Bolsover Economic Alignment Study

Bolsover District Council
August 2018
Lichfields is the pre-eminent planning and development consultancy in the UK

We’ve been helping create great places for over 50 years.

lichfields.uk
Contents

1.0 Introduction 1
  Background to the Study 1

2.0 Sectoral Analysis and Employment Land Requirements 3
  Introduction 3
  Previous Employment Land Findings 3
  New Scenarios 5
  Methodology 6
  Growth Scenarios 6
  Safety Margin 16
  Converting Net to Gross Floorspace Requirements 17
  Estimated Land Requirement 18
  Sensitivity Testing 20
  Implications for Bolsover District’s ELR target 22
  Implications for BDC’s Emerging Local Plan and Housing Alignment 25

3.0 Factors which impact on the relationship of employment growth to housing demand 27
  Introduction 27
  Geographical Context 27
  Recent Growth Performance 35
  Impact of Strategic Warehousing 38
  Conclusions 43

4.0 Factors which make forecast employment growth less certain or delayed 44
  Introduction 44
  The Impact of Automation and Robotics 44
  The Impact of Brexit 47
  Transport and Highways Infrastructure Delays 49
  Construction Industry Constraints 49

5.0 Conclusions 55
1.0 Introduction

1.1 Lichfields has been commissioned by Bolsover District Council [BDC] to prepare an Economic Alignment Study [EAS] that updates the economic forecasting underpinning the Economic Development Needs Assessment [EDNA] that Lichfields produced on the Council’s behalf in October 2015.

1.2 The report utilises the most recent Oxford Economics job forecasts for the District to identify which employment sectors are likely to grow or decline, before setting out what this may mean for employment land needs over the plan period in concert with a range of other forecasting scenarios and techniques. This will inform the Council’s employment land requirement as set out in its emerging Local Plan.

1.3 This EAS assesses the implications of new employment forecasts on the Borough’s current 92 ha B-Class land employment land requirement in the emerging Bolsover Local Plan. The study reports the implications of a number of labour supply scenarios to ensure consistency with the approach taken elsewhere. The remainder of the EAS examines Bolsover’s commuting/migratory patterns across the wider Housing / Functional Economic Market Areas, as well as other factors that may make forecasting economic growth less certain and what this may mean for Bolsover District Council’s emerging Local Plan.

Background to the Study

1.4 The original 2015 EDNA forms part of the evidence base for BDC’s emerging Local Plan, which guides development in the District to 2033. The 2015 study modelled four scenarios based upon a number of methodological approaches, some of which were driven by economic or demographic growth projections, others by past rates of development. The employment land requirements for the District over the period 2015 to 2033 ranged from 23.3ha to 129.5ha.

1.5 In identifying a preferred range of future demand, Lichfield drew upon the four scenarios in the context of a variety of sensitivity tests, as well as market intelligence gathered through both desk-based research and consultation with local agents, developers and economic stakeholders. Drawing all of this analysis together, it was recommended that BDC allocate between 65 ha and 100 ha of employment land to 2033.

1.6 The report concluded that provision for 65 ha of employment land was adequate to meet indigenous demand over the Plan period. However, it was accepted that Bolsover had successfully competed for a number of large, logistics developments in recent years and that, if a similar strategy is pursued moving forward, a larger supply of employment land would be required in order to enable the District to compete effectively for future opportunities.

1.7 Policy SS2 of the emerging Bolsover District Publication Local Plan (May 2018) is partly underpinned by the 2015 study. The Policy states that sufficient land will be provided to accommodate 92 ha of employment land across the period 2015 to 2033. The supporting text notes that this is on the basis that the EDNA (October 2015) identifies the need for employment land (B use classes only) for Bolsover District as being between 65 and 100 ha of land for the period 2015 to 2033.

“The Framework states that when drawing up local plans, local planning authorities [LPAs] should plan positively for a strong, competitive economy. As the employment land availability assessment identifies the existence of two sites with sufficient flexibility to accommodate up to two large logistic developments, based on the evidence provided by the EDNA there is sufficient justification for a target at the higher end of the range”.


1.8 This study has involved testing the implications of different population/household growth scenarios on future employment space requirements for the District, including latest economic forecasts and housing requirements. The following topic areas have been addressed:

1. **Provide an analysis of the latest 2018 Oxford Economics forecasting data** (provided by the Council) in terms of the sectors expected to grow and decline and the implications for Bolsover’s economy;

2. **Identification of future B-Class employment space requirements**, involving a variety of demand and supply-led modelling scenarios, including an analysis of past take up and the extent to which this is likely to continue into the future;

3. **Analysis of factors which may impact on the relationship of employment growth to residential demand**, including the type of jobs provided; accessibility to the strategic road network; and the extent to which Bolsover sits within a much wider HMA/FEMA;

4. **Factors which make forecast employment growth less certain or delayed**, including an analysis of the employment land to job creation relationship issue that exists and the recognition that employment growth rates are uncertain going forward for a range of reasons including the economic uncertainty surrounding Brexit and capacity constraints. The report concludes with an assessment of the extent to which the evidence with regard to these factors makes the growth forecasts less likely or uncertain and the implications for the Local Plan.

1.9 This EAS considers the land and floorspace implications for the following group of B-class sectors:

1. B1a/b Business (offices, research & development);
2. B1c/B2 Light / General Industrial; and
3. B8 Storage or Distribution (warehousing and distribution).

1.10 The supply of B-class employment land and floorspace is considered in this report; references to ‘employment space’ are intended to mean both land and floorspace. Industrial space in this report includes both manufacturing and distribution uses (B2 and B8 Use Class).
2.0 Sectoral Analysis and Employment Land Requirements

Introduction

2.1 This section analyses the latest Oxford Economics forecasting data for 2018 in terms of the sectors expected to grow and decline and the implications for Bolsover’s economy. We also model two ‘growth scenarios’:

1. The first applies the previous 2016 FLUTE projections, focusing on the net additional growth predominantly in the warehousing and logistics B8 sector to maintain consistency with the wider Sheffield City Region [SCR] context; and

2. The second uses the growth projection modelled in GL Hearn’s 2017 Bolsover SHMA Update report, which identified a net job growth of c6,500 over the period 2014-35.

2.2 The Section then models the employment land implications of labour supply scenarios to align with the Council’s housing need evidence and reviews past completions to help define a new employment land requirement figure. This can be used to validate (and/or adjust) the target in the Council’s emerging Local Plan.

Previous Employment Land Findings

Bolsover Economic Development Needs Assessment (October 2015)

2.3 Lichfields was originally commissioned by BDC to prepare an Economic Development Needs Assessment [EDNA] in 2015. The Study forms part of the evidence base for BDC’s emerging Local Plan, which seeks to guide development in the District to 2033. The Study assessed the economic development needs objectively in line with the National Planning Policy Framework [the Framework] and the Planning Practice Guidance [PPG]. It also informed the specific employment land requirements and helped to determine where growth should be located across the District.

2.4 One of the key outputs of the 2015 EDNA was to analyse the economic factors driving the demand for employment land in the District, including the relationship between jobs and the economically active population. A number of potential future scenarios were reviewed in order to provide a framework for assessing future B-class employment space requirements in Bolsover District over the 18-year period to 2033:

1. Baseline employment forecasts (labour demand) produced by Oxford Economics;

2. Policy-on employment forecasts (labour demand) sourced from the Sheffield City Region FLUTE model developed by Ekosgen;

3. Consideration of past take-up of employment land and property based on monitoring data collected by Bolsover DC; and,

4. Estimated future growth in the local labour supply – and the jobs and employment space that this could be expected to support – having regard to population projections taken from the District’s Strategic Housing Market Assessment [SHMA], produced by GL Hearn.

2.5 The EDNA recognised that all of these approaches have their own individual strengths and limitations. In order to be robust however, the District’s economic growth potential (and the likely demand for employment space) needed to be assessed under a variety of future scenarios that reflect alternative growth conditions that could arise over the study period. In reconciling
the various scenarios, consideration was given as to how appropriate each was to the particular circumstances and aspirations of BDC.

2.6 Table 2.1 presents the employment growth forecasts for each modelled scenario in the EDNA for the period 2015-2033. As identified in Table 2.1, in assessing the future need for employment land in Bolsover, the EDNA study took account of four scenarios. Some were primarily driven by economic or demographic growth projections, others by past rates of development. The employment land requirements for the District over the period 2015 to 2033 ranged from 23.3ha to 129.5ha.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices (B1a/b)</td>
<td>5.9</td>
<td>10.2</td>
<td>19.8</td>
<td>4.7</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>5.2</td>
<td>16.3</td>
<td>25.1</td>
<td>6.9</td>
</tr>
<tr>
<td>Warehousing/ Distribution (B8)</td>
<td>14.0</td>
<td>20.7</td>
<td>84.6</td>
<td>11.7</td>
</tr>
<tr>
<td>Total</td>
<td>25.1</td>
<td>47.2</td>
<td>129.5</td>
<td>23.3</td>
</tr>
</tbody>
</table>


2.7 In addition to the four scenarios, a range of sensitivity tests were also considered. One sensitivity test considered a supplementary past take-up scenario that excluded three large logistics developments that had taken place over recent years. This was presented as an alternative means of assessing the level of land take that had historically been supported by the District’s indigenous business base. The analysis gave rise to a requirement for approximately 80ha of land over the Plan period.

2.8 In identifying a preferred range of future demand, the four scenarios were considered within the context of a variety of sensitivity tests, as well as market intelligence gathered through both desk-based research and consultation with local agents, developers and economic stakeholders. Drawing all of this analysis together, it was recommended that BDC allocate **between 65 ha and 100 ha of employment land to 2033.**
2.9 It was considered that provision for 65 ha of employment land was likely to be adequate to meet indigenous demand over the Plan period. It was recognised, however, that Bolsover had successfully competed for a number of large logistics developments in recent years and that, if a similar strategy was pursued moving forward, a larger supply of employment land would be required in order to enable the District to compete effectively for future opportunities.

2.10 The EDNA concluded that the extent to which Bolsover wishes to pursue such imported demand, which may generate relatively modest employment gains in comparison with the associated land take, was a policy decision to be taken by BDC. It was recommended that a decision regarding the overall level of demand to be pursued by the District be made within the context of other policy considerations, including planned levels of housing, retail and leisure growth.

**New Scenarios**

2.11 BDC’s emerging Local Plan will cover the period from 2014 to 2033. It is currently informed by a number of evidence base reports which have been commissioned over different time periods using the most up-to-date information available to them. This includes:


2.12 Hence the various job projections are based on a variety of data models, including different Oxford Economics projections and Ekosgens’ own bespoke modelling work.

2.13 We have used Oxford Economics [OE] data again in this report. Before we analyse OE’s outputs, it is important to outline how OE’s projections are formulated in the first instance. OE forecasts start with national forecasts of demand for labour set out in 19 individual sectors, before moving to regional and local forecasts in turn, constraining each of these to the larger geographical area figures.

2.14 OE produces its own forecasts of population, which are economically driven. The births and deaths figures are taken from the ONS 2014-based SNPP, but predicted migration levels are generated by OE themselves.

2.15 OE adjusts the proportion of the working age population that is in employment, in order to reflect the level of demand for labour. OE frames this as a combined ‘employment rate’, rather than separate economic activity and unemployment rates. OE also adjusts migration, based on the view that fewer people would move into an area if the employment rate is falling too fast, i.e. employment prospects are weak.

2.16 Commuting rates are fixed in OE’s model. Therefore, there are three variable elements in the OE model (migration, economic activity rates and unemployment rates). This recognises that migration (and hence, population levels) will change in response to employment opportunities. Therefore, OE’s local forecasts are led and constrained by its macroeconomic forecasts and to a lesser extent by the ONS population projections.
Methodology

2.17 The Housing and Economic Development Needs Assessment section of the Practice Guidance advises that "local authorities should develop an idea of future needs based on a range of data which is current and robust."

2.18 In particular, it recommends that Plan-makers consider a variety of forecasting techniques:

1. Sectoral employment forecasts and projections (labour demand);
2. Demographically-derived assessments of future employment land needs (labour supply);
3. Analysis based on the past take-up of employment land and property and/or future property market requirements; and,
4. Consultation with relevant organisations, studies of business trends and monitoring of business, employment and economic statistics.

2.19 Within this context, this EAA has considered a number of potential future scenarios in order to provide a framework for assessing future B-class employment space requirements in Bolsover District over the 19-year Plan period 2014 to 2033. The quantitative forecasting techniques applied clearly align with items 1-3 outlined above:

1. Baseline employment forecasts (labour demand), using Oxford Economics’ Local Market Quarterly Forecasts for Q2 2018; and various combined jobs growth scenarios;
2. Estimated growth in the local labour supply – and the jobs and employment space that this could be expected to support – having regard to analysis presented as part of the District’s Strategic Housing Market Assessment [SHMA]; and
3. Consideration of past take-up of employment space, based upon monitoring data provided by BDC.

2.20 All of these approaches have their own individual strengths and limitations. In order to be robust, however, the District’s economic growth potential (and the likely demand for employment space) needs to be assessed under a variety of future scenarios that reflect alternative growth conditions that could arise over the study period. In reconciling the various scenarios, consideration needs to be given to how appropriate each is to the particular circumstances and aspirations of BDC.

2.21 The ultimate judgement regarding the level of employment need that BDC should plan for is not, therefore, simply shaped by a consideration of quantitative analysis. Rather, a number of qualitative factors must also be taken into account (as discussed in other sections of this report). These factors, which have been identified through an analysis of economic and market conditions – as well as consultation with economic stakeholders, commercial agents and local businesses in the 2015 EDNA – will influence the employment space requirements that need to be planned for and must be considered alongside the modelled scenarios.

Growth Scenarios

A. Econometric Job Forecasting

Scenario 1) Oxford Economics Bolsover District Economic Forecasts (Q2 2018)

2.22 Oxford Economics [OE] job forecasts were commissioned by Bolsover District Council to underpin this analysis. It should be emphasised that such forecasts tend to be most reliable at

---

1 2a-032-20140306
regional and national scales and consequently less so at the local economy level. Nevertheless, they provide a valuable input in respect of understanding future land needs by indicating the broad scale and direction of economic growth in different sectors.

2.23 For Bolsover District, the Q2 2018 OE jobs-based employment projections indicate that there was a rapid increase in employment between 1995 and 2008 and a re-adjustment during and in the immediate aftermath of the recession. However, the projections now indicate that Bolsover District is likely to experience a much more modest level of growth in employment to 2023, before levelling off and even starting to decline by 2033 (see Figure 2.2). This net job growth of 2,268 between 2014 and 2033, is markedly more pessimistic than the 4,406 projected over the same time period in OE’s equivalent projections three years earlier, which informed the previous EDNA.

Figure 2.2 Total Jobs based Employment Change in Bolsover District (Historic and Projected) 1991-2038

![Graph showing employment change](image)

Source: Oxford Economics / Lichfields’ Analysis

2.24 As summarised in Table 2.2, the latest Q2 2018 OE projections indicate a net job growth of 2,268 over the period 2014-2033, with the strongest growth forecast for the Transportation and Storage sector (+865 jobs, or 33.2%), followed by Human Health and Social Activities (+839 jobs, or 28.5%) and Administrative and Support Service Activities (+580 jobs, or 38.2%). It is important to note that each category comprises more specific sub-sectors, so for example, much of the job growth in Administrative and Support Service Activities is not likely to be based on B-class land (as this includes travel agency, tour operator and security and investigation activities).

