies arise, close inspection of the numbers, combined with local knowledge, should help correct the statistics and customise the sector-to-land-use assumptions.

11. However, it is inevitable that sector-to-land-use relationships are less reliable for small than larger areas. As the Yorkshire and Humber survey illustrated, the relationships shown in our tables work very well for whole regions. But they are not reliable for individual buildings or employment areas, and may not be reliable at local authority level. This is one of the reasons why demand forecasts are more robust for regions that individual local authority areas.

12. The Yorkshire and Humber report provides further information and advice on sector-to-land-use relationships.

Annex – Sector to land use *[see over]*

Employment land use	Sector (Experian)	Industry (5 digit SIC)
Manufacturing	Food, Drink & Tobacco	10110 : Processing and preserving of meat
Manufacturing	Food, Drink & Tobacco	10120 : Processing and preserving of poultry meat
Manufacturing	Food, Drink & Tobacco	10130 : Production of meat and poultry meat products
Manufacturing	Food, Drink & Tobacco	10200 : Processing and preserving of fish, crustaceans and molluscs
Manufacturing	Food, Drink & Tobacco	10310 : Processing and preserving of potatoes
Manufacturing	Food, Drink & Tobacco	10320 : Manufacture of fruit and vegetable juice
Manufacturing	Food, Drink & Tobacco	10390 : Other processing and preserving of fruit and vegetables
Manufacturing	Food, Drink & Tobacco	10410 : Manufacture of oils and fats
Manufacturing	Food, Drink & Tobacco	10420 : Manufacture of margarine and similar edible fats
Manufacturing	Food, Drink & Tobacco	10511 : Liquid milk and cream production
Manufacturing	Food, Drink & Tobacco	10512 : Butter and cheese production
Manufacturing	Food, Drink & Tobacco	10519 : Manufacture of milk products (other than liquid milk and cream,butter, cheese) nec
Manufacturing	Food, Drink & Tobacco	10520 : Manufacture of ice cream
Manufacturing	Food, Drink & Tobacco	10611 : Grain milling
Manufacturing	Food, Drink & Tobacco	10612 : Manufacture of breakfast cereals and cereals-based foods
Manufacturing	Food, Drink & Tobacco	10620 : Manufacture of starches and starch products
Manufacturing	Food, Drink & Tobacco	10710 : Manufacture of bread; manufacture of fresh pastry goods and cakes
Manufacturing	Food, Drink & Tobacco	10720 : Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes
Manufacturing	Food, Drink & Tobacco	10730 : Manufacture of macaroni, noodles, couscous and similar farinaceous products
Manufacturing	Food, Drink & Tobacco	10810 : Manufacture of sugar
Manufacturing	Food, Drink & Tobacco	10821 : Manufacture of cocoa, and chocolate confectionery
Manufacturing	Food, Drink & Tobacco	10822 : Manufacture of sugar confectionery
Manufacturing	Food, Drink & Tobacco	10831 : Tea processing
Manufacturing	Food, Drink & Tobacco	10832 : Production of coffee and coffee substitutes
Manufacturing	Food, Drink & Tobacco	10840 : Manufacture of condiments and seasonings
Manufacturing	Food, Drink & Tobacco	10850 : Manufacture of prepared meals and dishes
Manufacturing	Food, Drink & Tobacco	10860 : Manufacture of homogenised food preparations and dietetic food
Manufacturing	Food, Drink & Tobacco	10890 : Manufacture of other food products nec
Manufacturing	Food, Drink & Tobacco	10910 : Manufacture of prepared feeds for farm animals
Manufacturing	Food, Drink & Tobacco	10920 : Manufacture of prepared pet foods
Manufacturing	Food, Drink & Tobacco	11010 : Distilling, rectifying and blending of spirits
Manufacturing	Food, Drink & Tobacco	11020 : Manufacture of wine from grape
Manufacturing	Food, Drink & Tobacco	11030 : Manufacture of cider and other fruit wines
Manufacturing	Food, Drink & Tobacco	11040 : Manufacture of other non-distilled fermented beverages
Manufacturing	Food, Drink & Tobacco	11050 : Manufacture of beer
Manufacturing	Food, Drink & Tobacco	11060 : Manufacture of malt
Manufacturing	Food, Drink & Tobacco	11070 : Manufacture of soft drinks; production of mineral waters and other bottled waters
Manufacturing	Food, Drink & Tobacco	12000 : Manufacture of tobacco products
Manufacturing	Textiles & Clothing	13100 : Preparation and spinning of textile fibres
Manufacturing	Textiles & Clothing	13200 : Weaving of textiles
Manufacturing	Textiles & Clothing	13300 : Finishing of textiles
Manufacturing	Textiles & Clothing	13910 : Manufacture of knitted and crocheted fabrics
Manufacturing	Textiles & Clothing	13921 : Manufacture of soft furnishings
Manufacturing	Textiles & Clothing	13922 : Manufacture of canvas goods, sacks etc
Manufacturing	Textiles & Clothing	13923 : Manufacture of household textiles (other than soft furnishings of 13921)
Manufacturing	Textiles & Clothing	13931 : Manufacture of woven or tufted carpets and rugs
Manufacturing	Textiles & Clothing	13939 : Manufacture of carpets and rugs (other than woven or tufted) nec
Manufacturing	Textiles & Clothing	13940 : Manufacture of cordage, rope, twine and netting
Manufacturing	Textiles & Clothing	13950 : Manufacture of non-wovens and articles made from non-wovens, except apparel
Manufacturing	Textiles & Clothing	13960 : Manufacture of other technical and industrial textiles
Manufacturing	Textiles & Clothing	13990 : Manufacture of other textiles nec
Manufacturing	Textiles & Clothing	14110 : Manufacture of leather clothes
Manufacturing	Textiles & Clothing	14120 : Manufacture of workwear
Manufacturing	Textiles & Clothing	14131 : Manufacture of men's outerwear, other than leather clothes and workwear
Manufacturing	Textiles & Clothing	14132 : Manufacture of women's outerwear, other than leather clothes and workwear
