

Transport for Development

Loughborough Transport Assessments for the Charnwood 2026 LDF

Report for Charnwood Borough Council

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1 Introduction

1.1 Overview

- 1.1.1 The Charnwood 2026 Local Development Framework is a statutory plan establishing the spatial strategy for the Borough. Good transport provision is essential to Charnwood's continuing prosperity but improvements need to be implemented in ways that are sustainable and minimise adverse environmental and social impacts. Car dependency needs to be reduced and the number of people walking, cycling and using public transport increased significantly.
- 1.1.2 As part of the LDF, MVA Consultancy were asked to undertake a detailed assessment of the transport implications of potential growth options in the Loughborough area, which could help meet known needs for housing and employment related development in the period to 2026. The assessment forms part of the evidence base for the Core Strategy Preferred Options to be published in Summer 2009.

1.2 Previous Assessments

- 1.2.1 During 2006/07 Leicestershire County Council undertook highway and transport assessments for a range of growth options in Leicestershire, but did not examine all options across Charnwood that are under consideration as part of the LDF policy process.
- 1.2.2 As a result, MVA Consultancy were commissioned by Charnwood Borough Council to undertake a strategic review of all the options under consideration within the LDF process, utilising a single and consistent modelling tool, to comparatively assess all the development options across the Borough.
- 1.2.3 The subsequent report, delivered in September 2008 and entitled 'Delivering Strategies: Transport Assessments for the 2026 Charnwood LDF' provides much of the background to the more detailed study for Loughborough undertaken within this report. However, the MVA 2008 report did highlight the following issues relating to previous work undertaken by Leicestershire County Council during 2006-2008:
- The assessments did not cover the entire borough of Charnwood and therefore not all the options under consideration had been assessed in transport terms;
 - Assessments were only reported as a series of flow changes within the highway model as a result of the developments and the mitigations proposed, i.e. any existing capacity on the public transport or highway networks was excluded from the assessments;
 - Assessments were generalised at a daily, AADT level, meaning that temporal variations in the level of spare capacity and requirements for mitigation for the development options were not specifically assessed;
 - Assessments were only conducted up to a forecast year of 2010, which means that background growth up to the level of the LDF forecast year of 2026 was not considered or attributed within the mitigation plans;

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- Interactions with on-site local facilities, as well as future year planned land-use commitments such as the Loughborough Science Park were not included; and,
- The evidence presented from the various models across the Borough was not consistent and therefore the relative merits of each of the options could not be compared.

1.2.4 The modelling methodology presented by MVA Consultancy in September 2008 was specifically designed in order to address each of these issues, focusing on comparative congestion changes with developments and their respective mitigation packages across the AM and PM peaks in 2026. The results suggested that the options to the west of Loughborough resulted in a lower level of congestion than those located to the east of the town. This was found to hold with or without the Science Park in place, and with or without mitigation of the developments. The full results are detailed within the report entitled, "Delivering Strategies: Transport Assessments for the Charnwood 2026 LDF".

1.2.5 This report also undertook a range of comparative cost benefit analyses between the proposed mitigation options, and found that where mitigation can be introduced by either extending an existing facility or service, or be provided as part of the on-site infrastructure linking into existing urban networks, as per many of the western options, it is more cost effective than where this approach is much more limited, as with options to the east of the town.

1.2.6 In responses to the Core Strategy Further Consultation Report the approach received broad support from both GOEM and the Highway Agency. However a number of concerns were raised in terms of the validity of the forecasting processes, particularly by Leicestershire County Council and consultants acting on behalf of promoters of the Cotes 4,200 dwelling Option. Some of these were noted within the original MVA Report, but included the facts that:

- MVA have developed their own traffic model because they wanted a single model in order to carry out a comparison of all potential site options through North Leicestershire; a detailed traffic model for Loughborough was not utilised in terms of the assessments;
- MVA have had only a few months to undertake the assessment, whereas LCC has been working on this project for at least 2 years;
- The LCC traffic models used in the RSS assessment work have been tested and approved [*a point which is taken up in Chapter 2*];
- The approach taken to develop the model was simplistic, and was based on existing and forecast traffic congestion on road links;
- It took no account of any junctions within the study, unlike the LCC traffic models; and,
- Reassignment impacts were not dealt with in terms of the mitigation options, and therefore the assessments of new links between major routes through town centre could not be assessed by the spreadsheet model that MVA have adopted.