2.25 In terms of negative growth, this is most pronounced in Construction, with the loss of 411 jobs forecast (13.2%), followed by Manufacturing (-321, or 7.4%), the Wholesale and Retail Trade (-129 jobs, or 2.2%) and Professional, Scientific and Technical Activities (-111 jobs, or 3.4%). Jobs for all four of these sectors are likely to be based in whole or in part, on B-Class employment land.
Table 2.2  Fastest Growing and Declining Employment Sectors in Bolsover District, 2014-33

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A : Agriculture, forestry and fishing</td>
<td>Non B-Class</td>
<td>266</td>
<td>242</td>
<td>-24</td>
<td>-9%</td>
</tr>
<tr>
<td>B : Mining and quarrying</td>
<td>Non B-Class</td>
<td>99</td>
<td>67</td>
<td>-32</td>
<td>-32%</td>
</tr>
<tr>
<td>C : Manufacturing</td>
<td>B-Class</td>
<td>4,352</td>
<td>4,030</td>
<td>-321</td>
<td>-7%</td>
</tr>
<tr>
<td>D : Electricity, gas, steam and air conditioning supply</td>
<td>Non B-Class</td>
<td>221</td>
<td>212</td>
<td>-9</td>
<td>-4%</td>
</tr>
<tr>
<td>E : Water supply; sewerage, waste management and remediation activities</td>
<td>B-Class</td>
<td>242</td>
<td>168</td>
<td>-73</td>
<td>-30%</td>
</tr>
<tr>
<td>F : Construction</td>
<td>Part B Class</td>
<td>3,114</td>
<td>2,703</td>
<td>-411</td>
<td>-13%</td>
</tr>
<tr>
<td>G : Wholesale and retail trade; repair of motor vehicles and motorcycles</td>
<td>Part B Class</td>
<td>5,916</td>
<td>5,787</td>
<td>-129</td>
<td>-2%</td>
</tr>
<tr>
<td>H : Transportation and storage</td>
<td>Part B Class</td>
<td>2,604</td>
<td>3,469</td>
<td>865</td>
<td>33%</td>
</tr>
<tr>
<td>I : Accommodation and food service activities</td>
<td>Non B-Class</td>
<td>1,740</td>
<td>1,831</td>
<td>92</td>
<td>5%</td>
</tr>
<tr>
<td>J : Information and communication</td>
<td>Part B Class</td>
<td>985</td>
<td>1,268</td>
<td>283</td>
<td>29%</td>
</tr>
<tr>
<td>K : Financial and insurance activities</td>
<td>B-Class</td>
<td>174</td>
<td>204</td>
<td>30</td>
<td>17%</td>
</tr>
<tr>
<td>L : Real estate activities</td>
<td>B-Class</td>
<td>243</td>
<td>214</td>
<td>-29</td>
<td>-12%</td>
</tr>
<tr>
<td>M : Professional, scientific and technical activities</td>
<td>Part B Class</td>
<td>3,264</td>
<td>3,153</td>
<td>-111</td>
<td>-3%</td>
</tr>
<tr>
<td>N : Administrative and support service activities</td>
<td>Part B Class</td>
<td>1,517</td>
<td>2,097</td>
<td>580</td>
<td>38%</td>
</tr>
<tr>
<td>O : Public administration and defence; compulsory social security</td>
<td>Part B Class</td>
<td>763</td>
<td>851</td>
<td>88</td>
<td>11%</td>
</tr>
<tr>
<td>P : Education</td>
<td>Non B-Class</td>
<td>2,500</td>
<td>2,622</td>
<td>122</td>
<td>5%</td>
</tr>
<tr>
<td>Q : Human health and social work activities</td>
<td>Non B-Class</td>
<td>2,942</td>
<td>3,781</td>
<td>839</td>
<td>29%</td>
</tr>
<tr>
<td>R : Arts, entertainment and recreation</td>
<td>Non B-Class</td>
<td>337</td>
<td>567</td>
<td>230</td>
<td>68%</td>
</tr>
<tr>
<td>S : Other service activities</td>
<td>Part B Class</td>
<td>1,535</td>
<td>1,814</td>
<td>279</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>32,814</strong></td>
<td><strong>35,081</strong></td>
<td><strong>2,268</strong></td>
<td><strong>7%</strong></td>
</tr>
</tbody>
</table>

Source: OE Q2 2018 / Lichfields Analysis

2.26  Although job growth is projected to be in the order of 6.9% 2014-2033, GVA growth outstrips this, increasing by a very substantial 36.9% over the same time period (Table 2.3).

Table 2.3  Bolsover District Oxford Economics Summary

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2024</th>
<th>2033</th>
<th>2014-2033</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employee Jobs</strong></td>
<td>6246</td>
<td>6845</td>
<td>7085</td>
<td>2,425</td>
</tr>
<tr>
<td><strong>Self-Employed Jobs</strong></td>
<td>910</td>
<td>3,500</td>
<td>3,781</td>
<td>2,271</td>
</tr>
<tr>
<td><strong>Employment – jobs based</strong></td>
<td>32,814</td>
<td>34,947</td>
<td>35,081</td>
<td>2,268</td>
</tr>
<tr>
<td><strong>Bolsover GVA (Em 2015)</strong></td>
<td>£1,436.4</td>
<td>£1,732.5</td>
<td>£1,967.0</td>
<td>£530.7</td>
</tr>
</tbody>
</table>

Source: Oxford Economics Q2 2018

2.27  The overall employment change in Bolsover District resulting from these forecasts is shown in Table 2.3 and Table 2.4 along with the expected employment growth in the main B-class sectors. This includes an allowance for jobs in other non B-class sectors that typically utilise industrial or office space, such as some construction uses, vehicle repair, courier services, road transport and cargo handling and some public administration activities. This is because a certain proportion of these jobs will occupy premises falling within the B-class sectors.
To translate the resultant job forecasts into estimates of potential employment space, it is necessary to allocate the level of employment change forecast for office, industrial, and wholesale / distribution uses as follows:

1. The office floorspace requirement is primarily related to job growth / decline in the financial and business service sectors;
2. The industrial floorspace requirement is primarily related to job growth / decline in the manufacturing sectors; and,
3. The wholesale / distribution floorspace requirement is primarily related to job growth / decline in the wholesale and land transport, storage and postal services sectors.

These figures indicate a moderate increase in the level of net job growth (+772 jobs) in the B-use classes in Bolsover District over the period to 2033, with B1a/b sectors seeing a cumulative increase of +651 jobs, plus a growth of 803 Distribution (B8) related employment, but countered to an extent by B1c/B2 manufacturing seeing a cumulative decrease of -682 jobs. This is within the context of overall job growth of 2,268 jobs projected for Bolsover District between 2014 and 2033 (i.e. non B-class sectors of the local economy are forecast to grow by almost 1,500 jobs).

<table>
<thead>
<tr>
<th>Table 2.4</th>
<th>Forecast Workforce Jobs Change in Bolsover District (2014 – 2033)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bolsover Workforce Jobs</td>
</tr>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Offices (B1a/b)</td>
<td>5,986</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>7,177</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>4,371</td>
</tr>
<tr>
<td>Total B-class Jobs</td>
<td>17,534</td>
</tr>
<tr>
<td>Other Non B-Class Jobs</td>
<td>15,280</td>
</tr>
<tr>
<td>Jobs in All Sectors</td>
<td>32,814</td>
</tr>
</tbody>
</table>

Source: Oxford Economics Q2 2018 / Lichfields’ Analysis

In order to translate the resulting figures into employment land projections, employment densities (based upon the latest 2015 HCA guidance on employment densities), adjusted to translate FTEs into workforce jobs and plot ratios by use class, were then applied to the employment forecasts.

It was assumed that:

1. One B1a/b general office job requires 12.5 sqm of employment floorspace [Gross External Area, or GEA];
2. One B1c light industrial job requires 53.5 sqm of employment floorspace [GEA];
3. One B2 industrial job requires 36 sqm of employment floorspace [GEA];
4. A combined B1c/B2 factor of one job per 45 sqm was obtained by taking an average of the aforementioned B1c/B2 GEA equivalents;
5. One general/smaller unit warehousing/distribution job requires 65 sq. m. of employment space [GEA]; one large scale/high bay warehousing/distribution job requires 80 sq. m. of employment space [GEA]. These have been split on a 50:50 basis.

---

2 i.e. BRES Sectors 58-74 (excl. part of 63), Office administration and support and 10% of Public Administration and Defence
3 Manufacturing sectors, plus car repair, some construction and waste and remediation activities
4 Wholesaling less car repairs retail car sales, plus post/couriers and land transport
The HCA Guidance takes account of recent trends in terms of the changing use of employment space, the main change being the more efficient utilisation of office space due to increased flexible working and hot-desking. This has resulted in a decrease in the amount of floorspace per office worker compared to previous guidance.

As with the previous October 2015 Bolsover EDNA, an allowance of 10% has been added to all floorspace requirements to reflect ‘normal’ levels of market vacancy in employment space. Where a reduction in employment is forecast (e.g. manufacturing), the associated negative floorspace has been halved. This reflects the fact that whilst there may be ongoing manufacturing job losses, it does not necessarily and automatically follow that all of the associated existing employment land will be lost.

For example, the baseline forecast produced by Oxford Economics projects that the GVA generated by the manufacturing sector within Bolsover will increase by £44 million between 2014 and 2033. This would indicate that the District’s manufacturing sector will continue to perform well in terms of economic output, perhaps in part through increased automation and the adoption of more efficient production techniques. As such, it is considered unlikely that the forecast decline in manufacturing employment will give rise to a commensurate reduction in demand for B1c/B2 space.

The resultant floorspace and land estimates are provided in Table 2.5. They indicate a positive net floorspace requirement for B1a/b, B1c/B2 and B8 uses in Bolsover District of +58,482 sqm. This is despite negative B1c/B2 growth over the 19-year assessment period of -15,261. In contrast, future B8 floorspace is estimated to be strongly positive (+64,697 sqm), alongside a more modest requirement for B1c (+9,046 sqm).

### Table 2.5: OE Baseline Net Employment Floorspace Requirement 2014-2033

<table>
<thead>
<tr>
<th>Floorspace (sqm)</th>
<th>2014-2033</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices (B1a/b)</td>
<td>9,046</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>-15,261</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>64,697</td>
</tr>
<tr>
<td>Total</td>
<td>58,482</td>
</tr>
</tbody>
</table>

Source: Oxford Economics Q2 2018 / Lichfields Analysis

**Scenario 2): Past Trends Job Growth**

The Planning Practice Guidance states that:

*"Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area."*

In line with the Planning Practice Guidance and using OE Q2 2018 data, past trends in job growth over the period 1991 to 2014 was considered. Over that time period, the total number of jobs based in Bolsover District increased from 21,249 in 1991 to 32,814 in 2014, an increase of 11,565 jobs (an impressive 54% growth rate overall). This equates to an annual average compound growth rate of 1.907%.

Applying this annual average growth rate to the 2014 figure and taking it forward to 2033, would indicate that Bolsover’s economy could grow by 14,171 jobs, to 46,985 by 2033 if growth rates continue at a similar rate.
This job growth was broken down by the key B-class use groupings as before (B1a/b, B1c/B2, and B8) and job density ratios applied to each. The past trends scenario suggests growth across all three B-Class uses, but particularly B1a/b office and B8 distribution. Modelling these past trends suggests a need for +322,117 sqm to 2033.

Table 2.6 Past Trends Job Growth based Net Employment Floorspace Requirements 2014-2033

<table>
<thead>
<tr>
<th></th>
<th>Bolsover District</th>
<th>Net Floorspace Growth (sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices (B1a/b)</td>
<td>2,903</td>
<td>40,326</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>1,522</td>
<td>75,658</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>2,559</td>
<td>206,133</td>
</tr>
<tr>
<td>Non-B Class</td>
<td>7,187</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,171</strong></td>
<td><strong>322,117</strong></td>
</tr>
</tbody>
</table>

Source: OE Q2 2018 / Analysis

### Scenario 3) SHMA Growth

In the *North Derbyshire and Bassetlaw SHMA – OAN Update, Final Report* (October 2017), GL Hearn modelled an alternative scenario for employment growth that accelerated the baseline job growth set out in the *Oxford Economics* (April 2017) baseline in order to test the implications on housing need of stronger economic performance and higher employment growth relative to the baseline forecasts.

This was developed from a desktop analysis of:

1. Past employment growth trends by sector, and comparison of this with expected future performance in the *Oxford Economics*’ April 2017 baseline forecasts;
2. Consideration of local economic drivers, including through review of local economic / employment land evidence and discussions with BDC; and
3. The LEP 70,000 jobs target across the Sheffield City Region (2013-33) and work undertaken by Ekosgen to disaggregate this by sector and local authority.

The Growth Scenario modelled employment growth of 6,500 jobs (0.9% pa) across the District over the period 2014 to 2035. It saw stronger performance relative to the baseline in the logistics/distribution sector, which has been growing strongly at both a national and regional level and in which the District has locational advantages in particular relating to its location on the M1. The Growth Scenario expects employment growth of 4,300 in this sector (which spans the wholesale/retail and transport/storage sectors) compared to 800 jobs in the OE baseline. This scale of growth is more similar to that seen historically in the District.

The 2017 SHMA states that this level of job growth equates to a housing need figure of **386 dpa** over the period 2014-35.

For the purposes of this Economic Alignment Study, we have taken GL Hearn’s data outputs and shortened the timeframe by 2 years (to 2014-2033) to align with the Local Plan. As might be expected, the shorter time frame results in a slightly reduced level of net job growth overall, to 5,709 over the intervening 19 years.

Table 2.7 summarises the breakdown of workforce jobs by B-Class sector. It indicates that office growth is expected to be strong, at 1,945 over the 19 years to 2033, as is Distribution (B8) at 2,399. This is in contrast to the moderate decline in manufacturing-related jobs, by -596. Overall, and having applied similar assumptions as Scenarios 1 and 2 concerning employment growth.

---

3GL Hearn (October 2017): North Derbyshire and Bassetlaw SHMA - OAN Update, Final Report, paragraph 3.27
4Ibid, Table 31
densities and vacancy rates, this equates to a net need for just under 207,000 sqm over the period 2014-33.

<table>
<thead>
<tr>
<th>Table 2.7</th>
<th>Scenario 3: SHMA Growth Workforce Jobs Change in Bolsover District (2014 – 2033)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bolsover Workforce Jobs</strong></td>
<td><strong>Change</strong></td>
</tr>
<tr>
<td><strong>2014</strong></td>
<td><strong>2033</strong></td>
</tr>
<tr>
<td>Offices (B1a/b)</td>
<td>6,122</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>7,067</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>4,500</td>
</tr>
<tr>
<td><strong>Total B-class Jobs</strong></td>
<td>17,690</td>
</tr>
<tr>
<td>Other Non B-Class Jobs</td>
<td>15,049</td>
</tr>
<tr>
<td><strong>Jobs in All Sectors</strong></td>
<td>32,739</td>
</tr>
</tbody>
</table>

Source: Oxford Economics Q2 2018 / Lichfields’ Analysis

**Scenario 4) Policy On FLUTE**

In the Bolsover EDNA (October 2015), Lichfields considered the employment space implications associated with a policy-on forecast. This was modelled as part of the Sheffield City Region FLUTE (Forecasting the interactions of Land Use, Transport and Economy) model, which was commissioned by the Sheffield City Region [SCR] LEP in order to provide a strategic, LEP-wide approach to planning and evaluating major investment proposals on a consistent basis.

The model is underpinned by independent forecasts that take, as their starting point, the LEP aspiration to create 70,000 additional jobs across the LEP area over the period 2013-2024. This was intended to reflect a general and broad-based improvement in local economic conditions in the event that the SCR LEP is allocated the funding, freedoms and flexibilities that the organisation requested in the SEP and will continue to request in subsequent funding rounds.

The economic forecasts developed to underpin the FLUTE model indicate that the five sectors listed below will make the greatest contribution (in absolute terms) to employment growth in Bolsover over the period to 2024:

1. Logistics & Transport: 850 additional jobs;
2. Business Services: 750 additional jobs;
3. Financial & Professional Services: 700 additional jobs;
4. Creative & Digital Industries: 400 additional jobs; and
5. Advanced Manufacturing: 350 additional jobs.

Given that the forecasts only covered the period 2013-24, it was necessary to adjust these to derive an estimate of job growth over the period 2015-33. In order to do so, Lichfields annualised employment change by sector for Bolsover as forecast by the FLUTE model and projected this forward on a pro-rata basis. This gave rise to a projected increase of 6,710 jobs over the study period.