Manufacturing	Textiles & Clothing	14141 : Manufacture of men's underwear
Manufacturing	Textiles & Clothing	14142 : Manufacture of women's underwear
Manufacturing	Textiles & Clothing	14190 : Manufacture of other wearing apparel and accessories
Manufacturing	Textiles & Clothing	14200 : Manufacture of articles of fur
Manufacturing	Textiles & Clothing	14310 : Manufacture of knitted and crocheted hosiery
Manufacturing	Textiles & Clothing	14390 : Manufacture of other knitted and crocheted apparel
Manufacturing	Textiles & Clothing	15110 : Tanning and dressing of leather; dressing and dyeing of fur
Manufacturing	Textiles & Clothing	15120 : Manufacture of luggage, handbags and the like, saddlery and harness
Manufacturing	Textiles & Clothing	15200 : Manufacture of footwear
Manufacturing	Wood & Paper	16100 : Sawmilling and planing of wood
Manufacturing	Wood & Paper	16210 : Manufacture of veneer sheets and wood-based panels
Manufacturing	Wood & Paper	16220 : Manufacture of assembled parquet floors
Manufacturing	Wood & Paper	16230 : Manufacture of other builders' carpentry and joinery
Manufacturing	Wood & Paper	16240 : Manufacture of wooden containers
Manufacturing	Wood & Paper	16290 : Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials
Manufacturing	Wood & Paper	17110 : Manufacture of pulp
Manufacturing	Wood & Paper	17120 : Manufacture of paper and paperboard
Manufacturing	Wood & Paper	17211 : Manufacture of corrugated paper and paperboard; manufacture of sacks and bags of paper
Manufacturing	Wood & Paper	17219 : Manufacture of paper and paperboard containers other than sacks and bags
Manufacturing	Wood & Paper	17220 : Manufacture of household and sanitary goods and of toilet requisites
Manufacturing	Wood & Paper	17230 : Manufacture of paper stationery
Manufacturing	Wood & Paper	17240 : Manufacture of wallpaper
Manufacturing	Wood & Paper	17290 : Manufacture of other articles of paper and paperboard
Manufacturing	Printing and Reproduction of Recorded Media	18110 : Printing of newspapers
Manufacturing	Printing and Reproduction of Recorded Media	18121 : Manufacture of printed labels
Manufacturing	Printing and Reproduction of Recorded Media	18129 : Printing (other than printing of newspaper s and printing on labels and tags) nec
Manufacturing	Printing and Reproduction of Recorded Media	18130 : Pre-press and pre-media services
Manufacturing	Printing and Reproduction of Recorded Media	18140 : Binding and related services
Manufacturing	Printing and Reproduction of Recorded Media	18201 : Reproduction of sound recording
Manufacturing	Printing and Reproduction of Recorded Media	18202 : Reproduction of video recording
Manufacturing	Printing and Reproduction of Recorded Media	18203 : Reproduction of computer media
Manufacturing	Fuel Refining	19100 : Manufacture of coke oven products
Manufacturing	Fuel Refining	19201 : Mineral oil refining
Manufacturing	Fuel Refining	19209 : Other treatment of petroleum products (excluding mineral oil refining petrochemicals manufacture)
Manufacturing	Chemicals	20110 : Manufacture of industrial gases
Manufacturing	Chemicals	20120 : Manufacture of dyes and pigments
Manufacturing	Chemicals	20130 : Manufacture of other inorganic basic chemicals
Manufacturing	Chemicals	20140 : Manufacture of other organic basic chemicals
Manufacturing	Chemicals	20150 : Manufacture of fertilisers and nitrogen compounds
Manufacturing	Chemicals	20160 : Manufacture of plastics in primary forms
Manufacturing	Chemicals	20170 : Manufacture of synthetic rubber in primary forms
Manufacturing	Chemicals	20200 : Manufacture of pesticides and other agrochemical products
Manufacturing	Chemicals	20301 : Manufacture of paints, varnishes and similar coatings, mastics and sealants
Manufacturing	Chemicals	20302 : Manufacture of printing ink
Manufacturing	Chemicals	20411 : Manufacture of soap and detergents
Manufacturing	Chemicals	20412 : Manufacture of cleaning and polishing preparations
Manufacturing	Chemicals	20420 : Manufacture of perfumes and toilet preparations
Manufacturing	Chemicals	20510 : Manufacture of explosives
Manufacturing	Chemicals	20520 : Manufacture of glues
Manufacturing	Chemicals	20530 : Manufacture of essential oils
Manufacturing	Chemicals	20590 : Manufacture of other chemical products nec
Manufacturing	Chemicals	20600 : Manufacture of man-made fibres
Manufacturing	Pharmaceuticals	21100 : Manufacture of basic pharmaceutical products

Employment land use	Sector (Experian)	Industry (5 digit SIC)
Manufacturing	Pharmaceuticals	21200 : Manufacture of pharmaceutical preparations
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	22110 : Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	22190 : Manufacture of other rubber products
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	22210 : Manufacture of plastic plates, sheets, tubes and profiles
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	22220 : Manufacture of plastic packing goods
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	22230 : Manufacture of builders□ ware of plastic
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	22290 : Manufacture of other plastic products
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23110 : Manufacture of flat glass
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23120 : Shaping and processing of flat glass
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23130 : Manufacture of hollow glass
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23140 : Manufacture of glass fibres
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23190 : Manufacture and processing of other glass, including technical glassware
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23200 : Manufacture of refractory products