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- 1.2.7 As MVA suggested within the 2008 report, without a traditional traffic model the level of mitigation afforded by the highway mitigation measures, in particular, was likely to be underestimated, and if included, were likely to enhance the level of mitigation achieved for each site.
- 1.2.8 However, as a result of the differences between these the first MVA Report and the County Council's work, MVA Consultancy were asked to undertake a more detailed study of both the North Leicester Options within Charnwood (reported in March 2009), and to develop a full multi-modal reassignment model for Loughborough in order to address the above concerns. Stakeholder support in terms of both the strategic and specific modelling approaches was firmly placed behind the multi-modal and comparable, congestion based mitigation approach previously adopted, and this was applied consistently to both testing of the North Leicester Options reported in March 2009, and the Loughborough Development Options analysed within this study.
- 1.2.9 This report details the results of the Loughborough development testing utilising the full capabilities of the new Loughborough multi-modal transport model. These capabilities include full traffic reassignment impact analysis, detailed junction simulation, high levels of validation in the vicinity of the development options (and the town more generally), interactions between developments, future year growth up to 2026, modelling of specific public transport services and mode choice forecasting, as well as specific park and ride modelling and forecasting capability.
- 1.2.10 This modelling framework provides a comprehensive modelling platform in line with relevant guidance, as well as the assessments in North Leicester, and also fulfils a range of criteria not met by any previous transport study of the LDF development options under consideration. This is the first time that all the transport implications of all the potential growth options around Loughborough have been tested using an up to date modelling framework.
- 1.2.11 The methodology, as well as the techniques and models used in the assessments have been audited by ATKINS (on behalf of GOEM and the DfT), and AECOM (on behalf of the Highways Agency). Leicestershire County Council Highway Authority has also been heavily involved in terms of specifying the requirements and agreeing the overall approach within the model development process. An initial workshop was organised to agree the methodology and approach adopted for these independent assessments. A second workshop was held to discuss the findings of the modelling work set out in the draft Report.

1.3 Options for Assessment

- 1.3.1 The options to be appraised as part of this study are shown in Table 1.1. Based on the results of the previous studies, and public consultation responses in 2008/9, there are six options in total which are assessed as part of this study. The options considered for Cotes at 4,200 dwellings, for West Loughborough and for Southwest Loughborough are based on current submissions from known development interests. The other options derive from broad assessments of the potential capacity available in other locations. For the Large Cotes Option it is assumed that 8,000 dwellings would require a larger amount, 25ha, of employment land than for the other options tested.

