Enfield Industrial Intensification Study

Final Draft Report

London Borough of Enfield

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AECOM AVISON YOUNG

Quality information

Prepared by	Checked by	Verified by	Approved by
Jake Billington Monica Laucas Pauline Nouallet Rouslan Halil Martyn Saunders Bart Monhonval	Jake Billington Jon Howells	Ilias Drivylas Jon Howells	Sarah Elliott

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Prepared for:

London Borough of Enfield

Prepared by:

AECOM Limited
Aldgate Tower
2 Leman Street
London
E1 8FA
United Kingdom
aecom.com

and

Avison Young (UK) Limited
65 Gresham Street
London
EC2V 7NQ
United Kingdom
avisonyoung.co.uk

This report has been prepared while in the UK COVID-19 lockdown. While the full implications of this on the content of this report are not yet known, there may well be medium and long-term implications for Government, Mayoral and/or Borough policies and the relative funding priorities as currently set out in this report.

At the time of writing, the draft London Plan was available as an 'Intend to Publish' version which was submitted by the Greater London Authority to the Secretary of State for approval on 9 December 2019. On 13 March 2020, the Secretary of State issued a Direction pursuant to s.337(6) of the Greater London Act 1999[1]. The Direction prevents publication of the London Plan until a range of matters are addressed to the satisfaction of the Secretary of State to achieve consistency with national policy. On 24 April 2020[2] the Mayor wrote to the Secretary of State seeking to resolve the issues that have been raised by the Secretary of State through discussion by their officials, so as to enable the London Plan to be adopted. Discussions are understood to remain ongoing between the two parties.

[1] https://www.london.gov.uk/sites/default/files/letter_to_the_mayor_of_london_13_march_2020.pdf and https://www.london.gov.uk/sites/default/files/annex_to_letter_to_the_mayor_of_london_13_march_2020.pdf
[2] https://www.london.gov.uk/sites/default/files/rt_hon_robert_jenrick_mp_-_london_plan.pdf

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Abbreviations

AAP	Area Action Plan
CAZ	Central Activities Zone
CLG	Ministry for Housing, Communities and Local Government
DNLP	Draft New London Plan
EDS	Economic Development Strategy
EIP	Examination in Public
ELAAP	Edmonton Leaside Area Action Plan
sqft	Square feet
GLA	Greater London Authority
ha	hectares
HGV	Heavy Goods Vehicle
LB	London Borough
LSIS	Locally Significant Industrial Site
m^2	Square metres
NPPF	National Planning Policy Framework
NPPG	National Planning Policy Guidance
OPDC	Park Royal Old Oak and Park Royal Development Corporation
SIL	Strategic Industrial Location
VOA	Valuation Office Agency

Executive Summary

Introduction

- The London Borough of Enfield (LBE) has started work on their new Local Plan to start planning for good growth up to the period between 2018 to 2036 . As part of the supporting technical evidence base preparation, LBE has commissioned AECOM and Avison Young to prepare this report to investigate how a key objective of the proposed approach to industrial land management outlined by the Draft New London Plan (DNLP) (Intend to Publish, December 2019) in Policy E7 might be applied in Enfield: the potential for and viability of 'industrial only' intensification of its industrial land, particularly Strategic Industrial Locations (SILs) and Locally Significant Industrial Sites (LSIS).

- This study therefore provides an up-to-date analysis of Enfield's industrial land and estimates the likely floorspace which could be delivered through intensifying existing industrial land in the Borough. The study builds on the 2018 Employment Land Review's analysis of industrial employment clusters with potential for intensification in the Borough by assigning categories to the sites within them based on a comprehensive assessment of capacity including technical and market deliverability considerations. The categories assigned are:

    - Sites which are suitable for purely industrial intensification;
    - Sites which should be considered for redevelopment for industrial and residential uses;
    - Sites which should be considered for release for other uses (including residential); or
    - Sites which should remain in their current use.

- For sites deemed suitable for purely industrial intensification, the study identifies appropriate design types and subsequently appropriate building typologies which could potentially come forward based on an understanding of the local demand for industrial space and evidence from recent case studies. Based on this it quantifies the scale of intensification which could come forward.

- Where this study has deemed sites appropriate to be redeveloped for a mix of industrial and residential uses, it does not provide typologies for these sites or quantify their potential. The details of these sites, as well as those identified as suitable for release to other uses, will inform the Housing Capacity Study being produced by AECOM as part of the LBE Local Plan evidence base.

- As part of this study, the team have sought to access the views and perspectives of those active in Enfield, or more broadly in London's ongoing intensification debate. Avison Young have worked closely with their in-house agency and investment team (who advise a range of developer and occupier clients in Enfield and also more strategically across London) and have also had informal discussions with active developers/investors in the borough. AECOM undertook a number of telephone conversations with businesses located in areas with likely potential for intensification (which was based on an initial review of local supply factors). The response to this engagement is reflected on where relevant throughout this report.

Measuring intensification

- A key component of the study is measuring what industrial intensification could achieve, which has been identified through consideration of two measures: increase in industrial

floorspace; and the increase in the number of jobs which could come forward as a result of industrial intensification in Enfield.

- Floorspace is considered as the leading measure of industrial intensification. Spatial features which have been considered alongside floorspace include existing operational yard space which is essential for existing businesses to operate. This is because the GLA Industrial Intensification and Co-Location Study (GLA, 2020) identified that using floorspace as a measure of capacity tends to incentivise proposals which reduce yard space due to the higher quantities of floorspace which can be delivered as part of multi-storey stacking which requires more land.

- This study also provides an assessment of the change in the number of jobs associated with the change in floorspace. This assessment of jobs will help the Borough to understand how intensification of industrial capacity may change economic opportunities for residents in Enfield and the wider London area. The change in employment is a product of both the change in the quantum of floorspace in the Borough and the change in the type of employment activity which occurs on sites.

Industrial land suitable for Intensification in Enfield

- The 2018 Enfield ELR, prepared by AECOM, provided an initial assessment of Enfield's industrial land for intensification potential. It identified 20 employment clusters as having either a 'medium' or 'high' potential for intensification out of the 35 clusters it assessed. These clusters have been used as the starting point for this study, in order to form the basis for a more detailed assessment of potential capacity for intensification across the Borough.

- The clusters considered in the analysis are separated into four different sub-areas: A10 and Southbury Junction, Brimsdown, Edmonton Leaside, and the North Circular Road Corridor. The study provided an overview of the context, existing uses and location of these four sub-areas and its employment clusters. Descriptions of the sub areas, and the clusters within them, are described in Table ES2.

Table ES2: Descriptions of Enfield industrial land sub-areas and clusters

Sub-area	Clusters
The **Brimsdown sub-area** is located in the north-east of the Borough to the west of the Lee Valley regional park. The main strategic road connections are the A1055 and Mollison Avenue, which both connect employment clusters to the A110 Nags Head Road in the south and the M25 in the North. The West Anglia Main Line railway travels north-to-south across the sub-area.	There are five employment clusters located in the Brimsdown sub-area. The three large clusters to the north-east comprise the Brimsdown SIL. The Brimsdown SIL is notable for its strategic importance to the Borough and is characterised by large-scale industrial and warehousing units. The two remaining clusters are an area of SIL to the south of the A110 Nags Road known as Meridian Business Park and an LSIS on Alma Road to the west of the main Brimsdown industrial area.
The **A10 and Southbury Junction sub-area** is located in the north-east of the Borough, immediately east of Ponders End. The A10 Great Cambridge Road travels to the west of employment land within this sub-area, and provides strategic road connections to the	There are three clusters within this sub-area. Two large clusters located immediately to the west of the Greater Anglia railway line comprise the majority of employment land within the sub-area. These are known as Great Cambridge Road & Martinbridge Trading Estate Part A and Part B, and form a large designated SIL. Much of the employment space is located in large warehousing units

Sub-area	Clusters
M25 in the north and the A406 North Circular Road to the south	and is used for wholesaling and distribution purposes. A third cluster is a designated LSIS located to the east of Ponders End. This comprises primarily of small to medium sized warehousing and workshop units occupied by SMEs.
The **Edmonton Leaside sub-area** is located in the south-east of the Borough. The sub-area is a strategically important location for industrial land due to its excellent connections to the road network. The A406 North Circular Road travels east-to-west across the sub-area. The area is also connected to the M25 and Brimsdown to the north via the A1055 Meridian Way. The River Lea passes immediately to the east of the sub-area.	There are seven employment clusters located in this sub-area. Five of these clusters comprise a large area of industrial land located immediately to the north of the A406 North Circular Road. The other two clusters are the Harbet Road Industrial Estate to the south of the A406 and the Claverings Industrial Estate on the B137 Montagu Road in the north of the sub-area. Harbet Road Industrial Estate is a designated SIL within the eastern portion of Meridian Water, a proposed mixed-use regeneration area where comprehensive redevelopment plans for a mix of uses are being developed by the Council, a significant landowner and are set out in the ELAAP.
The **North Circular Road Corridor sub-area** comprises three employment clusters located close to the A406 North Circular Road in the south of the Borough. The three clusters are a designated LSIS.	One of these clusters is located on the A406 at its junction with Green Lanes near Palmers Green. Given its excellent access to the strategic road network, the cluster is primarily used for transportation-related purposes and comprises non-industrial uses. The other two are located adjacent to the London to Stansted rail line on LBE's border with LB Haringey. The clusters comprise small-to-medium sizes warehousing and workshop space for SMEs, wholesaling and distribution uses.

Site identification

- To determine individual industrial sites from the clusters identified above, this study draws upon analysis conducted as part of the Industry in Enfield: Study of Type, Form and Activity (AECOM, 2018) which grouped together buildings into coherent identifiable sites. These buildings were grouped together because they had similar qualitative characteristics. This has been done because proposals which come forward to intensify industrial land are likely to consider all buildings which have similar supply characteristics within an area, rather than individual buildings.

- A review was undertaken to determine where site types may have changed in line with development since 2017/18 (when the initial analysis was conducted). The review identified **297 distinct sites** within the 20 industrial employment clusters discussed above. Of these sites, 268 were identified as being in industrial use (or comprise vacant land within designated industrial areas) and have been assessed in this study. The Industrial Sites Database provided alongside this report provides details regarding all the sites in this assessment.

- The most common site type is 'Standalone Warehouse' accounting for 130 sites. Standalone warehouses also comprised the largest proportion of land in the employment

clusters within the Borough (44%). The assessment of sites also identified 24 sites which are not currently in industrial use and five which were under construction.

Approach to assessment of potential

- The assessment of potential for purely industrial intensification included all of the sites currently in industrial use and is split into three components. The first component is the potential for intensification assessment which identifies sites appropriate for purely industrial intensification. The second component is the type of design assessment, which identifies which design typology is most appropriate for sites with potential for industrial intensification. The third component is the capacity assessment which identifies the likely potential increase in floorspace capacity and the change in jobs which industrial intensification could lead to in Enfield.

- The assessment of potential for mixed use development identifies sites which have potential to be redeveloped for a mix of industrial and residential uses based on a core set of supply and property market factors deemed essential for this type of development to occur. It does not provide typologies for these sites or quantify their potential. This assessment only includes industrial sites in employment clusters designated as LSIS. It does not include any sites within SIL.

Assessment of potential for industrial intensification

- The assessment of potential for industrial intensification is the first component of the assessment of potential for purely industrial intensification. This assessment identifies which sites are appropriate for purely industrial intensification based on supply factors considered key for intensification to occur. These factors include intensity of use, quality of stock, the nature of landowner, presence of physical constraints and access to the strategic road network.

- The assessment has identified **41 sites** which have potential for intensification. A large majority of these (**24 sites**) are in the Edmonton Leaside area. **Eleven** of these sites are in Brimsdown and **six** in the A10 & Southbury Junction area. These sites were carried forward to the next step, the Type of Design assessment. The findings of the assessment for all sites are shown in Worksheet 2 in the Industrial Sites Database.

Type of design assessment

- The type of design assessment is the second component of the assessment of potential for purely industrial intensification. The assessment identifies whether a site could be intensified whilst retaining its current use (by, for example, vertically or horizontally extending existing buildings), or whether it would need to be comprehensively redeveloped to another use to facilitate intensification.

- The assessment identified that comprehensive redevelopment/new development on vacant land is the most appropriate design type for the majority of the sites with intensification potential (**39 of 41 sites**). This is representative of the nature of employment land in Enfield: which is largely well utilised, but contains poor quality stock in a number of locations. Of the other two sites, **one site** is best suited to vertical extension and **one site** is best suited to horizontal extension. The type of design assessment is located in Worksheet 3 in the Industrial Sites Database, and maps are available showing the outputs of the assessment in Appendix E.

Capacity assessment

- The capacity assessment is the final step of the process to assess the potential for purely industrial intensification. This assessment identifies the potential increase in floorspace and jobs associated with sites identified as suitable for comprehensive redevelopment in the Type of Design assessment.

- The capacity assessment identifies building typologies to understand the quantum of floorspace and jobs which could come forward in the **39** sites identified as appropriate for comprehensive redevelopment or new provision. These building typologies are reflective of the type of space which is demanded in Enfield and are based on Avison Young's knowledge of intensified industrial buildings across the globe, and existing research undertaken in London.

- There were instances where more than one typology was identified as being suitable for a site. Where this was the case, the potential increase in floorspace and employment has been estimated for all typologies identified as being suitable. The typology which delivers less floorspace and employment represents the 'minimum' scenario which has potential to be delivered, and the typology which delivers more floorspace and employment represents the 'maximum' scenario which has potential to be delivered. The minimum and the maximum were then averaged by taking a 'midpoint'.

- Two assessments were carried out: one determining the potential increase in floorspace and jobs in individual sites only, and the other determining the potential increase in floorspace and jobs if grouping of sites was to occur. These assessments identified that, if only intensification on individual sites was considered, **13** sites could accommodate intensification. A further **nine** sites could accommodate intensification if grouping of sites were to occur. Therefore, **22** sites contributed to the net floorspace increase in the capacity assessment.

- Redevelopment of suitable sites or new development where these sites comprise vacant land in Enfield is likely to lead to a minimum of **143,900m^2** of additional industrial floorspace being delivered, an average of **198,500m^2** and a maximum of **253,100m^2**. The additional floorspace identified is likely to lead to a minimum of **4,400** additional jobs being created, an average of **5,500** and a maximum of **6,600** once appropriate employment densities are applied.

Table ES3: Total additional floorspace and employment deliverable from industrial intensification

Intensification from	Additional floorspace (m^2)			Additional employment		
	Minimum	Maximum	Average	Minimum	Maximum	Average
Individual sites only	127,600	232,700	180,100	4,000	6,000	5,000
Grouping of sites	16,300	20,400	18,300	400	500	500
Total	**143,900**	**253,100**	**198,500**	**4,400**	**6,600**	**5,500**

Note: figures may not sum due to rounding.

Assessment of potential for mixed-use development

- The assessment of potential for mixed use development identified sites which have potential to be suitable for mixed-use development based on a core set of supply and property market factors deemed essential for this type of development to occur. These

factors include intensity of use, quality of stock, the nature of landowner, presence of physical constraints, the residential character of the area and access to the public transport network. The assessment does not provide typologies for these sites or quantify their potential. This assessment only includes industrial sites in employment clusters designated as LSIS in line with London Plan Policy E7 where mixed-use development could be supported at LSIS as part of plan-led approaches to co-location and intensification at these locations. It does not, on this basis, include any sites within SIL. On this basis, only **66 sites**, located in seven clusters, were assessed for their potential for mixed-use development.

- The assessment identified **16 sites** which had potential for mixed-use development. These sites were in The North Circular Corridor sub-area and in LSIS located away from the main industrial areas in Edmonton Leeside, the A10 and Southbury Junction and Brimsdown. Where there are sites identified as having either 'medium' or 'high' potential for mixed use development, the assessment has identified whether there are any adjacent sites which have the same landowner or similar landownership. The results of the assessment for each site are in Worksheet 6 in the Industrial Sites Database and the site groups identified are shown on the maps in Appendix H.

Categorising sites

- Based on the results of the assessment of potential for intensification and potential for mixed-use development, sites have been split in five categories. These categories are identified below.

Table ES4: Sites Categories

Category no.	Category description
1	Industrial sites which are suitable for purely industrial intensification
2	Industrial sites which should remain in their current use
3	Industrial sites which should be considered for redevelopment for industrial and residential uses (mixed-use development)
4	Industrial sites which should be considered for release for other uses (including residential)
5	Not assessed

- If a site is identified as having both potential for industrial intensification and potential for mixed-use development the site has been placed in category 1 i.e., the site is suitable for purely industrial intensification. This applied to four sites in the Edmonton Leaside area (ST29-32), and is the reason why 16 sites have been identified with potential for mixed-use but only 12 have been categorised as a mixed-use site in Table ES4.

- The remaining sites were assigned a category which was reflective of the preliminary results of the individual assessments described above. Industrial sites which are assessed as having potential for industrial intensification but not mixed-use development have been placed in category 1. In total, 24 sites were placed in category 1. This includes the 22 sites which the capacity assessment identified as able to accommodate intensification, the site suitable for vertical extension and the site suitable for horizontal extension.

- Industrial sites which are assessed as having potential for mixed use development but not potential for industrial intensification have been placed in category 3. In total, **12** sites were

placed in category 2 which is reflective of the mixed-use development assessment described above.

- No sites were identified as being considered for release for other uses (i.e. placed in category 4). This is to be consistent with the DNLP and Enfield's Employment Land Review which both forecast a high level of demand for industrial land in the Borough.

- Sites which are not identified as having potential for either purely industrial intensification or mixed-use development have been placed in category 2 i.e., they should remain in their current use. Sites which are identified as having potential for industrial intensification but are not able to accommodate any of the typologies identified in the capacity assessment have also been placed in this category.

- Finally, sites which were not assessed due to the non-industrial nature of their uses are placed in category 5.

- Table ES5 below shows the results of the analysis by sub-area.

Table ES5: Number of sites in each category by sub-area

Sub-area	Number of sites by category				
	1	2	3	4	5
Brimsdown	5	87	3	0	15
A10 and Southbury Junction	4	28	2	0	8
Edmonton Leaside	15	79	0	0	9
The North Circular Corridor	0	31	7	0	4
Total	**24**	**225**	**12**	**0**	**36**

Conclusions

- The findings of the assessment of intensification potential, taking account of suitability and market and technical deliverability assessments, identified that there are 41 sites in the assessment which have a 'High' or 'Medium' potential for intensification, equivalent to 43.5ha in land area. Of the three broad design types considered appropriate, 39 of the 41 sites are identified as being most suited to the 'comprehensive redevelopment' or 'new development on vacant land' types and have been carried forward to the capacity assessment.

- Two assessments were carried out: one determining the potential increase in floorspace and jobs in individual sites only, and the other determining the potential increase in floorspace and jobs if grouping of sites was to occur. These assessments identified that, if only intensification on individual sites was considered, **13** sites could accommodate intensification. A further **nine** sites could accommodate intensification if grouping of sites were to occur. Therefore, **22** sites contributed to the net floorspace increase in the capacity assessment.

- Table ES6 sets out the potential increase in industrial floorspace achievable from purely industrial intensification in the Borough at these sites, from both individual sites and the additional floorspace which could be achieved if grouping of sites were to occur. The midpoint provides the most balanced view on what has potential to come forward between

the minimum and the maximum, indicating that 180,100m^2 GEA of floorspace could be delivered by individual sites and an additional 18,300m^2 GEA of floorspace by grouping sites, amounting to 198,500m^2 across Enfield in total. This intensification would also lead to an estimated 5,570 jobs based on an average employment density and set against the midpoint floorspace estimate only. This comprises 5,100 jobs based on individual sites only and a further 470 jobs through grouping of sites.

Table ES6: Total estimated additional floorspace and employment deliverable from industrial intensification

Intensification from…	Additional floorspace (m^2)			Additional employment		
	Minimum	Maximum	Average	Minimum	Maximum	Average
Individual sites only	127,600	232,700	180,100	4,000	6,100	5,100
Grouping of sites	16,300	20,400	18,300	420	510	470
Total	**143,900**	**253,100**	**198,500**	**4,420**	**6,610**	**5,570**

Note: figures may not sum due to rounding.

- The findings of the assessment of potential for mixed-use development with an industrial component, taking account of suitability criteria only, identified that there were only 12 sites in the assessment which had a 'High' or 'Medium' potential for mixed-use development. Details are shown in Worksheet 6 in the accompanying Industrial Sites Database.

- The distribution of the total 297 sites assessed across the four sub-areas by the five overarching types of category is shown in Table ES7 below. This indicates that the majority of sites suitable for mixed-use development are in the Brimsdown and A10 and Southbury Junction sub-areas, and that the majority of sites suitable for industrial intensification only are in Edmonton Leaside.

Table ES7: Number of sites in each assessment category by sub-area

Sub-area	No. of sites by categorisation					
	1. Industrial Intensification only	2. Remain in current use	3. Industrial and Residential Mixed-use	4. Considered for release for other uses	5. Not Assessed (not in Industrial Use)	Total
Brimsdown	5	87	3	0	15	110
A10 and Southbury Junction	4	28	2	0	8	42
Edmonton Leaside	15	79	0	0	9	103
The North Circular Corridor	0	31	7	0	4	42
Total	24	225	12	0	36	297

Comparison against floorspace requirements

- If realised, the potential average value of 198,500m^2 GEA floorspace delivered through industrial intensification makes a 91% contribution towards meeting the net floorspace requirement in the 2018 ELR (218,700m^2) to 2036 and a 73% contribution towards the 2017 requirement (270,400m^2) over the same timeframe.

Table ES8: Net requirement for industrial floorspace compared to potential contribution from industrial intensification

	In the 2018 ELR (2016-2036)	In the 2017 LILDS (2016-2036 only)
Net Requirement (Floorspace m^2)	218,700	270,400
Potential floorspace provided from Industrial only Intensification (Average Floorspace m^2)	198,500	198,500
% contribution towards Net Requirement (%)	90.8	73.4

- It is important to note that the additional floorspace figures above only include an increase in industrial floorspace through purely industrial intensification, and it is irrespective of planned development. It does not include the potential increase in industrial floorspace from mixed-use development with an industrial component. Also, were the maximum amount of floorspace identified as being potentially deliverable to materialise[3] the contributions towards meeting requirements would be notably increased and could potentially exceed that identified in the 2018 ELR.

- The conclusions of this study in respect of the comparison of the net additional floorspace delivered against the identified need in the 2018 ELR and the 2017 LILDS have been prepared to inform LBE's Borough-wide land use strategy. These conclusions form part of an ongoing process in determining how these needs are met in-combination from the findings of three 'intensification studies' related to DNLP Policy E7 or the Secretary of State's Directions on the DNLP, namely this Industrial Intensification Study, a Functional Economic Market Area (FEMA) Study to determine substitution potential, and a study identifying Potential Locations for New Industrial Development. The core objective of these studies together is to ascertain whether the identified floorspace need forecasted in the 2018 ELR and 2017 LILDS:

  a) can be met with some surplus

  b) can be met with no or limited surplus; or

  c) is not met and the scale of which it is not met

- If outcome a) is achieved, it is expected that there will be good justification for consolidating the land areas within the borough currently identified as SIL/LSIS as the borough-wide evidence in respect of demand being met will support this. For outcomes b) and c), SIL/LSIS consolidation could still be explored as a result of corporate priorities, in such a case it will be necessary to demonstrate to the relevant authority (the GLA) that Enfield has fully-explored all available opportunities to meet borough-wide industrial capacity demand. This will be required as justification in the event that the draft Local Plan is not 'in general conformity' with the London Plan.

[3] This could be a likely prospect on council-owned sites where a more proactive approach to intensification could be assumed in order to deliver corporate council priorities.

1. Introduction

1.1. Context

1.1.1. The London Borough of Enfield (LBE) has started work on their new Local Plan[4] to start planning for good growth up to the period between 2018 to 2036[5]. As part of the supporting technical evidence base preparation, LBE has commissioned AECOM and Avison Young to prepare this report to investigate how a key objective of the proposed approach to industrial land management outlined by the Draft New London Plan (DNLP)[6] (Intend to Publish, December 2019) in Policy E7 might be applied in Enfield: the potential for and viability of 'industrial only' intensification of its industrial land, particularly Strategic Industrial Locations (SILs) and Locally Significant Industrial Sites. This report therefore provides an assessment of the potential for industrial intensification at suitable locations in the Borough.

1.1.2. The Borough has a large supply of industrial land. In 2015, the Borough contributed the 3rd highest amount of floorspace in industrial and warehousing use (B1c/B2/B8) in Greater London[7]. Of particular note is that most of the Borough has both excellent access to the strategic road network and connectivity to Central London. It is therefore well placed strategically to accommodate the requirements of the wide range of industrial and distribution businesses seeking premises in the area.

1.1.3. Indeed, in respect of industrial land needs the 2018 Employment Land Review[8] concluded that forecast demand for industrial land is considerably in excess of levels of existing supply, with net additional land demand for industrial uses amounting to 48.6ha to 2036 – the Local Plan period. The report stated that even if all vacant land in the Borough were to be taken up and every development concerning industrial land in the pipeline was realised, there would remain a net requirement for approximately 6.8 hectares of additional industrial land to meet demand. Therefore, even under this optimistic position where all known supply options come forward, the additional unconstrained land requirement is not met.