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23310 : Manufacture of ceramic tiles a nd flags
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23320 : Manufacture of bricks, tiles a nd construction products, in baked clay
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23410 : Manufacture of ceramic household and ornamental articles
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23420 : Manufacture of ceramic sanitary fixtures
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23430 : Manufacture of ceramic insulating fittings
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23440 : Manufacture of other technical ceramic products
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23490 : Manufacture of other ceramic products
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23510 : Manufacture of cement
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23520 : Manufacture of lime and plaster
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23610 : Manufacture of concrete products for construction purposes
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23620 : Manufacture of plaster products for construction purposes
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23630 : Manufacture of ready-mixed concrete
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23640 : Manufacture of mortars
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23650 : Manufacture of fibre cement
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23690 : Manufacture of other articles of concrete plaster and cement
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23700 : Cutting, shaping and finishing of stone
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23910 : Production of abrasive products
Manufacturing	Rubber, Plastic and Other Non-Metallic Mineral Products	23990 : Manufacture of other non-metallic mineral products
Manufacturing	Metal products	24100 : Manufacture of basic iron and steel and of ferro-alloys
Manufacturing	Metal products	24200 : Manufacture of tubes, pipes, hollow profiles and related fittings, of steel
Manufacturing	Metal products	24310 : Cold drawing of bars
Manufacturing	Metal products	24320 : Cold rolling of narrow strip
Manufacturing	Metal products	24330 : Cold forming or folding
Manufacturing	Metal products	24340 : Cold drawing of wire
Manufacturing	Metal products	24410 : Precious metals production
Manufacturing	Metal products	24420 : Aluminium production
Manufacturing	Metal products	24430 : Lead, zinc and tin production
Manufacturing	Metal products	24440 : Copper production
Manufacturing	Metal products	24450 : Other non-ferrous metal production
Manufacturing	Metal products	24460 : Processing of nuclear fuel
Manufacturing	Metal products	24510 : Casting of iron
Manufacturing	Metal products	24520 : Casting of steel
Manufacturing	Metal products	24530 : Casting of light metals
Manufacturing	Metal products	24540 : Casting of other non-ferrous metals
Manufacturing	Metal products	25110 : Manufacture of metal structures and parts of structures
Manufacturing	Metal products	25120 : Manufacture of doors and windows of metals
Manufacturing	Metal products	25210 : Manufacture of central heating radiators and boilers
Manufacturing	Metal products	25290 : Manufacture of other tanks, reservoirs and containers of metal
Manufacturing	Metal products	25300 : Manufacture of steam generators, except central heating hot water boilers
Manufacturing	Metal products	25400 : Manufacture of weapons and ammunition
Manufacturing	Metal products	25500 : Forging, pressing, stamping and roll-forming of metal; powder metallurgy
Manufacturing	Metal products	25610 : Treatment and coating of metals
Manufacturing	Metal products	25620 : Machining
Manufacturing	Metal products	25710 : Manufacture of cutlery
Manufacturing	Metal products	25720 : Manufacture of locks and hinges
Manufacturing	Metal products	25730 : Manufacture of tools
Manufacturing	Metal products	25910 : Manufacture of steel drums and similar containers
Manufacturing	Metal products	25920 : Manufacture of light metal packaging
Manufacturing	Metal products	25930 : Manufacture of wire products, chain and springs
Manufacturing	Metal products	25940 : Manufacture of fasteners and screw machine products
Manufacturing	Metal products	25990 : Manufacture of other fabricated metal products nec
Manufacturing	Computer & Electronic Products	26110 : Manufacture of electronic components
Manufacturing	Computer & Electronic Products	26120 : Manufacture of loaded electronic boards
Manufacturing	Computer & Electronic Products	26200 : Manufacture of computers and peripheral equipment
Manufacturing	Computer & Electronic Products	26301 : Manufacture of telegraph and telephone apparatus and equipment
Manufacturing	Computer & Electronic Products	26309 : Manufacture of communication equipment (other than telegraph and telephone apparatus and equipment
Manufacturing	Computer & Electronic	26400 : Manufacture of consumer electronics
Manufacturing	Computer & Electronic	26511 : Manufacture of electronic instruments and appliances for measuring, testing, and navigation, except industrial process control equipment navigation, except industrial process control equipment
Manufacturing	Computer & Electronic	26512 : Manufacture of electronic industrial process control equipment
Manufacturing	Computer & Electronic	26513 : Manufacture of non-electronic instruments and appliances for measuring, testing and navigation, except industrial process control equipment
Manufacturing	Computer & Electronic Products	26514 : Manufacture of non-electronic industrial process control equipment
Manufacturing	Computer & Electronic Products	26520 : Manufacture of watches and clocks