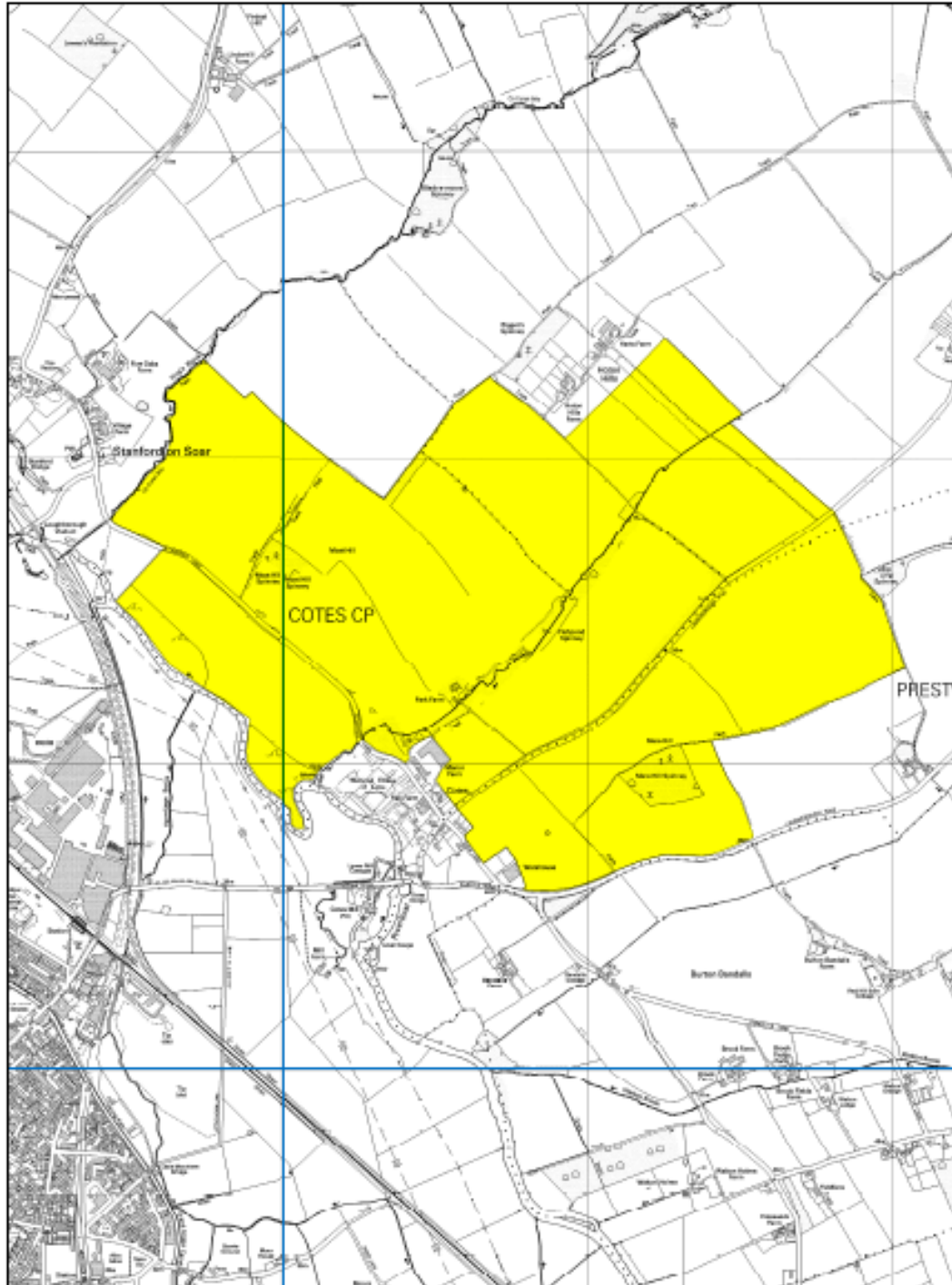
1 Introduction

- 1.3.2 The Science Park to the west of Loughborough is included as a separate option for testing purposes, but also forms part of each development option and scenario shown below.
- 1.3.3 Maps of each option are shown in Figures 1.1 to 1.5, which are copyright of Charnwood Borough Council. The areas shown in yellow would contain all the built development and open space areas expected to be associated with an SUE option. For Cotes Large and South Loughborough the areas shown are diagrammatic, given the absence of any indicative masterplans from known developer interests at this time.

Table 1.1 Loughborough SUE Options for the Charnwood 2026 LDF

Option	Location	Scale of development
1	Cotes	4,200 dwellings plus 12ha employment land
2	Cotes- Larger Option	8,000 dwellings plus 25ha employment land
3	South Loughborough	2,000 dwellings plus 20ha employment land
4	Southwest Loughborough	3,000 dwellings
5	South and Southwest Loughborough	5,000 dwellings plus 20ha employment land
6	West Loughborough	3,500 dwellings plus 20ha employment land