Given that the original FLUTE figures are based upon a general and broad-based uplift in economic performance (as opposed to project-based assumptions where impacts are less likely to follow a linear trajectory) such an approach is considered reasonable. Clearly, however, the results must be interpreted with a degree of caution.

The FLUTE model has not been updated since, but still arguably remains a valid scenario given the LEP’s continued (and consistent) aspirations for growth across the City Region. By applying
a similar pro-rata approach, albeit from 2014-33, this equates to 7,082 jobs across the sectors summarised in Table 2.8.

Table 2.8  FLUTE: Projected Employment Change by Sector, 2014-33

<table>
<thead>
<tr>
<th>FLUTE Model Sector</th>
<th>Employment Change (2014-2033)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Services</td>
<td>+1,295</td>
</tr>
<tr>
<td>Advanced Manufacturing</td>
<td>+605</td>
</tr>
<tr>
<td>Logistics and Transport</td>
<td>+1,468</td>
</tr>
<tr>
<td>Retail</td>
<td>+518</td>
</tr>
<tr>
<td>Sport, Leisure, Tourism</td>
<td>+475</td>
</tr>
<tr>
<td>Creative and Digital Industries</td>
<td>+691</td>
</tr>
<tr>
<td>Financial and Professional Services</td>
<td>+1,209</td>
</tr>
<tr>
<td>Health</td>
<td>+345</td>
</tr>
<tr>
<td>Construction</td>
<td>+518</td>
</tr>
<tr>
<td>Low Carbon</td>
<td>+345</td>
</tr>
<tr>
<td>Other</td>
<td>+259</td>
</tr>
<tr>
<td>Education</td>
<td>+130</td>
</tr>
<tr>
<td>Public Admin</td>
<td>-345</td>
</tr>
<tr>
<td>Med-Low Tech Manufacturing</td>
<td>-432</td>
</tr>
<tr>
<td>Total</td>
<td>+7,082</td>
</tr>
</tbody>
</table>

Source: FLUTE Model / Lichfields Analysis

The growth in B-Class employment anticipated under this Scenario has been converted into net future employment space requirements using the same methodological approach outlined above. The results of this exercise are summarised in Table 2.9.

Table 2.9  Scenario 4: FLUTE Workforce Jobs Change in Bolsover District (2014 – 2033)

<table>
<thead>
<tr>
<th></th>
<th>Bolsover Workforce Jobs</th>
<th>Change</th>
<th>Employment Floorspace Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>2033</td>
<td>2014-2033</td>
</tr>
<tr>
<td>Offices (B1a/b)</td>
<td>5,986</td>
<td>9,153</td>
<td>+3,167</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>7,177</td>
<td>8,207</td>
<td>+1,030</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>4,371</td>
<td>4,987</td>
<td>+616</td>
</tr>
<tr>
<td>Total B-class Jobs</td>
<td>17,534</td>
<td>22,347</td>
<td>+4,813</td>
</tr>
<tr>
<td>Other Non B-Class Jobs</td>
<td>15,280</td>
<td>17,549</td>
<td>+2,269</td>
</tr>
<tr>
<td>Jobs in All Sectors</td>
<td>32,814</td>
<td>39,896</td>
<td>+7,082</td>
</tr>
</tbody>
</table>

Source: FLUTE Model / Lichfields’ Analysis

Scenario 5) Past Take Up Rates

Long term completion rates employment floorspace reflect market demand and actual development patterns on the ground. For many situations, they can provide a reasonable basis for informing future land needs, particularly where land supply or demand has not been unduly constrained historically. However, the future demand picture may not necessarily reflect past trends and some adjustments may be needed.

Data on past completions and losses by B-class sector was provided by BDC via the recent AMRs for the District. As can be seen in Table 2.10, monitoring data on past take up of B-Class uses over the period 1999/2000 to 2014/15 (inclusive) was provided by Bolsover District Council to inform the previous EDNA. Whilst all data was provided on the basis of hectares of land, this was converted into floorspace by Lichfields using standard plot ratios. This was done to ensure that the employment space estimates generated under the past take-up scenario were directly
comparable with those derived using the labour demand and labour supply techniques considered elsewhere in this section.

This indicated that a total of 460,600 had been completed over the 16-year period, at an annual rate of 28,788 sqm. Over that same time period, losses had totalled 61,720, or 3,858 sqm per annum.

Table 2.10 Past Take Up of Employment Floorspace in Bolsover (sqm)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Net Completions</td>
<td>Total Gross Completions</td>
</tr>
<tr>
<td>Offices (B1a/b)</td>
<td>72,680</td>
<td>78,760</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>58,360</td>
<td>107,440</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>267,840</td>
<td>274,400</td>
</tr>
<tr>
<td><strong>Total B-class Floorspace</strong></td>
<td><strong>398,880</strong></td>
<td><strong>460,600</strong></td>
</tr>
</tbody>
</table>

Source: Lichfields Analysis

Lichfields updated this analysis to reflect three more years’ worth of data. This equated to 20,060 sqm of B-Class floorspace being completed in 2017/18; 26,465 sqm in 2016/17 and a very substantial 109,911 sqm coming forward in 2015/16. As summarised in the Council’s 2015/16 AMR, almost all of this latter figure (10,810 sqm) related to B8 warehousing / distribution at: the Sports Direct Warehouse at Shirebrook (97,510 m²), and a smaller area for open storage at Beaufit Lane, Pinxton (12,300 m²). 2,499 m² was lost through the development of a retail unit at Weighbridge Road, South Normanton. The net amount of B-Class floorspace developed in 2015/16 was therefore 107,412 m².

Overall, therefore, and primarily due to the Sports Direct warehouse development in 2015/16, the annual average rate of gross completions has increased in recent years, to 32,476 sqm from 28,788 previously. Losses average 3,422 sqm annually, hence the net annual average rate of B-Class completions equates to 29,054 sqm.

One view of future growth in Bolsover could therefore be to simply assume that past development rates carry on into the future. If it were assumed that past completion rates were to continue over the 19-year study period, this would equate to an overall increase of 552,013 sqm of employment space (net), an uplift from the 448,705 sqm in the previous EDNA reflecting the slightly longer appraisal period and recent accelerated delivery of sites.

Table 2.11 Employment Floorspace Requirements for Bolsover based on Past Trends Continuing, 2014-2033

<table>
<thead>
<tr>
<th></th>
<th>Total Net Completions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices (B1a/b)</td>
<td>74,387</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>87,444</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>390,183</td>
</tr>
<tr>
<td><strong>Total B-class Floorspace</strong></td>
<td><strong>552,013</strong></td>
</tr>
</tbody>
</table>

Source: Lichfields Analysis

This approach assumes that past trends of development would continue unchanged, which may not fully reflect changes in the economy given the uncertainty over Brexit. It may also underestimate future demand if the supply was constrained in the past, for example because of few sites becoming available or infrastructure / funding factors.

However for the purpose of this Scenario, no adjustments have been made to the take up data. There are a number of reasons for this, not least the fact that delivery of large scale warehousing schemes has been a regular occurrence in the District over recent years, and the benefits arising
from the area’s excellent connectivity to the strategic road network remain as strong as ever. This was confirmed with previous discussions with commercial agents active in the area, who stressed that Bolsover was likely to remain an attractive location for logistics operators, subject to the availability of suitable sites and premises (competition from adjoining authorities notwithstanding). An alternative approach to past take up is explored further in the sensitivity testing below.

2.61 As can be seen from Table 2.11, the net floorspace requirements implied by a continuation of past levels of activity are significantly higher than those derived through the application of the labour demand scenarios.

2.62 Using standard ratios of jobs to floorspace for the different B-Class uses (as outlined in relation to the baseline OE scenario above), and working on the basis of 10% vacancies, a broad estimate can be provided of the number of jobs that could be sustained by the 552,013 sqm floorspace. This could be expected to accommodate 12,011 B-Class jobs, or 632 jobs annually over the Plan period (compared to 624 jobs annually in the 2015 EDNA). This would equate to 5,356 B1a/b office jobs; 1,759 B1c/B2 industrial jobs and 4,896 B8 warehousing and distribution jobs. This is higher than the 503 jobs per annum achieved in the Borough over the 23-year period 1991-2014 (334 of which were related to B-Class units).

Scenarios 6 and 7) Labour Supply

2.63 It is also important to take into account how many jobs, and hence how much employment space, would be necessary to broadly match forecast growth of the resident workforce in the District. In contrast to the other approaches, this approach focuses on the future supply of labour rather than the demand for labour. These scenarios then project the amount of new jobs needed to match the future working-age population, and how much employment space would be needed to accommodate these jobs.

2.64 The previous EDNA used demographic modelling produced by GL Hearn to inform the Council’s Strategic Housing Market Assessment [SHMA], which used data suggesting that the workplace labour supply could increase by 2,240 residents, equating to 522 B-Class jobs and 12,435 sqm of floorspace, significantly lower than the other scenarios.

2.65 At the time of writing, new modelling has been produced by GL Hearn, using the 2014-based Sub-National Population Projections [SNPP] and the latest 2016-based equivalents. The findings are set out below.

Scenario 6) Labour Supply 2014-based SNPP (272 dpa)

2.66 This scenario models the 2014-based SNPP and applies the headship rates within the 2014-based SNHP. This broadly aligns with the Council’s OAHN figure of 272 dpa, albeit over a slightly longer timeframe.

2.67 Under this scenario, the labour force growth is 3,464 over the 2014-35 period, or 2,947 over the plan period 2014-33. According to GL Hearn, this equates to 3,126 net workforce jobs growth over the 19-year period.

Scenario 7) Labour Supply 2016-based SNPP (289 dpa)

2.68 This scenario models the latest 2016-based SNPP and applies the headship rates within the 2014-based SNHP. Under this scenario, the labour force growth is 3,196 over the 2014-33 period. According to GL Hearn, this equates to 3,345 net workforce jobs growth over the 19-year period and a housing OAN of 289 dpa.
To translate this job growth into employment floorspace requirements, similar assumptions concerning vacancy rates and employment densities as per the econometric demand side forecasting work were applied to the job projections.

The results are presented in Table 2.12. Under these two scenarios, addressing the future employment requirements of local residents would require between 74,490 sqm and 78,575 sqm of B-class employment space (net) between 2014 and 2033 in Bolsover District.

Table 2.12 Bolsover District B-Class Net Floorspace Required from Labour Supply Growth Scenarios, 2014-33 (sqm)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices (B1a/b)</td>
<td>11,301</td>
<td>11,877</td>
</tr>
<tr>
<td>Manufacturing (B1c/B2)</td>
<td>-11,706</td>
<td>-10,799</td>
</tr>
<tr>
<td>Distribution (B8)</td>
<td>74,895</td>
<td>77,497</td>
</tr>
<tr>
<td><strong>Total B-class Floorspace</strong></td>
<td><strong>74,490</strong></td>
<td><strong>78,575</strong></td>
</tr>
</tbody>
</table>

Source: Lichfields

Safety Margin

To estimate the overall requirement of employment space that should be planned for in allocating sites, and to allow some flexibility of provision, it is common practice to add an allowance as a safety margin for factors such as delays in some sites coming forward for development. This margin is a contingency factor, providing a modest additional land buffer so that supply is not too tightly matched to estimated demand, and so that shortages of land do not arise if future demand turns out to be greater than the forecasts. Such flexibility is sensible given the uncertainties in the forecasting process and the scope for delays in developing employment space.9

The 2015 EDNA noted that given the relatively unconstrained land supply in quantitative terms) within Bolsover, it was considered appropriate to apply a reasonable allowance that provides for some flexibility and reflects the fact that there may be potential delays in some of the District’s sites coming forward. However, it is important to ensure that the allowance is not over-generous, as this could give rise to an over-provision of land.

Taking the above into account, and to ensure consistency with the previous EDNA, a safety margin of two years – generally recognised as the average length of time taken for a site to gain planning permission and for development to commence – it is considered appropriate for Bolsover. On this basis, the margins set out in Table 2.13 were added to the net space requirements for the relevant B-Class uses. These margins were calculated on the basis of two years of net take-up.

Table 2.13 Bolsover District 2-Year Safety Margin Allowances

<table>
<thead>
<tr>
<th>All B-Class Uses</th>
<th>Net Average Annual Take-up (sqm)</th>
<th>2-year Safety Margin Added 2014-2033</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices (B1a/b)</td>
<td>3,915</td>
<td>7,830</td>
</tr>
<tr>
<td>Industrial (B1c/B2)</td>
<td>4,602</td>
<td>9,205</td>
</tr>
<tr>
<td>Warehousing (B8)</td>
<td>20,536</td>
<td>41,072</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29,053</strong></td>
<td><strong>58,107</strong></td>
</tr>
</tbody>
</table>

Source: Lichfields’ Analysis

9 This safety margin is separate from the consideration of vacancy rate.
**Converting Net to Gross Floorspace Requirements**

2.74 To convert the net requirement for employment space into a gross requirement (the amount of employment space or land to be allocated), an allowance is also typically made for some replacement of losses of existing employment space that may be developed for other, non B-Class uses in future. This is a widely accepted approach in planning for future employment land needs.

2.75 A judgement was therefore made on the suitability and degree of the allowance for future losses which it would be appropriate to apply here based on the consultants’ understanding of supply-side deliverability factors in Bolsover District and current trends in the market. Not all losses need necessarily to be replaced as some will reflect restructuring in the local economy as less space may be needed in some sectors in future. However, some replacement is needed to refresh the quality of the stock and to avoid the employment land supply continually declining.

2.76 There is an argument that not all such losses of employment land should necessarily be replaced or reflected in an increased gross land requirement. This would be on the basis that the stock of employment land in Bolsover District contains some older sites less likely to meet future needs and is of a scale that reflects past industrial patterns, rather than the amounts of land needed in future.

2.77 However, against this argument is the likelihood that other sites may also be lost by 2033, and these will represent losses to the overall land portfolio, reducing choice within the market. The vast majority of recent losses in Bolsover have been relatively small scale. The largest area of land lost since 1999/2000 was a 2.56 ha site on the Berristow Lane Industrial Estate, whereas the majority of activity has occurred on sites of less than 1 ha. In addition, land has been lost to a variety of uses including a variety of small residential developments, with losses dispersed across numerous settlements.

2.78 The previous EDNA concluded that no individual industrial estates were coming under concerted pressure for redevelopment from non-B Class uses to the extent that provision should be made for their replacement in full. As such, it was considered that allowing for the replacement of losses at 50% of historic rates would be appropriate.

2.79 Since the publication of the 2015 study, some 3,303 sqm of B-Class land has been lost for alternative uses, or 1,101 sqm. This is lower than the long term average of 3,858 sqm between 1999/00-2014/15, or 3,422 sqm 1999/00-2017/18. On balance it is considered that no evidence has come to light that would cause us to change our initial view that allowance should be made for the replacement of losses at 50% of historic rates. This would now equate to 1,711 sqm per annum over the Plan period (down from 1,929 sqm in the 2015 EDNA), or 32,512 sqm over 19 years.

2.80 The model steps are summarised in Figure 2.3. The same steps described above to convert the net employment projections from net to gross (with a 2-year margin of choice) have been applied to the net historic take up figures described above for consistency.
In summary, the demand-led range of indicative total gross land requirements to 2033, factoring in a 2-year margin of choice, results in the following demand projections for Bolsover District:

1. Econometric demand led projections: 149,100 – 412,735 sqm
3. Past Take Up: 642,631 sqm

The range of floorspace requirements for office, industrial and warehousing development is very wide – between 149,100 sqm at the bottom end (based on the OE Baseline projection) all the way up to 642,631 sqm based on past take up rates at the top end of the range.

**Estimated Land Requirement**

As with the previous 2015 EDNA, for each of the scenarios set out above, the gross floorspace requirements have been translated into land requirements, by use class. This has been calculated by applying the following plot ratio assumptions to the floorspace estimates:
1. **Manufacturing/Warehousing**: A plot ratio of 0.4 was applied, hence a 1ha site would be needed to accommodate a footprint of 4,000 sqm of employment floorspace.