Manufacturing	Computer & Electronic Products	26600 : Manufacture of irradiation, electromedical and electrottherapeutic equipment
Manufacturing	Computer & Electronic Products	26701 : Manufacture of optical precision instruments
Manufacturing	Computer & Electronic Products	26702 : Manufacture of photographic and cinematographic equipment
Manufacturing	Computer & Electronic Products	26800 : Manufacture of magnetic and optical media
Manufacturing	Computer & Electronic Products	27110 : Manufacture of electric motors, generators and transformers
Manufacturing	Computer & Electronic Products	27120 : Manufacture of electricity distribution and control apparatus
Manufacturing	Computer & Electronic Products	27200 : Manufacture of batteries and accumulators
Manufacturing	Computer & Electronic Products	27310 : Manufacture of fibre optic cables
Manufacturing	Computer & Electronic Products	27320 : Manufacture of other electronic and electric wires and cables
Manufacturing	Computer & Electronic Products	27330 : Manufacture of wiring devices
Manufacturing	Computer & Electronic Products	27400 : Manufacture of electric lighting equipment
Manufacturing	Computer & Electronic Products	27510 : Manufacture of electric domestic appliances
Manufacturing	Computer & Electronic Products	27520 : Manufacture of non-electric domestic appliances
Manufacturing	Computer & Electronic Products	27900 : Manufacture of other electrical equipment
Manufacturing	Machinery & Equipment	28110 : Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
Manufacturing	Machinery & Equipment	28120 : Manufacture of fluid power equipment
Manufacturing	Machinery & Equipment	28131 : Manufacture of pumps
Manufacturing	Machinery & Equipment	28132 : Manufacture of compressors
Manufacturing	Machinery & Equipment	28140 : Manufacture of other taps and valves
Manufacturing	Machinery & Equipment	28150 : Manufacture of bearings, gears, gearing and driving elements
Manufacturing	Machinery & Equipment	28210 : Manufacture of ovens, furnaces and furnace burners
Manufacturing	Machinery & Equipment	28220 : Manufacture of lifting and handling equipment
Manufacturing	Machinery & Equipment	28230 : Manufacture of office machinery and equipment (except computers and peripheral equipment)
Manufacturing	Machinery & Equipment	28240 : Manufacture of power-driven hand tools
Manufacturing	Machinery & Equipment	28250 : Manufacture of non-domestic cooling and ventilation equipment
Manufacturing	Machinery & Equipment	28290 : Manufacture of other general-purpose machinery nec
Manufacturing	Machinery & Equipment	28301 : Manufacture of agricultural tractors
Manufacturing	Machinery & Equipment	28302 : Manufacture of agricultural and forestry machinery (other than a gricultural tractors)
Manufacturing	Machinery & Equipment	28410 : Manufacture of metal forming machinery
Manufacturing	Machinery & Equipment	28490 : Manufacture of other machine tools

Employment land use	Sector (Experian)	Industry (5 digit SIC)
Manufacturing	Machinery & Equipment	28910 : Manufacture of machinery for metallurgy
Manufacturing	Machinery & Equipment	28921 : Manufacture of machinery for mining
Manufacturing	Machinery & Equipment	28922 : Manufacture of earthmoving equipment
Manufacturing	Machinery & Equipment	28923 : Manufacture of equipment for concrete crushing and screening roadworks
Manufacturing	Machinery & Equipment	28930 : Manufacture of machinery for food, beverage and tobacco processing
Manufacturing	Machinery & Equipment	28940 : Manufacture of machinery for textile, apparel and leather production
Manufacturing	Machinery & Equipment	28950 : Manufacture of machinery for paper and paperboard production
Manufacturing	Machinery & Equipment	28960 : Manufacture of plastics and rubber machinery
Manufacturing	Machinery & Equipment	28990 : Manufacture of other special-purpose machinery nec
Manufacturing	Machinery & Equipment	29100 : Manufacture of motor vehicles
Manufacturing	Machinery & Equipment	29201 : Manufacture of bodies (coachwork) for motor vehicles (except caravans)
Manufacturing	Machinery & Equipment	29202 : Manufacture of trailers and semi-trailers
Manufacturing	Machinery & Equipment	29203 : Manufacture of caravans
Manufacturing	Machinery & Equipment	29310 : Manufacture of electrical and electronic equipment for motor vehicles
Manufacturing	Machinery & Equipment	29320 : Manufacture of other parts and accessories for motor vehicles
Manufacturing	Machinery & Equipment	30110 : Building of ships and floating structures
Manufacturing	Machinery & Equipment	30120 : Building of pleasure and sporting boats
Manufacturing	Machinery & Equipment	30200 : Manufacture of railway locomotives and rolling stock
Manufacturing	Machinery & Equipment	30300 : Manufacture of air and spacecraft and related machinery
Manufacturing	Machinery & Equipment	30400 : Manufacture of military fighting vehicles
Manufacturing	Machinery & Equipment	30910 : Manufacture of motorcycles
Manufacturing	Machinery & Equipment	30920 : Manufacture of bicycles and invalid carriages
Manufacturing	Machinery & Equipment	30990 : Manufacture of other transport equipment nec
Manufacturing	Other Manufacturing	31010 : Manufacture of office and shop furniture
Manufacturing	Other Manufacturing	31020 : Manufacture of kitchen furniture
Manufacturing	Other Manufacturing	31030 : Manufacture of mattresses
Manufacturing	Other Manufacturing	31090 : Manufacture of other furniture
Manufacturing	Other Manufacturing	32110 : Striking of coins
Manufacturing	Other Manufacturing	32120 : Manufacture of jewellery and related articles
Manufacturing	Other Manufacturing	32130 : Manufacture of imitation jewellery and related articles
Manufacturing	Other Manufacturing	32200 : Manufacture of musical instruments