Figure 1.1 Cotes Development Option- 4,200 Dwellings plus 12ha Employment Land

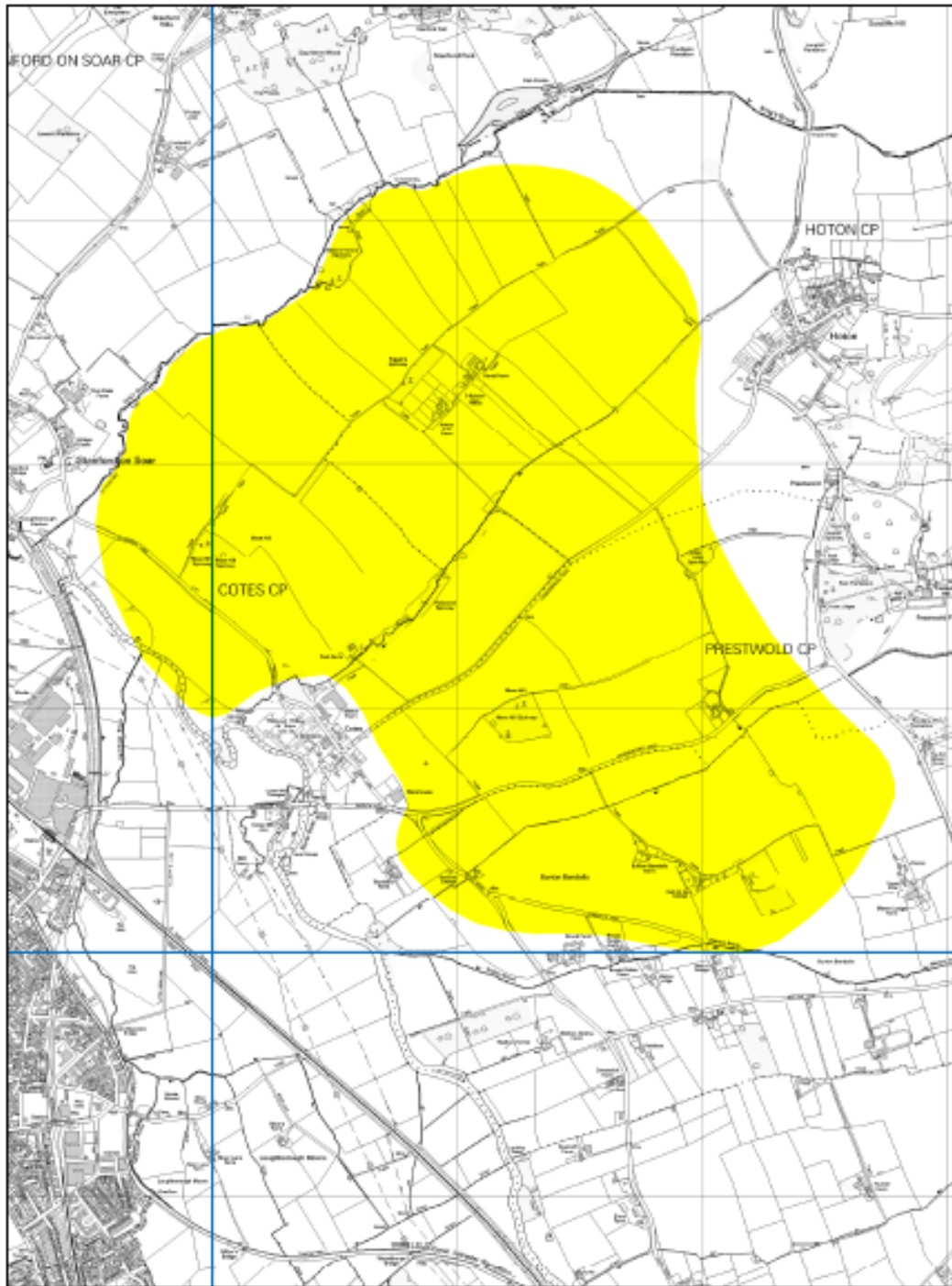


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Figure 1.2 Cotes Development Option- 8,000 Dwellings plus 25ha Employment Land