1.1.4. The GLA's London Industrial Land Demand Study (2017)[9], informing the DNLP, also forecasts a net additional land demand for industrial uses in Enfield amounting to 52.0ha between 2016 and 2041 or 338,000 m^2 of industrial floorspace. As this forecast is for an additional 5 years to that forecast in the ELR, in order to allow a comparison the forecast of demand from the LILDS has been adjusted to provide a pro-rated forecast to 2036 of 270,400m^2 of industrial floorspace. Both this and the 2018 ELR forecast of land and floorspace requirements are set out in Table 1.

Table 1: Net requirements for industrial land and floorspace

Parameter	2018 ELR (2016-2036)	2017 LILDS (2016-2041)	2017 LILDS (2016-2036 only)
Net Requirement (ha)	48.6	52	-

[4] London Borough of Enfield (LBE) Local Plan Review - https://new.enfield.gov.uk/services/planning/local-plan/#1
[5] LBE, 2018: Regulation 18 Local Plan (Enfield Council), December 2018 - https://new.enfield.gov.uk/services/planning/enfield-draft-local-plan-2036-planning.pdf
[6] Greater London Authority (GLA): 2019: Intend to Publish London Plan 2019 https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf
[7] GLA, 2016: London Industrial Land Supply and Economy Study 2016 https://www.london.gov.uk/sites/default/files/industria_land_supply_and_economy2015.pdf
[8] AECOM, 2018: Enfield Employment Land Review 2018 https://new.enfield.gov.uk/services/planning/enfield-employment-land-review-report-aecom-planning.pdf
[9] GLA. 2017: London Industrial Land Demand Study https://www.london.gov.uk/sites/default/files/ilds_revised_final_report_october_2017.pdf

Parameter	2018 ELR (2016-2036)	2017 LILDS (2016-2041)	2017 LILDS (2016-2036 only)
Net Requirement (m^2)	218,700	338,000	270,400

1.1.5. The Borough also has an urgent need for new housing. The most recent version of the Draft New London Plan predicts that the Borough will be required to provide a minimum of 1,246 new homes per year to ensure that London can meet its housing targets. LBE is currently undertaking its own studies assessing the need for housing in the Borough, including the emerging Enfield Local Housing Needs Assessment currently being undertaken by AECOM as part of the LBE Local Plan evidence base.

1.1.6. The combination of the need for new housing and the requirement for the retention and expansion of industrial land in the Borough presents a spatial challenge. The Borough is seeking to meet both requirements through development in a limited geographical area, with the added pressures of other significant supply constraints such as the extensive areas designated for Green Belt in the Borough. Intensifying industrial land would not only contribute towards meeting Enfield's future industrial floorspace need but could also potentially free up existing industrial land for housing development whilst ensuring that industrial floorspace is not reduced.

1.1.7. In order to understand what is achievable in terms of how the additional industrial land requirement can be met, there is a need to further investigate, in line with the relevant aspect of DNLP Policy E7, the opportunities to intensify industrial land in the borough and the likely industrial capacity it could deliver. This report sets out our approach to undertaking this industrial intensification along with an Industrial Sites Database that provides detailed assessment information for each site.

1.1.8. The analysis which has been conducted in preparing this report, and the evidence-based documents which the analysis is based on, pre-date the emergence of COVID-19. It is not possible to predict whether the impact of the outbreak will significantly alter the conclusions of this report. However it is considered that the nature of the assessment is such that any material changes resulting from the impact will occur over the longer-term by which time the findings of the assessment could need revisiting to reflect a range of possible changes to the analysis independent of the outbreak.

1.1.9. During completion of this report, the government published both the Planning for the Future White Paper and proposed changes to the Town and Country Planning Use Classes Order. The Draft for Consultation 'Planning for the Future' White Paper[10] presents several proposed changes to the planning system which will result in changes to decision-making processes at Local Authority level and simplify the role of Local Plans. It is not possible to determine the implications of these changes to the analysis conducted within this report at this stage. The changes to Use Classes Order were introduced as part of an amendment to the Town and Country Planning Act[11] in July 2020, and were implemented in September 2020. The amendment creates Use Class 'E', which encompasses all commercial, business and service land uses including, relevant to this study, light industrial space (formerly classified as B1c). It is expected that all activities within the B1c use class that are industrial in nature will be moved to the existing B2 use class once updated Planning Practice Guidance (PPG) and/or regional guidance is published as is expected. The change in Use

[10] Ministry of Housing, Communities and Local Government (MHCLG): (2020). Planning for the Future White Paper August 2020. Draft for Consultation. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907647/MHCLG-Planning-Consultation.pdf

[11] MHCLG: (2020). The Town and Country Planning (Use Classes) (Amendment) (England) Regulations 2020 (SI 2020 No.757). https://www.legislation.gov.uk/uksi/2020/757/pdfs/uksiem_20200757_en.pdf

Classes Order is therefore not anticipated to have a considerable impact on the outcomes of this study.

1.2. Purpose of the study

1.2.1. The purpose of this study is to provide an up-to-date analysis of Enfield's industrial land to provide a view on the likely floorspace which could be delivered through intensifying existing industrial land in the Borough. The study builds on the 2018 Employment Land Review's analysis of industrial employment clusters with potential for intensification in the Borough by assigning categories to the sites within them based on a comprehensive assessment of capacity including technical and market deliverability considerations. The categories assigned are:

- Sites which are suitable for purely industrial intensification;
- Sites which should be considered for redevelopment for industrial and residential uses;
- Sites which should be considered for release for other uses (including residential); or
- Sites which should remain in their current use.

1.2.2. For sites deemed suitable for purely industrial intensification, the study identifies appropriate design types and subsequently appropriate building typologies which could potentially come forward based on an understanding of the local demand for industrial space and evidence from recent case studies. It then quantifies the scale of intensification which could come forward using measures deemed most appropriate based on guidance provided by the Greater London Authority (GLA) in the DNLP and the Industrial Intensification and Co-location Study[12].

1.2.3. Where this study has deemed sites appropriate to be redeveloped for a mix of industrial and residential uses, it does not provide typologies for these sites or quantify their potential. The details of these sites, as well as those identified as suitable for release to other uses, will inform the Housing Capacity Study being produced by AECOM as part of the LBE Local Plan evidence base.

1.2.4. It should be noted that this study presents an analysis of the potential for industrial intensification and co-location based on an analysis of existing supply and demand conditions in the Borough. To provide a consistent Borough-wide approach, it does not consider the potential floorspace quantum delivered via any developer proposals for intensification and/or redevelopment at individual sites. Where a pre-app discussion has been held with LBE officers and/or where an app has been submitted which includes developer determined design typologies, consideration has been given to whether these would change any of the assumptions in section 9.

1.3. Stakeholder engagement

1.3.1. This study provides a strategic assessment of the potential to bring forward intensified industrial typologies in Enfield to meet future demand.

1.3.2. To achieve this it is important to draw on as much intelligence and insight as can be obtained from those within the 'industrial sector' – developers, landowners and businesses. Engagement helps ensure that the approaches identified in this study can deliver the nature of opportunities and types of space that will attract both developers and occupiers in the future. Clearly this is not an easy task, industrial intensification remains a concept that is still unproven in London and therefore the

[12] GLA, 2020: Industrial Intensification and Co-Location Study.

majority of stakeholders are either less familiar with the proposition, but also unconvinced by its ability to be successfully delivered/operated.

1.3.3. As part of this study, the team have sought to access the views and perspectives of those active in Enfield, or more broadly in London's ongoing intensification debate. Avison Young have worked closely with their in-house agency and investment team (who advise a range of developer and occupier clients in Enfield and also more strategically across London) and have also had informal discussions with active developers/investors in the borough. AECOM undertook a number of telephone conversations with businesses located in areas with likely potential for intensification (which was based on an initial review of local supply factors).

1.3.4. The nature of conversations has reflected the nature of the study itself. As a strategic evidence base the proposals and direction of travel within it are naturally 'high level' concepts to demonstrate what could be possible. As such, with defined opportunity to discuss/test, the feedback received provides a strategic view of future challenges and opportunities and is a reflection as much of London-wide factors as much as those specific to Enfield.

1.3.5. This engagement has informed the analysis in this study and the response is reflected on where relevant throughout the report.

1.4. Report structure

1.4.1. This report first provides a literature review which summarises the relevant local and regional planning policy and any evidence-based studies conducted in London to inform the assessment of industrial intensification. It then sets out the measures used to quantify industrial intensification based on appropriate industry standards. This is presented in Section 2: Literature review, and Section 3: Measuring intensification.

1.4.2. The report then provides a review of the characteristics of the industrial employment land which is considered in this assessment. Section 4: Industrial land suitable for Intensification in Enfield provides a descriptive analysis, drawing upon the condition, size and type of space within the identified employment land clusters. Section 5: Site identification describes how this employment land is broken down into sites to inform the assessment of intensification potential.

1.4.3. Section 6: Approach identifies the approach towards identifying the category which each site is assigned in the Industrial Sites Database. Sections 7 to 9 cover the assessment of purely industrial intensification in Enfield, including the initial assessment of potential for industrial intensification (Section 7), the Type of Design assessment (Section 8), and the Capacity assessment which draws upon typologies to assess the capacity for additional floorspace and jobs (Section 9). The assessment of potential for mixed-use development is presented in Section 10 and an analysis of the categorising of sites is provided in Section 11. The Conclusions are presented in Section 12.

1.4.4. The full report structure is as follows:

- Section 2: Literature Review;
- Section 3: Measuring Intensification;
- Section 4: Industrial Land in Enfield;
- Section 5: Site Identification;
- Section 6: Approach
- Section 7: Assessment of Potential for Industrial Intensification;

- Section 8: Type of Design Assessment;
- Section 9: Capacity Assessment;
- Section 10: Assessment of Potential for Mixed Use Development;
- Section 11: Categorising Sites; and
- Section 12: Conclusions.

2. Literature review

2.1. Introduction

2.1.1. The ability to intensify industrial land is becoming increasingly important across London. Boroughs are seeking to align with a regional policy shift towards maintaining and increasing industrial land as the city responds to an evidenced increase in need for employment floorspace in the context of competition for scarce land; a challenge which has been made more acute by the historic erosion of employment land reserves across London under previous London Plans as identified in the London Industrial Land Supply and Economy Study (2016)[13].

2.1.2. The importance of industrial intensification is reflected in recent regional and local planning policies which are detailed below. Boroughs are seeking to intensify their industrial land to enable their industrial land targets to be met whilst also facilitating for other needs such as housing. Several studies have been undertaken in recent years seeking to understand whether intensification is appropriate in the industrial land market, and if so, how it can come forward.

2.1.3. This section provides[14]:

- a review of regional planning policy to identify the need for industrial intensification, and to understand any requirements related to intensification which must be followed in this study;
- a review of previous work carried out related to employment land in Enfield which contain insights needed to inform this study; and
- a review of other studies relevant to the intensification assessment, including case studies where intensification has been identified and/or achieved in other areas in London.

2.2. Planning policy related to intensification

2.2.1. The following section provides a review of regional planning policy regarding industrial intensification in London. It identifies evidence in these plans related to why industrial intensification is needed, and states any relevant technical guidance which should be followed in proposals to intensify industrial land in London.

2.2.2. LBE has started work on a new Local Plan to plan for good growth between 2018 and 2036. The plan will set the spatial development strategy for Enfield for this timeframe. It will also aim to address key issues including creating better employment opportunities and promoting economic growth. The findings of the intensification assessment in this report are expected to inform the development of relevant Local Plan policies. Therefore, LBE's policies on industrial intensification are not yet certain and are not presented in this literature review.

[13] GLA, 2016; London Industrial Land Supply and Economy Study 2016 https://www.london.gov.uk/sites/default/files/industria_land_supply_and_economy2015.pdf

[14] On Thursday 6th August 2020 the Government published a series of consultations on Planning Reform. Any implications of these reform proposals for this evidence study have not yet been assessed. Further guidance would be required on how industrial land is anticipated to be dealt with between the future plan area classifications of Growth – Renewal – Protect. https://www.gov.uk/government/consultations/planning-for-the-future and https://www.gov.uk/government/consultations/changes-to-the-current-planning-system

Intend to Publish Draft New London Plan (GLA, 2019)

2.2.3. The current 2016 Plan (described in section 2.2.8 to 2.2.11 below) is still the adopted Development Plan, but the Draft New London Plan[15] is of material consideration in planning decisions. The significance given to it is a matter for the decision maker, but it gains more weight as it moves through the process to adoption. At the time of writing, the DNLP was available as an 'Intend to Publish' version which was submitted by the GLA to the Secretary of State for approval on 9 December 2019. On 13 March 2020, the Secretary of State issued a Direction pursuant to s.337(6) of the Greater London Act 1999. The Direction prevents publication of the London Plan until a range of matters are addressed to the satisfaction of the Secretary of State to achieve consistency with national policy. On 24 April 2020 the Mayor wrote to the Secretary of State seeking to resolve the issues that have been raised by the Secretary of State through discussion by their officials, so as to enable the London Plan to be adopted[16]. Discussions are understood to remain ongoing between the two parties.

2.2.4. The Plan emphasises the importance of industrial land and using an evidence-based, plan-led approach to identifying demand for industrial land and subsequently providing supply. It identifies, as part of Policy E4, that industrial land should be retained, enhanced and provided as part of Strategic Industrial Land (SIL) or Locally Significant Industrial Sites (LSIS). Any release of industrial land within SIL or LSIS should be facilitated through a borough-wide assessment of industrial intensification, co-location and substitution. It states as part of Policy E8 'sector growth opportunities and clusters' that this land should provide for a range of different sectors which reflect the diverse nature of London's businesses.

2.2.5. The Plan specifically addresses intensification of industrial employment land as part of Policy E7 'Industrial intensification, co-location and substitution'. The policy states that Borough's development proposals should encourage the intensification of business uses in use classes B1c[17], B2 and B8 and should be proactive in considering where certain logistics, industrial and related functions in selected parts of SIL or LSIS could be intensified to provide additional industrial capacity.

2.2.6. The policy also identifies that intensification can be used to facilitate the consolidation of an identified SIL or LSIS to support the delivery of residential and other uses, such as social infrastructure, or to contribute to town centre renewal. It states that mixed-use residential development in non-designated industrial sites can be supported only where there is no reasonable prospect of the site being used for industrial and related purposes.

2.2.7. The Plan includes parts of the north-east of Enfield in the Lee Valley Opportunity Area (OA). The OA follows the route of the proposed Crossrail 2 and the Plan states that development potential associated with Crossrail 2, including the development of 21,000 new homes and 13,000 new jobs, should be maximised in the OA. There should be no net loss of industrial capacity in the OA, and opportunities for intensification of industrial land and co-location of industrial and residential uses

[15] GLA, December 2019: Intend to Publish London Plan. https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/intend-publish-london-plan-2019

[16] The GLA have indicated that they are preparing guidance regarding industrial land use planning and management that takes account of the policies of the Intend to Publish London Plan for use by the Boroughs in policy planning, evidence base development and to inform the preparation of planning applications by other parties. This is due to be published in Autumn/Winter 2020 and is expected to comprise guidance on industrial intensification, co-location and substitution. It will account for the changes arising from the new Use Classes Order. https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/london-plan-guidance-and-spgs.

[17] Based on MHCLG proposals currently under consultation B1(c) type uses will be split between Class E and Class B2. Class E will contain those uses which can be carried out in any residential area without detriment to the amenity of that area by reason of noise, vibration, smell, fumes, smoke, soot, ash, dust or grit. Class B2 (General industrial) types of use will be changed to include industrial processes that do not fall within the uses described in the new Class E. The consequential outcome of this is that the inclusion of B1(c) as a use class in Industrial land (as controlled by operation of London Plan policy E4 part A) is likely to become more defined. Not only by a list of uses which cannot be carried out in residential areas, but also by change of the use class to B2/B8 (and points 3) to 10) in the aforementioned policy.

should be fully explored. However, proposed development in the OA is linked to Crossrail 2 and the introduction of four trains per hour on the West Anglia Main Line at Meridian Water and Northumberland Park, and both of these schemes are yet to be committed.

The London Plan: Spatial Development Strategy for London (GLA, 2016)

2.2.8. The London Plan was adopted in March 2016 by the GLA[18]. The London Plan sets out an integrated social, economic and environmental framework for the development of London up to 2036. The plan will remain the adopted spatial development strategy for London up until the DNLP is published.

2.2.9. The Plan does not provide specific guidance regarding intensifying industrial land to meet industrial floorspace and/or jobs targets. However, Policy 4.4 'Managing Industrial land and Premises' emphasises the importance of industrial land and states that the Mayor will adopt a rigorous approach to industrial land management to ensure a sufficient stock of land and premises to meet the future needs of different types of industrial and related uses in different parts of London.

2.2.10. The Plan puts forward a vision and strategy for Outer London which attempts to realise the potential of Outer London Boroughs. This is covered in Policies 2.6 and 2.7 and include managing and improving the stock of industrial capacity within these Boroughs, including those occupied by SMEs, start-ups and businesses requiring affordable space. Other objectives put forward in the strategy include developing and enhancing employment capacity to support local/sub-regional employment, and improving accessibility to competitive business locations and particularly SIL.

2.2.11. The Plan identifies 'Opportunity Areas' which aim to encourage areas with high growth potential to meet their housing and employment targets. The north-east of Enfield, including the industrial areas of Brimsdown and Edmonton Leaside, are part of the Upper Lea Valley Opportunity Area (OA) which the Plan believes has capacity for 20,100 net additional dwellings and 15,000 net additional jobs to 2036.

The Mayor's Economic Development Strategy for London (GLA, 2018)

2.2.12. The Mayor of London published a new Economic Development Strategy (EDS) in 2018[19]. The purpose of the Strategy is to provide relevant stakeholders, public authorities and interested parties with a vision for London's future, an analysis of the economy and policy direction for achieving its ambitions. It also clarifies the GLA's roles and responsibilities with other partners who contribute to developing London's economy.

2.2.13. The plan does not provide specific guidance regarding intensifying industrial land to meet industrial floorspace and/or jobs targets. However, the EDS identifies the recent loss of employment space to residential uses and recognises the need for a wide variety of workspaces to accommodate businesses of different sizes, sectors, and stages of development. The study also identifies the economic importance of ensuring that London retains sufficient industrial land.

[18] GLA, 2016: The London Plan: Spatial Development Strategy for London. https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan
[19] GLA, 2018: The Mayor's Economic Development Strategy for Greater London. https://www.london.gov.uk/what-we-do/business-and-economy/economic-development-strategy

2.3. Previous studies concerning LBE's employment land needs

2.3.1. The below identifies previous studies related to Enfield's employment land. These studies provide useful context to this assessment and present findings used to inform the approach taken towards assessing intensification.

Enfield Employment Land Review (AECOM, 2018)

2.3.2. The Enfield ELR was published in 2018[20]. It assessed the supply-demand balance for employment space in LBE, and subsequently provided recommendations to the Council concerning its employment land policy.

2.3.3. The ELR forecasted a net requirement for 48.6ha of industrial land in the borough over the local plan period. This was due to a 46.1ha increase in demand for industrial land, and a current vacancy rate which is lower than what is required to ensure efficient churn of businesses in occupying land. The report notes that distribution and warehousing space (B8 uses) is in particularly high demand in the Borough, and that the increase in demand over the plan period for this type of space makes up for the forecast reduction in demand for other types of space such as that used for general industrial (B2 use) and light industrial (B1c use) purposes.

2.3.4. Due to the high net additional requirement for industrial land forecasted to 2036, the report highlights that the need to increase floorspace in existing industrial locations through intensification and/or redevelopment is important. It states that the Borough will also be required to find new sites for industrial land to accommodate demand. The ELR provides an initial assessment of intensification potential in the Borough. Out of the 35 employment clusters identified in the study, 20 clusters were assessed as having either a 'medium' or 'high' potential for intensification. This assessment was based on existing supply conditions, including the quality of stock/external environment, the intensity of use and accessibility to the strategic road network.

2.3.5. The ELR provided policy recommendations that support the protection and growth of employment land in the Borough. It recommended that the majority of SIL and LSIS areas in the Borough were suitable for their intended use and should be retained. It stated that intensification of existing industrial land be a primary method towards meeting the Borough's demand targets and that further work be done to evidence where intensification could occur. It recommended that the Council takes a proactive approach to planning in order to meet future employment land needs, including assessing the appropriateness of proposals involving employment land release in line with the supply conditions in the area.

London Industrial Land Demand Study (GLA/CAG Consultants, 2017)

2.3.6. The London Industrial Land Demand Study[21] was published in 2017. The study assessed the land demand for different types of industrial and warehousing uses in London's Boroughs, including for Enfield. It used forecasts based on employment data and captured change in demand between 2016 and 2041. The report concluded that Enfield should be a 'provide capacity' borough for industrial land based on its positive net demand and relatively low floorspace vacancy rate. The report stated that the Borough had a net requirement of an additional 52 hectares of land to be provided to 2041.

[20] LBE, 2018: Enfield Employment Land Review.
https://new.enfield.gov.uk/services/planning/enfield-employment-land-review-report-aecom-planning.pdf
[21] GLA. 2017: London Industrial Land Demand Study
https://www.london.gov.uk/sites/default/files/ilds_revised_final_report_october_2017.pdf

Enfield Co-Location and Intensification Study (AECOM, 2018)

2.3.7. The Enfield Co-Location and Intensification Study[22] was produced by AECOM to provide the Council with examples of different building typologies related to co-location and intensification of industrial uses. It was produced as part of an evidence base for the examination of the Edmonton Leeside Area Action Plan (ELAAP). It identified examples of how established intensification and co-location typologies could be applied in Enfield.

2.3.8. With regards to industrial intensification, the study provided case studies for three typologies:

- Multi-storey large warehousing, warehouses that are formed of more than one floor, offering an opportunity to increase usable floorspace and employment densities, whilst maintaining a mix of space for occupiers and without compromising any SIL or LSIS designations;
- Multi-storey multiple units, industrial uses formed of more than one floor, offering an opportunity to increase employment floorspace without additional land. Whilst the principles largely remain as identified above in the multi-storey large warehousing typology description, this typology refers specifically to integrating a mix of multiple small-scale industrial units, rather than large warehousing for distribution centres. There is also opportunity to stack smaller industrial units above larger warehouses; and
- Comprehensive redevelopment, the redevelopment of a site. The study stated that this is most appropriate for sites of aging/poor quality stock or poor special efficiency, as it offers an opportunity to provide employment floorspace that is better suited to modern demand whilst increasing total floorspace.

2.3.9. For each typology, the study provided an example of where it has been implemented in the past, and identified a location in Enfield where it could be implemented in the future. This took into consideration various factors including site designation, location, physical site layout, environmental considerations surrounding land uses, value of existing uses on-site, and strategic and public transport accessibility.

Industry in Enfield: Study of Type, Form and Activity (AECOM, 2018)

2.3.10. The Study of Type, Form and Activity, published in 2018[23] is a granular assessment of the characteristics of Enfield's employment land. The study provides a comprehensive analysis of the breakdown of business activities, building types and site types in each of Enfield's employment clusters.

2.3.11. The study found that the type and size of businesses in employment land in the Borough varies considerably depending on location. It found that the majority of larger businesses in the Borough are located in clusters in North-East Enfield. It stated that these clusters, including Brimsdown and Great Cambridge Road, typically also have a greater degree of diversity in site types and uses than their smaller counterparts.

2.3.12. The study found that the sectors most prevalent in the Borough's industrial land are manufacturing and retail warehousing and that Enfield's employment density in industrial land is higher than the London-wide average. Its analysis of quality of stock

[22] LBE, 2018: Enfield Co-Location and Intensification Study.
[23] LBE, 2018: Industry in Enfield: Study of Type, Form and Activity.

revealed that quality varies significantly, but the Borough has a particularly large contingent of older stock built between 1945 and 1995.

2.3.13. The study's granularity ensures that it provides an extremely detailed view on employment land in the Borough, and the data which informs this study has been used where appropriate to inform the findings of this study.

Edmonton Leaside Area Action Plan (LB Enfield, 2020)

2.3.14. The Edmonton Leaside Area Action Plan (ELAAP) was adopted by the Council in January 2020. The ELAAP forms part of the Development Plan for Enfield and will specifically deliver the spatial vision and land use strategy for the first phases of the Council's flagship regeneration area of Meridian Water. The ELAAP gives more detailed consideration to how and where regeneration and growth can sustainably be accommodated in the south east of the borough.

2.3.15. It set out a plan to comprehensively redevelop the Meridian Water area south of the A406 North Circular Road to deliver 10,000 new homes and 6,000 new jobs. The ELAAP initially proposed a relocation of some industrial capacity from Harbet Road SIL to nearby Montagu Road SIL via release and consolidation of some land at the former. However, after consultation with the GLA and the inspectorate at the Examination in Public (EIP) and the subsequent Inspector's Report[24] published in October 2018, this proposal was not included in the adopted ELAAP[25].

2.4. Other studies related to intensification

2.4.1. The below sets out the findings of other studies relevant to industrial intensification and its implementation in London.

GLA Industrial Intensification and Co-Location Study (GLA, 2020)

2.4.2. The Industrial Intensification and Co-Location Study[26] was published by the GLA in 2020. The study provides evidence-based guidance related to how intensification should be implemented in London.

2.4.3. The study addresses the need to appropriately define how intensification should be measured. The report sets out the various ways in which intensification can be classified, including spatial intensification, economic intensification, process intensification, and urban intensification. It concludes that spatial intensification, including the use of floorspace, is the most appropriate measure for identifying intensification of industrial land. However, the study notes that any intensification proposals which increase floorspace should also consider the requirements of existing businesses, including need for yard space.