2. **Office**: As before, it was assumed that 80% of new floorspace would be located in lower density developments with a plot ratio of 0.4 (typically observed on business park environments) with 20% in higher density town centre locations at a plot ratio of 2.0. That is not to say that 80% of office development will necessarily occur outside of town centres. Instead, it acknowledges that some development will, whilst some development in town centres will also take place at a relatively low density. This reflects the limited number of higher density office developments that have come forward in the District historically.

The resultant land requirements are set out in Table 2.14 and Figure 2.5.

### Table 2.14  Bolsover District Gross Employment Land Comparisons 2014-33

<table>
<thead>
<tr>
<th></th>
<th>B1a/b</th>
<th>B1c/B2</th>
<th>B8</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) OE Baseline</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2033 (net)</td>
<td>1.90</td>
<td>-3.82</td>
<td>16.17</td>
<td>14.26</td>
</tr>
<tr>
<td>2014-2033 (gross)</td>
<td>2.60</td>
<td>2.34</td>
<td>17.31</td>
<td>22.25</td>
</tr>
<tr>
<td>+ Flexibility factor</td>
<td>4.25</td>
<td>4.64</td>
<td>27.57</td>
<td>36.47</td>
</tr>
<tr>
<td><strong>2) Past Trends</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2033 (net)</td>
<td>8.47</td>
<td>18.91</td>
<td>51.53</td>
<td>78.92</td>
</tr>
<tr>
<td>2014-2033 (gross)</td>
<td>9.17</td>
<td>25.07</td>
<td>52.67</td>
<td>86.91</td>
</tr>
<tr>
<td>+ Flexibility factor</td>
<td>10.82</td>
<td>27.37</td>
<td>62.93</td>
<td>101.12</td>
</tr>
<tr>
<td><strong>3) SHMA Growth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2033 (net)</td>
<td>5.67</td>
<td>-3.33</td>
<td>48.31</td>
<td>50.65</td>
</tr>
<tr>
<td>2014-2033 (gross)</td>
<td>6.38</td>
<td>2.82</td>
<td>49.44</td>
<td>58.64</td>
</tr>
<tr>
<td>+ Flexibility factor</td>
<td>8.02</td>
<td>5.12</td>
<td>59.71</td>
<td>72.86</td>
</tr>
<tr>
<td><strong>4) FLUTE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2033 (net)</td>
<td>9.24</td>
<td>12.81</td>
<td>12.40</td>
<td>34.44</td>
</tr>
<tr>
<td>2014-2033 (gross)</td>
<td>9.94</td>
<td>18.96</td>
<td>13.53</td>
<td>42.44</td>
</tr>
<tr>
<td>+ Flexibility factor</td>
<td>11.58</td>
<td>21.26</td>
<td>23.80</td>
<td>56.65</td>
</tr>
<tr>
<td><strong>5) 2014-based SNPP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2033 (net)</td>
<td>2.37</td>
<td>-2.93</td>
<td>18.72</td>
<td>18.17</td>
</tr>
<tr>
<td>2014-2033 (gross)</td>
<td>3.08</td>
<td>3.23</td>
<td>19.86</td>
<td>26.16</td>
</tr>
<tr>
<td>+ Flexibility factor</td>
<td>4.72</td>
<td>5.53</td>
<td>30.12</td>
<td>40.38</td>
</tr>
<tr>
<td><strong>6) 2016-based SNPP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2033 (net)</td>
<td>2.49</td>
<td>-2.70</td>
<td>19.37</td>
<td>19.17</td>
</tr>
<tr>
<td>2014-2033 (gross)</td>
<td>3.20</td>
<td>3.46</td>
<td>20.51</td>
<td>27.16</td>
</tr>
<tr>
<td>+ Flexibility factor</td>
<td>4.84</td>
<td>5.76</td>
<td>30.77</td>
<td>41.38</td>
</tr>
<tr>
<td><strong>7) Past Take Up Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2033 (net)</td>
<td>15.62</td>
<td>21.86</td>
<td>97.55</td>
<td>135.03</td>
</tr>
<tr>
<td>2014-2033 (gross)</td>
<td>16.33</td>
<td>28.02</td>
<td>98.68</td>
<td>143.02</td>
</tr>
<tr>
<td>+ Flexibility factor</td>
<td>17.97</td>
<td>30.32</td>
<td>108.95</td>
<td>157.23</td>
</tr>
</tbody>
</table>
The analysis indicates that the employment land requirement ranges from 36 ha based on the Oxford Economics baseline, through to 101 ha based on past trends job growth, all the way up to 157 ha based on projecting forward past take up rates. The figures are primarily driven by B8 logistics needs, with this making up more than two thirds of the entire past take up rate requirement (109 ha).

Sensitivity Testing

Given the range of potential requirements implied by the different forecasting techniques, the 2015 EDNA tested how reasonable each appeared against other factors and how sensitive they were to 'flexing' the underlying assumptions. Such sensitivity testing can help to inform a view as to how one might narrow the range in order to identify an appropriate preferred requirement for the District. The implications of adjusting take up rates and benchmarking the projections against past job growth are set out below.

Adjustments to Past Take Up Rates

The take up date underpinning the scenarios includes a number of developments for large logistics facilities. The 2015 EDNA considered that the inclusion of these developments was appropriate, having regard to the local context. Nevertheless, it was recognised that large schemes delivered by or on behalf of organisations such as Tesco, Sports Direct and the Co-Op constituted imported demand which is potentially relatively footloose.

In order to better understand underlying employment land requirements associated with the growth of the District’s indigenous business base, it was considered helpful to strip out any such large developments from the take up figures.

The EDNA removed three large developments that came forward over the period 1999/00-2014/15, equal to 39.93 ha (or 159,720 sqm based on a 40% plot ratio). This had the effect of...
reducing the requirement for B8 land from 84.6 ha to 34.7 ha, and the requirement for all B-Class land from 129.5 ha to 79.6 ha.

Since then, 97,510 sqm has been developed at the Sports Direct Warehouse at Shirebrook (24.38 ha). Excluding this and the previous 3 large developments from the figures would reduce past take up rates by 257,230, or 64.31 ha over the 19 years.

By adjusting the B8 completions downwards on this basis, and projecting it forward over the period 2014-33 (adjusting the margin for choice accordingly), has the effect of:

1. Reducing the gross requirement for B8 land (2013-33) from 108.95 ha to 37.87 ha.
2. Reducing the gross requirement for B-Class land overall from 157.23 ha to 86.16 ha.

**Benchmarking Against Past Job Growth**

For the purposes of this note we have compared the employment growth implied by the projected land requirements under each scenario with the levels of growth actually achieved in Bolsover in recent years.

From the Figure it can be seen that both the OE baseline and labour supply scenarios assume low levels of B class employment growth over the period to 2033 (41, 64 and 70 jobs per annum respectively). All three figures are significantly below the annual average rate of B-Class employment growth observed in the District between 1991 and 2014 (368 jobs per annum). The end of the period over which past performance was analysed was characterised by a severe recession and fragile economic recovery.

As such, it is considered that planning for a portfolio of employment land that is only capable of accommodating a level of economic performance to 2033 that is significantly lower than past trends is likely to be an inappropriate strategy for the District to pursue. Furthermore, such a strategy risks artificially constraining Bolsover’s growth potential. The highest level of implied job growth is associated with the past take-up scenario. This is driven by strong employment growth in office based sectors, as well as warehousing and logistics activities and assumes an average annual growth of 632 jobs across the B class sectors. This is almost 90% above the yearly average of B class employment growth observed in Bolsover between 1991 and 2014 (334 jobs per annum).
It can also be seen from the Figure that the projected level of employment growth assumed under the FLUTE scenario (253 B class jobs per annum) aligns more closely with past trends. This is particularly true when one considers the analysis presented previously which suggests that the scale of office-based growth observed Bolsover may have been overstated.

Similar trends were observed in the 2015 EDNA, which noted that the level of employment change delivered during this period was underpinned by particularly strong market conditions and the availability of significant public-sector funding to unlock employment sites. It was considered unlikely that such conditions will return in the short to medium term, although given that the period analysed relates to 23 years, this should moderate the growth observed during the pre-recession boom.

**Implications for Bolsover District’s ELR target**

This Economic Alignment report has sought to update the findings of the 2015 EDNA in order to ensure the evidence base is up to date and aligns with the emerging housing target as the Council’s progresses towards its Local Plan Examination in Public. As set out earlier in this Report, the EDNA considered four scenarios which identified a range of between 23.3 ha and 129.5 ha for the period 2015 to 2033.

To narrow this range, the EDNA noted that the OE baseline (60 jobs per annum) and labour supply (30 jobs per annum) were underpinned by job growth figures that are significantly lower than past trends (275 jobs per annum). Given that the past trends figure includes the 2008/09 recession and subsequent fragile recovery, it was considered that the appropriateness of planning on the basis of either scenario was questionable due to the implicit lack of ambition.

It was therefore estimated that an appropriate level of demand for the District to plan for is more likely to sit somewhere between the 47.2 ha identified under the FLUTE policy-on scenario and the 129.5 ha identified on the basis of past take-up. The EDNA further concluded the following:

1. Future demand for office space is likely to be more closely aligned with the policy-on scenario than past take-up rates as the office market is regarded as weak by local agents. As such, it was recommended that BDC plan for the provision of **10ha of land for office development (B1a/b)** over the period 2015-2033.

2. Recognising that there is a degree of consensus between the B1c/B2 land requirements generated under the policy-on (16.3 ha) and past take-up (25.1 ha) scenarios, it was suggested that BDC should plan to meet the mid-point between the two requirements. As such, **it was recommended that BDC plan for the provision of 20ha of land for manufacturing uses (B1c/B2) over the period 2015-2033.**

3. The extent to which Bolsover wishes to pursue imported demand, and hence how closely any future requirement should align with past take-up rates, is ultimately a policy decision for the District Council. It was suggested that a total allocation of 70 ha of land for B8 uses might represent an appropriate starting point (with 35 ha relating to past trends excluding three significant inwards investment schemes). This was considered sufficient to meet indigenous demand, whilst also providing an appropriate level of flexibility to accommodate at least two large logistics developments. **It was recommended that BDC plan for the provision of between 35ha and 70ha of land for warehousing and distribution uses (B8) over the period 2015-2033.**
It was therefore recommended that BDC allocate between 65 ha and 100 ha gross of employment land to accommodate demand from B-Class occupiers over the period 2015-2033. This comprised of:
1. 10 ha of land for B1a/b (office) uses;
2. 20 ha of land for B1c/B2 (manufacturing) uses; and
3. 35 ha - 70 ha of land for B8 (warehousing and distribution) uses.

This Economic Alignment Study has undertaken similar scenarios, updated with the latest information available to us. It is recognised that the ‘policy on’ FLUTE Scenario 4 is now several years old, but no equivalent projection has been provided by the Sheffield City Region LEP, whilst its objectives and growth aspirations underpinning the forecast remain valid. The Scenario also aligns closely with the past trends Scenario 2, for B1a/b office and B1c/B2 industrial land requirements at least.

On this basis, the following requirements are recommended for Bolsover District:

1. **Office Requirement B1a/b**: The scenarios modelled identify a need for between 4 ha (OE Baseline) and 18 ha (Past Take Up Rates). The 2015 EDNA recommended a need for 10 ha (over an 18-year, rather than 19-year period). The EDNA came to this view on the basis that commercial agents considered that the office market in Bolsover is weak, with the stronger office markets surrounding the District drawing many office requirements, leaving only indigenous firms or those that are particularly cost-sensitive. Whilst take-up was relatively buoyant pre-recession, this was understood to have been a reflection of a confluence of numerous factors including the availability of development finance and public sector funding, as well as pension advantages. Those agents consulted as part of this study indicated that conditions in Bolsover had since slipped back considerably and they did not anticipate that they would return to pre-recession conditions in the short to medium term.

The latest take up data available since the EDNA was completed in 2015 suggests that over the past three years, just 1,707 sqm of office floorspace has been developed, at an average rate of 569 sqm, compared to an average of 4,923 sqm between 1999/00 and 2014/15. This appears to corroborate agents’ comments that demand in this sector is continuing to decline, and that past take up rates is likely to constitute an over-estimate of the future requirements for office space.

Taking the above into account, we consider that the approach taken by the EDNA in 2015, which considered that future demand for office space is more likely to be closely aligned with the policy on scenario than past take up rates, remains valid. **As such, it is recommended that BDC plan for the provision of 12 ha of land for office development (B1a/b) over the period 2014/33.** This is higher than the c. 5ha B1a/b office requirement identified for the two labour supply scenarios that aligns with the Council’s OAHN.

2. **Manufacturing (B1c/B2)**: The scenarios provide a range of between 4.6 ha (OE Baseline) and 30.3 ha (Past Take Up Rates) over the period 2014-33. The policy-on FLUTE Scenario 4) assumes that manufacturing will experience a robust growth in employment (1,030 jobs) to 2033. This is slightly lower than past trends (+1,522). Furthermore, it is recognised that Bolsover’s Economic Development and Housing Strategy identifies manufacturing as one of the District’s key sector strengths, whilst growth in advanced manufacturing is being pursued as a key policy priority by the SCR LEP.

As per the EDNA, and recognising that there is a degree of consensus between the B1c/B2 land requirements generated under the policy-on (21.3 ha) and past take-up rates (30.3 ha) scenarios, it is again suggested that BDC should plan to meet the mid-point between the
two requirements. As such, **it is recommended that BDC plan for the provision of 26 ha of land for manufacturing uses (B1c/B2) over the period 2014-2033.**

3 **Warehousing and Distribution (B8):** as noted above, warehousing, distribution and logistics is identified as a key sector within local strategy documents. In addition, consultation with local economic stakeholder and commercial agents as part of the 2015 EDNA reiterated the importance of the sector as a driver of future growth. As such, it is critical to ensure that the District allocates sufficient land to capitalise upon this.

Consultation with local agents previously indicated that Bolsover has competed well for large scale distribution developments (by virtue of its central location and strategic road access) and is expected to continue to do so in future. However, agents did highlight that competition is likely to be greater moving forwards – particularly in the short term – with sites such as Markham Vale in Chesterfield, which benefits from Enterprise Zone status.

The EDNA also recognised that past take-up of B8 space has been shaped to a large extent by three significant inward investments. The recent development of the large Sports Direct warehouse at Shirebrook has continued this trend. Given that the retail logistics sector is relatively footloose, we consider that it is still prudent to plan for a slightly lower level of demand moving forwards, rather than to assume that Bolsover can replicate this success and attract a further four large scale developments over the Plan period.

Discounting these four developments from past trends still give rise to a requirement for approximately 38 ha of B8 land to 2033. Again, we consider that this represents a useful starting point for estimating the likely level of indigenous demand for space over the Plan period. As such, it is recommended that Bolsover should plan for at least 38 ha of land for B8 uses.

As outlined in the EDNA however, consultation with locally active agents and economic stakeholders highlighted that an opportunity exists for Bolsover to continue to compete successfully for large logistics developments. Clearly, if Bolsover fails to factor this into the District’s future allocations, the supply of employment land to be progressed through the Plan process is unlikely to be able to accommodate such opportunities as they arise.

Consequently, it is recommended that BDC incorporate an allowance for such imported demand within their allocations, cognisant of the past success of the District and the inherent appeal of the area for such uses. It should, however, be recognised that the scale of imported demand is far more difficult for BDC to control and influence, particularly against a backdrop of increased competition from surrounding authorities.

The extent to which Bolsover wishes to pursue such imported demand, and hence how closely any future requirement should align with past take-up rates, is ultimately a policy decision for the District Council. Scenario 7) Past Take Up Rates indicates a need for 109 ha of B8 warehousing and distribution land over the period 2014-33. This would represent the very upper end of any requirement, given the inclusion of a number of very large distribution units that represent non-indigenous, and indeed regional, demand.

**However, it is suggested that taking a mid-point of this 38 ha – 109 ha range, i.e. 74 ha, might represent an appropriate target.** This is considered sufficient to meet indigenous demand, whilst also providing an appropriate level of flexibility to accommodate some large logistics developments.