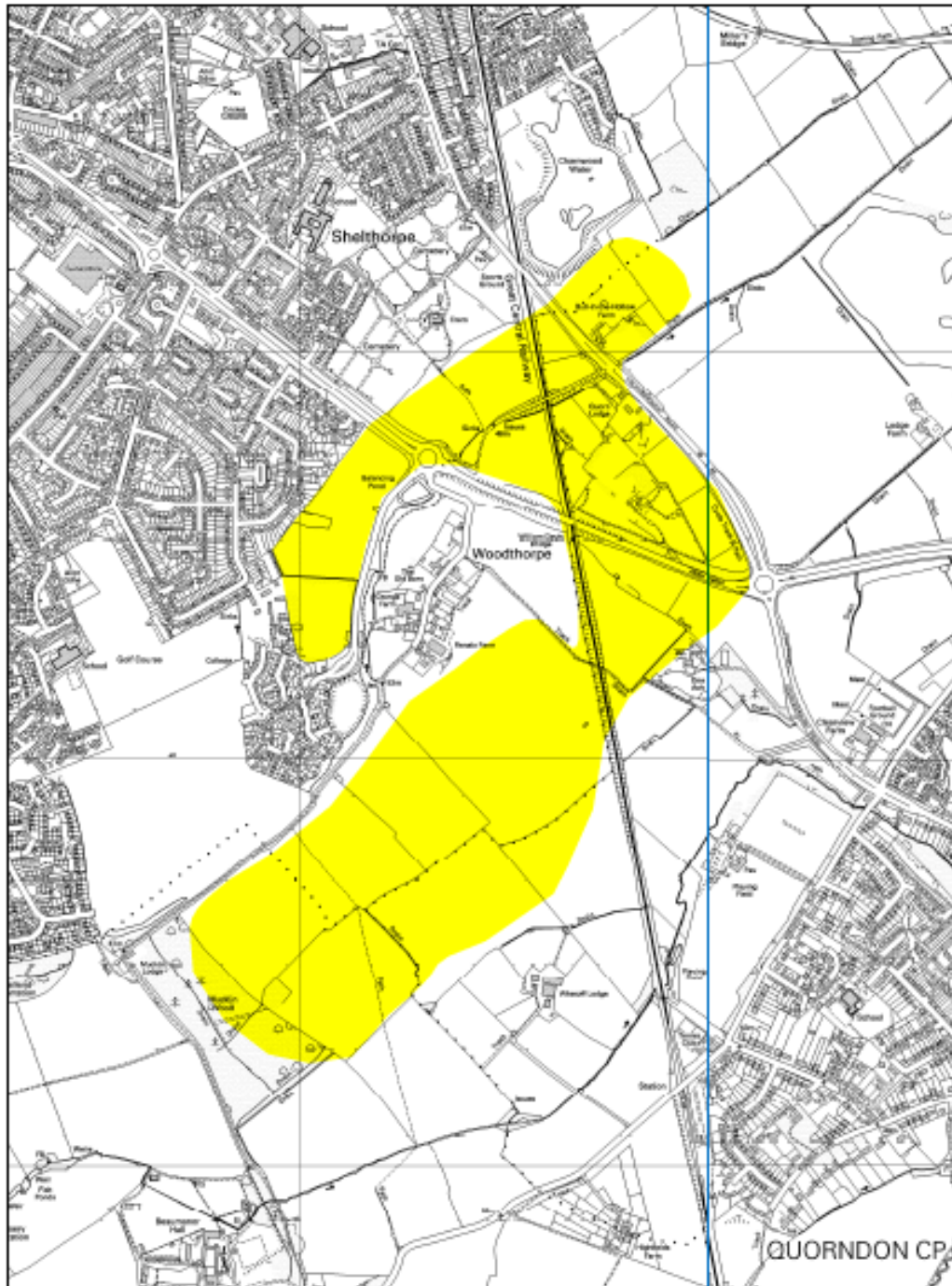


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Figure 1.3 South Loughborough Development Option- 2,000 Dwellings plus 20ha Employment Land