2.4.4. The study goes on to present different typologies of intensification which could be considered, and assesses how viable these typologies are based on rent levels in different areas within London. These typologies are:

[24] The Planning Inspectorate, 2019: Report to the Council of the London Borough of Enfield - https://new.enfield.gov.uk/services/planning/edmonton-leeside-inspectors-report-planning.pdf

[25] The Inspectors' report following the Examination in Public of the ELAAP contained the following feedback which resulted in the proposed relocation being dropped from ELAAP; (i) 'the evidence supporting the plans would need to demonstrate that the land in question no longer fulfilled a functional employment need for industry and that any identified need could be adequately accommodated within the other designations proposed' and (ii) that LBE would need to '[p]rovide convincing evidence that the quantitative and qualitative loss that would arise from more limited SIL release could be effectively offset by more intensive use of new and existing SIL sites elsewhere in the AAP area. This should be supported by evidence that there is both the capacity and market for vertically stacked business uses in Edmonton within the plan period'.

[26] GLA 2020: Industrial Intensification and Co-Location Study. https://www.london.gov.uk/sites/default/files/industrial_intensification.pdf

- stacked workshop/studio with residential, which is most likely to be found in the inner city and involves workshops and/or studio space on the ground floor and residential units above;
- stacked medium industrial with residential, which is most likely to be found in the inner city and involves medium-sized industrial uses on the ground floor with residential units above;
- stacked large industrial, which is most likely to be found in suburban areas and involves the stacking of large industrial uses such as warehousing and distribution centres; and
- stacked small industrial with residential, which is most likely to be found in urban areas and involves small industrial units on the ground floor with residential units above.

2.4.5. The study states that 'stacked small industrial with residential' is typically the most viable of all typologies due to the generally low existing land use values, low build costs and the high quantum of industrial floorspace which they create. It states that 'stacked workshop/studio with residential' and 'stacked medium industrial with residential' are also both generally viable. It finds that 'stacked large industrial' schemes are generally unviable, due to the high fixed costs to construct them and the low rents which are achieved once units have been built.

Park Royal Intensification Study (Old Oak and Park Royal Development Corporation, 2017)

2.4.6. The Park Royal Intensification Study[27] was produced by Hawkins\Brown, We Made That, Cushman & Wakefield and Hatch Regeneris and considered options to intensify designated SIL across Park Royal. The study provides a granular analysis concerning the intensification of industrial space in the Park Royal Old Oak and Park Royal Development Corporation (OPDC), identifying types of intensification based on the supply and demand for space within each industrial land parcel in the area. The study considers intensification to be related to employment density and the change in the number of employees is used to represent intensification in the study.

2.4.7. The study identifies the types of design with potential to lead to intensification and provides an analysis of where these different types of design are most appropriate depending on spatial characteristics. The design types and a summary of this analysis is provided below:

- Vertical extension, most appropriate in sites which contain low buildings and have potential for multiple storeys;
- Horizontal extension/infill, most appropriate in sites where a large proportion of land is not used for operational purposes;
- Internal subdivision, most appropriate when building/eave heights offer potential for mezzanine levels;
- New provision / Comprehensive redevelopment, most appropriate when buildings are aged and/or there are multiple buildings under single ownership; and
- New development on vacant land.

2.4.8. The study identifies the type of design which is most appropriate for each industrial land parcel in Park Royal and identifies case studies for each type of design. The

[27] Old Oak and Park Royal Development Corporation (OPDC), 2017: Park Royal Intensification Study: Local Plan Supporting Study
https://www.london.gov.uk/sites/default/files/33._park_royal_intensification_study_1.pdf

uplift associated with these case studies is then used to calculate the potential uplift which could be generated in Park Royal's land parcels. The study uses employment densities provided in the Homes and Communities Agency (HCA) Employment Densities Guide (2015) to assess the change in the number of jobs given the change in floorspace projected to occur.

2.4.9. The study is a key consideration for this assessment given its granularity and its use of evidence-based assumptions to inform a data-driven method.

3. Measuring intensification

3.1.1. London has experienced a decline in industrial capacity in recent years, primarily due to a considerable rise in demand for housing and other non-employment uses. In the DNLP, the GLA sets out its ambition to combat this decline by encouraging the growth of London's industrial capacity. The parameter which the Plan uses to measure industrial capacity is based on the quantum of land and floorspace. The Plan identifies industrial capacity as either the existing industrial floorspace onsite or the potential industrial floorspace given a 65 per cent plot ratio (defined as the total floorspace over the total site area)[28].

3.1.2. The use of floorspace as a measure of industrial capacity is supported in the findings of the GLA's Industrial Intensification and Co-Location Study, published in 2020 (hereby referred to as the 'GLA 2020' study). The study provides a review of how intensification of industrial capacity should be best measured. The review considered whether intensification could be measured by economic indicators (including the change in jobs), process indicators (including change in process efficiency brought about by technological innovation) and urban indicators (such as how developments impact the quality of the public realm). However, it concluded that using spatial measures is most appropriate, and that floorspace should be the leading measure of industrial intensification with other spatial features as supporting guidance (particularly yard space considerations)[29].

3.1.3. Therefore, this study considers floorspace as the leading measure of industrial intensification. Spatial features which have been considered alongside floorspace in this study include operational yard space. Operational yard space is identified as being part of industrial capacity in the DNLP. However, the GLA 2020 study notes that using floorspace as a measure of capacity tends to incentivise proposals which reduce yard space due to the higher quantities of floorspace which can be delivered as part of multi-storey stacking which requires more land. When analysing the intensification potential of sites within this study, consideration is given to the presence of existing operational yard space which is essential for existing businesses to operate.

3.1.4. This study also provides an assessment of the change in the number of jobs associated with the change in floorspace. This assessment of jobs will help the Borough to understand how intensification of industrial capacity may change economic opportunities for residents in Enfield and the wider London area. The change in employment is a product of both the change in the quantum of floorspace in the Borough and the change in the type of employment activity which occurs on sites. For example, distribution/wholesaling activities which use much of their space for storage generally tend to have lower employment densities than more labour-intensive industrial uses.

3.1.5. Therefore, this study presents an assessment of both the change in floorspace and the change in the number of jobs to clearly identify the potential outcomes from industrial intensification in Enfield.

[28] DNLP (December 2019), paragraph 4.5.7, footnote 59.
https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/intend-publish-london-plan-2019
[29] GLA 2020 Study, section 2.3, page 9.

4. Industrial land suitable for Intensification in Enfield

4.1. Introduction

4.1.1. The 2018 Enfield ELR provided an initial assessment of Enfield's industrial land for intensification potential. The assessment was limited to four components reflective of supply conditions in these clusters: the quality of stock, the quality of the external environment, the intensification of use and accessibility to the strategic road network. It provided a broad overview as to whether there was potential within these clusters based on these parameters.

4.1.2. The ELR identified 20 employment clusters as having either a 'medium' or 'high' potential for intensification out of the 35 clusters it assessed. These have been used as the starting point for this study, in order to form the basis for a more detailed assessment of potential capacity for intensification across the Borough.

4.1.3. The clusters considered in the analysis are separated into four different sub-areas: A10 and Southbury Junction, Brimsdown, Edmonton Leaside, and the North Circular Road Corridor.

4.1.4. The following sections provide an analysis of existing industrial land in Enfield by sub-area. They provide the location of each of these sub-areas, including a descriptive analysis of each employment cluster located within the sub-area. The cluster analysis draws upon the condition, size and type of space as well as the presence of any nearby sensitive non-industrial uses. This assessment is informed by the findings of the property market baseline review which was conducted in the early stages of the study. The full report for the property market baseline review is available in Appendix A.

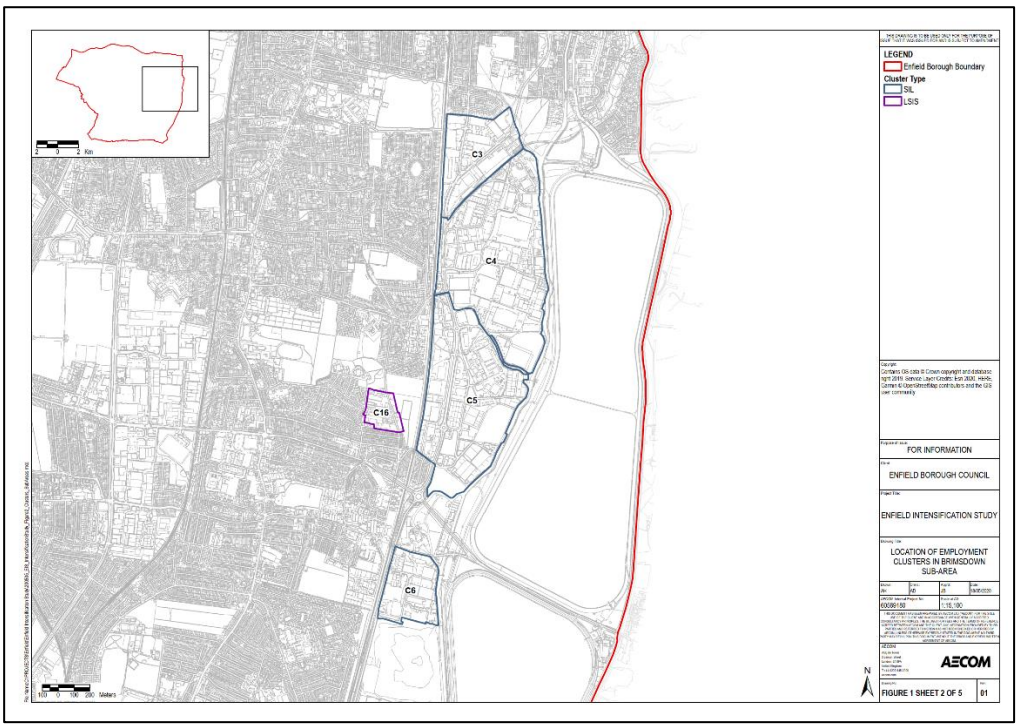
4.2. Brimsdown sub-area

Context and location

4.2.1. The Brimsdown sub-area is located in the north-east of the Borough to the west of the Lee Valley park. The main strategic road connections are the A1055 and Mollison Avenue, which both connect employment clusters to the A110 Nags Head Road in the south and the M25 in the North. The West Anglia Main Line railway travels north-to-south across the sub-area.

4.2.2. There are five employment clusters located in the Brimsdown sub-area. Figure 1 shows the location of these. The three large clusters to the north-east comprise the Brimsdown SIL. The two remaining clusters are an area of SIL to the south of the A110 Nags Road known as Meridian Business Park and an LSIS on Alma Road to the west of the main Brimsdown industrial area. These clusters are described in detail below.

Figure 1: A map showing the Brimsdown sub-area



Cluster Analysis

4.2.3. **Cluster C3** is the northernmost part of the Brimsdown SIL located north of the A110 in the Lea Valley area of the borough. The Brimsdown SIL is notable for its strategic importance to the Borough and is characterised by large-scale industrial and warehousing units. The vast majority of premises is occupied by B-class uses. The SIL has excellent access to the strategic road network via Mollison Avenue.

4.2.4. Within this part of the SIL, there is a mix of uses and unit sizes. There are several high-profile wholesalers, distribution and transport companies which occupy large warehouses with ancillary office space in the cluster (examples include FedEx, Hermes and EFG Housewares). These warehouses are generally in good condition and there is no evidence of underutilised space with buildings occupying a large footprint on the land parcels which they are located on. There is little to no vacancy within these large warehousing spaces.

4.2.5. The other type of predominant space in this area is small warehouses/workshops for wholesaling, distribution and light manufacturing occupiers. There are many examples of this across the cluster, varying in their density and quality. The business park owned by Prudential in the north of the cluster is generally of a good quality, is minimum two-storeys, and is well occupied. However, this type of space in the south of the cluster, particularly the industrial units east of Bilton Way, are in poor quality and are generally single storey; these poor-quality units are occupied by SMEs. The cluster is well laid out and the quality of its road connections means that the cluster is able to accommodate additional HGVs and other vehicles travelling to and from the cluster via the strategic road network.

4.2.6. **Cluster C4** is the largest of the three clusters in the Brimsdown Road SIL and is known as 'Brimsdown Part B' in this study. It is located in the middle of the SIL with Cluster C3 to the north and Cluster C5 to the south. It is a large cluster and there is a considerable variety of employment uses onsite. The majority of premises in the cluster are in industrial use, with notable exceptions being retail premises along Stockingswater Lane.

4.2.7. A considerable amount of floorspace in the cluster is within large buildings used for warehousing and manufacturing space and is occupied by notable tenants including DHL, Warburtons, Amazon, and Greggs. This type of use comprises the majority of land south of Millmarsh Lane. This space is generally in good condition with no evidence of vacancy. To the north of Millmarsh Lane, industrial premises primarily consist of small-to-medium sized warehousing and manufacturing units occupied by SMEs. The quality of this space varies. The majority of premises to the east of Walcot Road are in average condition and generally fit for the needs of modern occupiers. However, to the west of Walcot Road, and primarily along Lockfield Avenue, building quality is poor. Space for SMEs within the cluster is generally well occupied with low levels of vacancy.

4.2.8. The majority of the cluster is comprised of buildings which make efficient use of the land which they are built on. The cluster is well laid out, however, the intensity at which land is used causes a general lack of space for parking and other outdoor uses. The only example of land potentially underused is a thin strip adjacent to the River Lea occupied by a civil engineering company (VolkerHighways). The majority of this land is yard space with some temporary building structures onsite.

4.2.9. **Cluster C5** (known as 'Brimsdown Part C' in this study) is located in the Brimsdown SIL, immediately south of Cluster C4 and Brimsdown railway station.

4.2.10. The area of the cluster to the east of Mollison Avenue primarily comprises of industrial and retail uses. The retail uses include a large home goods store and several smaller premises including a tool shop and a furniture rental service. The type of industrial use varies within the area. To the north of Ardern Road, industrial premises primarily comprise medium-sized warehousing units used by wholesalers and other distribution companies. There is also some floorspace used for light manufacturing purposes and a recycling centre. The quality of the premises is generally average. Many of these buildings occupy large footprints in the land which they are built on, and they are well occupied with no vacancy evident at the time of the study. Industrial premises to the south of Aden Road are characterised by small to medium sized warehousing and workshop space in relatively poor condition. This area caters for SMEs in the light manufacturing and wholesaling sectors. The vacancy rate within these buildings is fairly high (7.6%) and some buildings are only single storey. However, the area is constrained by lack of space. Buildings take up a significant majority of the space and parking opportunity is limited. There are residential properties located to the south of the area along Duck Lees Lane, with new though not intensified warehousing premises recently developed to the north and east of this as part of the Enfield Distribution Park development.

4.2.11. The area of the cluster to the west of Mollison Avenue is primarily in employment use. The south of the area is characterised by development of high-density large warehousing and ancillary office space which has only very recently been put onto the market. The Riverwalk Business Park in the north of the area comprises small to medium sized warehousing and office space which accommodates a variety of uses including food distributors, light manufacturers and high-value technology and engineering companies. Much of the rest of the north of the area is occupied by a large chemical plant operated by Johnson Matthey (located west of Jeffreys Road). There are some small to medium-sized warehouses and workshops of average quality to the west of Jeffreys Road. These buildings are well used with no evidence of vacancy at the time of the study.

4.2.12. **Cluster C6** is a designated SIL in the Lea Valley known as Meridian Business Park. The SIL has excellent access to the strategic road network, with A1055 Meridian Way located to the east and the A110 Lea Valley Road located to the north.

4.2.13. To the south of Morson Road, land is used primarily by transport, distribution and wholesaling companies for storage and warehousing purposes. Enfield Community

Transport, and DHL's Supply Chain division both operate large sites which are used to store vehicles. DPD, DHL and Caeserstone all operate large warehouses with ancillary office space. There is some industrial space for SMEs in this area with a scaffolding company and a concrete mixing plant based here. The quality of buildings in the area is generally good. The large warehouse jointly operated by Caeserstone and DPD has only recently been developed and is in particularly good condition. Due to the nature of the uses onsite, buildings have a low footprint ratio in this area with land used to store vehicles taking up a large quantity of space.

4.2.14. To the north of Morson Road, there is a brewery (operated by Camden Town Brewery) and a number of small to medium sized warehousing units and workshops primarily occupied by distribution companies, tool and equipment hire firms and light manufacturers. The quality of the buildings and environment here is generally good. The only notable example of poor building quality is the site occupied by a van rental agency on Wharf Road. The area is well occupied with no evidence of vacancy at the time of this study and buildings generally take up a large footprint.

4.2.15. **Cluster C16** is a designated LSIS located on Alma Road, west of the Brimsdown Road SIL. The cluster comprises of small to medium sized warehousing and workshop spaces primarily occupied by wholesalers and light manufacturing companies. There are also vehicle repair shops, and some non-employment uses including a gym and a supermarket. The building quality within the cluster is generally poor, and there is no evidence of any recent development within the cluster. The buildings onsite are generally only one-to-two storeys; however, they occupy large footprints on the land they are built on and there is limited yard space with parking opportunity at a premium.

4.2.16. The layout of buildings within the cluster is also fragmented. Residential properties are located immediately to the west and south of the cluster. There is also currently no means of accessing premises in the west of the cluster without travelling on King Edward's Road which is a residential street. The cluster functions well in its current use. Vacancy is currently low (2% at the time of the study as per findings from CoStar), which is likely because many businesses are attracted to the cheaper rent which the cluster offers comparative to other nearby clusters.

Market Context

4.2.17. The Brimsdown sub-area is dominated by industrial activity, with 91% of the existing floorspace in manufacturing/distribution uses with the remaining space focussed on 'big box' retail activity.

4.2.18. Stock tends to be larger in size and also of mixed quality. It is noticeable that units that are of better quality are orientated towards the distribution sector, reflecting the recent investment in and expansion of this sector in Enfield. Despite this quality trend, when compared to some other sub-areas, there is relatively limited 'new space', with stock having been refurbished.

4.2.19. Demand has been strong across all unit sizes, with low vacancy rates (sub 5%) in the sub-area. Net 'take-up' of floorspace, which is representative of levels demand, across all sizes has fluctuated, however in recent years there has been a sizeable amount of lettings in the larger units.

4.2.20. Unsurprisingly, by volume, smaller units have seen more lease activity. To a large degree this reflects a higher turnover rate of small businesses, as they either grow and relocate or cease to trade.

4.2.21. Rents have seen positive growth overall, with values in excess of £12/square feet (£129/m^2) and £13/sqft (£140/m^2) being achieved for small and medium sized units. Larger units tend to command lower rent amounts, in the region of £9-£10/sqft (£97-

108/m^2). New units have seen a small premium achieved, with some achieving £14/sqft (£151/m^2).

4.2.22. Unsurprisingly land ownership across the sub-area is complex, with a mix of institutional and owner-occupier freeholds. Whilst there are large landowners, even in these sites the lease context is complicated.

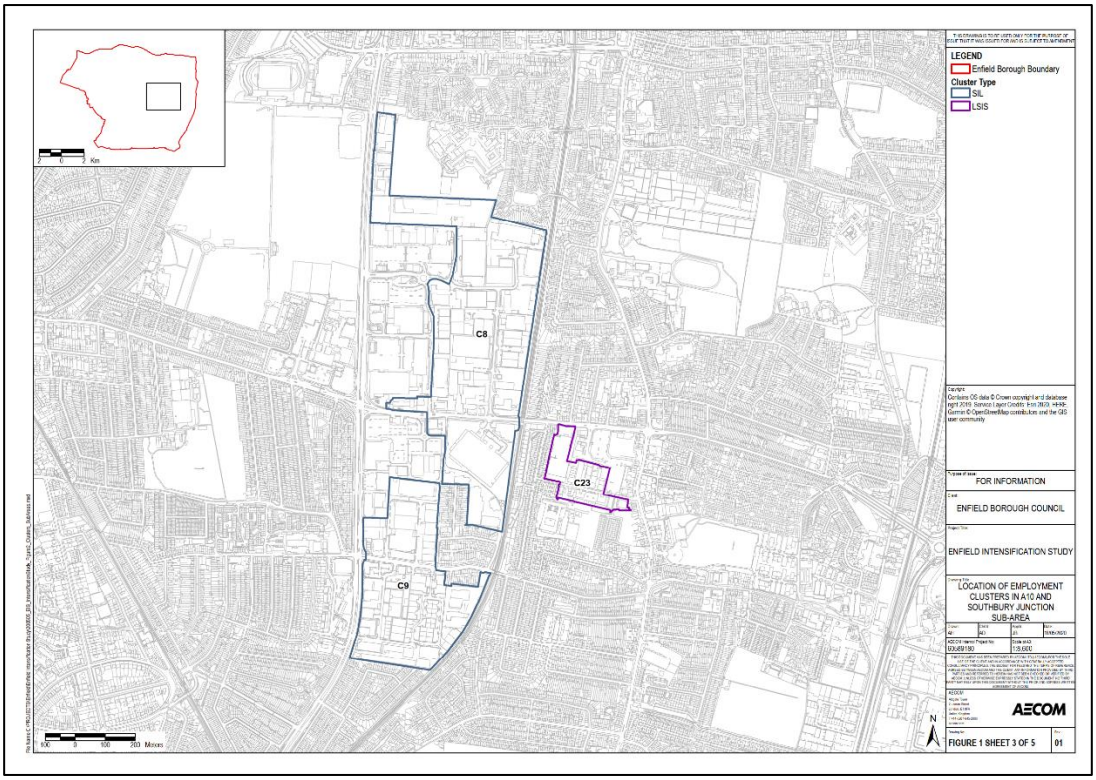
4.3. A10 and Southbury Junction sub-area

Context and location

4.3.1. The A10 and Southbury Junction sub-area is located in the north-east of the Borough, immediately east of Ponders End. The A10 Great Cambridge Road travels to the west of employment land within this sub-area, and provides strategic road connections to the M25 in the north and the A406 North Circular Road to the south.

4.3.2. There are three clusters within this sub-area which are identified in Figure 2. Two large clusters located immediately to the west of the Greater Anglia railway line comprise the majority of employment land within the sub-area. A third cluster is located to the east of Ponders End. These clusters are described in detail below.

Figure 2: A map showing clusters in the A10 and Southbury Junction Sub-Area



Cluster Analysis

4.3.3. **Cluster C8** (Great Cambridge Road & Martinbridge Trading Estate Part A) is a large designated SIL. It is directly connected to the strategic road network, with the A10 Great Cambridge Road located to the east and A110 Southbury Road bisecting the cluster to the south.

4.3.4. The majority of employment land in the cluster is located to the north of the A110 Southbury Road. The condition, type and size of employment space in this area varies. Much of the employment space is located in large warehousing units and is used for wholesaling and distribution purposes. These units are generally in good

condition and make good use of the site areas. There is, however, a high level of vacancy within these units (18% as per findings from CoStar at the time of the study).

4.3.5. To the south of the cluster, along the A110 Southbury Road, there is some light manufacturing space and land in sui generis use including two vehicle/equipment hire centres and a vehicle pound. These are generally low-density, single storey buildings in poor quality. A notable exception to this is Heritage House, occupied by Crown Logistics, which comprises of modern, recently built premises. The area to the west of the cluster, west of Baird Road/Chalk Mill Road, is primarily occupied by non-industrial uses, with retail space and their large adjacent car parks comprising the majority of space. There is also some social infrastructure (including a tribunals service and a gym) and a residential apartment complex.

4.3.6. **Cluster C9** (Great Cambridge Road & Martinbridge Trading Estate Part B) is a designated SIL located to the south of the A110 Southbury Road and Cluster C8. The cluster is an Industrial Business Park (IBP) as per the adopted 2016 London Plan distinction between these areas and Preferred Industrial Locations (PIL) within SILs[30], meaning that it aims to accommodate uses which are generally of higher value including research and development. There are two distinct areas in the cluster which are separated by Lincoln Road. The Martinbridge Trading Estate is located to the north of Lincoln Road. This area consists of small-to-medium sized light industrial and warehousing units occupied by SMEs. The building quality is generally average and buildings are mostly single storey. Approximately 12% of floorspace in this area is vacant, all of which is warehousing space purpose built for distribution use.

4.3.7. The area to the south of Lincoln Road comprises two industrial estates, known as Lumina Park and the Great Cambridge Road Industrial Estate, a site occupied by BT Fleet Solutions and a strip of industrial properties located south of Progress Way. In Lumina Park, the majority of the employment floorspace is within the Lumina Business Centre, with a number of retail units and a church also located in the area. The business centre is multi-storey and comprises of excellent quality space fit for the modern occupiers with limited evidence of vacancy.

4.3.8. The Great Cambridge Road Estate comprises of one-to-two storey warehousing and workshop units for distribution and light manufacturing use. This space is generally in good condition and is well occupied with only limited vacancy. The BT Fleet Solutions site is located to the east of Great Cambridge Road Estate and comprises of a single-storey building used as a garage with an ancillary office building and large yard space. The industrial properties located south of Progress Way are of a poor quality and are of a low density (the majority of units are single storey). These buildings are located in close proximity to residential properties.

4.3.9. **Cluster C23** (Queensway Industrial Estate) is a designated LSIS located south of the A110 Southbury Road and immediately west of Ponders End High Street. The cluster comprises primarily of small to medium sized warehousing and workshop units occupied by SMEs. The type of occupiers in the site include small wholesaling and distribution companies. Many of these units, including a florist and a clothing company, have shop fronts which serve the nearby Ponders End High Street and local residential areas. There is also a bus depot operated by Arriva located in the northern part of the cluster.

