

APPENDIX B

BOLSOVER DISTRICT COUNCIL

TRANSPORT TOPIC PAPER JULY 2012

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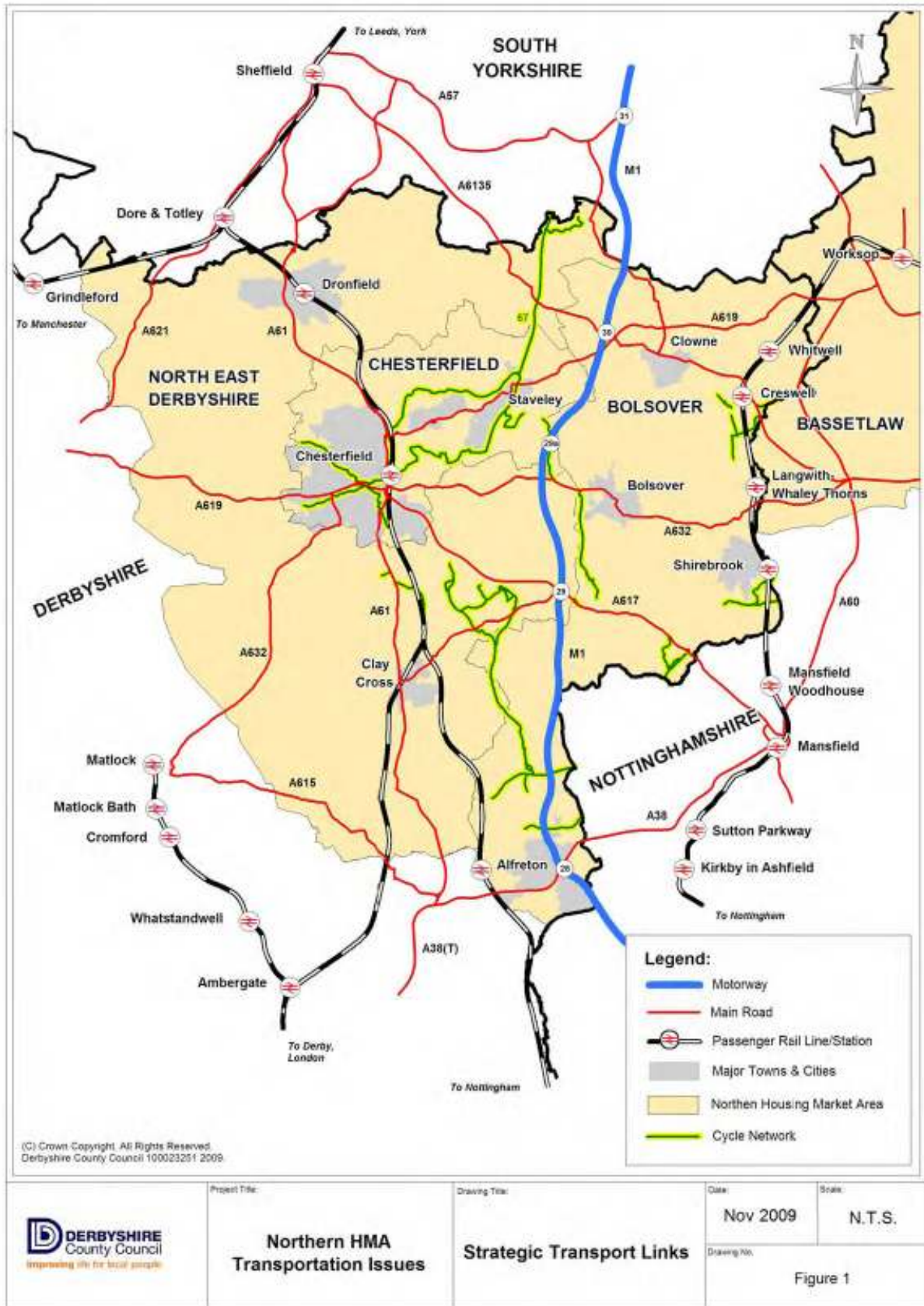
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1. Introduction