Manufacturing	Other Manufacturing	32300 : Manufacture of sports goods
Manufacturing	Other Manufacturing	32401 : Manufacture of professional and arcade games and toys
Manufacturing	Other Manufacturing	32409 : Manufacture of games and toys (other than professional and arcade games and toys)
Manufacturing	Other Manufacturing	32500 : Manufacture of medical and dental instruments and supplies
Manufacturing	Other Manufacturing	32910 : Manufacture of brooms and brushes
Manufacturing	Other Manufacturing	32990 : Other manufacturing nec
Manufacturing	Other Manufacturing	33110 : Repair of fabricated metal products
Manufacturing	Other Manufacturing	33120 : Repair of machinery
Manufacturing	Other Manufacturing	33130 : Repair of electronic and optical equipment
Manufacturing	Other Manufacturing	33140 : Repair of electrical equipment
Manufacturing	Other Manufacturing	33150 : Repair and maintenance of ships and boats
Manufacturing	Other Manufacturing	33160 : Repair and maintenance of aircraft and spacecraft
Manufacturing	Other Manufacturing	33170 : Repair and maintenance of other transport equipment
Manufacturing	Other Manufacturing	33190 : Repair of other equipment
Manufacturing	Other Manufacturing	33200 : Installation of industrial machinery and equipment
Other industrial	Utilities	37000 : Sewerage
Other industrial	Utilities	38110 : Collection of non-hazardous waste
Other industrial	Utilities	38120 : Collection of hazardous waste
Other industrial	Utilities	38210 : Treatment and disposal of non-hazardous waste
Other industrial	Utilities	38220 : Treatment and disposal of hazardous waste
Other industrial	Utilities	38310 : Dismantling of wrecks
Other industrial	Utilities	38320 : Recovery of sorted materials
Other industrial	Specialised Construction Activities	43210 : Electrical installation
Other industrial	Specialised Construction Activities	43220 : Plumbing, heat and air-conditioning installation
Other industrial	Specialised Construction Activities	43290 : Other construction installation
Other industrial	Specialised Construction Activities	43310 : Plastering
Other industrial	Specialised Construction Activities	43320 : Joinery installation
Other industrial	Specialised Construction Activities	43330 : Floor and wall covering
Other industrial	Specialised Construction Activities	43341 : Painting
Other industrial	Specialised Construction Activities	43342 : Glazing
Other industrial	Specialised Construction Activities	43390 : Other building completion and finishing
Other industrial	Specialised Construction Activities	43910 : Roofing activities
Other industrial	Specialised Construction Activities	43991 : Scaffold erection
Other industrial	Specialised Construction Activities	43999 : Specialised construction activities (other than scaffold erection)
Other industrial	Wholesale	45200 : Maintenance and repair of motor vehicles
Other industrial	Wholesale	45400 : Sale, maintenance and repair of motorcycles and related parts and accessories
Warehousing	Wholesale	46110 : Agents involved in the sale of agricultural raw materials, live animals, texti and semi-finished goods
Warehousing	Wholesale	46120 : Agentsinvolved in the sale of fuels, ores, metals and industrial chemicals
Warehousing	Wholesale	46130 : Agentsinvolved in the sale of timber and building materials
Warehousing	Wholesale	46140 : Agentsinvolved in the sale of machinery, industrial equipment, ships and aircraft
Warehousing	Wholesale	46150 : Agentsinvolved in the sale of furniture, household goods, hardware and ironmongery
Warehousing	Wholesale	46160 : Agents involved in the sale of textiles, clothing, fur, footwear and leather goods
Warehousing	Wholesale	46170 : Agents involved in the sale of food, beverages and tobacco
Warehousing	Wholesale	46180 : Agents specialised in the sale of other particular products
Warehousing	Wholesale	46190 : Agents involved in the sale of a variety of goods
Warehousing	Wholesale	46210 : Wholesale of grain, unmanufactured tobacco, seeds and animal feeds
Warehousing	Wholesale	46220 : Wholesale of flowers and plants
Warehousing	Wholesale	46230 : Wholesale of live animals
Warehousing	Wholesale	46240 : Wholesale of hides, skins and leather
Warehousing	Wholesale	46310 : Wholesale of fruit and vegetables
Warehousing	Wholesale	46320 : Wholesale of meat and meat products
Warehousing	Wholesale	46330 : Wholesale of dairy products, eggs and edible oils and fats
Warehousing	Wholesale	46341 : Wholesale of fruit and vegetable juices, mineral waters and soft drinks
Warehousing	Wholesale	46342 : Wholesale of wine, beer, spirits and other alcoholic beverages
Warehousing	Wholesale	46350 : Wholesale of tobacco products
Warehousing	Wholesale	46360 : Wholesale of sugar and chocolate and sugar confectionery
Warehousing	Wholesale	46370 : Wholesale of coffee, tea, cocoa and spices
Warehousing	Wholesale	46380 : Wholesale of other food, including fish, crustaceans and molluscs
Warehousing	Wholesale	46390 : Non-specialised wholesale of food, beverages and tobacco
Warehousing	Wholesale	46410 : Wholesale of textiles
Warehousing	Wholesale	46420 : Wholesale of clothing and footwear
Warehousing	Wholesale	46431 : Wholesale of gramophone records, audio tapes, compact discs and video tapes and of the equipment on which these are played)
Warehousing	Wholesale	46439 : Wholesale of radio and television goods and of electrical household appliances (other than of gramophone records, audio tapes,compact discs and video tapes and the equipment on which these are played)
Warehousing	Wholesale	46440 : Wholesale of china and glassware and cleaning materials
Warehousing	Wholesale	46450 : Wholesale of perfume and cosmetics
Warehousing	Wholesale	46460 : Wholesale of pharmaceutical goods