4.3.10. The building quality and quality of the surrounding environment within the cluster is generally poor. Buildings are low density with the majority being under two-storeys high. However, buildings generally have a large footprint on the land parcels which they are built on and there is no evidence of land which is surplus to requirement. There is adequate parking and servicing space and there is no evidence of any vacancy within the cluster. The cluster appears to function well for its occupiers,

[30] Note that the policy and justification that supports SILs being designated by boroughs as either IBP or PIL is removed entirely within the DNLP such that no distinction should or need be made in future development plan documents.

particularly for small distribution and manufacturing firms which benefit from good access to the high street. To access the majority of premises in the south of the cluster (facing Queensway), vehicles need to travel along Ponders End High Street. There is a school located immediately to the south of the cluster and residential properties located to the east.

Market Context

4.3.11. The A10/Southbury sub-area is a diverse location, with approximately two thirds of the floorspace in the sub-area occupied by industrial/distribution businesses and the balance shared between retail and office activity.

4.3.12. In the main stock is relatively large, with an average size of 3,400m^2 – the largest of the sub areas considered in this study. However even this is somewhat skewed by the large footprint non-industrial uses such as retail, car sales and hotel, with industrial spaces averaging 4,000m^2.

4.3.13. Stock is also of mixed quality, with almost a quarter of all floorspace having been built pre-1970, suggesting there may be opportunities for redevelopment in the future as buildings reach the end of their usable life. These older units also tend to be smaller and accommodate a number of 'lighter' industrial activities.

4.3.14. The sub-area market has been quite volatile in terms of occupancy, with vacancy rates fluctuating significantly. Data from April 2020 suggested overall industrial vacancy rates were 11%, although this is somewhat impacted by a predominance of larger vacant units at that point in time, which appear to have become vacant in 2019.

4.3.15. Rents vary significantly within the sub-area; the average is £9.80/sqft (£106/m^2) however this ranges between £5/sqft (£54/m^2) and £17/sqft (£183/m^2).

4.3.16. The predominant demand over the last 5 years has been for small to medium sized units (200-2,000m^2), with a high number of deals in this size band. Whilst there have been fewer large deals this reflects (in part at least) the relatively limited supply of larger units. The opportunity for larger units is demonstrated, however, by recent developments which have focussed on 2,000m^2 units.

4.3.17. The A10 and Southbury Junction sub area presents a fragmented nature of freehold ownership with complex overlaying lease structures. There are few large institutional landowners, however SEGRO do have a reasonable footprint in the south of the area.

4.4. Edmonton Leaside sub-area

Context and location

4.4.1. The Edmonton Leaside sub-area is located in the south-east of the Borough. The sub-area is a strategically important location for industrial land due to its excellent connections to the road network. The A406 North Circular Road travels east-to-west across the sub-area. The area is also connected to the M25 and Brimsdown to the north via the A1055 Meridian Way. The River Lea passes immediately to the east of the sub-area.

4.4.2. There are seven employment clusters located in this sub-area. The locations of these are shown in Figure 3. Five of these clusters comprise a large area of industrial land located immediately to the north of the A406 North Circular Road. The other two clusters are the Harbet Road Industrial Estate to the south of the A406 and the Claverings Industrial Estate on the B137 Montagu Road in the north of the sub-area. These clusters are described in detail below.

Figure 3: A map showing clusters in the Edmonton Leaside Sub-Area

Cluster Analysis

4.4.3. **Cluster C10**, Montagu Industrial Area North, is a designated SIL located to the east of the B137. The cluster primarily comprises small to medium sized warehousing and workshop space with some land used for heavy industry (including a concrete mixing plant). The north of the cluster has experienced recent redevelopment with industrial sites either side of Dane Road currently under construction.

4.4.4. The quality of premises within this cluster is generally very poor. This is particularly the case for sites located to the east and south of Stacey Avenue. Sites generally comprise only small plots of land and circulation space is tight in the cluster. There is limited space for parking and accessibility across the site is poor with HGVs unable to easily access the southern part of the cluster including on Stacey Avenue and on First Avenue. There are a number of sites located in the cluster which are owned by the Council.

4.4.5. **Cluster C11,** Montagu Industrial Area South, is a designated LSIS located directly north of the A406 North Circular Road and south of Cluster C10. There are two distinct areas within the cluster separated by Conduit Lane and a residential area with a communal open space. The area to the south of Conduit Lane has direct access onto the A407. The area to the north of Conduit Lane is located in part of the same industrial estate as Cluster C11 which is accessed by the B127 and Daniel Close.

4.4.6. Though these areas may be geographically separate, the types of uses and occupiers are very similar. The cluster primarily consists of light industrial and warehousing space primarily occupied by vehicle repair shops, equipment hires shops and recycling centres. These uses benefit from the vast amount of yard space which is prevalent in the cluster, with industrial floorspace in buildings representing only 25% of the total area. The quality of the buildings and surrounding environment is generally poor in both parts of the cluster.

4.4.7. The area to the north of Conduit Lane is currently more intensively used than the area to the south. However, buildings in the area are generally single-storey and of poor

quality. Road space within the cluster is currently constrained with very little room for HGV movement and there is also limited space for parking. The area to the south of Conduit Lane is underutilised with large amounts of yard space. The buildings which are located onsite are generally in poor condition and are of low density. This area has better transport connectivity than the site to the north of Conduit Lane. It is able to easily accommodate HGVs and there is adequate parking space.

4.4.8. **Cluster C12**, known as Aztec 406, is a designated SIL located to the north of Eley's Estate/the A406 North Circular Road, and to the east of the A1055 Meridian Way. The cluster comprises of large warehousing and light industrial space occupied by large companies. Notable tenants include Lidl, Biffa and Crown Workspace. The buildings are in good condition and are high density, making good use of their site areas. The cluster contains a large plot of empty land located east of Ardra Road. It has excellent links to the strategic road network via the A1055, and is clearly an attractive area for large companies to base their distribution operations, with no evidence of vacancy within any of the units in the site.

4.4.9. **Cluster C13**, Eley's Estate, is a designated SIL in the Lea Valley area, immediately north of the A406 North Circular Road. The cluster is large, with approximately 115,000m^2 of employment floorspace which is primarily industrial with some office and storage space. Non-industrial uses, including a hotel and several retail facilities are located in the south of the cluster. An events centre (the Meridian Grand) is located just outside of the cluster.

4.4.10. There are many types of industrial uses in this cluster, including a large contingent of waste management companies. These companies, which include a car impounder and a skip hire/recycling facility, require large yard spaces and the sites which they occupy have small building footprints. There are some larger buildings within the cluster which are used for both warehousing and industrial purposes by large companies. Coca-Cola operate a manufacturing plant in the cluster. There is also a brewery, several self-storage facilities and warehouses used by a building materials supplier and a cash and carry wholesaler. These buildings are generally in good condition, have large footprints on the land they are built on and have high employment densities.

4.4.11. Much of the floorspace within the cluster is within small to medium sized warehousing units and workshop for SMEs in the wholesaling, distribution and light manufacturing sectors. The quality and density of this space varies considerably across the cluster. Much of the space in the north of the cluster, along Nobel Road, has recently been refurbished and is in excellent condition. However, there are many buildings, particularly to the west of the Coca-Cola plant, and along Advent Way and Nobel Road in the south of the cluster, which are of a poor quality and in need of regeneration. Many of these units are single-storey and currently not fit for modern occupiers. Some units, particularly those along Nobel Road to the west of the Coca-Cola plant, are within land parcels which are constrained with limited room for passing vehicles and no yard space. Units in the south of the cluster, near to Advent Way and Nobel Road, tend to be less constrained with many of these units having yard space.

4.4.12. **Cluster C14** Edmonton EcoPark is a designated SIL located directly west of the River Lea and north of the A406. The majority of land within the cluster is a waste management site known as the Edmonton EcoPark. There are also some small-to-medium sized warehousing and workshop space for SMEs located on Advent Way in the south of the cluster. The cluster has excellent, direct access to the strategic road network and the site is able to accommodate additional traffic associated with increased industrial activity.

4.4.13. In the Edmonton EcoPark, waste management activities include a waste-to-energy plant and a bulky waste handling facility. The site is strategically important for managing London's waste. The site is the location of the North London Heat and

Power Project which is a ten-year programme to build an Energy Recovery Facility, and associated development, which will replace the existing Energy from Waste plant at the Edmonton EcoPark in north London.

4.4.14. The small-to-medium sized workshop space on Advent Way in the south of the cluster is generally in good condition. The buildings are well occupied with no evidence of vacancy or underutilised land.

4.4.15. **Cluster C15**, Harbet Road Industrial Estate, is a designated SIL located to the south of the A406 and east of the River Lea. The SIL is located within the eastern portion of Meridian Water, a proposed mixed-use regeneration area where comprehensive redevelopment plans for a mix of uses are being developed by the Council, a significant landowner and are set out in the Edmonton Leaside Area Action Plan (2020)[31]. Harbet Road SIL itself includes the Stonehill Estate, is buffered by the adjacent roads and river and has good access to the North Circular Road, with some of this area currently lying vacant. Hastingwood Trading Estate is currently occupied by small businesses and storage facilities housed within metal warehouses, positioned within a secure and controlled perimeter. The approved plans for Meridian Water as set out in ELAAP do not include any changes of use away from industrial use within Harbet Road SIL.

4.4.16. The quality of the existing environment is poor, with inadequate servicing and parking relating to the actively used sites. Employment density is relatively low due to the high vacancy rate and the uses on site. There are no residential properties or open spaces is close proximity of the site, which is surrounded by other industrial uses. Additionally, the cluster is well connected to strategic roads, being directly accessible via the A406 North Circular Road.

4.4.17. **Cluster C22** is a designated SIL and the northernmost cluster in the Edmonton Leaside sub-area. The cluster is split into two areas. The majority of the estate is known as the Dominion Business Park and is owned by LBE. The other area is located in the north-east of the cluster and is owned by private landlords. Both areas in the cluster have generally low rents, which are attractive to businesses whom cannot afford space in the larger industrial areas of the Edmonton Leaside sub-area.

4.4.18. The Dominion Business Park comprises of small-to-medium sized warehousing, workshop and office space. It is primarily occupied by small manufacturers and wholesaling companies. There are also various council-related activities occurring at the site, including the Council's Music Service and its Youth & Family Support Service. This part of the cluster can be accessed via Centre Way and transport links are generally good with adequate space for parking. The part of the cluster in the north-east also comprises primarily of small-to-medium sized warehouses and workshops. Its tenants include food and drink suppliers, wholesalers and equipment hiring companies. The roads within this part of the cluster are narrow with limited space for parking. This area of the cluster can only be accessed via Goodwin Road and is located in close proximity to residential properties.

4.4.19. The building quality and quality of external environment in both parts of the cluster is generally average to poor. The cluster is well occupied with no evidence of vacancy as businesses are attracted to the generally low rents at the site. Buildings occupy large footprints on the land which they are built on and they are generally two-to-three storeys high. The cluster is located in a primarily residential area with vehicles required to pass residential properties to access the site.

[31] LBE, 2020, Edmonton Leaside Area Action Plan. https://governance.enfield.gov.uk/documents/s79519/Annex%202%20-%20Edmonton%20Leeside%20Area%20Action%20Plan%20ELAAP.pdf

Market Context

4.4.20. The Edmonton Leaside sub-area benefits from the accessibility provided by the North Circular, as such it has become a focus for investment for a range of businesses and developer/investors. Almost 85% of the floorspace is occupied by industrial/distribution businesses with a focus on urban servicing, warehousing and manufacturing. It also accommodates a significant scale of utilities and waste infrastructure.

4.4.21. The area has a mixed portfolio of space, manufacturing and distribution activity tends to be of a large size, with an average unit size of c.3,000m^2, however there is also a strong representation of light industrial activities that populate smaller units of c.1,000m^2 (average size).

4.4.22. The light industrial stock tends to be of lower quality, and is older. Larger units are often purpose-built manufacturing facilities (which are better quality in terms of their fit out even if they are older stock) or new distribution units, reflecting the strength of the location for a range of logistics businesses.

4.4.23. Vacancy in the area has tended to be low, historically driven by a stable industrial base, and today by its attractiveness for distribution. In April 2020 vacancy rates were c.2.4%, however in 2019 were close to 0%. In some of the smaller size bands vacancy is still sub-2%.

4.4.24. Since 2014 take up has been strongly focussed towards larger units, however, as is common in most locations there has been a higher number of leases in smaller units, reflecting a higher turnover of businesses.

4.4.25. Rents in recent years have varied significantly, with a peak rent of over £20/sqft (£215/m^2) – however this was for a fairly small unit. Average rents are c.£8.40/sqft (£90/m^2), however this is distorted by some unusually low rents for units on Nobel Road. Discounting these low rents, rents overall are around £10/sqft (£108/m^2).

4.4.26. Generally, land ownership appears far more condensed within this sub-area than is the case in some of the comparator sub areas considered within this report. A common theme is the presence of the London Borough of Enfield who own a fairly large proportion of the land within industrial sites across the sub-area.

4.4.27. There are also a number of investor/developer and institutional investor owners which places a significant amount of land in a consolidated ownership structure, however leases are fairly complex and there are still a large number of small owner-occupiers.

4.4.28. The strength of the A406 corridor as a strategically important location for industrial and distribution activity in the future is demonstrated by the recent (January 2020) purchase of Ravenside Retail Park by Prologis for c.£51mn. Whilst no immediate plans are in place to redevelop the site Prologis have publicly stated there may be future opportunities for the site to transition into a distribution location, which would be more aligned to their core business

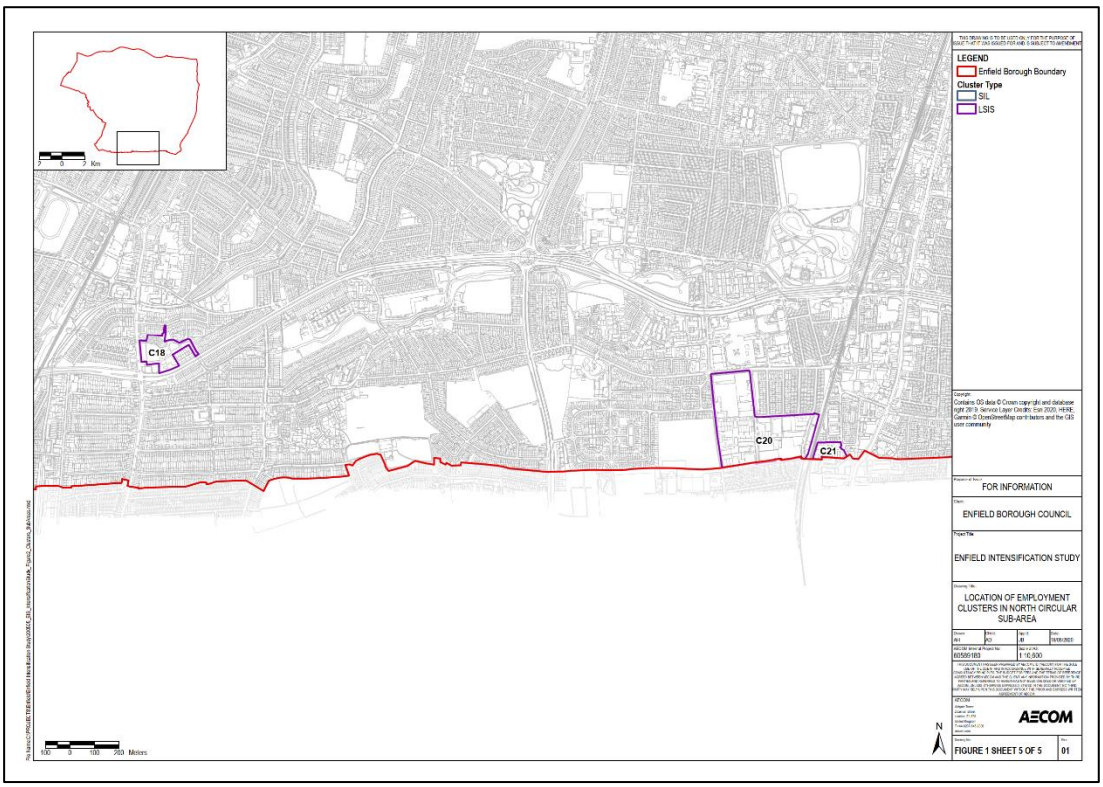
4.5. The North Circular Road Corridor sub-area

Context and location

4.5.1. The North Circular Road Corridor sub-area comprises a number of employment clusters located close to the A406 North Circular Road in the south of the Borough.

4.5.2. The sub-area comprises three clusters shown on Figure 4. One of these clusters is located on the A406 at its junction with Green Lanes near Palmers Green. The other two are located adjacent to the London to Stansted rail line on LBE's border with LB Haringey. These clusters are described in detail below.

Figure 4: A map showing clusters in the North Circular Corridor Road Sub-Area



Cluster Analysis

4.5.3. **Cluster C18** is a designated LSIS located close to Palmers Green in the south of the borough. The cluster's location on the A406 North Circular Road means that it has excellent access to the strategic road network and is subsequently primarily used for transportation-related purposes. The employment uses in the cluster consist of a large bus garage operated by Arriva and a vehicle repair centre. Non-industrial uses are located in the part of the cluster overlooking the A409 to the south, and they include a rental car company, a supermarket and a car dealership.

4.5.4. The quality of the buildings and the external environment is generally poor. All buildings within the cluster are single storey, though some buildings (including the bus garage) have mezzanine space. Transport links are constrained in the cluster with limited space for parking and vehicles passing. The cluster is also located close to residential properties located on the A406 and to the north of Pymmes Brook.

4.5.5. **Cluster C20**, the Commercial Road and North Middlesex estate, is an LSIS located in Upper Edmonton near to LBE's boundary with LB Haringey. To the south of Shaftesbury Road, the stock is primarily small to medium sized warehousing units for wholesaling and distribution uses. The stock is two-to-three storeys and is generally average quality. There is a particularly large presence of catering and clothing businesses within these units. To the north of Shaftesbury Road, the type of activity is primarily light industrial and manufacturing uses located within single-storey workshops. These units are generally of poor quality and the surrounding environment is inadequate with limited parking space. The site suffers from fairly poor access to the strategic road network. The A406 is located approximately 250 metres to the north of the site though HGVs and other vehicles serving the site are required to travel along Bull Lane past residential properties and North Middlesex University Hospital.

4.5.6. **Cluster C21**, Langhedge Industrial Estate, is a small LSIS located on Langhedge Lane also near to LBE's boundary with LB Haringey. The cluster comprises small-to-medium sizes warehousing and workshop space for SMEs. The building quality is

generally average and the quality of the external environment within the cluster is poor with limited space for parking and servicing. The cluster has good access to the strategic road network with the A1010 located close by. There were no signs of vacancy at the time of the study evidencing strong levels of demand with businesses likely attracted to the lower rent on offer here compared to larger industrial areas in the Borough. Buildings to the north of the cluster are single-storey and poorer quality than the buildings to the south and have limited yard space.

Market Context

4.5.7. The North Circular sub-area accommodates a series of small industrial estates, which a strong presence of industrial businesses (over 90% of all floorspace), with a focus on local services and light manufacturing. These estates accommodate small units, with predominant supply less than 1,000m^2 per unit in size.

4.5.8. Whilst on the whole space is of lower quality than other sub-areas, there are a number of units which are of poor quality and there is little 'new' space that has been delivered in the last 20 years.

4.5.9. Unsurprisingly given limited supply and a focus on small units, vacancy rates are low, reflecting a general lack of supply of this type of space in London – in April 2020 vacancy rates were below 1%.

4.5.10. Values are relatively good, again a reflection of the small unit size with average deal size c.450m^2, with an average of c.£9.70/sqft (£104/m^2) and a peak of £15/sqft (£161/m^2). There has been limited market activity in the area, with only 6 lease deals in the last 5 years.

4.5.11. Ownership is mixed. There remain some larger owner occupiers, but also housing developers have acquired sites to the north of the A406.

4.6. Overall Market Insight

4.6.1. From a market/development perspective there are ongoing strategic shifts in the appetite for intensified industrial environments in the future. Whilst no schemes have yet been delivered there are now plenty in the pipeline. Findings from our engagement indicate that the likes of SEGRO, Prologis and Gazeley have all worked up their own version of what multi-storey industrial products may be.

4.6.2. At present, the shared view amongst the development industry is that multi-storey industrial will be a feature of London's supply in the future, but is most likely in locations where the conditions are 'right'. This means the industry focus is on places where demand is strong, values are relatively high and sites of sufficient scale can be developed.

4.6.3. Ultimately, at this point of market maturity in the UK, multi-storey developments are seen as a compromise from occupiers as they are unfamiliar with how space can successfully operate at upper floors and not convinced it will offer the same quality of space/service as traditional units. As such developer focus also leans toward locations where alternate supply is constrained so occupier businesses have limited choice if they want to be in that location.

4.6.4. Within Enfield the principal areas of interest at present are focussed around the North Circular, drawing on the borough's strength as a location for higher turnover/value final mile and e-commerce distribution. This sector is seen as critical to the multi-storey approach given its sensitivity to location and therefore preparedness to innovate to locate in the most advantageous places - it also operates smaller footprints than more traditional distribution centres so can often afford a higher £/sqft rent.

5. Site identification

5.1.1. For the purposes of the assessment, the industrial land suitable for intensification as set out and described in section 4 has been split into sites. The Industrial Sites Database provided alongside this report identifies all the sites in this assessment. The following section describes the method used to identify these sites.

5.1.2. To determine individual sites, this study draws upon analysis conducted as part of the Industry in Enfield: Study of Type, Form and Activity (2018, presented in section 2.3) which grouped together buildings into coherent identifiable sites. These buildings were grouped together because they had similar qualitative characteristics. Proposals which come forward to intensify industrial land are likely to consider all buildings which have similar supply characteristics within an area, rather than individual buildings. The site type analysis identified in the Type, Form and Activities Study is therefore considered appropriate for use in this study.

5.1.3. A review was undertaken to determine where site types may have changed in line with development since 2017/18 (when the initial analysis was conducted). The review concluded 297 distinct sites in Enfield's industrial land.

5.1.4. Table 2 shows the site types included in the study, a description of the site type and the number of sites which were assigned this site type in the study.

5.1.5. The site type most commonly found is 'Standalone Warehouse' with 130 of these sites in Enfield. Standalone warehouses also comprised the largest proportion of land in the employment clusters within the Borough (44%). The next most commonly found site types area 'Dense Estate' and 'Industrial Estate' with 39 and 37 sites identified as these types respectively. There are 32 sites classified as 'Open Industrial Land', 10 sites identified as 'Bespoke Industrial or Utilities', 5 sites identified as 'Vacant Land' and 2 sites are identified as 'Industrial Land'. There were also 7 sites identified as 'Other' which are in industrial use (including a vehicle maintenance depot and a driving test centre).

5.1.6. The assessment of sites also identified sites which are not currently in industrial use. This includes 10 sites identified as 'Retail Park', 7 sites identified as 'Office' and 4 sites identified as 'Residential'. There were also 2 sites identified as 'Other'. These sites comprise 8 sites in industrial use (including a vehicle maintenance depot and a driving test centre), comprise 3 sites in non-industrial use such as hotels.

5.1.7. In addition, 5 sites identified as being 'Under Construction' which are currently being redeveloped and therefore are not categorised as being in industrial or non-industrial use.

5.1.8. In total of the 297 sites within the 20 employment clusters with either a 'medium' or 'high' potential for intensification considered in this assessment, 266 sites have been identified as being in industrial use (including vacant land in designated areas), 24 in non-industrial use and 5 sites as being under construction.

5.1.9. The sites are identified in Worksheet 1 of the Industrial Sites Database, and maps showing the site types for all sites in the assessment are shown in Appendix B.

Table 2: Site type analysis

Site type	Description	No. of sites	Total Area (ha)	Proportion (%)	
				No. of sites	Total area
Standalone Warehouse	Typically large warehouses with gated access and occupied by a single business. There is usually large external yard space and formal parking provision.	130	114.6	43.8	43
Industrial Estate	Typically large warehouses occupied by multiple businesses sharing yard space. Unit sizes are generally smaller than standalone warehouses.	37	34.1	12.5	12.8
Dense Estate	Old industrial units which have been subdivided over time. These units vary in size and there is typically little external space	39	36.3	13.1	13.6
Open Industrial Land	Large external space with buildings comprising only a small proportion of land.	32	20.3	10.8	7.6
Business Park	One single building occupied by a large number of small units which primarily accommodates office uses	6	1.3	2	0.5
Bespoke Industrial or Utilities	Industrial buildings or utilities sites built for uses such as waste management/power. There is typically yard space.	10	33.5	3.4	12.6
Vacant Land	Unused land	5	10.3	1.7	3.8
Industrial Land	Unclassified industrial land comprising small units and operational yard space	2	0.2	0.7	0.1
Other - Industrial	Unclassified and singular structures such as vehicle maintenance depots	7	1.6	2.3	0.6
Sub-total Industrial		**268**	**252.2**	**90.3**	**94.6**
Retail Park	Large retail units typically single storey with large customer parking provision.	10	6.5	3.4	2.5
Office	Large buildings used for office purposes.	7	0.8	2.4	0.3
Other – Non-ind.	Unclassified and singular structures such as food trucks or hotels	3	1.3	1.1	0.5
Residential	Sites in residential use	4	0.8	1.3	0.3
Sub-total – Non-industrial		**24**	**9.4**	**8.2**	**3.6**
Under Construction	Site currently under construction or undergoing demolition works.	5	5.1	1.7	1.9
Total		**297**	**266.7**	**100**	**100**

6. Approach to assessment of potential

6.1. Introduction

6.1.1. This section sets out the approach to the assessment of potential for purely industrial intensification, potential for mixed-use development and the subsequent development categorisation contained within the remainder of the report.