- 1.1 This document is a background paper to the Local Plan (Part 1: Strategy) relating to Transport.
- 1.2 The topic paper sets out the relevant national and sub-regional policy context and provides an explanation of Core Strategy policies and principles on transport as set out in the Core Strategy: Revised Preferred Options that was published for consultation in April 2010.
- 1.3 The Paper then looks at the current transport situation in the District, in terms of both a descriptive and analytical overview of the transport networks, of current transport patterns and of current transport problems.
- 1.4 Based on this understanding of the current transport network situation, the Paper then considers the forecasted impact of the both the Council's proposed development strategy and those of our neighbouring authorities - Chesterfield Borough Council and North East Derbyshire District Council - on the North Derbyshire strategic and local highway networks at the end of the current plan period in 2031.
- 1.5 In doing so, the Paper looks at the evidence base prepared in cooperation with Derbyshire County Council as local highway authority and Chesterfield Borough Council and North East Derbyshire District Council.
- 1.6 From this, the Paper identifies both the type of solutions needed to accommodate the proposed levels of growth and also set out strategic aspirations for the District over the next 50 years.
- 1.7 From here, the Paper then explores the issues raised both through the public consultation exercise and the initial sustainability findings on the preferred options and considers what these issues highlight for the Council's policy direction. Within this, the evolution of local policy requirements, such as the revised Housing Target figure for the District, is explained to ensure that any material changes are taken account of.
- 1.8 The Paper concludes with an explanation of how the current policy has been developed and to set out how the Council's policies and principles on transport are in conformity with higher tier policy, are based on a sound understanding of the evidence base and have been prepared through cooperation with both neighbouring authorities and the relevant highway authorities.
- 1.9 One of the main purposes of the Paper is to identify the key transport issues and summarise the key evidence that should be taken into account by the Local Plan. The paper will be circulated for comments to adjoining local authorities, to Derbyshire County Council and the Highways Agency. **If any of these organisations have significant concerns about any of the conclusions or content of the Paper, then they should write to the District Council's Planning Policy team before the end of July 2012.** The Paper will be updated to take account of any such concerns, and to relate to the policies of the Publication Version of the Local Plan Strategy.

Figure 1 - The North Derbyshire Strategic Transport Network



2. Policy Context

National

National Planning Policy Framework (March 2012)

- 2.1 The NPPF states that “the purpose of the planning system is to contribute to the achievement of sustainable development.”
- 2.2 In this, the NPPF advises that there are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:
- an economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;
 - a social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community’s needs and support its health, social and cultural well-being; and
 - an environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.
- 2.3 In relation to Transport Policy, the NPPF states that “the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel” and that in preparing their plans, “local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.” From this position, the NPPF states that:
- local authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development;
 - plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised;
 - plans should aim for a balance of land uses within their area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities;

- plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:
 - accommodate the efficient delivery of goods and supplies;
 - give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
 - create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians;
 - incorporate facilities for charging plug-in and other ultra-low emission vehicles; and
 - consider the needs of disabled people by all modes of transport;
- all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment that seeks to encourage more sustainable transport modes, although it adds that developments should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe;
- all developments that generate significant amounts of movement should be required to provide a Travel Plan that seeks to give priority to pedestrian and cycle movements and provide access to high quality public transport facilities by creating safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians avoiding street clutter and where appropriate establishing home zones;
- on larger scale residential developments in particular, planning policies should promote a mix of uses in order to provide opportunities to undertake day-to-day activities including work on site with key facilities such as primary schools and local shops being located within walking distance of most properties;
- local planning authorities should identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice.

Sub-Regional Transport Policy and Related Development Proposals

Derbyshire Local Transport Plan and associated documents (April 2011)

- 2.4 The Derbyshire LTP is guided by the desire to adopt sustainable development as the common purpose of the County's transport strategy and to take a holistic approach to supporting a resilient economy, contributing to better safety, security and health, and improving quality of life and promoting a healthy natural environment.
- 2.5 Aligned with this approach, the Plan recognises the current financial constraints and therefore seeks to prioritise the County Council's reduced funds to its core business which is defined as managing and maintaining its existing transport networks. As a result, expenditure on new substantial schemes is limited and particularly where new

schemes would increase the County Council's ongoing management and maintenance obligations.