Warehousing	Wholesale	46470 : Wholesale of furniture, carpets and lighting equipment
Warehousing	Wholesale	46480 : Wholesale of watches and jewellery
Warehousing	Wholesale	46491 : Wholesale of musical instruments
Warehousing	Wholesale	46499 : Wholesale of household goods (other than musical instruments) nec
Warehousing	Wholesale	46510 : Wholesale of computers, computer peripheral equipment and software
Warehousing	Wholesale	46520 : Wholesale of electronic and telecommunications equipment and parts
Warehousing	Wholesale	46610 : Wholesale of agricultural machinery, equipment and supplies
Warehousing	Wholesale	46620 : Wholesale of machine tools
Warehousing	Wholesale	46630 : Wholesale of mining, construction and civil engineering machinery
Warehousing	Wholesale	46640 : Wholesale of machinery for the textile industry and of sewing and knitting machines

Employment land use	Sector (Experian)	Industry (5 digit SIC)
Warehousing	Wholesale	46650 : Wholesale of office furniture
Warehousing	Wholesale	46660 : Wholesale of other office machinery and equipment
Warehousing	Wholesale	46690 : Wholesale of other machinery and equipment
Warehousing	Wholesale	46711 : Wholes ale of petroleum and petroleum products
Warehousing	Wholesale	46719 : Wholes ale of fuels and related products (other than petroleum and petroleum products)
Warehousing	Wholesale	46720 : Wholesale of metals and metal ores
Warehousing	Wholesale	46730 : Wholesale of wood, construction materials and sanitary equipment
Warehousing	Wholesale	46740 : Wholesale of hardware, plumbing and heating equipment and supplies
Warehousing	Wholesale	46750 : Wholesale of chemical products
Warehousing	Wholesale	46760 : Wholesale of other intermediate products
Warehousing	Wholesale	46770 : Wholesale of waste and scrap
Warehousing	Wholesale	46900 : Non-specialised wholesale trade
Warehousing	Land Transport, Storage & Post	49410 : Freight transport by road
Warehousing	Land Transport, Storage & Post	49420 : Removal services
Warehousing	Land Transport, Storage & Post	52101 : Operation of warehousing and storage facilities for water transport activities of division 50
Warehousing	Land Transport, Storage & Post	52102 : Operation of warehousing and storage facilities for air transport activities of division 51
Warehousing	Land Transport, Storage & Post	52103 : Operation of warehousing and storage facilities for land transport activities of division 49
Warehousing	Land Transport, Storage & Post	52211 : Operation of rail freight terminals
Warehousing	Land Transport, Storage & Post	52212 : Operation of rail passenger facilities at railway stations
Warehousing	Land Transport, Storage & Post	52213 : Operation of bus and coach passenger facilities at bus and coach stations
Warehousing	Land Transport, Storage & Post	52219 : Other service activities incidental to land transportation, nec (not including operation of rail freight terminals, passenger facilities at railway ies at railway stations or passenger facilities at bus and coachstations or passenger facilities at railway stations or passenger facilities at bus and coach stations)
Warehousing	Land Transport, Storage & Post	52241 : Cargo handling for water transport activities of division 50
Warehousing	Land Transport, Storage & Post	52242 : Cargo handling for air transport activities of division 51
Warehousing	Land Transport, Storage & Post	52243 : Cargo handling for land transport activities of division 49
Warehousing	Land Transport, Storage & Post	53100 : Postal activities under universal service obligation
Warehousing	Land Transport, Storage & Post	53201 : Licensed Carriers
Warehousing	Land Transport, Storage & Post	53202 : Unlicensed Carriers
Office	Media Activities	58110 : Book publishing
Office	Media Activities	58120 : Publishing of directories and mailing lists
Office	Media Activities	58130 : Publishing of newspapers
Office	Media Activities	58141 : Publishing of learned journals
Office	Media Activities	58142 : Publishing of consumer, business and professional journals and periodicals
Office	Media Activities	58190 : Other publishing activities
Office	Media Activities	59111 : Motion picture production activities
Office	Media Activities	59112 : Video production activities
Office	Media Activities	59113 : Television programme production activities
Office	Media Activities	59120 : Motion picture, video and television programme post-production activities
Office	Media Activities	59131 : Motion picture distribution activities
Office	Media Activities	59132 : Video distribution activities
Office	Media Activities	59133 : Television programme distribution activities
Office	Media Activities	59200 : Sound recording and music publishing activities
Office	Media Activities	60100 : Radio broadcasting
Office	Media Activities	60200 : Television programming and broadcasting activities
Office	Computing & Information Services	62011 : Ready-made interactive leisure and entertainment software development
Office	Computing & Information Services	62012 : Business and domestic software development
Office	Computing & Information Services	62020 : Computer consultancy activities
Office	Computing & Information Services	62030 : Computer facilities management activities
Office	Computing & Information Services	62090 : Other information technology and computer service activities
Office	Computing & Information Services	63110 : Data processing, hosting and related activities
Office	Computing & Information Services	63120 : Web portals
Office	Computing & Information Services	63910 : News agency activities
Office	Computing & Information Services	63990 : Other information service activities nec
Office	Finance	64110 : Central banking
Office	Finance	64191 : Banks