6.2. Site categorisation

6.2.1. To provide an up-to-date analysis of Enfield's industrial land, the sites identified in Section 5 have been split into five categories. These categories are identified in Table 3.

Table 3: Site categories

Category no.	Category description
1	Industrial sites which are suitable for purely industrial intensification
2	Industrial sites which should remain in their current use
3	Industrial sites which should be considered for redevelopment for industrial and residential uses (mixed-use development)
4	Industrial sites which should be considered for release for other uses (including residential)
5	Not assessed

6.2.2. Sites are placed into a category as a result of two assessments: an assessment of potential for purely industrial intensification; and, an assessment of the potential for mixed-use development.

6.2.3. Both the assessment of potential for purely industrial intensification and the assessment of potential for mixed-use development do not consider sites currently in non-industrial use. This is because the demand and supply factors which lead to a change from a non-industrial use to an industrial use is different to the demand and supply factors leading to industrial intensification or the introduction of mixed-use development on a site which is already industrial. These sites (those identified as being 'Retail Park', 'Office', 'Residential' and non-industrial 'Other' sites) have therefore been discounted from the assessment and have been placed in category 5 above.

6.3. Assessment of potential for purely industrial intensification

6.3.1. The assessment of potential for purely industrial intensification included all of the sites currently in industrial use as identified in Section 5. The assessment of industrial intensification is split into three components.

- The first component is the **potential for intensification assessment**. This assessment identifies which sites are appropriate for purely industrial intensification[32] based on a review of a core set of baseline supply and property market factors deemed essential for industrial intensification to occur. This assessment is detailed in Section 8.

- The second component is the **type of design assessment**, which identifies which design typology is most appropriate for sites with potential for industrial intensification based on a set of wider supply and property market factors. The assessment identifies whether a site could be intensified whilst retaining its current use (by, for example, vertically or horizontally extending existing buildings), or whether it would need to be comprehensively redeveloped to another use to facilitate intensification. This assessment is detailed in Section 8.

- The third component is the **capacity assessment** which is detailed in Section 9. This identifies the likely potential increase in floorspace capacity and the change in jobs which industrial intensification could lead to in Enfield using a set of typologies which have previously been implemented in other areas. The assessment only considers sites identified as requiring comprehensive redevelopment or new provision to facilitate intensification. This is because understanding the potential increase in floorspace possible in sites which retain their use (e.g. the vertical extension of an existing building) would require detailed surveying of the existing infrastructure including identifying structural constraints. The potential increase in floorspace deliverable from sites which retain their use is expected to be limited in the overall context of the Borough.

6.3.2. Sites which are assessed as having potential for intensification and have been identified as being able to achieve this intensification while retaining their current use are preliminarily placed into category 1 i.e., they are suitable for purely industrial intensification. Sites which are identified as requiring comprehensive redevelopment to another use or new provision to enable intensification and are able to accommodate a suitable typology and deliver additional floorspace are also preliminarily placed into category 1.

6.4. Assessment of potential for mixed-use development

6.4.1. The assessment of potential for mixed use development only includes industrial sites in employment clusters designated as LSIS. This is based on the DNLP[33] making provisions within Policy E7 for the potential co-location of industrial and non-industrial uses in LSIS if as part of a plan-led or masterplanning process in collaboration with the relevant borough. The same provisions do not apply to SIL. All sites within LSIS are included in this assessment, regardless of whether they had been identified as having potential for purely industrial intensification.

6.4.2. This assessment identified sites which have potential to be suitable for mixed-use development based on a core set of supply and property market factors deemed essential for this type of development to occur. It does not provide typologies for these sites or quantify their potential[34]. Sites identified as being suitable for mixed-use development were preliminary placed in category 3 i.e., they should be considered for redevelopment for industrial and residential uses.

[32] As explained at paragraph 1.2.1
[33] As per text written in Policy E7 of the Intend to Publish London Plan 2019, which states "In LSIS (but not in SIL) the scope for co-locating industrial uses with residential and other uses may be considered. This should be part of a plan-led or masterplanning process."
https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf
[34] Category 3 and 4 sites will pass to the parallel Local Plan evidence base Capacity Study for an assessment of Suitability and the application of mixed-use typologies and resulting development capacities.

6.5. Finalising categories

6.5.1. The results of both assessments were then combined to finalise the categories which sites were identified in. The method undertaken to do this, and an analysis of the number of sites identified in each category by property market area, is presented in Section 11.

7. Assessment of potential for industrial intensification

7.1. Introduction

7.1.1. This section presents the methodology used to conduct the first component of the industrial intensification assessment: identifying sites with potential for intensification. The findings of the assessment are available in the Worksheet 2 in the Industrial Sites Database which has been provided alongside this study. A brief analysis of the findings to be carried forward into the type of design assessment is also set out in this section.

7.2. Factors and scoring criteria

7.2.1. The assessment uses a scoring system based on existing supply and property market factors to identify the appropriateness of industrial sites for intensification. These factors are listed below, along with a description as to how each of these influence the potential for intensification:

1) Intensity of use: sites which are under-utilised and/or have low plot ratios are more likely to have potential for intensification.

2) Quality of stock and the external environment: sites with poorer quality buildings and/or external environment are more likely to have potential for intensification.

3) Nature of landowner: sites owned by the Council and/or industrial investors/developers may have a more positive outlook towards industrial intensification than other landowners such as pension funds and owner occupiers.

4) Presence of physical constraints: sites with less constraints due to the physical environment are likely to be more appropriate for intensification.

5) Access to the strategic road network: sites which have better access to the strategic road network are more likely to have potential for intensification.

7.2.2. The factors listed above are considered core to determining the scale of potential for intensification which is likely to occur at a particular site. There are other supply factors relevant to the assessment of industrial intensification which are not in the above list. However, these factors, including vacancy, the number of landowners and the size and type of buildings, are considered to be primarily related to the type of intensification which may occur rather than the scale of intensification. These factors have therefore not been included as part of this stage of the assessment but are included in the type of design assessment presented in Section 8 and the capacity assessment presented in Section 9.

7.2.3. The list of supply factors used in this study were sent to the GLA in June 2020. The GLA confirmed that the supply factors identified were largely consistent with the factors that they have proposed to evaluate the potential for intensification of industrial uses.

7.2.4. Table 4 provides a summary of how each factor was considered in the scoring system. Sections 7.2.6 to 7.2.12 describe this in detail.

Table 4: Criteria used to identify the scores given for each factor in the potential for intensification assessment

Factor	Assessed at a site or cluster level	Criteria used to determine score provided			
		No Potential	1	2	3
Intensity of use	Site	n/a	The site is well utilised. There is limited potential to increase floorspace due to evidence of high plot ratios, high density buildings and/or limited to no yard space not required for the operational needs of the site.	The site is generally well utilised. There is some potential to increase floorspace due to evidence of buildings which could better use the space which they are located on and/or there is a small quantity of yard space which is not necessarily required for the operational needs of the site.	The site is poorly utilised. There is potential to increase floorspace due to evidence of a low plot ratio, buildings which are low in density and/or the presence of a yard space which is not necessarily required for the operational needs of the site.
Quality of stock and the external environment	Site	n/a	The site comprises of relatively new stock and/or has a good quality external environment.	The site comprises of average quality stock and has an external environment which is generally adequate.	The site comprises of poor quality, ageing stock and has a poor-quality external environment.
Nature of landowner(s)	Site	n/a	The site has an owner or a combination of owners which are not likely to want to intensify the site's industrial uses.	The site has an owner or a combination of owners which may be likely to want to intensify the site's industrial uses.	The site has an owner or a combination of owners which are likely to want to intensify the site's industrial uses.
Presence of physical constraints	Site	Constraints presented by the physical environment within and surrounding the site mean that there is no potential to intensify the site by itself. Any intensification of the site would have to be part of a scheme which also intensifies the wider area.	Constraints presented by the physical environment within and surrounding the site may limit potential to intensify the site by itself.	Constraints presented by the physical environment within and surrounding the site do not the limit potential to intensify the site by itself.	n/a
Access to the strategic road network	Cluster	n/a	The site has average or poor access to the strategic road network.	The site has good access to the strategic road network.	n/a

7.2.5. Factors were assessed at either a site or a cluster level. This was based on whether the factor was likely to be different for each site or whether a factor was likely to result in scores which were similar across sites within a cluster. For the assessment of 'Access to the strategic road network', all sites within a cluster were given the same score. The other factors were all assessed at a site level.

7.2.6. In the assessment of 'intensity of use' sites were given scores of 1 to 3. This assessment was based on how well the land within the site was utilised and the propensity to increase floorspace based on this. Sites where there was evidence of lower plot ratios and/or buildings of low density were more likely to have potential for intensification and therefore score highly The presence of yard space seemingly additional to what is required for the operational needs of the site, such as vacant land and excess car parking space, also resulted in sites scoring well.

7.2.7. The assessment of 'Quality of stock and the external environment' also scored sites between 1 and 3. Sites which comprise of poor quality/ageing buildings and/or have a poor-quality external environment are more like to come forward for redevelopment and therefore be intensified. The quality of the stock and the quality of the external environment were both assessed independently and these scores are provided in the Industrial Sites Database. A view based on professional judgement was used to provide a combined score for quality of stock and the external environment.

7.2.8. The assessment of 'Nature of Landowner(s) was based on the type of landowner(s) present on site. Understanding the nature of the landowner is key in identifying what appetite there may be intensification of industrial uses within the site. Sites which are owned by the Council, or have a combination of landowners on site which included the Council and other organisations likely to be attracted to industrial intensification such as private investors, scored a '3' in this assessment.

7.2.9. Sites which are owner occupied or owned by pension funds scored a '1' in the assessment. The appetite for pension funds (or other institutional investor) to intensify industrial land is difficult to gauge at the strategic level and would need to be determined on a case by case basis in light of the income producing potential of the existing asset. Ultimately an investor of this nature needs to ensure a long-term income stream capable of paying back its investors. It relies on regular (and predictable) income from an asset, ideally one where value appreciates over time – something the industrial sector has done in recent years. For a Fund of this type redevelopment would mean the loss of income to the Fund whilst the asset is demolished and rebuilt, most likely creating an income gap of at least 2 years. These sites are therefore only likely to come forward where the Fund can 'afford' this gap or where stock is starting (or likely to begin) to depreciate in value.

7.2.10. Sites which are owner occupied are set out to meet the requirements of the owner and therefore owners are more likely to be resistant to change. Sites which have other owners or other combinations of owners, such as private investors and real estate firms, score a '2' in this assessment.

7.2.11. The 'Presence of physical constraints' assessment identifies how the potential for intensification of industrial uses within a site may be limited by constraints presented by the physical environment. This assessment only included an analysis of the presence of features of the environment which may physically prevent development on a site. The assessment does not include other attributes which may prohibit development but do not physically prevent it in themselves (for example, the presence of nearby sensitive land uses such as residential properties). Sites were scored either 'No Potential', '1', or '2' in this assessment. Sites which scored 'No Potential' were identified as having physical constraints which prevent any potential for intensification on the site alone. Any intensification of these sites would have to be part of a scheme which also intensifies the wider area. This generally applies to small sites located close to obvious physical constraints presented by the built or

natural environment such as other industrial sites, railways or rivers. These sites are therefore discounted from the potential for intensification assessment, though they may come forward as part of comprehensive redevelopment of multiple sites identified to have potential for intensification in this assessment (see section 8.2.14).

7.2.12. For the assessment of 'Access to the strategic road network', sites are scored either a '1' or a '2'. Enfield has excellent links to the strategic road network via the M25, the A406 North Circular Road and the A10 Great Cambridge Road. Therefore, all sites generally have good access to the strategic road network. However, sites in Strategic Industrial Locations (SIL), particularly in the north-east and east of the Borough, tend to have more direct access to the strategic road network than other sites located in more residential areas of the Borough. These sites therefore scored '2' whereas sites in more residential locations scored '1'.

7.3. Overall scoring and potential for intensification

7.3.1. The next step of the process was to identify the potential for intensification based on the sum of scores derived from the assessment of factors described above. Sites were assigned an overall potential for intensification score of 'High', 'Medium', 'Low' or 'No Potential'.

7.3.2. Table 5 shows the rating given to a site based on the score it achieved. It identifies a description of the rating, the score required for a site to receive that rating, and the number of sites which achieved each rating.

Table 5: Ratings of potential for intensification based on scores achieved

Potential for Intensification	Description	Score(s) obtained	Number of sites	Land equivalent (ha)
No Potential	Sites which have no potential for intensification without a wider scheme which involves other sites.	No Potential	27	3.7
Low	Sites which do not meet all key criteria and have low potential for intensification.	1-10	193	174.4
Medium	Sites which meet all key criteria and have medium potential for intensification.	11	20	19.4
High	Sites which meet all key criteria and have high potential for intensification.	12-13	21	24.1

7.3.3. The maximum score which a site could achieve in the assessment was 13. There were 21 sites in the assessment which scored either a 12 or a 13, equivalent to 24.1ha in land area. These sites were identified as having 'High' potential for intensification. A further 20 sites scored 11 and were identified as having a 'Medium' potential for intensification (equivalent to 19.4ha in land area).

7.3.4. All sites identified as having 'High' or 'Medium' potential for intensification therefore scored well across all components of the assessment. They tend to be low in density and have poor quality stock. They also tend to have landowners which are likely to be supportive of intensification of industrial uses, have direct access to the strategic road network and have limited to no physical constraints which prohibit intensification. These sites have therefore been included in the capacity assessment described in Section 9.

7.3.5. There were 193 sites which scored between 1 and 10, equivalent to 174.4ha in land area. These sites were identified as having a 'Low' potential for intensification. Some of these sites will have scored well in some components of the assessment. However, all of these sites have their potential for intensification restricted by at least one supply factor critical for intensification to occur. For example, they may have a landowner who is not likely to be attracted to industrial intensification, and/or may have stock which is already of a good quality or is high density[35]. They have therefore not been assessed further in the potential for purely industrial intensification assessment.

7.3.6. As stated in section 7.2.11, sites which have physical constraints which significantly impede the potential for a site to come forward by itself for intensification score a 'No Potential' and have been discounted from this assessment. There were 27 sites, equivalent to 3.7ha of land, which received a score of 'No Potential'.

7.3.7. Maps of the sites based on the scores which they received in this assessment are available in Appendix C. Maps of the ratings which these scores correspond to by site are available in Appendix D.

7.4. Sub-area analysis

7.4.1. The full results of this analysis are available in Worksheet 2 in the Industrial Sites Database which accompanies this report. Table 6 shows a breakdown of the results by sub-area.

Table 6: Number of sites by rating given and sub-area

Sub-area	Number of sites and site area (ha) by rating given							
	High		Medium		Low		No Potential	
	Sites	Area	Sites	Area	Sites	Area	Sites	Area
Brimsdown	5	4.4	6	4.7	84	91.6	0	0
A10 and Southbury Junction	3	2.9	3	6.3	28	33.8	0	0
Edmonton Leaside	13	16.7	11	8.4	52	39.1	18	3.1
The North Circular Corridor	0	0	0	0	29	9.9	9	0.6
Total	**21**	**24.1**	**20**	**18.9**	**194**	**173.8**	**27**	**3.7**

7.4.2. Edmonton Leaside was the sub-area which had the largest number of sites identified as having potential for intensification with 13 sites identified as having high potential and 11 sites identified as having medium potential. A number of these sites are in

[35] There are 26 sites which score low (9 or 10 points) for this reason equating to 25.86ha in area. There is potential for the Council to explore initiatives that overcome such barriers to intensification as these or others in order that their intensification potential is increased to such a level that it becomes appropriate for assessment.

Cluster C10 and the northern part of Cluster C11. This is because this area comprises of a considerable quantity of poor-quality industrial land and premises and is largely owned by the Council. In addition, engagement with stakeholders found that businesses in the area are satisfied with the premises they occupy and are reluctant to change as a result of Covid-19. The remaining sites identified as having potential for intensification are light industrial and manufacturing units to the east of Nobel Road (in C13), industrial land to the north of the Coca-Cola Distribution Centre (also in C13), vacant land in the north and southern parts of the Harbet Road Industrial Estate (in C15) and sites comprising the majority of the southern part of Cluster C11.

7.4.3. Brimsdown sub-area comprises the greatest quantity of industrial land in Enfield. However, it is generally well utilised, has good quality stock with a number of owner occupiers who may be resistant to industrial intensification, in fact engagement with stakeholders found that businesses in the cluster are satisfied with the premises they occupy. There are only 11 sites which are identified as having potential for intensification in the sub-area. Three of these sites are in Cluster C4, comprising industrial land occupied by a highway maintenance company and light industrial premises along Mollison Avenue and Brancroft Way. A further three of these sites are located to the east of Morson Road in Cluster C6 which is currently land used for transportation storage purposes. The remaining 4 sites are in Cluster C3 (two sites comprising poor quality, low density light manufacturing and industrial units on Bilton Way) and Cluster C4 (two sites including poor quality light industrial units along Aden Road and a low-density site occupied by transportation companies on Jeffreys Road).

7.4.4. There are six sites within the A10 and Southbury Junction area which assessment has concluded has potential for industrial intensification (3 with high potential, and 3 with medium potential). Lack of responses to stakeholder engagement from businesses in the area shows their reluctance to change under current circumstances. This sub-area has a large quantity of industrial floorspace but many of its sites have undergone redevelopment in recent years Four of the sites are in Cluster C8, including a large warehouse, a lorry depot owned by the Council, industrial land to the east of Central Road and industrial premises occupied by SMEs to the north of Southbury Road. The remaining two sites are in Cluster C9 and comprise the majority of the Martinbridge Trading Estate and a site used for vehicle repairs by BT to the south of Lincoln Road.

7.4.5. There are no sites with potential for intensification in the North-Circular Corridor sub-area. These sites are currently generally well utilised and many of them (particularly in Cluster C20 and C21) have only indirect access to the strategic road network which reduces potential appetite for purely industrial intensification.

7.5. Summary

7.5.1. This section has described the process undertaken to identify sites which have potential for purely industrial intensification in Enfield, and a brief analysis of the results of the assessment.

7.5.2. The assessment is based on supply factors considered key for intensification to occur, including intensity of use, quality of stock, the nature of landowner, presence of physical constraints and access to the strategic road network. The assessment identified 41 sites which have potential for intensification. A large majority of these (24 sites) are in the Edmonton Leaside area. Eleven of these sites are in Brimsdown and six of them are in the A10 & Southbury Junction area. The results of the assessment for each site are in Worksheet 2 in the Industrial Sites Database.

7.5.3. These sites have been carried forward to the Type of Design assessment described in Section 8.

8. Type of design assessment

8.1. Introduction

8.1.1. This section details the next step of the process to assess the potential for purely industrial intensification in Enfield: identifying an appropriate 'design type' for each site assessed as having 'Medium' or 'High' potential for intensification in the assessment detailed in Section 7.

8.1.2. As identified in Section 1, the approach to measuring intensification generally preferred in literature is development which increases the amount of employment floorspace available in a site. The design types identified in this section therefore comprise solely those which would result in an increase in floorspace.

8.1.3. The assessment of what design type is most appropriate at a site is based on the supply and property market factors present. For example, stacking floors is most likely to be the most appropriate method of increasing floorspace at a site which comprises good quality stock but has buildings which are only single storey. However, increasing floorspace at a site which comprises high-density buildings but with large yard space(s) is most likely to be best achieved by building on the yard space. The supply and property market factors considered in this assessment are listed below. Section 8.2 provides explanation of how these factors have been considered in the identification of each design type.

- Intensity of use;
- Quality of stock/external environment;
- Proximity to non-industrial uses;
- Number of landowners;
- Type of landowner;
- Complexity of land ownership;
- Number of tenants;
- Complexity of lease structure;
- Presence of vacant floorspace and/or vacant land; and
- Average rent for industrial premises in the sub-area.

8.1.4. The type of use present on site also influences which type of design is most appropriate. For example, increasing floorspace at sites comprising of industrial uses which requires a large quantity of yard space may only be achieved if the site is comprehensively redeveloped to facilitate for other uses.

8.1.5. The design types identified for sites in this assessment will be carried forward into the Capacity Assessment described in Section 9. The capacity assessment identifies the scale of industrial intensification likely to occur by applying appropriate building typologies for the design types identified below.

8.2. Design types

8.2.1. There are a number of studies in existing literature which discuss design types and how they can be applied, including the GLA Industrial Intensification and Co-Location

Study[36], the GLA Industrial Intensification Primer[37], the Park Royal Intensification study published by the OPDC[38] and the Enfield Co-Location and Intensification Case Studies Report published by AECOM[39]. The findings of these studies, including that related to types of design, are presented in the literature review in Section 2.

8.2.2. The design types presented in this section draw upon the findings of this literature review and professional judgement of the type of development appropriate for intensification in the context of the above. They are:

1) Vertical extension;

2) Horizontal extension/infill; and

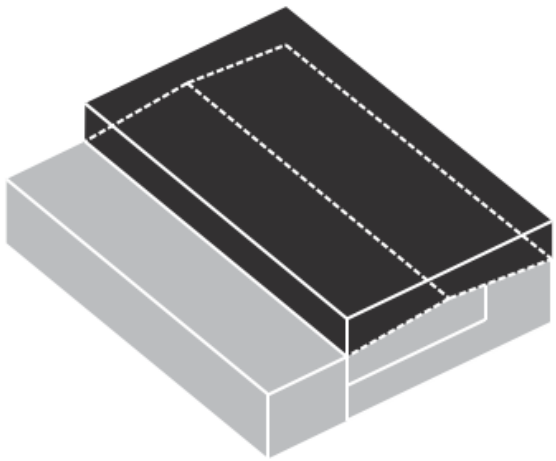
3) Comprehensive redevelopment/new development on vacant land.

8.2.3. The below text provides, for each type of development identified above, a description of the development and examples of supply-side/property market characteristics where it may be appropriate to be implemented.

Vertical extension

8.2.4. Vertical extension is the process of developing above or below existing employment floorspace to increase the amount of floorspace available in a building. Vertical extension enables floorspace to be increased without requiring additional land or increasing the building's footprint. Vertical extension may take a number of forms. It may involve only minor development such as the addition of basements, or it may involve more major works including vertical stacking of up to four units. An example of how vertical extension is applied to an existing premise is shown in Figure 5.

Figure 5: Illustration showing the application of vertical extension on an existing premise



Note: Existing floorspace is in grey and additional floorspace is in black.

Source: Park Royal Intensification Study (2017)

8.2.5. Vertical extension is more appropriate for buildings which are currently low-density, and where surrounding yard space is limited. Vertical extension is generally more

[36] GLA 2020: Industrial Intensification and Co-Location Study. https://www.london.gov.uk/sites/default/files/industrial_intensification.pdf
[37] Old Oak and Park Royal Development Corporation (OPDC), 2017: Park Royal Intensification Study: Local Plan Supporting Study https://www.london.gov.uk/sites/default/files/33._park_royal_intensification_study_1.pdf
[38] GLA 2017: Industrial Intensification Primer. https://www.london.gov.uk/sites/default/files/industrialintensificationprimer.pdf
[39] LB Enfield, 2018: Enfield Co-Location and Intensification Study.

viable where a building only has one landowner, as it often requires repurposing of the building and generally extensive construction works. The stacking of units also requires existing premises to be in at least adequate condition to be able to support the floorspace built on top of it.

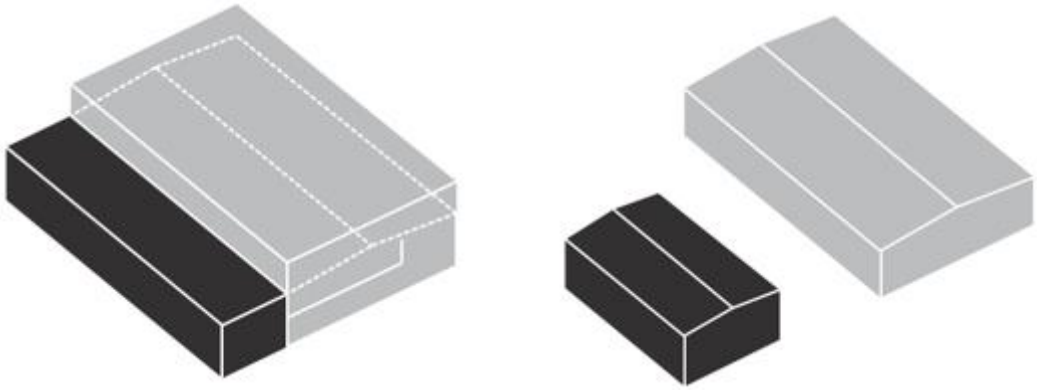
8.2.6. Vertical extension does not require the types of uses occupying floorspace in the existing premises to change. It is therefore more appropriate where there is evidence of demand for the building's existing use (reflected in low vacancy rates and high rents).