In summary, it is therefore recommended that BDC looks to allocate between 76 ha and 147 ha (gross) of employment land to accommodate demand from B-class occupiers over the period 2014 to 2033, with a figure of 112 ha recommended where a single figure is required.
This should comprise of:

1. 12 ha of land for B1a/b (office) uses (10 ha recommended in the previous EDNA, over an 18-year plan period);
2. 26 ha of land for B1c/B2 (manufacturing) uses (20 ha recommended previously); and
3. Between 38 ha and 109 ha of land for B8 (warehousing and distribution) uses, with a midpoint figure of 74 ha recommended where a single figure is required (between 35 ha and 70 ha was recommended previously).

**Implications for BDC’s Emerging Local Plan and Housing Alignment**

Policy SS2 of the emerging Bolsover District Publication Local Plan (May 2018) states that sufficient land will be provided to accommodate 92 hectares of employment land across the period 2015 to 2033. The supporting text elaborates as follows:

“The Economic Development Needs Assessment (EDNA) (October 2015) identifies the need for employment land (B use classes only) for Bolsover District as being between 65 and 100 hectares of land for the period 2015 to 2033. The NPPF states that when drawing up local plans, local planning authorities should plan positively for a strong, competitive economy. As the employment land availability assessment identifies the existence of two sites with sufficient flexibility to accommodate up to two large logistic developments, based on the evidence provided by the EDNA there is sufficient justification for a target at the higher end of the range. On this basis, the Council will plan for 92 hectares of employment land for the period 2014 to 2033.” [paragraphs 4.10-4.12]

As set out above, this Economic Alignment Study has updated the EDNA using latest data from OE, new labour supply projections from the consultants undertaking BDC’s SHMA, and new B-Class completions data for the past 3 years since the EDNA was issued. This report concludes that BDC should plan for between 76 ha and 147 ha (gross) of employment land to accommodate demand from B-class occupiers over the period 2014 to 2033, with a figure of 112 ha recommended where a single figure is required. The 92 ha emerging Local Plan Policy SS2 figure therefore sits within this range, albeit somewhat below the 112 ha single figure recommendation. In general, however, there remains a reasonably close alignment between the new economic evidence and the Council’s emerging Local Plan B-Class employment land target.

More problematic, however, is the alignment between the employment land target(s) and the Council’s objectively assessed need for housing.

Policy SS2 of the emerging Bolsover District Publication Local Plan (2018) states that the Local Plan will accommodate new growth and investment in the District by making provision for:

“Sufficient land to accommodate the delivery of 5,168 dwellings (272 new homes per year) to meet the Council’s Housing Objectively Assessed Need across the period 2014 to 2033”

The supporting text to this Policy justifies the 272 dpa housing target as follows:

“Since the publication of this key evidence base document, 2014 Sub National Population projections (SNPP) were published in May 2016 and Sub National House Hold Projections (SNHP) were published in July 2016. Based on this updated population data, the Council and its partners in the North Derbyshire and Bassetlaw Housing Market Area commissioned an OAN Update Report. For Bolsover District, this report identified that the OAN is 272 dwellings per year from 2014.”
The NPPF states that to boost significantly the supply of housing, Local Plans should ensure that the full, objectively assessed need for their area is met. As a result, the Council will plan for 5,168 dwellings for the period 2014 to 2033.”

2.110 Since this was drafted, ONS has published a new set of population projections, the 2016-based SNPP. As part of this Economic Alignment Study, GL Hearn provided Lichfields with the job growth they estimated could be sustained in Bolsover Borough District if the local population (and hence housing need) grew along the lines projected in both the 2014-based SNPP and 2016-based SNPP. GL Hearn applied their own assumptions concerning how this population growth is likely to translate to an economically active workforce, using their own assumptions concerning economic activity rates, unemployment change, double jobbing and commuting patterns. Lichfields has not sought to validate these assumptions, which are for GL Hearn to justify.

2.111 GL Hearn has confirmed that the 2014-based SNPP (from the 272 dpa OAN in the October 2017 SHMA report) equates to labour supply growth of 2,947 over the period 2014-33, or 3,126 net job growth once adjustments have been made for unemployment changes, double jobbing and commuting patterns.

2.112 Using the latest 2016-based SNPP, GL Hearn’s model identifies a labour supply growth of 3,196 residents over the period 2014-33, or 3,345 net job growth over the same time period. This equates to a 176 jobs per annum over the 19-year period, or 289 dpa.

2.113 Based on our modelling exercise as can be seen in Table 2.14, the 2014-based SNPP Scenario 5, which broadly aligns with the 272 dpa OAHN target in the 2017 SHMA, may only sustain 40.4 ha (4.7 ha office, 5.5 ha manufacturing and 30.1 ha warehousing/distribution). The 2016-based SNPP Scenario 6 would only sustain 41.4 ha (4.8 ha office, 5.8 ha manufacturing and 30.8 ha warehousing / distribution).

2.114 Lichfields also modelled the employment land implications of Scenario 3) SHMA Growth, which used the 6,500 net job growth identified by GL Hearn in its growth-led scenario. The 2017 SHMA states that this level of job growth equates to a housing need figure of 386 dpa over the period 2014-35. This Scenario resulted in a B-Class employment land requirement of 72.9 ha (8.0 ha office, 5.1 ha manufacturing and 59.7 ha warehousing / distribution) over the period 2014-33.

2.115 All of these figures are below the bottom end of the 76 ha - 147 ha (gross) of employment land range, although the SHMA Growth Scenario 3, at 73 ha, is only just below the bottom end of the range.

2.116 It is generally acknowledged that there is not a direct causal link between housing and employment land requirements; however, authorities should ensure that their assessment of and strategies for housing, employment and other uses are integrated, and that they take full account of relevant market and economic signals (the Framework, paragraph 158).

2.117 The subsequent chapter of this report therefore explores the factors which will impact on the relationship between employment growth and residential demand in the Bolsover District context, before reviewing those factors which make forecast employment growth less certain or delayed.

GL Hearn (October 2017): North Derbyshire and Bassetlaw SHMA - OAN Update, Final Report, Table 31
Factors which impact on the relationship of employment growth to housing demand

Introduction

3.1 This section considers the relationship between employment land provision and housing needs in Bolsover. Clearly this relationship is highly complicated and covers a very wide range of issues over and above the type of jobs provided and Bolsover’s role within the wider Functional economic and housing market area (which are diverse and contain different local authorities). Many of these issues - such as changes in economic participation as the workforce ages and unemployment fluctuates; new ways of working such as double-jobbing, part-time work, zero-hour contracts; and growth of employment through recruitment agencies - would all impact on the traditional relationship between housing and jobs.

3.2 However, many of these issues are already addressed by GL Hearn in their PopGroup modelling, which makes assumptions concerning (for example) how economic activity rates are likely to change over time as the Government’s proposed changes to the pension age encourage people to continue working into late middle age and postpone retirement. These, and other macro-economic influences, are already implicitly factored into the job forecasts that underpin both the housing OAN and employment land requirements.

3.3 This section therefore focuses on the micro-economic factors that could help explain a potential mismatch between housing and employment land, taking account of:

1. Bolsover’s position as part of a wider functional economic and housing market area;
2. the extent to which a small number of large, strategic distribution developments have driven past take-up whilst delivering comparatively few new jobs; and,
3. the labour catchment of these strategic distribution sites (which reflect both their location and strategic role and function).

3.4 We examine the types of sectoral growth and workforce practices in Section 4.0.

Geographical Context

3.5 Bolsover District benefits from excellent road connectivity. The M1 passes through the west of the District (accessed via Junctions 28, 29 and 30) providing good north-south links. This is supplemented by links to the A38 to the south and the A1/A60 trunk to the north.

3.6 In addition, the District contains four rail stations (Whitwell, Creswell, Whaley Thorns and Shirebrook) which serve the Robin Hood Line. They provide frequent services to and from destinations throughout Derbyshire and Nottinghamshire.
3.7 The District is bounded by: North East Derbyshire and Chesterfield to the West, Amber Valley and Ashfield to the South, Bassetlaw and Mansfield to the East and Rotherham to the North. It is located within both the Sheffield City Region Local Enterprise Partnership (LEP) area and the Derby, Derbyshire, Nottingham and Nottinghamshire Local Enterprise Partnership (D2N2 LEP) area, reflecting its strong economic linkages to both.

3.8 In order to more fully understand the extent of Bolsover’s economic relationships with the surrounding authorities – and how this influences the relationship between employment land and housing needs – it is important to consider the Functional Economic Market Area and Housing Market Area within which the District is located. Both are considered in turn below.

**Functional Economic Market Area (FEMA)**

3.9 Planning Practice Guidance states that “needs should be assessed in relation to the relevant functional area, i.e. housing market area, functional economic area in relation to economic uses.” The Guidance acknowledges that “there is no standard approach to defining a functional economic market area” but identifies a number of factors that can assist in understanding their spatial extent, including:

- The geography of any Local Enterprise Partnership(s) (LEPs) within the area;
- ONS travel to work areas;
- The geography of commercial property markets; and

---

11 Planning Practice Guidance, Paragraph Reference ID: 2a-008-20140306
12 Planning Practice Guidance, Paragraph Reference ID: 2a-012-20140306
3.10 The paragraphs below consider some of these key metrics. It should be noted that, for the purposes of this exercise, housing markets are considered separately below.

**LEP Geography**

3.11 As set out earlier, Bolsover is located within both the Sheffield City Region LEP area and the Derby, Derbyshire, Nottingham and Nottinghamshire LEP (D2N2 LEP) area, reflecting its strong economic linkages to both.

3.12 The Sheffield City Region LEP comprises the local authorities of: Sheffield City Council; Rotherham Metropolitan Borough Council; Barnsley Council; Doncaster Council; Bassetlaw District Council; Chesterfield Borough Council; North East Derbyshire District Council; Derbyshire Dales District Council; and Bolsover District Council.

3.13 The D2N2 LEP comprises the local authorities of: Amber Valley Borough Council; Bolsover District Council; Chesterfield Borough Council; Derby City Council; Derbyshire Dales District Council; Erewash Borough Council; High Peak Borough Council; North East Derbyshire District Council; South Derbyshire District Council; Ashfield District Council; Bassetlaw District Council; Broxtowe Borough Council; Gedling Borough Council; Mansfield District Council; Newark and Sherwood District Council; Nottingham City Council; Rushcliffe Borough Council.

**ONS Travel to Work Areas**

3.14 Planning Practice Guidance specifically references the 2011 ONS Travel to Work Area as a ‘suggested data source’ for those seeking to understand the spatial extent of a FEMA. The ONS Travel to Work Areas have been developed to approximate self-contained labour market areas. These are areas where most people both live and work and therefore relatively few commuters cross a Travel to Work Area boundary on their way to work. They are based upon statistical analysis rather than administrative boundaries.

3.15 Figure 3.2 below provides a summary of the ONS Travel to Work Areas of relevance to Bolsover. From this it can be seen that the ONS analysis identifies Bolsover as straddling two separate Travel to Work Areas, with:

- Settlements in the west of the District, such as Bolsover, Clowne and Tibshelf forming part of the Chesterfield Travel to Work Area; and
- Some eastern parts of the District, including Shirebrook, forming part of the Mansfield Travel to Work Area.

3.16 The Chesterfield and Mansfield Travel to Work Areas are separate from and sit between the Sheffield Travel to Work Area (to the north) and Derby and Nottingham Travel to Work Areas (to the south).
Figure 3.2 Travel to Work Areas

Source: ONS 2011

Labour Catchment of Bolsover

Whilst the ONS Travel to Work Area analysis is a helpful tool, it is helpful to supplement this with an understanding of key commuting patterns from a Bolsover-specific perspective. The District’s principal travel to work flows (based upon Census 2011 data) are summarised in Table 3.1. From this it can be seen that 8,869 Bolsover residents live and work within the District (including 2,886 home workers).

A total of 20,462 Bolsover residents commute out of the District to employment opportunities elsewhere, whereas 15,324 non-residents travel into the District for work. Overall, this results in a net out-commute of 5,138.

Table 3.1 Travel to Work Patterns (Bolsover)

<table>
<thead>
<tr>
<th></th>
<th>Bolsover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live and Work in LA</td>
<td>8,869</td>
</tr>
<tr>
<td>Home Workers</td>
<td>2,886</td>
</tr>
<tr>
<td>No Fixed Workplace</td>
<td>2,426</td>
</tr>
<tr>
<td>In-Commute</td>
<td>15,324</td>
</tr>
<tr>
<td>Out-Commute</td>
<td>20,462</td>
</tr>
<tr>
<td>Net Commuting Balance</td>
<td>-5,138</td>
</tr>
</tbody>
</table>

Source: Census 2011/Lichfields analysis

Table 3.2 provides an analysis of Bolsover’s key commuting flows by location of destination and origin. The data has been compiled at the local authority level. From the table it can be seen that the strongest relationships are generally with those areas that share a boundary with
Bolsover District. It can also be seen that, whilst Bolsover is a net exporter of labour in overall terms, it acts as a net importer of labour in relation to Mansfield and North East Derbyshire.

Table 3.2 Bolsover’s Key Travel to Work Flows by Local Authority

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>Number of People</th>
<th>Origin of In-Commuters</th>
<th>Destination of Out-Commuters</th>
<th>Commuting Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolsover(^{13})</td>
<td>11,755</td>
<td>11,755</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Mansfield</td>
<td>2,229</td>
<td>1,997</td>
<td></td>
<td>+232</td>
</tr>
<tr>
<td>Ashfield</td>
<td>2,199</td>
<td>2,293</td>
<td></td>
<td>-94</td>
</tr>
<tr>
<td>Chesterfield</td>
<td>1,695</td>
<td>3,314</td>
<td></td>
<td>-1,619</td>
</tr>
<tr>
<td>Amber Valley</td>
<td>1,677</td>
<td>2,513</td>
<td></td>
<td>-836</td>
</tr>
<tr>
<td>North East Derbyshire</td>
<td>1,583</td>
<td>1,543</td>
<td></td>
<td>+40</td>
</tr>
<tr>
<td>Bassetlaw</td>
<td>1,007</td>
<td>1,658</td>
<td></td>
<td>-651</td>
</tr>
<tr>
<td>Sheffield</td>
<td>706</td>
<td>1,404</td>
<td></td>
<td>-698</td>
</tr>
<tr>
<td>Total</td>
<td>22,851</td>
<td>26,477</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Census 2011/Lichfields analysis

3.20 The ONS defines labour market areas as those areas in which the bulk of the resident population also work within the same area. Defining labour market areas requires an analysis of commuting patterns to identify Travel to Work Areas (TTWAs) for local economies. The current criteria is that generally at least 75% of an area's resident workforce work in the area and at least 75% of the people who work in the area also live in the area. The area must also have a working population of at least 3,500. However, for areas with a working population in excess of 25,000, self-containment rates as low as 66.7% are accepted to define a TTWA as part of a limited “trade-off” between workforce size and level of self-containment\(^{14}\).

3.21 Applying this methodology to the 2011 Census data indicates that Bolsover’s labour market area consists of: Bolsover; Chesterfield; North East Derbyshire; Amber Valley; Bassetlaw; Mansfield; Ashfield; and Sheffield. Together, these locations comprise:

1. The workplace for 76% of Bolsover’s resident workforce (34,643); and
2. The place of residence for 77% of Bolsover’s total workplace population (29,505).

3.22 The District’s labour market area is summarised in Figure 3.3.

\(^{13}\)Includes 2,886 residents that mainly work at or from home

\(^{14}\)ONS (December 2015): Commuting to work, Changes to Travel to Work Areas: 2001 to 2011
As set out in the preceding paragraphs, travel to work flows highlight the presence of strong economic linkages with the surrounding authorities. The District’s Economic Development Needs Assessment (2015), however, suggests that Bolsover’s FEMA is perhaps more tightly defined from a commercial property market perspective. The document states that the property market within Bolsover is largely characterised by localised demand.