Office	Finance	64192 : Building societies
Office	Finance	64201 : Activities of agricultural holding companies
Office	Finance	64202 : Activities of production holding companies
Office	Finance	64203 : Activities of construction holding companies
Office	Finance	64204 : Activities of distribution holding companies
Office	Finance	64205 : Activities of financial services holding companies
Office	Finance	64209 : Activities of other holding companies (not including agricultural, production, construction, distribution and financial services holding companies) n.e.c
Office	Finance	64301 : Activities of investment trusts
Office	Finance	64302 : Activities of unit trusts
Office	Finance	64303 : Activities of venture and development capital companies
Office	Finance	64304 : Activities of open-ended investment companies
Office	Finance	64305 : Activities of property unit trusts
Office	Finance	64306 : Activities of real estate investment trusts
Office	Finance	64910 : Financial leasing
Office	Finance	64921 : Credit granting by non-deposit taking finance houses and other specialist consumer credit grantors
Office	Finance	64922 : Activities of mortgage finance companies
Office	Finance	64929 : Other credit granting (not including credit granting by non-deposit taking finance houses and other specialist consumer credit grantors and activities of mortgage finance companies) n.e.c.
Office	Finance	64991 : Security dealing on own account
Office	Finance	64992 : Factoring
Office	Finance	64999 : Other financial service activities, except insurance and pension funding, (not including security dealing on own account and factoring) n.e.c.
Office	Insurance & Pensions	65110 : Life insurance
Office	Insurance & Pensions	65120 : Non-life insurance
Office	Insurance & Pensions	65201 : Life reinsurance
Office	Insurance & Pensions	65202 : Non-life reinsurance
Office	Insurance & Pensions	65300 : Pension funding
Office	Finance	66110 : Administration of financial markets
Office	Finance	66120 : Security and commodity contracts brokerage
Office	Finance	66190 : Other activities auxiliary to financial services, except insurance and pension funding
Office	Finance	66210 : Risk and damage evaluation
Office	Finance	66220 : Activities ofinsurance agents and brokers
Office	Finance	66290 : Other activities auxiliary to insurance and pension funding
Office	Finance	66300 : Fund management activities
Office	Real Estate	68100 : Buying and selling of own real estate
Office	Real Estate	68201 : Renting and operating of Housing Association real estate
Office	Real Estate	68202 : Letting and operating of conference and exhibition centres
Office	Real Estate	68209 : Letting and operating of own or leased real estate (other than Housing Association real estate and conference and exhibition services) n.e.c.
Office	Real Estate	68310 : Real estate agencies
Office	Real Estate	68320 : Management of real estate on a fee or contract basis
Office	Professional services	69101 : Barristers at law
Office	Professional services	69102 : Solicitors
Office	Professional services	69109 : Activities of patent and copyright agents; other legal activities (other than those of barristers and solicitors) nec
Office	Professional services	69201 : Accounting, and auditing activities
Office	Professional services	69202 : Bookkeeping activities
Office	Professional services	69203 : Tax consultancy
Office	Professional services	70100 : Activities of head offices
Office	Professional services	70210 : Public relations and communication activities
Office	Professional services	70221 : Financial management

Employment land use	Sector (Experian)	Industry (5 digit SIC)
Office	Professional services	70229 : Management consultancy activities (other than financial management)
Office	Professional services	71111 : Architectural activities
Office	Professional services	71112 : Urban planning and landscape architectural activities
Office	Professional services	71121 : Engineering design activities for industrial process and production
Office	Professional services	71122 : Engineering related scientific and technical consulting activities
Office	Professional services	71129 : Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities)
Office	Professional services	71200 : Technical testing and analysis
Office	Professional services	72110 : Research and experimental development on biotechnology
Office	Professional services	72190 : Other research and experimental development on natural sciences and engineering
Office	Professional services	72200 : Research and experimental development on social sciences and humanities
Office	Professional services	73110 : Advertising agencies
Office	Professional services	73120 : Media representation
Office	Professional services	73200 : Market research and public opinion polling
Office	Professional services	74300 : Translation and interpretation activities
Office	Professional services	74901 : Environmental consulting activities
Office	Professional services	74902 : Quantity surveying activities
Office	Professional services	74909 : Other professional, scientific and technical activities (not including environmental consultancy or quantity surveying)
Office	Administrative & Supportive Service Activities	77400 : Leasing of intellectual property and similar products, except copyrighted works
Office	Administrative & Supportive Service Activities	78101 : Motion picture, television and other theatrical casting
Office	Administrative & Supportive Service Activities	78109 : Activities of employment placement agencies (other than motion picture, television and other theatrical casting) nec
Office	Administrative & Supportive Service Activities	78200 : Temporary employment agency activities