8.2.7. However. there are instances where vertical extension may impede existing uses. In sites where it is identified that this may occur, this type of design will not be identified. For example, additional parking/loading space required to facilitate for the additional floorspace may reduce yard space available for the existing uses. This would not be appropriate in sites with existing uses requiring extensive use of yard space such as vehicle repair centres and transportation storage sites. Instead, comprehensive redevelopment (see section 8.2.11 to 8.2.14) is likely to be more appropriate at these sites.

Horizontal extension/infill

8.2.8. Horizontal extension involves development on the sides of existing buildings to increase the amount of floorspace available in a building. Infill occurs when development is built within the same land parcel as an existing building, such as in its yard space, but is not directly connected to the building itself. Both horizontal extension and infill involve increasing the footprint of buildings within land parcels. The additional industrial floorspace means that it will also increase plot ratios. Figure 6 shows illustrations of how horizontal extension and infill may be applied to a site to increase floorspace.

Figure 6: Illustrations showing horizontal extension (left) and infill (right).



Note: Existing floorspace is in grey and additional floorspace is in black.

Source: Park Royal Intensification Study (2017)

8.2.9. Horizontal extension or infill are likely to be most appropriate where there is a large amount of underutilised space within a land parcel. Sites currently with low plot ratios which may, for example, have large yard spaces, are ideal locations for this type of intensification to occur. It is also more suitable in sites which have good quality existing premises.

8.2.10. As with vertical extension, horizontal extension/infill does not require the types of uses occupying floorspace in the existing premises to change, though it may impede existing uses. Horizontal extension/infill are most appropriate in sites occupied by uses which do not require a large amount of operational yard space or external

servicing area. The presence of external physical constraints, such as fragmented land parcels, may restrict the potential for horizontal extension/infill.

Comprehensive redevelopment/new development on vacant land

8.2.11. Comprehensive redevelopment involves the redevelopment of an entire site, removing all existing floorspace and replacing it with new space. It is the most appropriate type of intensification where a change in use onsite is required to increase floorspace. It is also appropriate when a change in the type of use is not required however existing buildings are unable to accommodate other methods of intensification. New development on vacant land also involves the redevelopment of an entire site, however it is specific to areas where there is at present only vacant land with no existing floorspace.

8.2.12. Both comprehensive redevelopment and new development on vacant land are appropriate on sites which currently comprise poor quality premises which is not able to accommodate other types of intensification. Since comprehensive redevelopment/new development on vacant land enables new types of space to be introduced at a site, evidence of low demand for the existing type of space (e.g. low rent levels, high vacancy) may strengthen the case for this type of development.

8.2.13. Both comprehensive redevelopment and new development on vacant land provide an opportunity to consolidate industrial land by offering high density, high quality industrial floorspace. However, construction costs for both comprehensive redevelopment and new development on vacant land are generally higher and therefore require a strong actor to carry the risk of large-scale redevelopment. Areas with landowners likely to be attracted to industrial intensification, such as the Council or private investors, are generally better suited for this type of development.

8.2.14. It is important that any proposal to comprehensively redevelop buildings or develop on vacant industrial land is as spatially efficient as possible and recognises that it is likely to occur over multiple sites (in part, as a ripple effect from the original intensified site). Therefore, where comprehensive redevelopment or new provision on vacant land has been proposed as an appropriate type of design for a site, adjacent sites with the same or similar land ownership have also been identified (even if they are not identified with a site with potential for intensification). This analysis is available in the Industrial Sites Database. An assessment of the additional floorspace likely to be delivered by redevelopment of individual sites and redevelopment when sites are grouped is provided in Section 9.

8.3. Results

8.3.1. Worksheet 3 in the Industrial Sites Database identifies the types of design for each site which has a medium or high potential for intensification, as well as a qualitative analysis explaining why the design type has been chosen. Maps showing the outputs of this assessment are provided in Appendix E.

8.3.2. The assessment identifies comprehensive redevelopment/new development on vacant land as the most appropriate design type for the majority of sites (39 of 41 sites) with potential for intensification. This is broadly indicative of the nature of employment land within Enfield: it is largely well utilised with few examples of vacant land or yard space which is surplus to the operational requirements of a site. However, the Borough has a large presence of poor-quality stock and/or industrial land and premises occupied by uses which do not require high quantities of floorspace. For these areas, comprehensive redevelopment is the only type of design which is suitable to deliver floorspace beyond what already exists on-site. There are a further four sites where new provision on vacant land is the most appropriate design type, given that these sites currently have no industrial premises.

8.3.3. This reflects the predominant view of the developer market, where they have been focussed on delivering a 'bespoke' multi-storey solution on larger sites that aligns with market demand. This has the benefit of enabling a design approach that minimises the compromises an occupier business would need to make to take on space and also allows the developer to control the management of the entire space, much as they would a normal industrial estate.

8.3.4. There is one site, ST68 in Cluster C13, where vertical extension appears most appropriate to increase floorspace. This is because the majority of the site comprises of one building which is in good quality but is only single-storey. Also, the building is owned by a private investor and has a single occupier (a security system supplier which uses the site for light manufacturing and distribution purposes).

8.3.5. It should be noted that, at present, no developers are actively seeking to undertake this type of project, unless it is to provide space for the existing business. As such it is difficult to suggest with any certainty that the market would deliver significant additional floorspace to meet Enfield's needs via this approach.

8.3.6. There is one site where horizontal extension is most appropriate which is ST203 in Cluster C5. This site is currently occupied by a number of transportation and distribution firms located in good quality buildings with a large yard space. The landowner is a private investor and increased industrial floorspace could be delivered on this site by extending the current building or adding buildings on its large yard space to complement existing good quality space.

8.3.7. However, in this scenario it would be critical to first understand the occupier businesses needs of that space, which may be significant. It also needs to be reflected that this may deliver limited additional capacity and a number of compromises for other occupiers in terms of the space provided.

8.4. Summary

8.4.1. This section has described how types of design were identified for each site which is identified as having potential for purely industrial intensification. It presents the types of design which were considered and the supply factors which should be present on site for the types of design to be appropriate.

8.4.2. The type of design assessment is located in Worksheet 3 in the Industrial Sites Database, and maps are available showing the outputs of the assessment in Appendix E.

8.4.3. The assessment identifies that comprehensive redevelopment/new development on vacant land is the most appropriate design type for the majority of sites (35 of 41 sites, equating to 32.5ha). This is representative of the nature of employment land in Enfield which is largely well utilised but there are a number of locations with poor quality stock. Of the remaining six sites, four (10.3ha) are where new provision is most appropriate on the basis that they comprise vacant land, one site (0.5ha) is where vertical extension is most appropriate and one site (0.3ha) which is best suited to horizontal extension.

9. Capacity assessment

9.1. Introduction

9.1.1. This section details the final step of the process to assess the potential for purely industrial intensification in Enfield: the capacity assessment. This assessment identifies the potential increase in floorspace and jobs associated with the 39 sites identified as suitable for comprehensive redevelopment or new provision in the Type of Design assessment detailed in Section 8[40].

9.1.2. The capacity assessment identifies building typologies to understand the quantum of floorspace and jobs which could come forward in the sites identified as appropriate for redevelopment. These building typologies are reflective of the type of space which is demanded in Enfield and are based on Avison Young's knowledge of intensified industrial buildings across the globe, and existing research undertaken in London. These are identified in section 9.4.

9.1.3. The capacity assessment identifies the change in floorspace and jobs for individual sites which are identified for comprehensive redevelopment or new provision (39 sites), and sites which are identified for comprehensive redevelopment or new provision as part of a wider 'group'. See Section 10 for more detail on how sites were identified for redevelopment.

9.1.4. The assessment uses current expectations of future demand to test the potential to deliver the 'right kind' of industrial floorspace in the 'right locations' for businesses in Enfield.

9.1.5. The capacity assessment is available in Worksheet 4 of the Industrial Sites Database. This section aims to supplement the results in the spreadsheet with commentary concerning the method and a short summary of the results.

9.2. Method

9.2.1. The capacity assessment identifies the likely increased floorspace delivered by industrial intensification in the sites shortlisted from the 'type of design' assessment. The assessment comprises five steps:

1) Identifying the baseline;
2) Identifying suitable typologies;
3) Applying typologies to sites;
4) Identifying the gross and net increase in floorspace and employment; and,
5) Identifying potential to achieve increased floorspace and employment by grouping sites.

9.2.2. The following describes the method used for each step in the assessment and provides a summary of results. The full results are available in Worksheet 4 in the Industrial Sites Database.

[40] 41 Sites are assessed as part of the capacity assessment. These sites comprise 35 sites which are identified for comprehensive redevelopment, 4 sites which are identified for new provision and an additional 2 sites (ST32 and ST35) which are only appropriate for intensification as part of groups of sites (Group 4 and Group 5 respectively). The latter 2 sites were therefore not assessed as part of the 'Type of Design Assessment' for this reason.

9.3. Identifying the baseline

Floorspace

9.3.1. The first step in identifying the baseline was to identify the existing floorspace on-site using available property market data. This was done for both individual sites which are identified for comprehensive redevelopment, and sites which are identified for comprehensive redevelopment as part of a wider 'group'.

9.3.2. The information as obtained from two sources: the CoStar property database[41] and VOA (Valuation Office Agency) business rate data[42]. Floorspace figures were extracted from both sources for each site. Both figures were then tested for their accuracy based on a qualitative view of how much floorspace is likely to be accommodated on site.

9.3.3. The floorspace figure deemed most accurate was used to identify baseline floorspace for that site. Where there was still uncertainty concerning which figure was most appropriate, the highest baseline floorspace figure was used. This is to ensure a conservative approach which does not underestimate the likely floorspace onsite.

9.3.4. Both VOA and CoStar output floorspace using different methods (i.e. Net Internal Area (NIA), Gross Internal Area (GIA) or Gross External Area (GEA)) depending on the site. Therefore, existing floorspace data had to be converted to one measure for consistency between sites. GEA was the chosen measure to be converted to as this is the measure used by the GLA as part of their 65% plot ratio floorspace capacity assumption in the DNLP[43]. The conversion used the following factors:

- NIA to GIA: 1.053
- GIA to GEA: 1.10

9.3.5. Floorspace figures have been separated into use classes. The distinction is based on the descriptions provided in the database from which floorspace figures were deemed most accurate for each site. Given floorspace is presented differently across the databases, a summary of the use class assumed for each VOA 'Description' and CoStar 'Secondary Type' is provided in Table 7 below.

[41] Costar.com, (2020). Costar Property - Commercial Property Research And Information http://www.costar.com/products/costar-property-professional
[42] VOA (Valuation Office Agency), (2020). Non-domestic rating: stock of properties including business floorspace, 2020. https://www.gov.uk/government/statistics/non-domestic-rating-stock-of-properties-2020
[43] Greater London Authority (GLA), 2019: Intend to Publish London Plan 2019 https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf

Table 7: Use Classes

Use Class	VOA Description	CoStar Secondary Type
B1a	Offices and premises	Service
B1c	Workshop and premises	Light Manufacturing
B2	Factory and premises	Industrial
B8	Warehouse and premises; Storage depot and premises; Land used for storage and premises; Retail warehouses and premises; Scrap metal yard.	Warehouse; Distribution.
Sui Generis	Waste transfer station and premises	Showroom; Freestanding.

9.3.6. The baseline floorspace 'capacity' was then derived by comparing the existing floorspace identified above with the quantum of floorspace if the site was to operate at a 65% plot ratio. The figure which was highest was chosen to represent the baseline at that site. This is consistent with the GLA's definition of floorspace capacity as defined in Policy H5 of the DNLP[44].

Jobs

9.3.7. The results of the employment calculations are based on assumptions on employment densities by class use for existing floorspace. The employment densities used in these calculations are based on the HCA Employment Densities Guide: Third Edition (2015)[45], RICS measurement guidance[46] and supplemented by professional judgement.

9.3.8. Employment densities used to calculate baseline employment were assigned to each use class, based on floorspace figures which are deemed most accurate from VOA and CoStar data as described above. Table 8 below shows the employment densities applied to each use class.

Table 8: Employment density per use class

Use Class	Area Type	Employment Density
B1a	NIA	12
B1c	NIA	47
B2	GIA	36
B8	GEA	70
Sui Generis	GEA	100
Mixed Typology	NIA	50

[44] As per p.196 of the Intend to Publish London Plan 2019, which states "Floorspace capacity is defined here as either the existing industrial and warehousing floorspace on site or the potential industrial and warehousing floorspace that could be accommodated on site at a 65 per cent plot ratio, whichever is the greater." https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf

[45] HCA, (2015). Employment Density Guide: Third Edition. November 2015. https://www.kirklees.gov.uk/beta/planning-policy/pdf/examination/national-evidence/NE48_employment_density_guide_3rd_edition.pdf

[46] RICS, (2015). Code of measuring practice. 6TH Edition, May 2015 https://www.rics.org/globalassets/rics-website/media/upholding-professional-standards/sector-standards/valuation/code-of-measuring-practice-6th-edition-rics.pdf

9.3.9. For sites which have a plot ratio which is lower than 65%, actual floorspace was converted to a baseline floorspace estimated to be 65% of the site's area. For sites which are currently vacant, therefore no existing use or floorspace, a 65% plot ratio is applied to the site area. A blended 'mix typology' employment density is then applied to the estimated floorspace figure to calculate the theoretical number of jobs that could be accommodated on site. This approach ensures that Enfield's existing industrial capacity is not being underestimated.

9.3.10. Jobs numbers are calculated by applying employment densities presented in Table 8 to the baseline floorspace at minimum 65% plot ratio.

9.3.11. The same methodology is used to estimate the number of jobs deliverable for groups of sites identified as having the potential for redevelopment.

9.4. Identifying suitable typologies

9.4.1. This section sets out the typologies which have been identified to deliver an increase in floorspace and jobs at sites assessed as suitable for comprehensive redevelopment.

9.4.2. It is critical that capacity testing uses building typologies which are realistic and deliverable. The purpose of this assessment is not to develop detailed or bespoke architectural designs, but to identify how an increase in industrial floorspace on a site could be delivered using building typologies which have been successful in similar locations.

9.4.3. As set out in the Market, Property and Deliverability Assessment it is critical that future typologies of buildings and the space they provide aligns with the nature of market demand that is likely to exist within each of the sub-areas. However, it is also important to provide sufficiently flexible and generic space to ensure it can adapt to changing demand over time, much like traditional industrial stock has in many locations.

9.4.4. A mix of unit sizes and floorspace types to meet future needs will be needed in LB Enfield to meet demand, this includes small light industrial space through to large distribution and logistics floorplates.

9.4.5. Avison Young have drawn on their knowledge of intensified industrial buildings across the globe, and existing research undertaken in London (largely to support the London Plan and other borough level planning policy) to identify suitable examples to use as a proxy for the potential buildings which could be accommodated in Enfield in the future.

9.4.6. At this point in time multi-storey industrial development remains largely undelivered in London, the only schemes in planning (or achieved planning) are Peruvian Wharf (Newham), Bow Yards (Tower Hamlets) and The Generator (Brent) – neither of which are built and proven. Our engagement has indicated that the major industrial developers such as Prologis and SEGRO have been evolving their own UK proposals based on their global experience and these have been discussed with them as part of the commission, however, there remains no UK best practice.

9.4.7. As such we have needed to draw more widely from across the globe in identifying suitable typologies that could be applicable in a UK or Enfield context. Where possible we have tried to focus on locations where there are not obviously 'extreme' market conditions (for example some of the dynamics in Hong Kong or Singapore) and where servicing requirements are broadly similar to those for UK operators. This has led to a core focus on Europe (particularly north west) and North America. However, given the strength of the distribution sector we have looked to elsewhere in the Far East to consider how this could be delivered.

9.4.8. Six typologies have been identified which are reflective of scale, unit sizes, plot sizes and other contextual factors found in the sites which are included in the capacity assessment. Where possible these contextual factors have sought to consider their ability (based on their current location) to be delivered within the identified sub-areas without significant adverse impacts on neighbouring uses - however this would need to be tested in detail through specific design analysis.

9.4.9. All of these typologies have been recently delivered in other locations and provide a range of "best practice" examples. The typologies which have been chosen are as follows:

1) Typology A: Gewerbehof Laim, Munich, Germany[47];
2) Typology B: Berlartza, Donostia-San Sebastian, Spain[48];
3) Typology C: The Gantry Studio, Hackney Wick, London, UK[49];
4) Typology D: Prologis Georgetown Crossroads, Seattle, USA[50];
5) Typology E: Prologis Narashinio 4, Tokyo, Japan[51]; and,
6) Typology F: Binck Twins Business Centre, The Hague, Netherlands[52].

9.4.10. Table 9 provides detail on these typologies, including a description of each, appropriate plot sizes and plot ratios, the potential for stacking and the likely floorspace quantum and number of jobs likely to come forward if the typology was applied. Each typology is assigned an area type and employment density which are applied to assess the number of jobs deliverable based on its potential use.

9.4.11. Worksheet 5 in the Industrial Sites Database provides the below table and further detail concerning the typologies' ability to accommodate demand, both in terms of activity and unit size. The projected demand by sub-area is also detailed in Worksheet 5.

9.4.12. A full description of each typology is provided in Appendix K.

[47] https://www.world-architects.com/en/gabriele-allendorf-light-identity-munchen/project/gewerbehof-laim
[48] http://www.isuuru.com/ofi_belartza.html
[49] https://thegantry.hereeast.com/about
[50] https://www.prologis.com/industrial-logistics-warehouse-space/washington/seattle/prologis-georgetown-crossroads
[51] https://www.prologis.com/industrial-logistics-warehouse-space/japan/narashino/prologis-park-narashino-4
[52] https://3dwarehouse.sketchup.com/model/c3829b5ca4bbdfa1b0e18fa094d0f9fe/The-Binck-Twins?hl=en

Table 9: Typologies identified

	Typology A	Typology B	Typology C	Typology D	Typology E	Typology F
	Industrial Units	**Shared Yard**	**Attached Structure**	**Multi-storey Industrial 3 Storey**	**Multi-storey Industrial 5 Storey**	**Co-location with employment**
Example	Gewerbehof Laim, Munich, Germany	Berlartza, Donostia-San Sebastian, Spain	The Gantry Studio, Hackney Wick, London, UK	Prologis Georgetown Crossroads, Seattle, USA	Prologis Narashinio 4, Tokyo, Japan	Binck Twins Business Centre, The Hague, Netherlands
Description	Light industrial units which do not require operational yards and are therefore stackable, served by cargo lifts	A group of ground dependent and small stackable units with clustered shared yards and LGV ramp/ goods lifts, designed to maximise efficiency	A group of small stackable units attached to a ground dependent larger industrial building, creating an active frontage to a large unit	A group of large and medium stackable and ground dependent units, maximising land use. Potential to stack smaller light industry on top of large units, served by cargo lifts. Consolidated, multi-level parking on site	A group of large units serving both ground dependent and stackable units. Each floor has an operational yard with direct HGV access via ramps	A group of small to medium units serving both ground dependent and stackable uses. All require small operational yards, so units can be integrated with other units which do not require operational yard, and create an active frontage by co-locating office space
Plot size (ha)	0.96	0.84	4.34	5.49	4.62	1.32
Plot size (m^2)	9,600	8,400	43,400	54,900	46,200	13,200
Total Floorspace (m^2)	11,000	8,500	47,740	54,813	89,187	16,632
Plot Ratio	115%	101%	110%	100%	193%	126%
Potential for stacking (# floors)	5	3	4	3	5	6
Potential Industries	Light manufacturing, motor trade (ground floor only)	Construction, manufacturing, transport & logistics, building trade, motor trade, wholesale	Construction, manufacturing, wholesale	Manufacturing, transport and logistics, building trade and retail, wholesale	Transport and logistics, wholesale	Manufacturing
Use Class	B1c	B1c	B1c	B1c	B8	B2
Employment Density (m^2 per FTE)	47	47	47	47	70	36
Number of Jobs Deliverable	224	173	972	1,116	1,274	420
Area Type	NIA	NIA	NIA	NIA	GIA	GEA

9.5. Applying typologies to sites

9.5.1. Each site in the capacity assessment was then tested against every typology to understand whether the sites could accommodate them. There were two parts of the assessment of suitability: a **technical deliverability assessment**, and a **market assessment.**

9.5.2. Based on the findings of this assessment, employment calculations estimate the number of jobs which could be accommodated by each deliverable typology by site. Only sites which are able to accommodate at least a suitable typology are assessed. The assessment has been conducted for both individual sites and groups of sites identified as having potential for redevelopment (as per section 9.1.3).

Technical deliverability assessment

9.5.3. This assessment identified whether a typology was suitable for a site based on if it is technically deliverable. There are two main aspects of this assessment. The first is identifying if the plot ratio of the tested typology is greater than the existing plot ratio in the baseline to understand if the typology would bring about additional floorspace by creating a higher density on-site. To do this the plot ratio in the baseline has been compared with the plot ratio in the tested typology.

9.5.4. The second part of the assessment is to consider if the site area is of sufficient size to accommodate the typology tested. This assessment assumes that the typology could be scaled down in size if this was appropriate. Sites which have a plot area of equal to or more than 75% of the plot area identified in the typology's case study are identified as being able to accommodate the typology.

9.5.5. Whilst this second part of the assessment is high level and assumes that only sites of a certain size (minimum size) would be suitable for redevelopment, it is likely that smaller sites could, potentially, be redeveloped. However, it is very uncertain that small sites would deliver any significant level of industrial intensification, and in many cases, could deliver additional floorspace for the current occupier (expansion) rather than additional new floorspace to accommodate new employment. It is therefore considered that excluding small sites from the analysis has no detrimental impact on the results.

9.5.6. As a reminder, the typologies tested, and their land requirement are as follows:

Table 10: Minimum Plot Requirements

Typology	Live Example Plot Size (ha)	Assumed Minimum Plot Size Requirement (ha)
A	0.96	0.72
B	0.84	0.63
C	4.34	3/26
D	5.49	4.12
E	4.62	3.47
F	1.32	0.99

9.5.7. The technical deliverability assessment identifies the differences between deliverability of typologies on groups of sites and the individual sites which comprise the group. When sites are grouped it is likely that they will be able to accommodate more typologies as the plot size is larger.

Market deliverability assessment

9.5.8. This assessment identifies whether the type of industrial space which the typology can provide is appropriate for the market which can be served from the site. The assessment considers whether the typology is appropriate based on two factors: the type of activity and the unit sizes which the typology could support.

9.5.9. Through our Market, Property and Deliverability Assessment the characteristics of each sub-area have been set out and from there, industries have been identified that could be attracted to these sub-areas. The summary of the findings, for both types of activity and unit sizes, are as follows:

Table 11: Industries with high demand for floorspace by sub-area

Industry	Brimsdown	A10 and Southbury Junction	The North Circular Corridor	Edmonton Leaside
Construction	X			X
Transport & Logistics	X		X	X
Manufacturing	X	X	X	X
Building Trade & Retail	X			X
Motor Trades	X	X	X	X
Wholesale				X

Table 12: Unit sizes in high demand by sub-area

Size	Brimsdown	A10 and Southbury Junction	The North Circular Corridor	Edmonton Leaside
Small		X	X	
Medium	X	X	X	X
Large	X			X

Note: 'small'-sized units are under 5,000sqft (464m^2), 'medium' sized units are between 5,000 and 50,000sqft (4,645m^2) and 'large'-sized units are over 50,000sqft.

9.5.10. The type of space and the unit sizes which a typology is able to accommodate (see Table 9) have then been compared with the projected demand for employment space in the sub-area (as identified above). The type of space includes consideration of access provision (i.e., lifts vs ramps) to ensure it is broadly compatible with likely servicing requirements. The assessment assumes that only typologies which offer the type of space and the unit sizes appropriate to meet demand in the site's sub area can be delivered at a site. The results of this assessment are detailed in Table 13.

Table 13: Typologies vs Sub-areas matching results

Typology	Brimsdown	A10 and Southbury Junction	The North Circular Corridor	Edmonton Leaside
A		X	X	
B		X	X	
C	X	X	X	X
D	X	X	X	X
E	X			X
F	X	X	X	X

9.6. Identifying the change in floorspace and jobs

9.6.1. The assessment of technical and market deliverability identified sites which could accommodate at least one of the intensification typologies and would therefore be suitable to accommodate purely industrial intensification. Sites where no typology was identified as deliverable are not carried forward in the assessment. Only 13 of the 39 sites assessed are identified as suitable for delivering at least one intensification typology. An additional 9 sites are considered for this assessment as groups; these are sites which either neighbour or share ownership with sites which are identified as part of the assessment individually. Applying the typologies to these sites gives an indication of the quantum of floorspace and jobs which could be delivered on-site. This section describes how change in the floorspace and jobs is quantified and also provides a brief summary of results.

Floorspace

9.6.2. Gross floorspace delivered is identified based on the floorspace which these typologies comprise in their case studies and the plot size of the site. The number of properties delivered is scaled to the size of the site. For example, a particular site could comprise multiple properties if a smaller-scale typology is recommended, or only one property if a larger-scale typology is recommended.

9.6.3. There are instances where more than one typology is identified as being suitable for a site. Where this is the case, the potential increase in floorspace has been estimated for both typologies. The typology which delivers less floorspace represents the ‘minimum’ amount of floorspace which is estimated to be delivered, and the typology which delivers more floorspace represents the ‘maximum’ amount of floorspace which could potentially be delivered. The minimum and the maximum are then averaged by taking a midpoint.