- 2.6 Despite this, the Plan does seek to improve local accessibility, achieve healthier lifestyles and to encourage greater usage of more sustainable modes of transport. It seeks to achieve these outcomes by:
- promoting healthy travel options, e.g. walking and cycling;
 - promoting sustainable travel options, e.g. public transport, car sharing, travel planning, volunteer car schemes, Community Transport, car clubs, moped and bicycle loans;
 - taking a 'joined up' view of people's journeys, e.g. walking and catching the bus, journey to school, and the combined use of the highway and PRow network, rather than considering individual travel modes in isolation;
 - recognising the crucial importance of the location of facilities i.e. spatial planning;
 - bringing services to people to reduce the need to travel, e.g. broadband;
 - reducing the need to travel for work, e.g. tele-conferencing / flexible working practices, given that car driver commuting to work accounts for 14% of CO₂ emissions;
 - pursuing associated engineering measures, e.g. provision of dropped crossings, pedestrian and cyclist crossings, cycle infrastructure, raised kerbs at bus stops, 20 mph speed limits and other Safer Routes to School measures.
- 2.7 Based on this approach, the Plan sets out that the County Council will take a considered approach to new infrastructure and that it will give priority to reducing the need to travel and for travel to be shifted towards more sustainable solutions.
- 2.8 As a result, the Plan lists thirteen possible major projects but identifies only one, a new railway station at Ilkeston, as being currently pursued. A number of highway schemes associated with the potential proposals within the emerging Local Development Frameworks of the lower tier authorities are identified for further investigation within this list, including a link road from J29a of the M1 motorway to Barlborough and Clowne. However, the Plan identifies that the potential A617 Glapwell Bypass is under review for possible rescinding as its impacts outweigh its benefits, although a formal decision is yet to be made.
- 2.9 Beyond these major projects, the Plan includes a number of smaller projects that will be pursued or supported during the first five years of the plan period. Relevant ones to Bolsover District are:
- rail freight potential for Markham Vale following identification in the East Midlands Development Agency Rail Freight Study;
 - potential upgrade of the Archaeological Way (from Pleasley Vale via Creswell Crags to Whitwell) to Greenway standard as part of Limestone Journeys;
 - safety works to the Silverhill Greenway in Newton.
- 2.10 In addition to the investment plans, the Plan includes a set of transport / spatial planning policy statements around the following themes:

- local accessibility – these eight policies seek to reduce the desire to travel and encourage developments that aim to reduce congestion on strategic routes through their location, Travel Plans and support for sustainable modes of transport;
- future transport use – these two policies seek to protect disused railway lines, trackbed alignments and existing and former canal routes from development in order to allow for future transport use;
- safety, security and health – these three policies seek to encourage road and transport-related community safety through Transport Assessments and improvements to public transport and the walking and cycling networks;
- economy – these two policies seek to support a resilient economy by working to overcome access obstacles to sites identified in the spatial planning process where these would promote sustainable economic growth;
- freight – these two policies seek to safeguard and open rail lines and rail-served sites where potential exists for future freight use and encourage the provision of service facilities and overnight lorry parks in locations served easily by major roads;
- environment – these four policies seek to use sustainable materials in the construction of new infrastructure and to safeguard natural and cultural heritage features;
- maintenance and management – these two policies seek to ensure that roads in any new developments do not add significantly to the current maintenance obligations.

Nottinghamshire Local Transport Plan and associated documents (April 2011)

- 2.11 The Nottinghamshire LTP recognises the links between the west of Nottinghamshire and the east of Derbyshire and the large number of cross-boundary commuter trips experienced within the Mansfield and the Worksop and Retford travel to work areas. In addition to this, the Plan identifies that the A617 Pleasley By-pass Extension (which would link to the A617 Glapwell By-pass) is stated as requiring further investigation before Nottinghamshire County Council decides whether the route for the Pleasley By-pass Extension will also be abandoned or safeguarded.

