BASSETLAW DISTRICT COUNCIL

Accessibility Study

February 2013

An assessment of access to key services and public transport in settlements in the District's settlement hierarchy

1. Introduction

Context for the Study

1.1. This document provides evidence to support Bassetlaw District Council's emerging Local Development Framework Site Allocations DPD (SADPD). Nottinghamshire County Council has assisted in this work by providing evidence to aid decision-making about the suitability of potential development sites to accommodate levels of growth required in each settlement across the District.

1.2. Although the Core Strategy DPD sets out the spatial development strategy some key decisions on the overall share of growth must be made in the SADPD. The main focus for development in Bassetlaw will be in Worksop, Retford and Harworth Bircotes, as these areas have the greatest range of shops and services. There is to be more limited growth in the Local Service Centres of Carlton-in-Lindrick/Langold, Misterton and Tuxford and up to 700 houses to be delivered in the villages that have been identified as Rural Service Centres. The aim is to ensure that new development takes place at the appropriate scale in the most sustainable settlements, utilising the available sites that maximise accessibility of nearby services.

1.3. While the Bassetlaw Services and Facilities Study informs the settlement hierarchy used in the Core Strategy through an assessment of availability of key services in a locality, this study assesses the actual accessibility of services. It should however be noted that this assessment does not draw any conclusions from the information it presents. Rather, it will inform the Sustainability Appraisal (SA) of the potential development sites proposed to accommodate the district's future housing and employment needs. The SA Report will determine the most sustainable and, subsequently, the most suitable sites.

Defining Accessibility

1.4. According to the Commission for Integrated Transport[1] report "Planning for Sustainable Travel" -

> *"Larger settlements provide an opportunity for greater self-containment and a mix of uses offering access to a range of shops, services and employment within the built-up area, thereby reducing the need for inter-urban travel. We should aim to maximise the proportion of new development which is allocated within or immediately adjacent to larger towns and cities. … There are many factors that are associated with sustainable travel and they tend to be inter-related, but data trends, using National Travel Survey analysis, show that metropolitan areas and large urban areas and (at a minimum) settlements*

[1] CfIT is an independent body advising the Government on integrated transport policy (now under the Department for Transport) http://www.dft.gov.uk/

with a population of 25,000 tend to have shorter annual travel distances and lower car mode shares than average." [2]

1.5. Research has been done on settlement size and energy efficiency of travel.

"A study in South Oxfordshire (cited by CfIT) paints a complex picture. The most energy efficient settlement included in the study was one of the largest towns (Henley), where there was a high trip generation rate (i.e. total number of trips) but low energy consumption rate per person and trip, reflecting a good provision of local facilities and services. The least energy efficient settlement was a small, remote settlement (Ewelme) with limited services and facilities. The settlement was too small to be self-sufficient and travel by car was essential to reach work and facilities. Towns in the intermediate settlement sizes produced a confused picture where population structure, distance from employment and other facilities, and levels of car ownership were all important factors in determining the energy efficiency of travel [strongly correlated with carbon emissions] (Banister, 1980; Banister, 1992). This research demonstrates the importance of settlement size and accessibility to other urban areas and other factors in determining travel patterns." [2]

1.6. For smaller settlements (than those mentioned in 1.5 above), where development may be necessary it is important to understand where potential development sites are in relation to key services to support more sustainable living.

1.7. Ensuring ease of access to key services and facilities is regarded as a significant factor in contributing to a higher quality of life for residents of a locality. Facilitating access by a range of means for a greater number of people makes a strong positive contribution to sustainable development objectives. This report establishes a means of measuring and assessing the accessibility of services within existing settlements in the Core Strategy's settlement hierarchy by walking, cycling and public transport.

2. Methodology

2.1. This study seeks to provide further evidence as to the relative sustainability of available potential development sites within settlements across the District. As such, a number of key services, derived from those identified in the Council's earlier Services and Facilities Study, have been selected in order to draw comparisons of different sites within settlements. Convenience stores/Post Offices and primary schools have been identified as key services on the basis that their use involves more than occasional visits, while ease of access to healthcare facilities is also of significance in terms of reducing social exclusion.