Office	Administrative & Supportive Service Activities	78300 : Other human resources provision
Office	Administrative & Supportive Service Activities	80100 : Private security activities
Office	Administrative & Supportive Service Activities	80200 : Security systems service activities
Office	Administrative & Supportive Service Activities	80300 : Investigation activities
Office	Administrative & Supportive Service Activities	82110 : Combined office administrative service activities
Office	Administrative & Supportive Service Activities	82190 : Photocopying, document preparation and other specialised office support activities
Office	Administrative & Supportive Service Activities	82200 : Activities of call centres
Office	Administrative & Supportive Service Activities	82301 : Activities of exhibition and fair organizers
Office	Administrative & Supportive Service Activities	82302 : Activities of conference organizers
Office	Administrative & Supportive Service Activities	82911 : Activities of collection agencies
Office	Administrative & Supportive Service Activities	82912 : Activities of credit bureaus
Warehousing	Administrative & Supportive Service Activities	82920 : Packaging activities
Office	Administrative & Supportive Service Activities	82990 : Other business support service activities nec
Office	Public Administration & Defence	84110 : General public administration activities
Office	Public Administration & Defence	84120 : Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security
Office	Public Administration & Defence	84130 : Regulation of and contribution to more efficient operation of businesses
Office	Public Administration & Defence	84210 : Foreign affairs
Office	Public Administration & Defence	84300 : Compulsory social security activities
Office	Other Private Services	94110 : Activities of business and employers membership organisations
Office	Other Private Services	94120 : Activities of professional membership organisations
Office	Other Private Services	94200 : Activities of trade unions
Office	Other Private Services	94910 : Activities of religious organisations
Office	Other Private Services	94920 : Activities of political organisations
Office	Other Private Services	94990 : Activities of other membership organisations nec
Other industrial	Other Private Services	95110 : Repair of computers and peripheral equipment
Other industrial	Other Private Services	95120 : Repair of communication equipment
Other industrial	Other Private Services	95210 : Repair of consumer electronics
Other industrial	Other Private Services	95220 : Repair of household appliances and home and garden equipment
Other industrial	Other Private Services	95230 : Repair of footwear and leather goods
Other industrial	Other Private Services	95240 : Repair of furniture and home furnishings
Other industrial	Other Private Services	95250 : Repair of watches, clocks and jewellery
Other industrial	Other Private Services	95290 : Repair of other personal and household goods

APPENDIX C INDUSTRIAL LAND VIABILITY TESTING – APPRAISAL ASSUMPTIONS

Assumption	Value	Notes
Gross Development Value		
Rent	£15 psf	This is reportedly achievable across the borough for new build industrial space. This is a conservative figure, with increasing pressure on existing supply, and little development in the pipeline, this figure could rise.
Rent free	3 months	Agents noted that space would likely let quickly with minimal lease incentive needed. As used in the BNP Paribas assessment and still considered reasonable
Yield	5.5%	This was used by BNP Paribas in the 2016 assessment. We have referred to Knight Franks April 2017 yield guide and this figure is still in the range you would expect today.[32] As used in the BNP Paribas assessment and still considered reasonable
Construction Period		
Pre-construction	3 months	As used in the BNP Paribas assessment and still considered reasonable
Construction	12 months	We have assumed that due to the lack of supply on the borough the property will be pre-let during the during the construction period, prior to being acquired by an investor on completion. As used in the BNP Paribas assessment and still considered reasonable
Construction Costs		
BCIS Industrial (July 2017)	£61/sq m	BCIS build cost for sheds over 2,000 sq m.

[32] Knight Frank, 2017, *Yields Guide April 2017*

Externals	10%	As used in the BNP Paribas assessment and still considered reasonable
Prof. fees	12%	
Contingency	5%	
Finance Costs	6.75%	This includes allowance for lending fees As used in the BNP Paribas assessment and still considered reasonable
CIL	£58,960	Currently the London borough of Newham does not impose a CIL charge for industrial development. The Mayoral CIL is c. £25.40 psm., when indexed to November 2016. The total GIA of the building is c. 2,323 sq m.
Marketing	1%	of GDV As used in the BNP Paribas assessment and still considered reasonable
Stamp duty	£142,858	As used in the BNP Paribas assessment and still considered reasonable
Land agent fee	1.5%	of residual land value As used in the BNP Paribas assessment and still considered reasonable
Land legal fee	0.5%	of residual land value As used in the BNP Paribas assessment and still considered reasonable
Sales agent fee	1.5%	of GDV As used in the BNP Paribas assessment and still considered reasonable
Sales Legal fee	1%	of GDV As used in the BNP Paribas assessment and still considered reasonable
Letting agent fee	10%	of commercial rent

		As used in the BNP Paribas assessment and still considered reasonable
Letting legal fee	5%	of commercial rent As used in the BNP Paribas assessment and still considered reasonable
Developer Profit	15%	For commercial development, it is standard practice to apply developer return to costs.