Notwithstanding the above, the Economic Development Needs Assessment (2015) does acknowledge that Bolsover has been successful in attracting a small number of large logistics developments. These are strategic and footloose in nature and reflect the District’s ability to compete more recently for a limited number of commercial inquiries characterised by an area of search that extends beyond the local authority’s boundary. It is understood that Bolsover’s success in attracting such developments reflects its proximity and access to the strategic road network:

“Within the industrial markets, Bolsover has competed well with neighbouring districts in attracting and accommodating large scale distribution and manufacturing businesses. With its good communications from the M1 and sites of the extent and quality of Castlewood Park and Coalite, it is anticipated that Bolsover will continue to fare as well as neighbouring geographies over the longer term in delivering space for such occupiers.” (Paragraph 5.12)

Housing Market Area (HMA)

The Housing Market Area (HMA) within which Bolsover is located is assessed in detail within the North Derbyshire and Bassetlaw Strategic Housing Market Assessment (2013). The exercise draws upon qualitative and quantitative sources, including:
• A review of previously published research;
• Engagement with locally active estate and letting agents;
• Analysis of migration trends and commuting patterns; and
• Analysis of house price data.

3.26 The document concludes that Bolsover forms part of the wider North Derbyshire and Bassetlaw HMA, which is shown in Figure 3.4 and comprises of the following local authorities:

- Bassetlaw District
- Bolsover District
- Chesterfield Borough
- North East Derbyshire District

Figure 3.4 North Derbyshire and Bassetlaw HMA

Source: GL Hearn/Lichfields analysis

3.27 It should be noted that the North Derbyshire and Bassetlaw SHMA – OAN Update (2017), which was published more recently, adopts the same HMA.

Summary

3.28 Based upon the analysis presented above it is clear that Bolsover on its own does not represent a self-contained FEMA or HMA. Rather, the FEMA and HMA within which the District sits extend far beyond the authority’s own boundaries. As such, it is important that the Council’s Local Plan takes account of needs over a wider geographical area, whilst also having regard to Bolsover’s role in meeting these needs (a process that should be informed by close liaison with those local authorities within the same FEMA and HMA). This could include, for instance, a
consideration of the extent to which the District will continue to provide land for large logistics occupiers of regional/sub-regional significance.

3.29 The District’s HMA has been clearly defined within the *North Derbyshire and Bassetlaw Strategic Housing Market Assessment (2013)*. It is considered to comprise of: Bassetlaw District; Bolsover District; Chesterfield Borough; and North-East Derbyshire District.

3.30 With respect to Bolsover’s FEMA a variety of data sources have been considered by Lichfields, with each presenting a different picture regarding the extent of the District’s economic relationships with the neighbouring authorities:

- Bolsover sits within two separate LEP areas. Taken together, the Sheffield City Region and D2N2 LEPs cover an area which broadly corresponds to: all of Derbyshire; all of Nottinghamshire; and much of South Yorkshire;

- ONS Travel to Work Area analysis suggests that Bolsover’s strongest relationships are not with the cities of Derby, Nottingham and Sheffield. Rather, the District looks principally to the Travel to Work areas of Chesterfield (to the west) and Mansfield (to the east);

- Labour Catchment; an analysis of commuting flows into and out of Bolsover identifies a labour market area made up of the local authorities of: Bolsover; Chesterfield; North East Derbyshire; Amber Valley; Bassetlaw; Mansfield; Ashfield and Sheffield; and

- Commercial Market: Bolsover’s commercial property market is understood to be characterised largely by localised demand. The exception to this is the District’s strength in relation to large logistics developments, which demonstrate an ability to compete for commercial inquiries with a much wider area of search.

3.31 It is considered that the LEP areas represent a geography that extends far beyond Bolsover’s sphere of influence, whilst the ONS Travel to Work areas suggest that the District’s economic linkages are focussed less on Sheffield and more on those locations to the east and west. On balance, therefore, Bolsover’s FEMA is estimated to comprise of the authorities of: Bolsover; Chesterfield; North East Derbyshire; Amber Valley; Bassetlaw; Mansfield; and Ashfield. This is shown in Figure 3.5.
Recent Growth Performance

Population and Employment

Data from the 2011 Census shows Bolsover as a net exporter of labour (Table 3.1). This represents the latest comprehensive dataset available in relation to travel to work movements. However, it represents a snapshot in time and does not necessarily fully reflect shifts in Bolsover’s role and function within the wider FEMA/HMA context over time.

Figure 3.4 of the Economic Development Needs Assessment (2015) provides an overview of Bolsover’s contribution to employment and population growth over the period 2000 to 2013. This shows that the District has delivered disproportionately high growth in jobs relative to population change. Indeed, whilst jobs in Bolsover grew by 67% (higher than any authority shown in the FEMA/HMA) population increased by just 8% over the same period (lower than Ashfield and comparable with Mansfield).

In simple terms, the scale of job growth in Bolsover has exceeded population growth by 59 percentage points (67% minus 8%). Ashfield and North-East Derbyshire were the only other authorities in the FEMA/HMA where jobs grew at a faster rate than population. However, the difference in growth rates was far less pronounced than in Bolsover:

1. Ashfield: 6% differential (15% minus 9%); and
North East Derbyshire: 9% differential (7% minus -2%).

Figure 3.6 Growth in Jobs and Population (2000-2013)

Employment

Figure 3.7 supplements the analysis above by considering employment change across the FEMA over the period 2000 to 2016 (the latest available data). This again shows that Bolsover has been a key driver of employment growth in the wider area, with the number of jobs in the District increasing by 12,000 or 57% (from 21,000 to 33,000). The level of absolute growth was higher than that observed in any other authority within the FEMA. In percentage terms, growth in Bolsover was significantly higher than all of the authorities across the FEMA (Ashfield ranked second with an increase of 24% - less than half the level recorded in Bolsover).

Figure 3.7 Job Growth by Local Authority (2000-2016)

Source: ONS Job Density/Lichfields analysis
As a result of this growth, Bolsover’s relative importance as an employment location has increased considerably over the past 16 years. In 2000 the District accounted for 7.0% of all jobs within the FEMA. By 2016 the District accounted for 9.8% (as a result of capturing 30.8% of the job growth across the FEMA over the intervening period).

The analysis set out within the preceding paragraphs indicates that total jobs in Bolsover grew by:

1. 67% between 2000 and 2013; and
2. 57% between 2000 and 2016.

This is not, however, considered to be clear evidence that Bolsover’s relative importance as an employment location has diminished between 2013 and 2016. Rather, it appears to be a reflection of some year-on-year fluctuations within the data (which are not in themselves unusual). Were the analysis to be based upon the period 2000 to 2015 instead, for instance, this would yield a growth rate of 71% for the District.

The annual fluctuations in job figures (as well as the general upward trajectory) observed in Bolsover are shown in Figure 3.8.

**Figure 3.8 Employment in Bolsover (2000-2016)**

Source: ONS Job Density/Lichfields analysis

### Commercial Floorspace

Figure 3.9 sets out the change in (B class) employment floorspace over the period 2000/01 to 2015/16. From this it can be seen that floorspace in Bolsover increased by 386,000 sq.m. This represents the largest increase observed across the FEMA. In absolute terms, it is more than double the level of growth experienced by any other local authority within the FEMA (with the exception of Ashfield).

This also highlights (alongside the evidence presented in the preceding paragraphs) the important role that Bolsover has played in driving the creation of employment growth and economic development opportunities in recent years.
3.42 Data from the 2011 Census shows Bolsover as a net exporter of labour. Whilst this represents the latest available commuting data it is simply a snapshot in time and does not necessarily fully reflect recent shifts in Bolsover’s role and function within the wider FEMA/HMA context.

3.43 The analysis presented in the preceding paragraphs demonstrates that Bolsover has played a disproportionately important role in driving employment increases since 2000, with job growth outstripping population growth. The total number of jobs in the District increased by 12,000 between 2000 and 2016. This was higher (in absolute and proportionate terms) than the employment change observed in any other local authority within the FEMA. Furthermore, it corresponded 30.8% of all job growth across the FEMA (which comprises of seven local authorities) over the period. As a result, the share of jobs across the FEMA attributable to Bolsover rose from 7.0% in 2000 to 9.8% in 2016. This reflects the area’s growing importance as an employment location.

3.44 In addition, the increase in employment (B class) floorspace in Bolsover between 2000/01 and 2015/16 was higher than in any other authority within the FEMA. This was driven, in part, by the delivery of a small number of strategic warehousing developments which are understood to provide employment for residents of the surrounding local authorities. This reinforces the view that Bolsover’s economic linkages (and FEMA) extend beyond the District’s own administrative boundaries.

Summary

Data from the 2011 Census shows Bolsover as a net exporter of labour. Whilst this represents the latest available commuting data it is simply a snapshot in time and does not necessarily fully reflect recent shifts in Bolsover’s role and function within the wider FEMA/HMA context.

The analysis presented in the preceding paragraphs demonstrates that Bolsover has played a disproportionately important role in driving employment increases since 2000, with job growth outstripping population growth. The total number of jobs in the District increased by 12,000 between 2000 and 2016. This was higher (in absolute and proportionate terms) than the employment change observed in any other local authority within the FEMA. Furthermore, it corresponded 30.8% of all job growth across the FEMA (which comprises of seven local authorities) over the period. As a result, the share of jobs across the FEMA attributable to Bolsover rose from 7.0% in 2000 to 9.8% in 2016. This reflects the area’s growing importance as an employment location.

Impact of Strategic Warehousing

It is understood that much of the floorspace growth delivered in Bolsover between 2000/01 and 2015/16 can be attributed to the District’s recent success in capturing a small number of strategic warehousing developments. Such developments are typically land hungry, creating a modest level of employment within the context of the scale of development. This is considered in more detail below.

The contribution to floorspace change driven by the growth of strategic warehousing has been considered having regard to data obtained from the Valuation Office Agency. This shows that
two such developments (Tesco at Barlborough Links and Sports Direct at Brook Park – both of which came forward in 2004/05\(^4\)) account for 289,200sq.m of floorspace:

1. Tesco Distribution Centre, Barlborough Links: 49,144sq.m.
2. Sports Direct, Brook Park: 240,056sq.m.

This corresponds to 75% of the total increase in employment floorspace within Bolsover over the period 2000/01 to 2015/16.

Data regarding recent take-up of land within the District highlights a similar picture. The Economic Development Needs Assessment (2015) states that 115.14ha of land was developed for employment uses over the period 1999/00 to 2014/15. This falls to 99.71ha when losses of employment land to non-B class uses are netted off.

Over the same timeframe, it is understood that three key strategic warehousing developments came forward in Bolsover:

1. Tesco, Barlborough Links: 12.4ha (2004/05);
2. Sports Direct, Brook Park: 9.8ha (2004/05); and

In total, the three developments resulted in 39.93ha of take-up. This corresponds to between 35% and 40% of all land taken up in the District over the period 2000/01 to 2015/16.

**Impact on Employment Land Requirements**

Bolsover’s recent success in attracting strategic warehousing occupiers disrupts, to an extent, the relationship between jobs growth and employment land need. Developments of this nature typically require large tracts of land, whilst the resultant job creation impacts are comparatively low. To enable the District to accommodate relatively modest increases in employment in the sector it is therefore necessary to allocate a greater quantum of land than would be implied by translating the same level of employment change into a land requirement through the application of standard employment densities and plot ratios.

This can be illustrated by considering the example of the Tesco warehouse at Barlborough Links. It is understood that 200 jobs are based at the site, which covers 12.4ha of land. By way of comparison, 200 jobs would ordinarily be expected to generated demand for:

1. 0.625ha\(^5\) of land for office (B1a/B1b) uses;
2. 2.15ha\(^6\) of land for industrial (B1c/B2) uses;
3. 3.25ha\(^7\) of land for small scale warehousing and distribution (B8) uses; and
4. 3.70ha\(^8\) of land for larger warehousing and distribution (B8) uses.

**Impact on Commuting Patterns**

The high profile of the strategic warehousing developments in Bolsover, coupled with their location (generally close to the District’s boundary with neighbouring authorities) is understood to result in a large proportion of workers commuting in from elsewhere.

---

\(^4\) It should be noted that a further strategic warehouse was developed over this period, for the Co-operative Group at Junction28.
No data is available from the Valuation Office Agency for this unit (which is understood to have closed recently).
\(^5\) Based upon 12.5 sq.m per job and a 40% plot ratio
\(^6\) Based upon 43 sq.m per job and a 40% plot ratio
\(^7\) Based upon 65 sq.m per job and a 40% plot ratio
\(^8\) Based upon 74 sq.m per job and a 40% plot ratio
This has been considered by Lichfields, using the following case study examples:

1. Tesco Distribution Centre, Barlborough Links; and
2. Sports Direct Distribution Centre, Brook Park.

Travel to work data relating exclusively to the above occupiers is not publicly available. It has therefore been necessary to use small geography level data (Lower Super Output Area) from the Office for National Statistics. The data therefore also incorporates a limited number of other businesses within the immediately surrounding area. Nevertheless, it is considered an appropriate proxy for understanding likely commuting patterns in relation to the strategic warehousing operations of Tesco and Sports Direct.

In both instances, the analysis shows that approximately a quarter of all jobs (27.4% in relation to Tesco and 26.0% in relation to Sports Direct) within the Lower Super Output Area are filled by Bolsover residents, with a further three quarters commuting into the District from elsewhere.

With respect to Tesco at Barlborough Links, Figure 3.11 indicates that workers are relatively dispersed, albeit with a particular focus on Chesterfield. It is estimated that 34.4% of workers commute in from the wider HMA (comprising of Bassetlaw, Chesterfield and North East Derbyshire). This rises to 61.8% of workers if Bolsover residents are included within the analysis.

In relation to Sports Direct at Shire Park, it can be seen from Figure 3.10 that a large proportion of workers commute in from Mansfield (33.6%). It is estimated that the authorities of Bassetlaw, Chesterfield and North East Derbyshire (the wider HMA within which Bolsover is situated) account for 3.7% of workers. This figure rises to 29.7% if Bolsover residents are included within the analysis.

Tesco at Barlborough Links is understood to be located within E00098513. Sports Direct at Brook Park is understood to be located within E00098676.
Figure 3.10 Travel to Work Inflows (E00098676 – Location of Sports Direct)

Source: Census 2011/Lichfields analysis
A small number of strategic warehousing developments in Bolsover account for a significant proportion of historic land take, despite generating comparatively modest levels of employment. It is important to note, however, that whilst this development has physically taken place within the District it reflects a wider, more strategic need that is separate from the requirements of the indigenous business base.
This can also be seen in the travel to work movements associated with such developments, with analysis showing that employees are commuting in from across a wide catchment area (including many of the authorities within the FEMA). It could be argued therefore, that whilst Bolsover is an attractive location for such uses, it is essentially accommodating developments that are strategic in nature and that serve to meet the employment needs of residents across a wider geography.

Conclusions

The analysis presented within this section has demonstrated that Bolsover forms part of a wider FEMA and HMA. This is a function of the strong economic and housing market linkages between the District and the neighbouring local authorities.

The HMA within which Bolsover is situated comprises the local authorities of: Bassetlaw; Bolsover; Chesterfield; and North East Derbyshire. The FEMA within which the District sits is considered to include the local authorities of: Bassetlaw; Bolsover; Chesterfield; North East Derbyshire; Amber Valley; Mansfield; and Ashfield.

Bolsover has played a disproportionately important role in driving employment increases since 2000, with job growth outstripping population growth. The total number of jobs in the District increased by 12,000 between 2000 and 2016 – more than any other local authority within the FEMA. Job increases in Bolsover over the period accounted for 30.8% of all employment growth across the FEMA (which comprises of seven local authorities). As a consequence, the share of jobs across the FEMA attributable to Bolsover rose from 7.0% in 2000 to 9.8% in 2016, reflecting the District’s growing importance as an employment location.

The recent economic success of Bolsover has been underpinned, at least in part, by a small number of strategic warehousing developments. Such developments typically require large areas of land despite creating comparatively modest levels of employment. As a result, there is a risk that the traditional relationship between jobs and employment land becomes somewhat disrupted in locations such as Bolsover.