[2] Planning for Sustainable Travel Summary Guide (October 2009) CfIT
http://www.plan4sustainabletravel.org/summary_guide/

Ease of access to all the above services enhances the sustainability of settlements by minimising car-dependent trip generation.

Local Services

2.2. In the absence of existing local accessibility standards a number of assumptions have been made, based on DfT indicators[3] and have been used in other accessibility work across Nottinghamshire.

2.3. On the premise that walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance, the propensity to walk or cycle is not only influenced by distance but also the quality of the experience; people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating. Based on walking distances and the time typically taken to cover a set distance, by using examples of best practice, we have identified radii of 800 metres around these existing services enabling us to assess the proximity of proposed development sites in relation to services.

2.4. An 800 metre walking distance standard is supported by calculations given in the Bassetlaw Transport Study, estimating the average distance walked in 10 minutes:

- An assumed average walking speed of 3.00mph / 4.83km/h; gives
- 1.34m per second; giving
- 80m (0.08km) per minute; resulting in
- 805m travelled in 10 minutes.

2.5 The information provided on the maps in the Appendix 1 will be used when undertaking the Sustainability Appraisal (SA) of the preferred site allocations, primarily in relation to SA Objective 2 'To improve health and reduce health inequalities' and SA Objective 5 'To promote social cohesion and support the development of community facilities across the district'.

2.6 It is acknowledged that there are some shortcomings of using information in this format, insofar as the radii do not display 'actual' walking distances on the ground. Clearly there will only be limited instances where the route from a site to a particular service is the equivalent the distance of a straight line from one point to another. Indeed, finding crossing points for physical obstructions such as railway lines and rivers may extend the route taken, increasing the overall walking distance beyond 800 metres. Conversely, a site outside the 800 metre walking distance radius may therefore be closer to a service in real terms. Consequently, while the relationship between a potential site and an existing service will need closer scrutiny than just a cursory glance at the relevant map, it nevertheless provides a useful means of comparison of relative sustainability of sites that may exhibit similar qualities under the site screening methodology criteria and Sustainability Appraisal.

[3] Department for Transport (DfT) Core National Accessibility Indicators (2008)

Public Transport

2.7 In terms of access to public transport, standards have been set using the same DfT guidance applied to walking distances for local services. On this basis a maximum walking distance from origin points (i.e. residential properties) to joining points on the public transport network (bus stops and railway stations) is 400 metres or a 5 minute walk. Given the number of bus stops relative to the number of potential development sites, 400 metre radii have been assessed assuming the proposed perimeter of each prospective development site as a point of origin. Using the bus stops as the point of origin (as shown on maps for key services) would not give sufficient clarity.

2.8 Maps illustrating public transport accessibility can be found in Appendix 2. However, these only show public transport services in Worksop, Retford, Harworth Bircotes and Tuxford, as these are settlement proposed to accommodate the greatest amounts of future growth. Misterton, along with Carlton-in-Lindrick and Langold are not scheduled to see any additional planned growth.

2.9 In the main urban areas of Bassetlaw this evidence shows that all prospective development sites are within reasonable walking distance of at least bus stop therefore, based on the frequency of bus services[4] in these areas, use of public transport is a realistic alternative to car-based travel. In rural areas, however, given the size of villages, although many prospective development sites lie within easy walking distance of bus stops, the comparatively infrequent bus services and greater average distance to essential services mean public transport is not necessarily a realistic alternative to car-based travel.

3. Areas Assessed

3.1 The walking distance radii mapped by NCC have been applied to all towns and villages identified in Core Strategy Settlement Hierarchy.

3.2 Whilst in many villages all of the available sites may be within easy walking distance of services, some peripheral areas may prove comparatively disadvantaged in terms of service accessibility. In comparison, in the larger service centres and urban areas, a greater number of key services may result in overlapping radii, thereby reducing overall distances of sites from services and giving residents broader choice.

3.3 The maps shown in the Appendix will be used to compare the relative accessibility of the SADPD Preferred Options.

[4] Bassetlaw Services and Facilities Study (2010)

APPENDIX 1: Walking distances to key services

APPENDIX 2: Walking distance to public transport