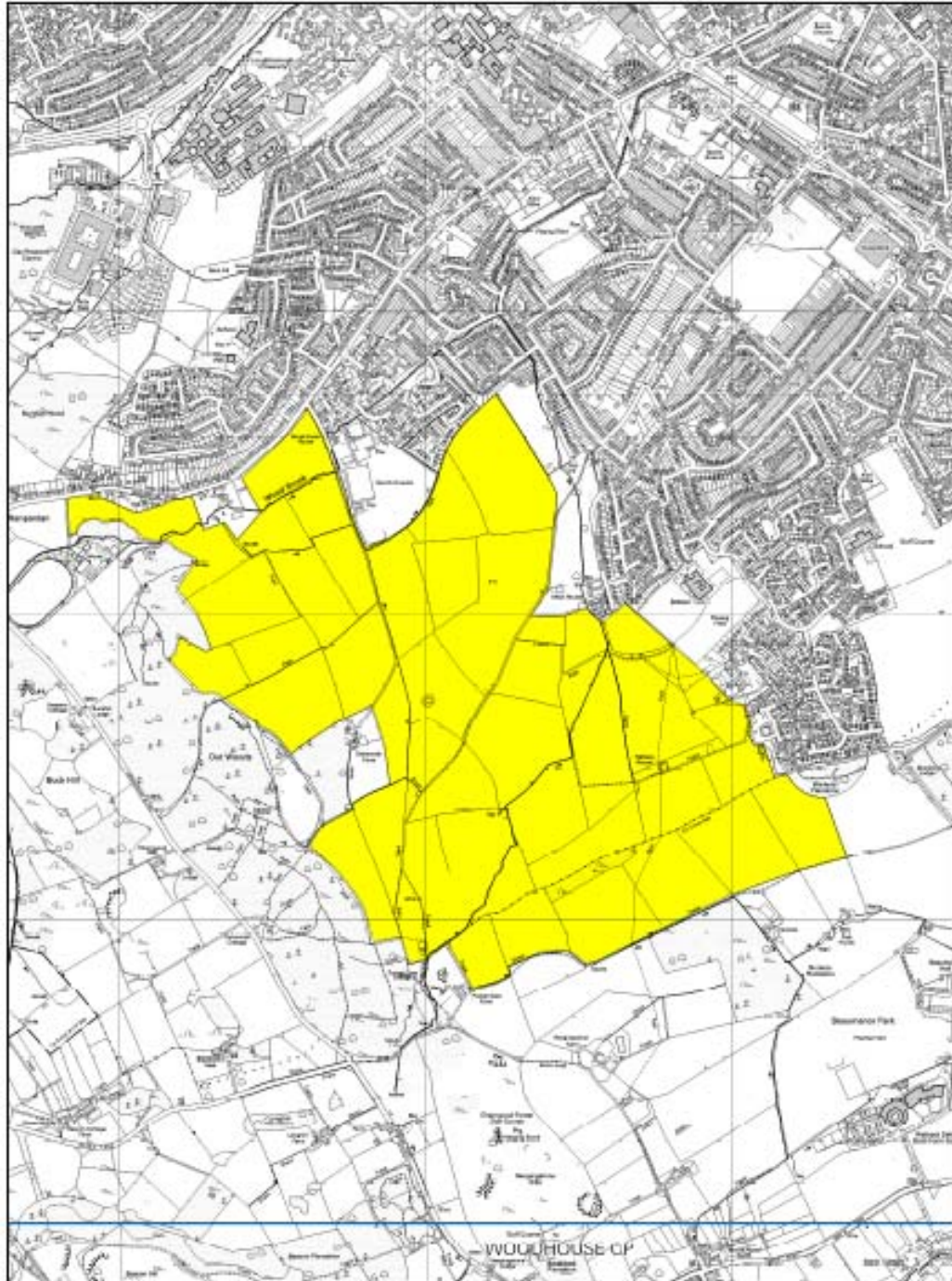


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Figure 1.4 South-west Loughborough Development Option- 3,000 Dwellings