9.6.4. To identify the net floorspace which could be delivered, the baseline floorspace has been subtracted from the gross floorspace. Table 14 shows the potential gross and net floorspace deliverable by site when intensifying only individual sites. Of the 39 sites identified as having potential for intensification, the capacity assessment has identified 13 sites able to accommodate intensification.

Table 14: Gross and additional floorspace achievable by individual site

Site	Cluster	Baseline - 65% PR or above (GEA) (m^2)	Gross floorspace (m^2)			Additional floorspace (m^2)		
			Min	Max	Average	Min	Max	Average
ST41	C11	7,700	15,000	15,000	15,000	7,300	7,300	7,700
ST49	C13	13,500	26,200	26,200	26,200	12,700	12,700	13,500
ST55	C13	15,300	29,700	29,700	29,700	14,400	14,400	15,300
ST56	C13	13,400	18,300	18,300	18,300	4,800	4,800	13,400
ST77	C15	59,600	91,500	177,000	134,300	31,900	117,400	59,600
ST92	C15	9,600	18,600	18,600	18,600	9,000	9,000	9,600
ST270	C4	9,500	18,500	18,500	18,500	9,000	9,000	9,500
ST170	C6	8,800	17,000	17,000	17,000	8,200	8,200	8,800
ST173	C6	8,400	16,400	16,400	16,400	7,900	7,900	8,400
ST328	C8	10,600	16,600	20,600	18,600	5,900	10,000	10,600
ST334	C8	7,900	12,300	15,300	13,800	4,400	7,400	7,900
ST311	C9	28,700	34,700	43,100	38,900	6,000	14,500	28,700
ST312	C9	10,900	16,900	21,100	19,000	6,100	10,200	10,900
TOTAL		**204,000**	**331,600**	**436,800**	**384,200**	**127,600**	**232,700**	**180,100**

Note: figures may not sum due to rounding.

9.6.5. Redevelopment of individual sites has the potential to generate an average of 491,700m^2 of industrial floorspace. This is equivalent to a 180,100m^2 increase over current floorspace capacity.

9.6.6. As stated in section 9.1.3 where sites are grouped as part of redevelopment, they are likely to be able to accommodate typologies which deliver additional floorspace. This is because plot sizes are higher and larger typologies are therefore more technically deliverable. Table 15 identifies the additional floorspace which is achievable if grouping of sites occurs. These figures are additional to those in Table 14.

Table 15: Additional floorspace achievable if grouping of sites occurs

Site	Group	Additional Floorspace (m^2)		
		Minimum	Maximum	Average
ST170	Group 1	-	4,000	2,000
ST173				
ST177				
ST49	Group 2	2,700	2,700	2,700
ST50				
ST08	Group 3	-	-	-
ST09				
ST10				
ST29	Group 4	6,500	6,500	6,500
ST30				
ST31				
ST32				
ST34	Group 5	-	-	-
ST35				
ST82	Group 6	7,100	7,100	7,100
ST83				
ST84				
ST92				
TOTAL		**16,300**	**20,400**	**18,300**

Note: figures may not sum due to rounding.

9.6.7. Grouping of sites has potential to generate an average additional 18,300m^2 of floorspace compared to if only individual sites came forward for redevelopment.

9.6.8. Table 16 shows the total additional floorspace likely to be delivered based on the results from Table 14 and Table 15. Maps of the total quantum of floorspace achievable by site are available in Appendix F.

Table 16: Total Additional floorspace deliverable from industrial intensification

Intensification from…	Additional floorspace (m^2)		
	Minimum	Maximum	Average
Individual sites only	127,600	232,700	180,100
Grouping of sites	16,300	20,400	18,300
Total	**143,900**	**253,100**	**198,500**

Note: figures may not sum due to rounding.

9.6.9. The grouping of sites represents ‘easy’ wins and were agglomerated based on the assumption that adjacent sites with a similar ownership would be pulled together to deliver comprehensive redevelopment. It is clear that further gain could be realised should the Council opt for a more interventionist approach, through site assembly,

joint venture or other delivery mechanisms to agglomerate sites that are currently in the hands of several landowners.

9.6.10. A good example of this type of opportunity would be Cluster C22, where a substantial amount of land is owned by the Council adjacent to other ownerships. Achieving greater agglomerations of those sites (through acquisition or a joint venture) could allow for more comprehensive redevelopment of the area and deliver additional industrial floorspace uplift as a result.

9.6.11. However, this type of approach would need significant design and masterplan development to understand what the potential uplift would be, and would also require in depth engagement with landowners to understand their appetite to engage and potentially work together. Without this work, and a more interventionalist role for the Council, there would be too may uncertainties to rely on that approach to deliver the future needs in the Local Plan.

9.6.12. The table shows that redevelopment of sites is likely to lead to a minimum of 143,900m^2 of additional floorspace, an average of 198,500m^2 and a maximum of 253,100m^2 of additional floorspace. The analysis indicates that 13 of the 39 sites assessed are able to accommodate intensification if only individual sites are considered. A further nine sites could accommodate intensification if grouping were to occur. Therefore, **22** sites in total contribute to these additional floorspace numbers.

Jobs

9.6.13. Based on the gross floorspace and typologies deliverable by site, the employment calculations identify the gross number of jobs which could be accommodated at each site.

9.6.14. As identified in the floorspace analysis, there are instances where more than one typology was identified as being suitable for a site. Where this was the case, the potential increase in employment has been estimated for all typologies identified suitable. The typology which delivers less employment represents the 'minimum' employment scenario which has potential to be delivered, and the typology which delivers more floorspace represents the 'maximum' employment scenario which has potential to be delivered. The minimum and the maximum were then averaged by taking a 'midpoint'. For sites where only one typology was identified suitable no maximum or minimum assessment is applicable and only one estimate is applicable to that site.

9.6.15. To identify the additional employment which could be delivered by site, the baseline employment has been subtracted from the gross employment figures by site. These figures show the additional employment which could be delivered at each site based on variation of floorspace deliverable. Gross and additional employment delivered by intensifying individual sites is available in Table 17 below.

Table 17: Gross and additional employment achievable by individual site

Site	Cluster	Baseline employment - 65% PR or above	Gross employment			Additional employment		
			Min	Max	Average	Min	Max	Average
ST41	C11	200	400	400	400	200	200	200
ST49	C13	200	700	700	700	500	500	200

Site	Cluster	Baseline employment - 65% PR or above	Gross employment			Additional employment		
			Min	Max	Average	Min	Max	Average
ST55	C13	300	800	800	800	500	500	300
ST56	C13	300	500	500	500	100	100	300
ST77	C15	1,000	1,900	2,900	2,400	800	1,900	1,000
ST92	C15	100	500	500	500	300	300	100
ST270	C4	100	500	500	500	300	300	100
ST170	C6	100	400	400	400	300	300	100
ST173	C6	100	400	400	400	300	300	100
ST328	C8	200	300	500	400	100	300	200
ST334	C8	100	200	400	300	100	300	100
ST311	C9	400	600	1,100	900	200	700	400
ST312	C9	200	300	500	400	200	400	200
TOTAL		**3,400**	**9,200**	**11,300**	**10,200**	**4,000**	**6,100**	**5,100**

Note: figures may not sum due to rounding.

9.6.16. As shown in Table 17 above, redevelopment of individual sites is likely to create a minimum of 4,000 jobs, an average of 5,100 jobs or a maximum of 6,100 jobs.

9.6.17. Where sites are grouped as part of redevelopment, they are likely to be able to accommodate typologies which deliver additional floorspace and employment. This is because plot sizes are higher and larger typologies are therefore more technically deliverable. Employment calculations at these sites are based on the same criteria and scenarios set out for individual sites above. The results are provided in Table 18 below. All estimates in this table are additional to the jobs which could be delivered on individual sites only.

Table 18: Gross and additional employment achievable by group

Site	Group	Additional Floorspace (m^2)		
		Minimum	Maximum	Average
ST170	Group 1	-	100	50
ST173				
ST177				
ST49	Group 2	-	-	-
ST50				
ST08	Group 3	-	-	-
ST09				
ST10				
ST29	Group 4	220	220	220
ST30				
ST31				
ST32				
ST34	Group 5	-	-	-
ST35				
ST82	Group 6	200	200	200
ST83				
ST84				
ST92				
TOTAL		**420**	**510**	**470**

Note: figures may not sum due to rounding.

9.6.18. As shown in Table 18 above, grouping of sites has potential to generate a minimum of 420 jobs, an average of 470 jobs or a maximum of 510 jobs. These jobs are all additional to the employment delivered on individual sites.

9.6.19. Table 19 shows the total additional employment likely to be delivered based on the results from Table 17 and Table 18.

Table 19: Total Additional employment deliverable from industrial intensification

Intensification from…	Additional employment		
	Minimum	Maximum	Average
Individual sites only	4,000	6,100	5,100
Grouping of sites	420	510	470
Total	**4,420**	**6,610**	**5,570**

Note: figures may not sum due to rounding.

9.6.20. Table 19 shows that redevelopment of sites deemed appropriate for it in Enfield is likely to lead to a minimum of 4,420 additional jobs, an average of 5,570 additional jobs and a maximum of 6,610 additional jobs.

9.7. Summary

9.7.1. This section has detailed the capacity assessment used to identify the potential change in floorspace quantum and the number of jobs arising from comprehensive redevelopment of sites. It has detailed the methodology used and provided a brief summary of the results.

9.7.2. Two assessments were carried out: one determining the potential increase in floorspace and jobs in individual sites only, and the other determining the potential increase in floorspace and jobs if grouping of sites was to occur. These assessments identified that, if only intensification on individual sites was considered, 13 sites could accommodate intensification. A further nine sites could accommodate intensification if grouping of sites were to occur. Therefore, 22 sites contributed to the net floorspace increase in the capacity assessment.

9.7.3. The gross and net change in both floorspace and number of jobs for each site are available in Worksheet 4 of the Industrial Sites Database. Maps of the total net change in floorspace by site and the net change in number of jobs by site are available in Appendix G and Appendix H respectively.

9.7.4. The findings in this section inform the conclusion of this report which provides a commentary concerning how the net change in floorspace from industrial intensification identified in this study compares to the level of demand for industrial land in the Borough.

10. Assessment of potential for mixed-use development

10.1. Introduction

10.1.1. This section presents the methodology used to conduct the assessment of potential for mixed-use development. The findings of the assessment are available in Worksheet 6 of the Industrial Sites Database. This section also presents a brief analysis of the findings at a sub-area level.

10.1.2. As stated in the approach in Section 6, the assessment of potential for mixed-use development only considers industrial sites which are located in LSIS. All sites within LSIS are included in this assessment, regardless of whether they had been identified as having potential for purely industrial intensification.

10.2. Factors and Scoring Criteria

10.2.1. Similar to the assessment of potential for industrial intensification presented in Section 7, the assessment uses a scoring system based on existing supply and property market factors to identify the appropriateness of industrial sites for mixed-use development. These factors are listed below, along with a description as to how each of these influence the potential for intensification:

- Intensity of use: sites which are under-utilised and/or have low plot ratios are more likely to have potential for mixed-use development;
- Quality of stock and the external environment: sites with poorer quality buildings and/or external environment are more likely to have potential for mixed-use development;
- Nature of landowner: sites owned by the Council and/or industrial investors/developers may have a more positive outlook towards mixed-use development than other landowners such as pension funds and owner occupiers;
- Presence of physical constraints: sites with less constraints due to the physical environment are likely to be more appropriate for mixed-use development;
- Residential character of area: sites which are located close to residential properties and community resources are more likely to be more appropriate for mixed-use development; and,
- Access to the public transport network: sites which have better access to the public transport network are more likely to be redeveloped for co-location of industrial and residential uses.

10.2.2. The factors listed above are considered core to determining the scale of potential for mixed-use development which is likely to occur at a particular site. There are other supply factors relevant to the assessment of mixed-use development which are not in the above list. However, these factors, including vacancy, the number of landowners and the size and type of buildings, are considered to be primarily related to the type of mixed-use development which may occur rather than the scale of mixed-use development. These factors have therefore not been included in this assessment. Sites identified as part of this analysis will inform the Enfield Capacity Study which will provide further detail concerning the types of mixed-use development which may come forward in the sites identified.

10.2.3. Table 20 provides a summary of how each factor was considered in the scoring system. Sections 10.2.4 to 10.2.9 describe this in detail.

Table 20: Criteria used to identify the scores given for each factor in the potential for mixed-use development assessment

Factor	Criteria used to determine score provided			
	No Potential	**1**	**2**	**3**
Intensity of use	n/a	The site is well utilised with evidence of a high plot ratio, high density buildings and/or limited to no yard space not required for the operational needs of the site.	The site is generally well utilised though there is evidence of buildings which could better use the space which they are located on and/or there is a small quantity of yard space which is not necessarily required for the operational needs of the site.	The site is poorly utilised with evidence of a low plot ratio, buildings which are low in density and/or the presence of a yard space which is not necessarily required for the operational needs of the site.
Quality of stock and the external environment	n/a	The site comprises of relatively new stock and/or has a good quality external environment.	The site comprises of average quality stock and has an external environment which is generally adequate.	The site comprises of poor quality, ageing stock and has a poor-quality external environment.
Nature of landowner(s)	n/a	The site has an owner or a combination of owners which are not likely to want to introduce mixed use development.	The site has an owner or a combination of owners which may be likely to want to introduce mixed-use development.	The site has an owner or a combination of owners which are likely to want to introduce mixed-use development.
Presence of physical constraints	Constraints presented by the physical environment within and surrounding the site mean that there is no potential to introduce mixed-use development on the site by itself. Any mixed-use development of the site would have to be part of a scheme which also includes adjacent sites.	Constraints presented by the physical environment within and surrounding the site may limit potential to introduce mixed-use development on the site by itself.	Constraints presented by the physical environment within and surrounding the site are not likely to limit potential to introduce mixed-use development on the site by itself.	n/a
Residential character of area	n/a	The site is located in a primarily industrial area with no residential properties or community resources located nearby.	The site is located in a primarily industrial area, though there are some residential properties and/or community resources located nearby.	The site is located in an area which already has a mix of uses. There are residential properties and/or community resources located nearby.
Access to the public transport network	n/a	The site is located in a Lower Super Output Area (LSOA) with a Public Transport Accessibility Level (PTAL) rating of 1a or 1b.	The site is located in a Lower Super Output Area (LSOA) with a PTAL rating of 2.	The site is located in a Lower Super Output Area (LSOA) with a PTAL rating of 3 or above.

10.2.4. In the assessment of 'intensity of use' sites are given scores of 1 to 3. This assessment is based on the propensity to improve the utilisation of the site by introducing mixed-use development. Sites where there is evidence of lower plot ratios and/or buildings of low density are more likely to have potential for mixed-use development and therefore scored highly. The presence of yard space seemingly additional to what is required for the operational needs of the site, such as vacant land and excess car parking space, also results in sites scoring well.

10.2.5. The assessment of 'Quality of stock and the external environment' also scores sites between 1 and 3. Sites which comprise of poor quality/ageing buildings and/or have a poor-quality external environment are more like to come forward for redevelopment and therefore be appropriate for mixed-use development. The quality of the stock and the quality of the external environment are both assessed independently and these scores are provided in the Industrial Sites Database. A view based on professional judgement is used to provide a combined score for quality of stock and the external environment.

10.2.6. The assessment of 'Nature of Landowner(s) is based on the type of landowner(s) present on site. Understanding the nature of the landowner is key in identifying what appetite there may be for redeveloping the site and therefore introducing mixed-use development. Sites which are owned by the Council, or have a combination of landowners on site which included the Council and other organisations likely to be attracted to mixed-use development such as private investors, score a '3' in this assessment. Sites which are owner occupied or owned by pension funds scored a '1' in the assessment. Pension and other investment funds' ability to deliver mixed use development will be governed by the specific nature of the fund that holds the asset. Many are restricted to one use class (such as L+G's IPIF which can only own industrial stock) and therefore could not fund and own residential assets. Transfer of assets between funds may be possible but would depend on the investor and fund position. Sites which are owner occupied are set out to meet the requirements of the owner and therefore owners are more likely to be resistant to change, unless the site is no longer needed or the owner is considering closing the business. Sites which have other owners or other combinations of owners, such as private investors and real estate firms, score a '2' in this assessment.

10.2.7. The 'Presence of physical constraints' assessment identifies how the potential for mixed-use development within a site may be limited by constraints presented by the physical environment. Sites are scored either 'No Potential', '1', or '2' in this assessment. Sites which scored 'No Potential' are identified as having physical constraints which prevent any potential for mixed-use development on the site alone. Any mixed-use development on these sites would have to be part of a scheme which also includes adjacent sites. This generally applies to small sites located close to obvious physical constraints presented by the built or natural environment such as other industrial sites, railways or rivers. These sites are discounted from the individual site's assessment, though they may come forward as part of a group of sites identified for mixed-use development (see section 10.5).

10.2.8. The assessment of 'Residential character of area' scores sites between '1' and '3'. The residential character of the area is important in identifying whether it is appropriate for residential development to come forward at a particular site. Sites which are close to residential properties and community resources are more likely to be appropriate for mixed-use development. This assessment was considered qualitatively and focused on a site's relative proximity to other residential properties, shops, local centres with amenities, and community resources (e.g. community centres). Sites which are located in a primarily industrial area with no residential properties or community resources close by score a '1'. Site located in a primarily industrial area but have residential properties and/or community resources located

close by score a '2'. Sites which are in an area which currently comprises a mix of uses, including residential properties and community resources, score a '3'.

10.2.9. The assessment of 'Access to the public transport network also scores sites between '1' and '3'. The assessment is based on the Public Transport Accessibility Level (PTAL) of the Lower Super Output Area (LSOA) which the site is based in. Sites which are in LSOAs which have a PTAL level of '3' or above are identified as having at least 'moderate' access to the public transport network, and score a '3'. Sites which are in LSOAs which have a PTAL level of '2'' and '1' are identified as having 'poor' (PTAL level 2) or 'very poor' (PTAL level 1) access to the public transport network and score a '2' and a '1' respectively.

10.3. Overall scoring and potential for mixed-use development

10.3.1. The next step of the process was to identify the potential for mixed-use development based on the sum of scores derived from the assessment of factors described above. Sites were assigned an overall potential for mixed-use development score of 'High', 'Medium', 'Low' or 'No Potential'.

10.3.2. Table 21 shows the rating given to a site based on the score it achieved. It identifies a description of the rating, the score required for a site to receive that rating, and the number of sites which achieved each rating.

Table 21: Ratings of potential for mixed-use development based on scores achieved

Potential for Intensification	Description	Score(s) obtained	No. of sites	Land equivalent (ha)
No Potential	Sites which have no potential for mixed-use development without a wider scheme which involves other sites.	No Potential	14	1
Low	Sites which do not meet all key criteria and have low potential for mixed-use development.	1-12	40	15
Medium	Sites which meet all key criteria and have medium potential for mixed-use development.	13	8	5
High	Sites which meet all key criteria and have high potential for mixed-use development.	14-15	4	1.9

10.3.3. The maximum score which a site could achieve in the assessment was 15. There were 4 sites in the assessment which scored either a 14 or a 15, equivalent to 1.9ha in land area. These sites were identified as having 'High' potential for intensification. A further 8 sites scored 13 and were identified as having a 'Medium' potential for intensification (equivalent to 5ha in land area).

10.3.4. All sites identified as having 'High' or 'Medium' potential for intensification therefore scored well across all components of the assessment. They tend to be low in density and have poor quality stock. They also tend to have landowners which are likely to be supportive of the introduction of mixed-use development, have at least adequate access to the public transport network and are in areas which are close to residential properties and/or community resources. These sites have limited to no physical constraints which prohibit the introduction of mixed-use development.

10.3.5. There were 40 sites which scored between 1 and 12, equivalent to 15ha in land area. These sites were identified as having a 'Low' potential for intensification. Some of these sites scored well in some components of the assessment. However, all of these sites have their potential for mixed-use development restricted by at least one supply factor critical for mixed-use development to occur. For example, they may be in a primarily industrial area with no community resources located close by, or they have a landowner who is not likely to be interested in pursuing re-provision of floorspace via a mixed-use development[53].

10.3.6. As stated in section 7.2.11, sites which have physical constraints which significantly impede the potential for a site to come forward by itself for intensification score a 'No Potential' and have been discounted from this assessment. There were 14 sites, equivalent to 1ha of land, which received a score of 'No Potential'.

10.3.7. Maps of the sites based on the scores which they received in this assessment are available in Appendix G. Maps of the ratings which these scores correspond to by site are available in Appendix H.

10.4. Sub-area analysis

10.4.1. The full results of this analysis are available in Worksheet 7 in the Industrial Sites Database which accompanies this report. Table 22 shows a breakdown of the results by sub-area.

Table 22: Number of sites and site area by rating given and sub-area

Sub-area	Number of sites and site area (ha) by rating given							
	High		Medium		Low		No Potential	
	Sites	Area	Sites	Area	Sites	Area	Sites	Area
Brimsdown	0	0	3	3.8	3	0.2	0	0
A10 and Southbury Junction	0	0	2	1.2	2	1.8	0	0
Edmonton Leaside	3	1.1	0	0	10	4.5	5	0.4
The North Circular Corridor	1	0.8	3	0.7	25	8.3	9	0.6
Total	**4**	**1.9**	**8**	**5.7**	**40**	**14.9**	**14**	**1**

10.4.2. The North Circular corridor has the largest number of sites identified as having potential for mixed-use development with one site identified as having high potential

[53] There are 12 sites which score low (11 or 12 points) for this reason equating to 5.21ha in area. There is potential for the Council to explore initiatives that overcome such barriers to mixed-use development as these or others in order that their mixed-use potential is increased to such a level that it becomes appropriate for assessment.

and three sites identified as having medium potential. This is because this sub-area comprises primarily of land in LSISs within residential areas, compared to the sub-areas in the north-east of the Borough which comprise large areas of industrial land. The assessment identifies high potential in Cluster C21 on Langhedge Lane. This site comprises of generally poor quality, low-density buildings and is located close to residential properties with good access to the public transport network. Two of the three sites identified as having 'medium' potential for intensification are located along the edge of Cluster C20. The other is located behind residential properties along Regents Avenue in Cluster C18.

10.4.3. Edmonton Leaside, Brimsdown and the A10 and Southbury Junction sub-areas are all large industrial areas. Many of the sites located in these clusters are part of Strategic Industrial Land and located away from non-industrial uses. The majority of sites have therefore either not been assessed (if they fall within SIL) or score poorly in this assessment. There are three sites in Edmonton Leaside which are identified as having high potential for mixed-use development in the assessment, all within the LSIS in the south of the Montagu Industrial Estate (Cluster C10). There are three sites in Brimsdown and three sites in the A10 and Southbury Junction area which are identified as having medium potential. All six of these sites are located in LSIS away from the large industrial areas which comprise the majority of industrial land within these sub-areas.

10.5. Site grouping

10.5.1. Due to the nature of co-location of industrial and residential uses, it will require the site to be redeveloped and the existing uses on site will be required to be changed. There is potential for redevelopment to occur across multiple sites where these sites have the same landowner or there is a similar land ownership structure.

10.5.2. Therefore, where there are sites identified as having either 'medium' or 'high' potential for mixed use development, the assessment has identified whether there are any adjacent sites which have the same landowner or similar landownership. This analysis identified a further four sites appropriate for mixed-use development, bringing the total to 16 sites.

10.5.3. This analysis is available in the Industrial Sites Database and the site groups identified are shown on the maps in Appendix H.

10.6. Summary

10.6.1. This section has described the process undertaken to identify sites which have potential for mixed-use development in Enfield, and a brief analysis of the results of the assessment.

10.6.2. The assessment is based on supply factors considered key for mixed-use development to occur, including intensity of use, quality of stock, the nature of landowner, presence of physical constraints, the residential character of the area and access to the public transport network. The assessment identifies 12 sites which have the potential for mixed-use development and a further three sites which have potential if sites are grouped, bringing the total to 16. These sites are in The North Circular Corridor sub-area and in LSIS located away from the main industrial areas in Edmonton Leeside, the A10 and Southbury Junction and Brimsdown. The results of the assessment for each site are in Worksheet 7 in the Industrial Sites Database.

11. Categorising sites

11.1. Introduction

11.1.1. As described in section 6, sites have been categorised based on the results of the assessment of potential for purely industrial intensification and the assessment of potential for mixed use development. This section describes the method used to finalise categories for sites. It also provides a brief analysis of the number of sites in each site category by sub-area.

11.2. Method

11.2.1. The categories within which sites have been placed are first identified in Section 6 and are repeated in Table 23 below.

Table 23: Site categories:

Category no.	Category description
1	Industrial sites which are suitable for purely industrial intensification
2	Industrial sites which should remain in their current use
3	Industrial sites which should be considered for redevelopment for industrial and residential uses (mixed-use development)
4	Industrial sites which should be considered for release for other uses (including residential)
5	Not assessed

11.2.2. If a site is identified as having both potential for industrial intensification and potential for mixed-use development, in the final results the site has been placed in category 1 i.e. the site is suitable for purely industrial intensification. This is because this approach is most consistent with Policy E7 of the DNLP[54]. The policy does not provide specific guidance on co-location of industrial and non-industrial uses in LSIS only stating that mixed-use development proposals in non-designated sites should only be supported where there is no reasonable prospect for the site being used for industrial purposes.