It is important to note that whilst this development has physically taken place within the District it reflects a wider, more strategic need that is separate from the requirements of the indigenous business base. This can also be seen in the travel to work movements associated with such developments, with analysis showing that employees are commuting in from across a wide catchment area (including many of the authorities within the FEMA).

It could be argued therefore, that whilst Bolsover is an attractive location for such uses, it is essentially accommodating developments that are strategic in nature and that serve to meet the employment needs of residents across a wider geography. The Council will need to consider the potential implications of housing needs and commuting patterns as part of the finalisation of the Local Plan.
4.0 Factors which make forecast employment growth less certain or delayed

Introduction

4.1 The updated housing and employment land requirements for Bolsover District, as set out within the preceding sections of this report, are underpinned by employment forecasts obtained from Oxford Economics. Oxford Economics is a well-established economic forecasting house with a track record of providing employment forecasts to underpin the production of Local Plan evidence-base documents.

4.2 The forecasts are considered to represent a robust input assumption (to be considered alongside labour supply and past take-up data) for the purposes of determining future land needs. They provide a helpful indication of the broad scale and direction of economic growth in different sectors. It is acknowledged, however, that econometric forecasts of this nature tend to be most reliable at the regional and national level and less so when considering individual local economies.

4.3 Taking the above into account, this section considers some of the key factors which could impact upon the certainty and accuracy of the employment forecasts for Bolsover over the Plan period. At the request of the local authority, it focuses on:

1. The impact of automation and robotics
2. The impact of Brexit
3. Delays to transport and highways infrastructure
4. Constraints in the construction industry

The Impact of Automation and Robotics

4.4 The rise of automation, robotics and other technological advancements represent one of the biggest economic issues of the next decade(s). The rapid pace of technological progress anticipated is set to change the way that firms and individuals work and do business. This has significant implications for the future of the UK labour market.

4.5 The potential future impact of technological change is reflected in the Government’s Industrial Strategy. The document identifies artificial intelligence as one of the four ‘Grand Challenges’ that will shape the future of the national economy and which “the UK must embrace to ensure we harness all the opportunities they present.”

Scale of Impact

4.6 It is generally acknowledged that automation and robotics will reduce the demand for some occupations (generally those jobs made up of more routine tasks). The scale of change, however, remains the subject of debate:

1. 2017 analysis published by PwC concluded that up to 30% of UK jobs could be impacted by automation by the 2030s;
2. 2018 analysis published by Centre for Cities estimated that 20% of jobs in cities across Great Britain are in occupations that are “very likely to shrink”.

---

21 “Will robots steal our jobs?” PwC UK Economic Outlook, March 2017
22 ‘Cities Outlook 2018’ Centre for Cities, January 2018
4.7 It is understood, however, that these estimates are based upon the technical feasibility of automation (i.e. the extent to which jobs could be automated). In reality, the proportion of jobs lost to automation may be lower due to various economic, organisational, regulatory and legal constraints.

4.8 Additionally, whilst automation is likely to result in some disruption in the labour market and structural shifts in the economy it may not necessarily result in a net reduction in the total number of jobs at the national level. Indeed, Centre for Cities suggest that, at the UK level, there are “likely to be more jobs nationally in 2030 than today” and that this is simply part of the continued evolution of cities and economies:

“While the potential job losses set out will pose a challenge, history shows that cities were exposed to a similar risk of job losses a hundred years ago resulting from both automation and globalisation. Despite this, most have been able to bounce back and grow.”

4.9 This is a view echoed in the publication Will robots really steal our jobs? An international analysis of the potential long term impact of automation, which states that:

“...job losses from automation are likely to be broadly offset in the long run by new jobs created as a result of the larger and wealthier economy made possible by these new technologies. We do not believe, contrary to some predictions, that automation will lead to mass technological unemployment by the 2030s any more than it has done in the decades since the digital revolution began.”

Variations by Sector

4.10 The impacts of automation and robotics are not anticipated to be uniform across all sectors; both in terms of their overall scale and the trajectory of change. This reflects the way in which automation is projected to unfold over the period to the 2030s – via three overlapping waves:

1 Algorithm Wave: already well underway in sectors such as finance and information and communications, this is focused on the automation of basic computational tasks and analysis of structured data;

2 Augmentation Wave: already underway, but anticipated to come to full maturity in the 2020s. Focused on automation of repeatable tasks such as: form-filling; communicating and exchanging information through dynamic technological support; and statistical analysis of unstructured data in semi-controlled environments (i.e. drones and robots in warehouses); and

3 Autonomy Wave: whilst the relevant technologies are currently under development, they are not anticipated to come to full maturity on an economy-wide scale until the 2030s. Focused on the automation of physical labour and manual dexterity, as well as problem solving in real world situations that require responsive actions (i.e. manufacturing and transport through driverless cars etc.).

4.11 The implication of this is that some sectors (such as finance and insurance) may include a high proportion of jobs at risk of automation in the short term (algorithm wave) but a relatively low proportion of jobs at risk – overall – across the period to the 2030s. Conversely, other sectors (such as transport and storage and manufacturing) are less exposed to the risk of job losses in the short term (algorithm wave) but are particularly vulnerable to job losses during the augmentation wave and autonomy wave. This is considered in more detail in Figure 4.1.

23 Will robots really steal our jobs? An international analysis of the potential long term impact of automation PwC 2018
Figure 4.1 Potential Rates of Job Automation by Sector

It can be seen from the chart that, in overall terms, job losses are anticipated to be greatest in the transport and storage and manufacturing sectors. For both sectors, more than 40% of jobs are considered to be at risk of automation, with the risks most acute during the augmentation and autonomy waves. The construction sector is also shown to be particularly vulnerable, with almost 40% of jobs identified as being at risk.

Implications for Bolsover

In understanding the possible implications of automation and robotics for Bolsover it is important to consider the above analysis within the context of: the current role and function of the District’s economy; and economic policy priorities at the local and sub-regional level.

Section 8.0 of the Bolsover Economic Development Needs Assessment (2015) provides a detailed analysis of those sectors that might be expected to drive employment growth in the District over the Plan period. It draws upon a range of datasets including:

1. Bolsover’s strategic priorities in relation to economic development;
2. An analysis of current sector strengths and recent growth performance; and
3. An analysis of econometric job forecasts (including the FLUTE model which is understood to reflect the aspirations of the Sheffield City Region LEP).

On the basis of the above, the analysis within Section 8.0 of the Economic Development Needs Assessment (2015) concluded that:

“...it would appear that Bolsover’s aim for the Plan period should be to continue to build on the well-established sectoral strengths of the District (including manufacturing and wholesale and logistics) within an increasingly competitive environment. This is considered to be consistent with the discussions held with key local stakeholders during the stakeholder workshop facilitated by NLP as part of the EDNA process.” (Paragraph 8.18)

“...the sectors that could be considered most likely to drive growth in Bolsover over the Plan period would appear to be:

- Manufacturing;
• Wholesale, Transport & Logistics; and
• Construction.” (Paragraph 8.16)

4.16 Drawing together the preceding paragraphs would appear to suggest that Bolsover’s current and projected future economic strengths are in those sectors that are at greatest risk of job losses linked to automation and robotics. It would appear likely, therefore, that future job growth in the District is particularly vulnerable to the impacts of automation and robotics.

The Impact of Brexit

4.17 On June 23, 2016, the UK voted to leave the European Union (EU). It is scheduled to depart on March 29, 2019 – albeit with a transition period running until December 31, 2020.

4.18 As of June 2018, it is understood that the UK and EU have provisionally agreed upon the key departure issues of: the Northern Ireland border; what happens to UK citizens living in the EU (and vice versa); and the size of the UK’s ‘divorce bill’. As a result, talks are now focusing on the detail of these issues and on the nature of the UK’s future trading relationship with the EU. The latter is currently scheduled to be agreed at an EU summit on the 18th October. As such, the nature of the UK’s future trading relationship (a key determinant of the economic impact of Brexit at the macro and sector-specific level) remains unclear.

1 Membership of the European Economic Area (EEA), like Norway;
2 A negotiated bilateral free trade agreement (FTA), such as those between the EU and Switzerland or Canada; or
3 World Trade Organisation (WTO) membership without any form of specific agreement with the EU, like Russia or Brazil.

4.19 Whilst the precise terms of any future trade deal remain unclear at present, Theresa May’s Mansion House speech (from March 2, 2018) did set out the Government’s vision for the UK’s future trading relationship. In it, the Prime Minister acknowledged that the UK could not expect “enjoy all the benefits without all of the obligations” of EU membership and that, in future, “our access to each other’s markets will be less than it is now.”

4.20 In highlighting the UK’s desire for a bespoke deal, May said that: “We need to strike a new balance. But we will not accept the rights of Canada and the obligations of Norway”. This was considered by political commentators to suggest that the UK is hoping to negotiate a deal that goes further than the bilateral free trade deal signed between the EU and Canada but that stops short of the EEA membership status enjoyed by Norway.

Economic Impacts over the Plan Period

4.21 The EU Exit Analysis Cross Whitehall Briefing published by the House of Commons Exiting the European Union Committee in January 2018, seeks to quantify the possible impact of Brexit under each of the three scenarios considered above. It does so by estimating the likely performance of the UK economy over a 15-year period.

4.22 A counterfactual scenario (based upon long-term growth trends) is also presented as a proxy for the likely performance of the UK economy were it to remain as part of the EU. This assumes that UK Gross Domestic Product could be expected to increase by 25% within the EU.

4.23 For each alternative Brexit scenario a range is provided in relation to future Gross Domestic Product. Based upon the central estimates presented within the document, the House of

www.bbc.co.uk/news/uk-politics-43250035
Commons Exiting the European Union Committee anticipate that UK Gross Domestic Product after 15 years would be:

- 1.6% lower under an ‘EEA-Type Scenario’;
- 4.8% lower under an ‘FTA-Type Scenario’; and
- 7.7% lower under a ‘WTO-Type Scenario’.

The general assumption, therefore, is that leaving the EU is expected to adversely affect the future performance of the UK economy – and that the scale of impact will increase the closer the UK moves towards a ‘hard’ Brexit.

**Economic Impacts by Region**

Analysis presented within the *EU Exit Analysis Cross Whitehall Briefing* considers the likely spatial differences in the impacts of Brexit. This can be found on Page 23 of Appendix 1. The work assumes that:

“Geographical effects may be likely to be greater in regions and nations that are i) more exposed to the change in trade barriers by nature of their export composition (e.g. good barriers relative to services) and ii) have a higher dependence of exports as a proportion of the regional economy."

The analysis indicates that the impacts in relation to the East Midlands over a 15-year period are anticipated to be broadly similar to those forecast at the UK level (as set out in Paragraph 1.23 above). Within the context of the other regions of the UK this represents a moderate impact. Indeed, six of the twelve regions assessed are considered likely to experience greater adverse economic effects.

**Economic Impacts by Sector**

The impacts of Brexit are also expected to vary by sector according to: the potential imposition of trade barriers; the relative share of trade with the EU; and the key drivers of demand. This is considered within the *EU Exit Analysis Cross Whitehall Briefing* with the resultant summary graph presented at Figure 4.2.

---

**Figure 4.2 Brexit Impacts by Sector (15 year period)**

Source: EU Exit Analysis Cross Whitehall Briefing, House of Commons Exiting the European Union Committee (2018)
As set out earlier in this Section, the Council’s *Economic Development Needs Assessment (2015)* identifies three sectors as having the greatest potential to drive growth in Bolsover over the Plan period: wholesale, transport and logistics; and construction. The likely performance of each, post-Brexit, is considered in turn below (based upon the data set out in Figure 4.2):

1. **Wholesale, transport and logistics:** the adverse economic effects of Brexit are forecast to be more pronounced in relation to retail and wholesale trades than for any other service sector. In addition, the adverse effects are expected to be greater for the sector than for the UK economy as whole. This is true under all three trade deals modelled by the House of Commons Exiting the European Union Committee (EEA, FTA and WTO) although the relative underperformance is likely to be least pronounced under a ‘soft’ Brexit. Bolsover’s strength in relation to wholesale, transport and logistics could – all things being equal – leave the District more vulnerable to the effects of Brexit than other locations;

2. **Construction:** the adverse effects of Brexit on Gross Value Added are forecast to be less pronounced in relation to the construction sector than for the UK economy as a whole. This is true under all three trade deals modelled within the *EU Exit Analysis Cross Whitehall Briefing*, although the difference is close to negligible under an ‘EEA-Type Scenario’. Bolsover’s strength in relation to construction could – all things being equal – result in the District being less vulnerable to the effects of Brexit than other locations.

It is important that the sector-specific analysis (above) is considered within the context of the East Midlands being generally identified as a location with a moderate exposure to the economic risks associated with Brexit.

**Transport and Highways Infrastructure Delays**

It is understood from BDC officers that delays to critical transport and highways infrastructure could hold back the delivery of employment space on sites in the District. This, in turn, could have implications for the timescales over which new employment opportunities are created in the area, (although perhaps not the overall scale of employment growth).

Potential transport and highways infrastructure delays are understood to be a particular issue in relation to the Treble Bob roundabout (A616 and A619) which links closely to Junction 30 of the M1. In order to accommodate the planned level of growth in Clowne over the Plan period, the Council’s Infrastructure Study and Delivery Plan (2018) identifies improvements to the Treble Bob junction as being of critical importance. It is understood that financial contributions to various incremental improvement schemes have been agreed in draft. BDC are currently looking at opportunities to pool these contributions to bring forward a single scheme to address all the issues at the junction.

It is understood that work is required to manage the funding across various contributing schemes to ensure deliverability, whilst a planning application for the scheme is subject to a resolution to grant subject to a S106 agreement, the Secretary of State having declined to intervene.

**Construction Industry Constraints**

At the request of BDC officers, this section also considers current and emerging constraints in relation to the construction industry and the potential impacts of these constraints in relation to

---

25 In the absence of data in relation to wholesale, transport and logistics, this has been used as a proxy measure. This is considered reasonable – particularly given that the majority of the strategic distribution sites in Bolsover have been taken up by retailers (Tesco, Co-Operative and Sports Direct).
the delivery of commercial and residential development. It is generally acknowledged that the key challenges facing the construction industry at present (or in the near future) include:

1. Skills Shortages
2. Rising Costs
3. Impacts of Brexit

**Skills Shortages**

The UK construction industry is facing a skills shortage, which is a function of an ageing workforce and the poor image of the industry – which makes it difficult to recruit enough new entrants – compounded by low levels of employer-funded training (57% over a 12-month period) relative to the economy as a whole (66%)²⁶.

**Skills Issues**

The *Employer Skills Survey* (2016), published by the UK Commission for Employment and Skills, found that the construction industry had the joint highest proportion of skills shortage vacancies (SSVs) of any industry. SSVs refer to those vacancies that are hard to fill due to a lack of skills, qualifications or experience amongst applicants.

More than a third (35%) of all vacancies in construction were categorised as SSVs in 2015, compared to less than a quarter (23%) across the UK economy as a whole. In addition, the number of SSVs in construction increased sharply from 5,000 in 2013 to 12,000 in 2015.

There is a perception within sections of the wider development industry that growing skills shortages in construction are increasingly acting as a constraint on delivery. Figure 4.3 is based upon data from the Royal Institute of Chartered Surveyors’ (RICS) *UK Construction and Infrastructure Market Survey*. The survey seeks views on those factors which are limiting delivery. It can be seen from the chart that, since the start of 2013, the number of respondents citing skills/labour shortages as a constraint has increased markedly and has consistently exceeded 50% since mid-2014.

---

²⁶ Building Britain’s Future? The Construction Workforce after Brexit, IPPR (2017)
Demographic Issues

4.39 In addition to the existing skills shortages outlined above, the construction industry is also facing a significant demographic challenge over the Plan period. The industry’s workforce is older than the UK workforce as a whole. 43.3% of all construction workers are over 45 years old, compared to 40.7% for all those in employment at the national level. It should be noted, however, that the high proportion of EU born construction workers in the 25-34 and 35-44 year age brackets (40% and 31% respectively) has, to date, masked the scale of the challenge facing the industry.