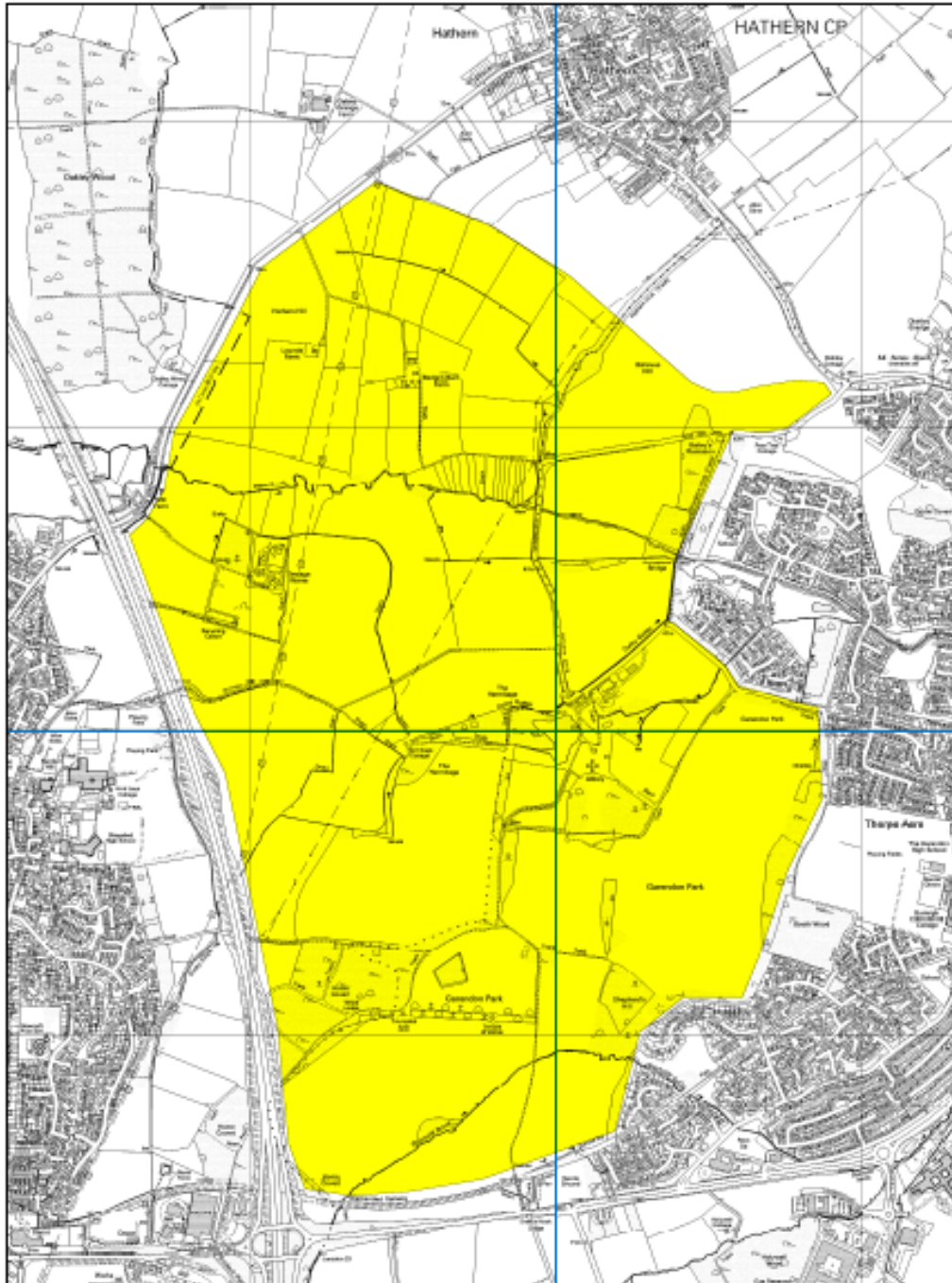


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Figure 1.5 West Loughborough Development Option- 3,500 Dwellings plus 20ha Employment Land



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