11.2.3. The remaining sites were assigned a category which was reflective of the preliminary results of the individual assessments described above. Industrial sites which are assessed as having potential for industrial intensification but not mixed-use development have been placed in category 1. Industrial sites which are assessed as having potential for mixed use development but not potential for industrial-only intensification have been placed in category 3.

11.2.4. No sites were identified as being considered for release for other uses (i.e. placed in category 4). This is to be consistent with the DNLP and Enfield's Employment Land Review which both forecast a high level of demand for industrial land in the Borough.

[54] Part C of Policy E7 in the Intend to Publish London Plan 2019.

The DNLP identifies Enfield as a 'provide capacity'[55] [56] borough meaning that it should ensure the principle of no net loss across designated SIL and LSIS and it should aim to provide new industrial land to meet additional demand. Therefore, sites which are not identified as having potential for either purely industrial intensification or mixed-use development have been placed in category 2 i.e., they should remain in their current use. Sites which are identified as having potential for industrial intensification but are not able to accommodate any of the typologies identified in the capacity assessment have also been placed in this category.

11.3. Results

11.3.1. Table 24 shows the results of the analysis by sub-area.

Table 24: Number of sites in each category by sub-area

Sub-area	Number of sites and sites area (ha) by category									
	1		2		3		4		5	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Brimsdown	5	5	87	92	3	3.8	0	0	15	23.2
A10 and Southbury Junction	4	7.9	28	33.9	2	1.2	0	0	8	4.6
Edmonton Leaside	15	21	79	45.9	0	0	0	0	9	16.7
The North Circular Corridor	0	0	31	7.3	7	3.2	0	0	4	0.5
Total	**24**	**33.9**	**225**	**179.1**	**12**	**8.2**	**0**	**0**	**36**	**45**

11.3.2. The table shows that Edmonton Leaside has the largest number of sites identified as being suitable for purely industrial intensification (15), and no sites which should be considered for mixed-use development. This is reflective of Edmonton Leaside's largely industrial character. The majority of industrial sites in the sub-area are segregated from residential areas and it has excellent access to the strategic road network. However, many of its sites are in poor quality, particularly in the Montagu Industrial Estate. Engagement with stakeholders found that businesses in the area are satisfied with the premises they occupy and would be reluctant to change, particularly as a result of Covid-19. Industrial intensification is therefore appropriate in many sites in this sub-area as it would improve the quality of stock in a location which functions well as an industrial area.

[55] See Table 6.2 in Policy E4 in the Intend to Publish London Plan 2019 https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf

[56] The Secretary of State Directions on the DNLP are still the subject of negotiation between City Hall and MHCLG. Direction 4 would remove Table 6.2 in Policy E4, the implications of which are not yet known. https://www.london.gov.uk/sites/default/files/annex_to_letter_to_the_mayor_of_london_13_march_2020.pdf

11.3.3. Brimsdown has five sites identified as suitable for industrial intensification and three sites identified as suitable for mixed-use development. The sub-area comprises primarily of large industrial areas segregated from residential properties. It functions well as an industrial area and much of the floorspace existing on-site is of good quality and is already high density. Engagement with stakeholders in the area found that businesses are generally happy with the existing premises the occupy. This means that opportunities for industrial intensification are limited in this sub-area. There is one cluster within the sub-area (located on Alma Road) in a primarily residential area. This cluster is the only LSIS in the area and contains all four sites which are identified as having potential for mixed-use development in this assessment.

11.3.4. The A10 and Southbury Junction sub-area has four sites identified as having potential for industrial intensification and two sites with potential for mixed-use development. The area consists primarily of large areas of SIL which is already high density. The majority of sites are in good quality however there are poorer quality premises located in the area. It is these premises which will benefit most from industrial intensification and are the sites which been identified as coming forward for such development in this study. The two sites with potential for mixed-use development are both located in the LSIS close to Ponders End, which is located in a primarily residential area.

11.3.5. The North Circular Corridor has the most sites (7) identified as having potential for mixed-use development. There are no sites in this sub-area which are identified as having potential for purely industrial intensification. The sub-area comprises clusters designated as LSIS and located primarily in residential areas. The sub-area does not function as well for industrial purposes compared to the sub-areas in the north-east of the Borough. It does not have excellent access to the strategic road network and many sites are located close to non-industrial uses. These clusters are therefore good locations for mixed use development in the Borough. This is particularly the case for sites located on the edge of these clusters, directly adjacent to residential properties.

12. Conclusions

12.1. Overview

12.1.1. This report provides an assessment of the potential for industrial intensification at suitable locations in the Borough both for purely industrial intensification and for mixed-use development that contains an industrial floorspace component.

12.1.2. The analysis contained in the report spans 4 sub-areas, containing a total of 20 employment clusters where potential for intensification was considered good or very good in the 2018 ELR. Based on information in the 2018 Industry in Enfield study, 297 distinct sites were identified within these clusters with 256 of these sites being in industrial use.

Industrial Intensification

12.1.3. The findings of the assessment of purely industrial intensification potential identified that there are 41 sites in the assessment which have a 'High' or 'Medium' potential for intensification, equivalent to 43.5ha in land area.

12.1.4. Of the three broad design types considered appropriate, 39 of the 41 sites were identified as being most suited to 'comprehensive redevelopment/new development on vacant land' type. These 39 sites were then tested against a set of building typologies to determine whether intensification is appropriate, and, if so, what the potential increase in floorspace and jobs could be. Two assessments were carried out: one determining the potential increase in floorspace and jobs in individual sites only, and the other determining the potential increase in floorspace and jobs if grouping of sites was to occur. These assessments identified that, if only intensification on individual sites was considered, 13 sites could accommodate intensification. A further nine sites could accommodate intensification if grouping of sites were to occur. Therefore, 22 sites contributed to the net floorspace increase in the capacity assessment. Together with the two sites identified for other design types (vertical extension and horizontal extension), there were 24 sites identified as suitable for industrial intensification in this study.

12.1.5. Table 25 sets out the potential increase in industrial floorspace achievable from purely industrial intensification in the Borough at suitable sites. It sets out both the potential increase achievable from individual sites only and the additional floorspace which could be achieved if grouping of sites were to occur. The midpoint provides the most balanced view on what has potential to come forward between the minimum and the maximum, indicating that 180,100m^2 GEA of floorspace could be delivered by individual sites and an additional 18,300m^2 GEA of floorspace by grouping sites, amounting to 198,500m^2 across Enfield in total.

Table 25: Additional floorspace deliverable from industrial intensification

Intensification from…	Additional floorspace (m^2) GEA		
	Minimum	Maximum	Midpoint
Individual sites only	127,600	232,700	180,100
Grouping of sites	16,300	20,400	18,300

Intensification from…	Additional floorspace (m^2) GEA		
	Minimum	Maximum	Midpoint
Total	143,900	253,100	198,500

Note: figures may not sum due to rounding.

12.1.6. The 22 sites would together deliver an estimated 5,570 jobs based on an average employment density and set against the midpoint floorspace estimate only. This comprises 5,100 jobs based on individual sites only and a further 470 jobs through grouping of sites.

Mixed-use development

12.1.7. The findings of the assessment of potential for mixed-use development with an industrial component, taking account of suitability criteria only, identified that there are 12 sites in the assessment which had a 'High' or 'Medium' potential for mixed-use development. A further four sites adjacent to these sites were identified as being appropriate for mixed-use development based on similar land ownership. The assessment therefore identified 16 sites with potential for mixed-use development in LB Enfield.

Categorising sites

12.1.8. Sites were then categorised based on the results of the above assessments. The distribution of the total 297 sites assessed across the four sub-areas by the five overarching types of category is shown in Table 26 below.

12.1.9. Note that if a site is identified as having both potential for industrial intensification and potential for mixed-use development, it was placed in category 1 as this is the approach most consistent with the draft New London Plan (see section 11.2). This applied to four sites in the Edmonton Leaside area (ST29-32), and is the reason why 16 sites have been identified with potential for mixed-use but only 12 have been categorised as a mixed-use site in Table 26.

Table 26: Number of sites in each assessment category by sub-area

	No. of sites by categorisation					
Sub-area	**1. Industrial Intensification only**	**2. Remain in current use**	**3. Industrial and Residential Mixed-use**	**4. Considered for release for other uses**	**5. Not Assessed (not in Industrial Use)**	**Total**
Brimsdown	5	87	3	0	15	110
A10 and Southbury Junction	4	28	2	0	8	42
Edmonton Leaside	15	79	0	0	9	103

Sub-area	No. of sites by categorisation					
	1. Industrial Intensification only	2. Remain in current use	3. Industrial and Residential Mixed-use	4. Considered for release for other uses	5. Not Assessed (not in Industrial Use)	Total
The North Circular Corridor	0	31	7	0	4	42
Total	**24**	**225**	**12**	**0**	**36**	**297**

12.1.10. The results of the site categorising process indicate that the majority of sites with potential for industrial intensification only are in Edmonton Leaside, and the majority of sites with potential for mixed-use development are in the North Circular Corridor. Brimsdown and the A10 Southbury Junction sub-areas both have a small number of sites suitable for industrial intensification only, and a small number of sites suitable for mixed-use development.

12.2. Cluster Analysis

12.2.1. Table 27 to Table 30 presents a summary of findings of the assessment of potential for intensification and mixed-use development at a cluster level.

Table 27: Analysis of assessment results for clusters in the Brimsdown sub-area

Cluster	Sites	Commentary
C3	Two sites (ST281 and ST283) were identified as having the potential for purely industrial intensification.	• These sites currently comprise light industrial and manufacturing uses. • They both have potential for intensification primarily because of the poor-quality of the existing premises onsite which is generally low density (e.g. Site 281 is currently comprised primarily of yard space used for storage). • Comprehensive redevelopment is the most appropriate type of design on ST283 because the poor-quality existing premises is not likely to be able to accommodate intensified space. Comprehensive redevelopment is also most appropriate on ST281, as intensification cannot occur on this site without impacting the requirements of the existing occupiers (i.e. it would use up yard space currently used for storage purposes). • Though there is potential for intensification on both sites; the capacity assessment identified that neither site was able to accommodate a building typology which could deliver intensified space. This was because both sites were too small to accommodate any of the typologies proposed. • Intensification here would have to occur as part of wider redevelopment of the area and since there are no adjacent sites with similar landowners, no potential additional floorspace capacity has been assessed as having potential to come forward at these sites.
C4	Three sites (ST253, ST270 and ST271) are identified as having potential for purely industrial intensification.	• Their potential for industrial intensification arises from their excellent access to the strategic road network, the presence of poor-quality premises and their low-density nature. • Comprehensive redevelopment of these sites was identified as the most appropriate type of design because intensification cannot occur on any of these sites without impacting the requirements of the existing occupiers (i.e. it would take up yard space currently used for other purposes). Also, the poor quality of the nature of the existing premises is unlikely to be able to accommodate intensified space. • Of the three sites, only one (ST270) was deemed able to accommodate a building typology which could deliver intensified space. • The other two sites were either too small to accommodate any typology (ST271), or the typology which they could support did not match the demand for industrial space in the area (ST253).
C5	Three sites (ST203, ST213 and ST222) are identified as having potential for purely industrial intensification.	• All three sites are low in density. In addition, ST203 comprises of poor-quality premises, and ST213 and ST222 have favourable land ownership as they are wholly owned (ST213) or partially owned (ST222) by the Council. • Comprehensive redevelopment was identified as the most suitable type of design in ST213 and ST222. This was due to either: the quality of the premises on the site being unable to accommodate intensified space (ST213), or intensified floorspace not being able to be delivered without impacting the requirements of the existing occupiers of the site (ST222). • Horizontal Extension was identified as the most suitable design type in ST03 due to the land currently being underutilised and the good quality nature of the existing space. • The capacity assessment identified that neither site deemed suitable for comprehensive redevelopment (ST213 and ST222) was able to accommodate a building typology which could deliver intensified space. This was because both sites were too small to accommodate any of the typologies proposed. • Intensification here would have to occur as part of wider redevelopment of the area, and since there are no adjacent sites with similar landowners, no potential additional floorspace capacity has been assessed as having potential to come forward at these sites.
C3	Two sites (ST281 and ST283) were identified as having the potential for purely industrial intensification.	• These sites currently comprise light industrial and manufacturing uses. • They both have potential for intensification primarily because of the poor-quality of the existing premises onsite which is generally low density (e.g. Site 281 is currently comprised primarily of yard space used for storage). • Comprehensive redevelopment is the most appropriate type of design on ST283 because the poor-quality existing premises is not likely to be able to accommodate intensified space. Comprehensive redevelopment is also most appropriate on ST281, as intensification cannot occur on this site without impacting the requirements of the existing occupiers (i.e. it would use up yard space currently used for storage purposes). • Though there is potential for intensification on both sites; the capacity assessment identified that neither site was able to accommodate a building typology which could deliver intensified space. This was because both sites were too small to accommodate any of the typologies proposed. • Intensification here would have to occur as part of wider redevelopment of the area and since there are no adjacent sites with similar landowners, no potential additional floorspace capacity has been assessed as having potential to come forward at these sites.
C4	Three sites (ST253, ST270 and ST271) are identified as having potential for purely industrial intensification.	• Their potential for industrial intensification arises from their excellent access to the strategic road network, the presence of poor-quality premises and their low-density nature. • Comprehensive redevelopment of these sites was identified as the most appropriate type of design because intensification cannot occur on any of these sites without impacting the requirements of the existing occupiers (i.e. it would take up yard space currently used for other purposes). Also, the poor quality of the nature of the existing premises is unlikely to be able to accommodate intensified space. • Of the three sites, only one (ST270) was deemed able to accommodate a building typology which could deliver intensified space. • The other two sites were either too small to accommodate any typology (ST271), or the typology which they could support did not match the demand for industrial space in the area (ST253).

Table 28: Analysis of assessment results for clusters in the Edmonton Leaside sub-area

Cluster	Sites	Commentary
C10, and the northern section of **C11** ('The Montagu Industrial Estate')	Ten sites (ST07-10, ST27 and ST29-31, ST34 and ST35) are identified as having potential for purely industrial intensification.	• These sites are all owned by the Council and all comprise relatively poor quality, underutilised space. • Comprehensive redevelopment has been identified as the most appropriate type of design for all of these sites as the poor-quality nature of the existing premises is likely to be unable to support intensification. Also, intensification cannot occur on any of these sites without impacting the requirements of the existing occupiers. • In this assessment, the three adjacent sites in the east of Cluster C10 (ST07-10), the three adjacent sites in the north-east of Cluster C11 (ST29-31) and the two adjacent sites to the north-east of Cluster C11 (ST34 and ST35) have been placed into three (separate) groups. • The capacity assessment has identified that the group of sites in the north-west of Cluster C11 (Group 4, ST29-31) is able to accommodate stacked small-and-medium sized industrial space in the form of Typology F. This has potential to deliver approximately 14,500m^2 of additional floorspace. • Neither of the other two groups of sites (Group 3, ST07-10 and Group 5, ST34 and ST35) nor ST27 are able to accommodate any building typologies which could deliver intensified space. This is because of the small size of these sites. • Any intensification of these sites would need to be part of wider redevelopment of the Montagu Industrial Estate. A large proportion of the estate is owned by the Council however many sites in-between these Council-owned areas have other landowners. Wider redevelopment of the entire estate has therefore not been assessed as having potential to be realised and no potential additional floorspace capacity has been assessed as being delivered at this location.
The southern section of **C11**	Two sites (ST39 and ST41) are identified as having potential for purely industrial intensification	• Both of these sites currently comprise poor quality underutilised industrial land and premises. One site (ST39) is owned by the Council and the other is owned by a housing association (ST41). • Comprehensive redevelopment of these sites was identified as the most appropriate type of design because intensification cannot occur on any of these sites without impacting the requirements of the existing occupiers (i.e. it would take up yard space currently used for other purposes). • The capacity assessment identified that one of these sites (ST41) could accommodate intensified floorspace in the form of small-to-medium sized units co-located with office space (Typology F). This could lead to a 15,000m^2 increase in industrial floorspace on the site. • The other site (ST39) was assessed as not able to accommodate any building typologies due to the small size of the site, and any intensification here would have to occur as part of wider redevelopment of the cluster.
C12	One site has been identified as having potential for purely industrial intensification.	• This site is located in the east of the cluster and is currently vacant land. • New development on vacant land' has therefore been identified as the appropriate type of design at this site. • However, the capacity assessment identified that the only two building typologies technically deliverable at the site (Typologies A and B) did not match the demand for industrial space in the area. Therefore, industrial intensification has not been identified as having potential at this site.
C13	Six sites (ST49, ST50, ST55, ST56, ST62 and ST68) are identified as having potential for purely industrial intensification	• This cluster is a large industrial estate with excellent access to the strategic road network and limited physical constraints for development of industrial premises. The seven sites identified are also all underutilised and four of these sites (ST55, ST56, ST58 and ST62) comprise buildings in poor quality. • The assessment has identified vertical extension as the most suitable design type in ST68 since its existing premises is in good quality and likely able to accommodate intensified space. For the five other sites in the cluster (ST49, ST50, ST55, ST56 and ST62), comprehensive redevelopment is identified as being the most suitable design type since intensification cannot occur on any of these sites without impacting the requirements of the existing occupiers. • As part of this assessment ST49 and ST50 have been grouped due to similarities in land ownership (identified as 'Group 2'). The capacity assessment has identified that this group, as well as two other sites in the cluster (ST55 and ST56), are all able to accommodate intensification in the form of small-to-medium sized industrial units co-located with office space (Typology F). Intensification in these three locations (one group, and two separate sites) could lead to a 31,900m^2 increase in industrial floorspace in the cluster. • The other site identified as having potential for purely industrial intensification, ST62, is not able to accommodate any of the building typologies identified in the capacity assessment due to the small size of the site.
C15	Six sites (ST77, ST78, ST82, ST83, ST84 and ST92) are identified as having potential for purely industrial intensification	• Two of these sites (ST77 and ST78) comprise vacant land and are in the north of the cluster. The other four sites (ST82, ST83, ST84 and ST92) are located in the south of the cluster and are underutilised with existing buildings and/or land in poor quality. • The capacity assessment has identified that the larger of the two vacant sites in the north of the cluster (ST77) is able to accommodate a range of building typologies which will deliver intensified floorspace. The assessment has predicted that intensification on this site could lead to a minimum of 31,900m^2 of floorspace and a maximum of 117,400m^2 of additional floorspace (depending on the building typology which is chosen). • The other vacant site (ST78) is too small to accommodate any building typologies. The four sites in the south of the cluster (ST82, ST83, ST84 and ST92) have been consolidated into one group ('Group 6') for the purposes of this assessment. The capacity assessment identifies that this group is likely to be able to accommodate intensification in the form of small-to-medium sized industrial units co-located with office space (Typology F). This could lead to 7,000m^2 of additional industrial floorspace at the site.

Table 29: Analysis of assessment results for clusters in the A10 and Southbury Junction sub-area

Cluster	Sites	Commentary
C8	Four sites (ST325, ST228, ST333 and ST334) were identified as having potential for purely industrial intensification.	• Two of these sites (ST325 and ST328) comprise large, poor-quality buildings currently used for light industrial purposes. The other two sites are underutilised and are either partially (ST334) or wholly (ST334) occupied by yard space. • This assessment has concluded that comprehensive redevelopment is the most suitable type of design on all four sites as intensification cannot occur on any of these sites without impacting the requirements of the existing occupiers. • The capacity assessment identifies that delivery of additional floorspace is possible on two (ST328 and ST334) of these sites. Both of these sites are able to accommodate either Typology A (light industrial units with no yard space), Typology B (small, stackable units with shared yard space) or Typology F (small-to-medium sized units co-located with office space). Depending on the typology chosen, intensification on ST328 is likely to lead to a minimum of 5,900m2 of floorspace and a maximum of 7,900m^2. • Intensification on ST334 is likely to lead to a minimum of 4,400m^2 and a maximum of 5,900m^2 of additional floorspace. The capacity assessment identified that the other two sites (ST325 and ST335) are unable to accommodate any building typologies due to the small sizes of these sites. These sites have therefore not been identified as having suitability for purely industrial intensification in this study.
C9	Two sites (ST311 and ST312) are identified as having potential for purely industrial intensification	• One of these sites (ST311) is occupied by poor-quality light industrial and manufacturing space with a high level of vacancy. Comprehensive redevelopment is the most suitable design type for this site due to the quality of existing premises and the high vacancy rate which reflects a lack of demand for the type of space which is currently there. • The other site (ST312) is occupied by British Telecom (BT) and is used as a transportation hub for their vehicle fleet. The site is currently underutilised with poor quality buildings and a large quantum of yard space. Comprehensive redevelopment is also the most suitable design type here as intensification cannot occur on the site without impacting the requirements of the existing occupiers (i.e. it would take up yard space currently used for operational purposes). • The capacity assessment has identified that ST311 is able to accommodate Typology A (light industrial units with no yard space), Typology B (small, stackable units with shared yard space), Typology C (small stackable units on top of a larger unit) and Typology F (small-to-medium sized units co-located with office space), and that intensification is likely to lead to a minimum of 6,000m^2 of and a maximum of 10,200m^2 of additional floorspace depending on the typology chosen. • ST312 is also able to accommodate a number of different typologies, including Typology A, B and F. The assessment identifies that intensification on this site is likely to lead to a minimum of 6,100m^2 and a maximum of 8,100m^2 additional floorspace.
C23	Two sites (ST306 and ST307) are identified as having potential for mixed-use development.	• These sites are both adjacent to residential properties and are both located close to community resources on the High Street near to Ponders End. • They also have relatively good access to the public transport network.

Table 30: Analysis of assessment results for clusters in the North Circular sub-area

Cluster	Sites	Commentary
C18	One site (ST99) is identified as having potential for mixed-use development.	• This cluster is located in Palmers Green: a primarily residential area in the south of the Borough. • The site is located adjacent to residential properties and currently comprises poor quality, underutilised space. It has relatively good access to the public transport network.
C20	Five sites (ST108, ST109, ST111, ST132 and ST134) have been identified as having potential for mixed-use development	• This cluster is located in a primarily residential area in the south of the Borough. • All sites with potential for mixed-use development are located on the edge of the cluster and are adjacent to residential properties. Land is generally well utilised in this area but existing premises is generally in poor quality.
C22	The only site in the cluster has been identified as having potential for mixed-use development.	• This site is a small industrial park in a largely residential area. It is close to community resources in the local centre of Tottenham (In Haringey) and it has good access to the public transport network.

12.3. Comparison against floorspace requirements

12.3.1. In respect of the draft outcome of the floorspace capacity assessment against the identified forecasts of the net requirement for industrial land and floorspace in Enfield over the Local Plan period, Table 31 below shows the comparison between floorspace requirement as per the numbers in relevant evidence base documents (2018 ELR and 2017 London Industrial Land Demand Study) and the potential floorspace delivery arising from industrial intensification. If realised, the potential average value of 198,500m^2 GEA floorspace delivered makes a 91% contribution towards meeting the net floorspace requirement in the 2018 ELR (218,700m^2) to 2036 and a 73% contribution towards the 2017 requirement (270,400m^2) over the same timeframe.

Table 31: Net requirement for industrial floorspace as per the existing evidence base

Parameter	In the 2018 ELR (2016-2036)	In the 2017 LILDS (2016-2036 only)
Net Requirement (Floorspace m^2)	218,700	270,400
Potential floorspace provided from Industrial only Intensification (Average Floorspace m^2)	198,500	198,500
% contribution towards Net Requirement (%)	90.8	73.4

12.3.2. It is important to note that the additional floorspace figures above only include an increase in industrial floorspace through purely industrial intensification, and as is stated in section 1.2.4 it is irrespective of development. It does not include the potential increase in industrial floorspace from mixed-use development with an industrial component. Also, were the maximum amount of floorspace identified as being potentially deliverable to materialise[57] the contributions towards meeting requirements would be notably increased and could potentially exceed that identified in the 2018 ELR.

12.3.3. The conclusions of this study in respect of the comparison of the net additional floorspace delivered against the identified need in the 2018 ELR and the 2017 LILDS have been prepared to inform LBE's Borough-wide land use strategy. These conclusions form part of an ongoing process in determining how these needs are met in-combination from the findings of three 'intensification studies' related to DNLP Policy E7 or the Secretary of State's Directions on the DNLP, namely this Industrial Intensification Study, a Functional Economic Market Area (FEMA) Study to determine substation potential, and a study identifying Potential Locations for New Industrial Development. The core objective of these studies together is to ascertain whether the identified floorspace need forecasted in the 2018 ELR and 2017 LILDS:

a) can be met with some surplus

b) can be met with no or limited surplus; or

c) is not met and the scale of which it is not met

[57] This could be a likely prospect on council-owned sites where a more proactive approach to intensification could be assumed in order to deliver corporate council priorities.

12.3.4. If outcome a) is achieved, it is expected that there will be good justification for consolidating the land areas within the borough currently identified as SIL/LSIS as the borough-wide evidence in respect of demand being met will support this. For outcomes b) and c), SIL/LSIS consolidation could still be explored as a result of corporate priorities, in such a case it will be necessary to demonstrate to the relevant authority (the GLA) that Enfield has fully-explored all available opportunities to meet borough-wide industrial capacity demand. This will be required as justification in the event that the draft Local Plan is not 'in general conformity' with the London Plan.

AECOM Limited
Aldgate Tower
2 Leman Street
London E1 8FA
United Kingdom
aecom.com

Avison Young (UK) Limited
65 Gresham Street
London
EC2V 7NQ
United Kingdom