4.40 The IPPR report *Building Britain’s Future? The Construction Workforce after Brexit* estimates that the industry’s current demographic structure translates to 387,000 workers approaching retirement over the next ten years and 1 million workers approaching retirement over the next twenty years. *The Farmer Review of the UK Construction Labour Model (2016)* predicts that the UK’s house building workforce could contract from 187,000 in 2016 to just 124,000 in 2025. This is based upon a combination of an ageing workforce and low levels of new entrants.

Rising Costs

4.41 Skills shortages within the construction industry are driving up the cost of labour, whilst the cost of materials has also risen significantly (largely due to the fall in the pound following the referendum on EU membership). Research from 2017, for instance, identified 7 out of 10 UK builders reporting a rise in the cost of materials over the period since June 2016.

4.42 The scale of the challenge is illustrated by the Federation of Master Builders who estimate that approximately 25% of all materials used in the UK construction industry are imported. Greater currency volatility represents a challenge for construction firms in costing projects and maintaining margins.

---

27 Building Britain’s Future? The Construction Workforce after Brexit, IPPR (2017)
Impacts of Brexit

4.43 The UK construction industry is more reliant on EU born workers than the economy as whole (9.0% and 7.4% of workers respectively). Furthermore, the relative importance of EU workers has increased sharply in recent years, with Labour Force Survey data indicating that the number working in the construction industry increased by a factor of five between 2003 and 2016.\(^{30}\)

4.44 Within the context of the above – and given the role that EU workers have played in slowing the pace of the demographic challenge facing the industry by providing workers in the 25-34 and 35-44 year age brackets – the sector is considered by many commentators to be particularly vulnerable to the impacts of Brexit. Brexit could potentially make it more difficult for UK businesses to recruit EU born workers through two key mechanisms:

1. Restrictions on freedom of movement and an individual’s eligibility to work in the UK (particularly for lower skilled workers in the event that a ‘points-based’ immigration system is introduced); and

2. The fall in the value of the pound reducing the domestic purchasing power associated with any repatriated funds. This potentially diminishes the appeal to individuals of working in the UK in order to provide financially for family members who continue to live elsewhere in the EU.

4.45 Research published in late 2017\(^ {31}\) found that 8% of construction firms with at least one non-UK worker had already experienced staff shortages as a consequence of Brexit. The scale of impacts is anticipated increase over time, with:

1. 34% of construction businesses expecting Brexit to impact upon their organisation in the next five years;

2. 27% of construction businesses expecting skills shortages in the industry to increase due to Brexit; and

3. 31% of construction businesses assessing wage inflation and higher costs as being fairly or very likely.

Implications for Bolsover

4.46 The District’s Economic Development Needs Assessment (2015) identifies the construction industry as a key future driver of employment growth across the local area. As such, it is important to understand any factors that could constrain the construction industry over the Plan period.

4.47 In considering the skills shortages and demographic challenges facing construction, The Farmer Review of the UK Construction Labour Model (2016) states that:

“...the level of stress created through labour led capacity shortages is geographically highly sensitive. The most acute problems align with cities and conurbations where economic activity and GDP contribution is highest. The construction skills crisis can therefore be characterised as a national problem but with regional hotspots. London’s particularly challenging construction labour market issues cannot be ignored due to its importance to UK plc.”

4.48 In addition, Building Britain’s Future? The Construction Workforce after Brexit considers how the proportion of EU workers in the construction industry varies by region. This is presented in Figure 4.4. This would appear to indicate that London – with EU born workers comprising 31.2% of the workforce – is most exposed to any labour market impacts associated with Brexit.

\(^{30}\) Building Britain’s Future? The Construction Workforce after Brexit, IPPR (2017)

\(^{31}\) Building Britain’s Future? The Construction Workforce after Brexit, IPPR (2017)
The East Midlands has the second lowest proportion of EU born workers (3.1%), suggesting that the risk associated with Brexit are likely to be comparatively modest.

Taking the above into account, there appears to be little to suggest that the challenges currently facing the UK construction industry would have a disproportionate impact on the economy of Bolsover. Bolsover does not appear to be more vulnerable to the effects of any such challenges than many other locations of the UK.

In addition, it should be noted that whilst some of the challenges facing the industry have been in place for a number of years (Figure 4.5 indicates that the impact of labour shortages has increased sharply since 2013 whilst the referendum on EU membership and subsequent fall in the pound occurred in June 2016) construction output has continued to grow. This is highlighted in Figure 4.5 which shows that the industry has – with two exceptions – consistently delivered quarter on quarter output growth between 2011 and 2018. As such, it cannot necessarily be assumed that the challenges the industry is currently facing will result in a failure to deliver the new homes and employment space needed to facilitate the levels of employment growth forecast by Oxford Economics.
Figure 4.5 Construction Industry Quarter on Quarter Growth (2011-2018)

Source: ONS/Lichfields analysis
Conclusions

5.1 This report has been commissioned by Bolsover District Council to provide further technical evidence to consider issues regarding the relationship between employment and residential growth in Bolsover District. The report will form part of the evidence base for the emerging Bolsover District Publication Local Plan.

5.2 The following conclusions are drawn from the preceding sections of the report:

Job forecasts for the District are less bullish than before, although strong growth is possible in the transportation and storage sectors

5.3 The latest Oxford Economics [OE] Q2 2018 econometric job projections for Bolsover District indicate that the level of job growth will be less pronounced than previous iterations of their forecasting model. The 2015 EDNA relied on projections from OE three years previously, which suggested that job growth would continue the very strong levels of growth achieved from 1993 onwards and increase by over 4,400 between 2014 and 2033. In contrast, the latest 2018 projections suggest that the growth will be much less pronounced, at 2,268 over the same time period.

5.4 These new projections suggest that the strongest levels of growth will be seen in the Transportation and Storage sector (+865 jobs), followed by Human Health and Social Activities (+839 jobs) and Administrative and Support Service Activities (+580 jobs). In contrast, there will be a significant decline in employment in the Construction sector, with the loss of 411 jobs forecast, followed by Manufacturing (-321), Wholesale and Retail Trade (-129 jobs) and Professional, Scientific and Technical Activities (-111 jobs). Jobs for all four of these sectors are based in whole or in part, on B-Class employment land and this therefore has an impact on office, industrial and warehousing land requirements.

The employment land requirement set out in the emerging Local Plan remains valid...

5.5 In accordance with the PPG and the Framework, Lichfields undertook an update to the EDNA’s economic modelling using a variety of forecasting techniques including the OE econometric modelling; labour supply projections based on GL Hearn’s OAHN; and past take up rates. ‘Policy On’ forecasts were also modelled, using the previous FLUTE and SHMA Growth scenarios to ensure a continuity of approach. On the basis of this modelling, the following conclusions were drawn:

1 Office Requirement B1a/b: The scenarios modelled identify a need for between 4 ha (OE Baseline) and 18 ha (Past Take Up Rates). The latest take up data available since the EDNA was completed in 2015 suggests that office completions have slowed significantly. This corroborates agents’ previous comments that demand in this sector is continuing to decline, and that past take up rates are likely to constitute an over-estimate of the future requirements for office space. Based on the policy on scenario it is recommended that BDC plan for the provision of 12 ha of land for office development (B1a/b) 2014-33.

2 Manufacturing (B1c/B2): The scenarios provide a range of between 4.6 ha (OE Baseline) and 30.3 ha (Past Take Up Rates) over the period 2014-33. The policy-on FLUTE Scenario 4) assumes that manufacturing will experience a robust growth in employment (1,030 jobs) to 2033, whilst Bolsover’s Economic Development and Housing Strategy identifies manufacturing as one of the District’s key sector strengths. Taking the mid-point between the policy on (21.3 ha) and past take up rate (30.3 ha) requirements as before,
leads us to recommended that BDC plan for the provision of 26 ha of land for manufacturing uses (B1c/B2) over the period 2014-2033.

**Warehousing and Distribution (B8):** warehousing, distribution and logistics is identified as a key sector within local strategy documents and it is considered critical that the District allocates sufficient land to capitalise upon these opportunities. The District has completed well for inward investment in this sector in the recent past and has benefitted from strong levels of development. Depending upon whether one includes or discounts 4 very large warehousing developments in recent years, BDC could plan for between 38 ha and 109 ha of B8 warehousing land over the next 19 years. The mid-point of this range, 74 ha, may represent an appropriate target.

5.6 In summary, it is recommended that BDC looks to allocate between 76 ha and 147 ha (gross) of employment land to accommodate demand from B-class occupiers over the period 2014 to 2033, with a figure of 112 ha recommended where a single figure is required.

5.7 The 92 ha emerging Local Plan Policy SS2 figure therefore sits within this range, albeit somewhat below the 112 ha single figure recommendation. In general, however, there remains a reasonably close alignment between the new economic evidence and the Council’s emerging Local Plan B-Class employment land target, and it is considered that this remains valid as a result.

**The connection between housing and employment growth in the District has been relatively limited historically**

5.8 As set out above, there remains a reasonably close alignment between the new economic evidence and the Council’s emerging Local Plan B-Class employment land target. However, when compared with the emerging housing OAN target, clearer disparities emerge between the modelled expectations. As can be seen in Error! Reference source not found., the current Local Plan housing target, of 272 dpa could broadly sustain a level of net job growth equal to around 40 ha, rising to 41 ha if the slightly higher housing OAN of 289 dpa (using the 2016-based SNPP) is applied. Both figures are significantly below the bottom end of the 76-147 ha range.

5.9 However, as considered in Section 3.0, there has been a historic disconnect between what we have seen in actual demand for housing and employment in Bolsover, and what a model would suggest.

5.10 The situation is complex and there are other factors that impact on the relationship between employment growth and residential demand in the Bolsover context.

**There are local factors which impact on the relationship between employment growth and residential demand**

5.11 Bolsover has played a disproportionately important role in driving employment increases since 2000, with job growth outstripping population growth. The recent economic success of Bolsover has been underpinned, at least in part, by a small number of strategic warehousing developments. Such developments typically require large areas of land despite creating comparatively modest levels of employment. As a result, there is a risk that the traditional relationship between jobs and employment land becomes somewhat disrupted in locations such as Bolsover.

5.12 It is important to note that whilst this development has physically taken place within the District it reflects a wider, more strategic need that is separate from the requirements of the indigenous business base. This can also be seen in the travel to work movements associated with such
developments, with analysis showing that employees are commuting in from across a wide catchment area (including many of the authorities within the FEMA).

5.13 It could be argued therefore, that whilst Bolsover is an attractive location for such uses, it is essentially accommodating developments that are strategic in nature and that serve to meet the employment needs of residents across a wider geography.

Uncertainties surround Bolsover’s future economic growth and a degree of flexibility is needed, although these are essentially macro-economic issues

5.14 The updated employment land requirements for Bolsover District are underpinned by projections produced by Oxford Economics, a well-established economic forecasting house with a proven track record of providing employment forecasts to underpin the production of Local Plan evidence-base documents. The forecasts are considered to represent a robust input assumption; however, they are just one factor that guides our view of the strength of the local economy. Given the very high degree of economic uncertainty at present resulting from Brexit, infrastructure investment delays, capacity constraints in the construction industry and the future impact of changing working practices and automation, the likely accuracy of employment forecasts for Bolsover was analysed in further detail.

5.15 Our analysis, however, shows that there is little to suggest that the challenges currently facing the UK construction industry would have a disproportionate impact on the economy of Bolsover. Bolsover does not appear to be more vulnerable to the effects of any such challenges than many other locations of the UK. As such, it cannot necessarily be assumed that the challenges industry is currently facing will result in a failure to deliver the employment space needed to facilitate the levels of employment growth forecast by OE.

Ultimately the Council must consider whether the current allocations for employment land and housing remain sustainable

5.16 If Bolsover District is looked at in isolation then clearly there is a disconnect between the 272 dpa target in the emerging Local Plan and the 92 ha employment land figure.

5.17 Full alignment would be difficult to achieve and would therefore require a strong policy intervention by the Local Authority, set out in its Local Plan. This could include an aspiration to increase the job density in Bolsover District (up from 0.67 currently, compared to the East Midlands average of 0.8032), followed up by suitable policy measures such as the provision of better quality employment opportunities, and monitored on a regular basis by the Council to test whether the aspirations and policy measures remain appropriate.

5.18 Whilst tweaks could be made to data inputs such as commuting rates, economic participation and unemployment trends, we would urge caution in this regard. For example, the Planning Advisory Service’s ‘Technical Advice Note on Objectively Assessed Need and Housing Targets’33 states the following:

“It is important to avoid unrealistic assumptions on the relationship between housing, population and jobs. A number of housing assessments have been criticised by Inspectors for expecting very fast increases in economic activity rates. Such increases reduce the population growth, and hence number of homes, that is required to support a given number of new jobs. But unrealistic figures put the emerging plan at risk”.

32 Source: ONS jobs density 2016
5.19 There is clearly an element of judgement to be attached to the selection of the data inputs and how these are likely to change over time. This has been recognised in the High Court judgement between Kings Lynn and West Norfolk Borough Council versus CLG and Elm Park Holdings Ltd34.

5.20 In that Judgment, Mr Justice Dove confirmed that in meeting household and population projections taking account of migration and demographic change, the Practice Guidance illustrates that this is:

“a statistical exercise involving a range of demographic data for which there is no one set methodology, but which will involve elements of judgement about trends and the interpretation and application of the empirical material available. These judgements will arise for instance in relation to whether, for example, adjustments for local demography or household formation rates are required, and the extent and nature of adjustments for market signals. Judgement will further be involved in taking account of economic projections in undertaking this exercise.” [§34]

5.21 These judgements can make a significant impact on the relationship between the housing OAN and employment-led scenarios. That said, the choice of commuting, economic activity and unemployment rates and how these are likely to change over the course of the Plan period have always been part of the reasoned professional judgement applied by demographic modellers when determining the inputs to the modelling process.

5.22 These elements of judgement about trends and the interpretation and application of the empirical material available is recognised in the recent Kings Lynn High Court judgement to be appropriate when identifying the housing OAN. The key issue is at which point the data inputs move away from being reasoned professional judgements and more towards policy-driven, aspirational figures.

5.23 For example, the PAS Guidance states that a risky approach is to plan for recalling commuters, so the ratio of workplace jobs to resident workers is assumed to rise over the plan period so that more jobs can be accommodated for a given number of dwellings:

“The expected shift in commuting should be believable and acceptable to the other local authorities affected by it. Strategies of recalling commuters should not be adopted unilaterally; they require cross-boundary agreement in line with the Duty to Co-operate” [8.16]

5.24 We remain of the view that artificially adjusting data inputs such as commuting patterns and economic participation, moves more towards a policy choice and away from being a realistic adjustment based on empirical research and evidence.

5.25 From a more qualitative perspective, Bolsover District clearly has a number of unique attributes that make it a highly favoured location for inward investment and logistics more generally. As such, its economy has grown at a much faster pace than its neighbours since the turn of the Century. Even though it has a comparatively low job density rate, the evidence in this report has demonstrated that many of these very large recent developments, such as the Sports Direct facilities, attract commuters from a wide area well beyond the District’s boundaries.

5.26 Projecting these trends forward may result in high levels of future economic growth. The District is clearly part of a much wider FEMA and HMA.

5.27 As set out in Section 3.0, there is a clear argument that much of Bolsover’s B8 logistics offer meets the employment needs of a wider sub-region, whereas its housing need is localised, hence

34 Citation Number: [2015] EWHC 2464 (Admin)
the disparity between employment growth and housing need. The Council will need to consider the potential implications of housing needs and commuting patterns as part of the finalisation of the Local Plan.
Bristol
0117 403 1980
bristol@lichfields.uk

Cardiff
029 2043 5880
cardiff@lichfields.uk

Edinburgh
0131 285 0670
edinburgh@lichfields.uk

Leeds
0113 397 1397
leeds@lichfields.uk

London
020 7837 4477
london@lichfields.uk

Manchester
0161 837 6130
manchester@lichfields.uk

Newcastle
0191 261 5685
newcastle@lichfields.uk

Thames Valley
0118 334 1920
thamesvalley@lichfields.uk