Sheffield City Region Local Transport Plan and associated documents (April 2011)

- 2.12 The Sheffield City Region LTP focuses on using transport policy to support business growth in the City Region. In particular, it seeks to facilitate employment opportunities by creating new links to major regeneration areas via new roads, rail links and other sustainable transport solutions. The Plan identifies Markham Vale as a major regeneration area and advises that it has the potential to become a major employment hub on the M1 that will open up brownfield sites for regeneration within the surrounding areas and this will require transport solutions, particularly sustainable transport options, to be developed. In light of this focus on supporting growth, the Plan also recognises that opening up opportunities for business growth results in additional car trips and potentially increased levels of congestion. However, it concludes that evidence

indicates that focused investment in public transport improvements will create suitable conditions for sustainable growth.

Bassetlaw District Council Core Strategy and associated documents (December 2011)

- 2.13 The Bassetlaw Core Strategy seeks to achieve a sustainable pattern of development by focusing growth in the District's main settlements of Worksop, Retford and Harworth / Bircotes in order to locate new development in areas that minimise the need to travel to access key services.
- 2.14 In relation to transport policy, the Core Strategy and associated documents recognise that it is likely that the private car will continue to be the dominant form of transportation in the District and that the A619 is a key road within the local highway network. No major transport schemes are highlighted, although taking opportunities to achieve sustainable transport solutions is a strategic objective of the strategy and progress will be monitored through Local Transport Plan developed indicators.

Chesterfield Borough Council Draft Core Strategy and associated documents (February 2012)

- 2.15 The draft Chesterfield Core Strategy seeks to concentrate development in accessible locations and in areas that need regeneration, protect the Green Belt and make it easier for people to choose healthy and environmentally friendly forms of transport. It will also enhance Chesterfield Town Centre's role as a sub-regional centre and seek the regeneration of Chesterfield Waterside and the Staveley and Rother Valley Corridor.
- 2.16 In relation to travel policy, the draft Core Strategy will seek to reduce congestion, improve environmental quality and encourage more active and healthy lifestyles by seeking to maximise walking, cycling and the use of public transport through the location and design of development and parking provision. In addition to this, it states that land will be safeguarded for major new transport infrastructure including:

- Chesterfield-Staveley Regeneration Route
- Staveley Northern Loop Road Phase 2
- Chesterfield Town Centre Relief Road
- Rail Halt at Barrow Hill
- Rail Terminal at Markham Vale

Rotherham Metropolitan Borough Council Draft Core Strategy and associated documents (June 2011)

- 2.17 The draft Rotherham Core Strategy seeks to provide a high quality of life and sense of place within the Borough, with a regenerated town centre and a new civic focus. It will aspire to minimise inequalities and create strong communities by encouraging developments in the most sustainable locations to minimise any increase in traffic and to encourage public transport usage.

- 2.18 The draft Core Strategy will seek to improve co-ordination of existing public transport with improved cross border links, particularly between Rotherham and Sheffield. Improvements will be sought at public transport interchanges and along key public transport corridors and through traffic will be directed to use the key route and motorway network.

North East Derbyshire District Council Local Plan (November 2005) and emerging development strategy

- 2.19 The adopted North East Derbyshire Local Plan seeks to maintain and improve the quality of life and well-being of all our communities so that North East Derbyshire is a place that people choose to live, work and visit. In relation to transport, the Plan intends to resist the dispersal of development in favour of more sustainable development that is less reliant on lengthy and costly travel.
- 2.20 The emerging development strategy divides the District into three distinct spatial areas, constrained north, rural west and transitional south and proposes different development strategies and policies for each area. In relation to transport, it seeks to address the impact that relatively high levels of traffic, high car dependency and limited public transport facilities have on the social, economic and environmental state of certain parts of the District.

Bolsover District Council growth targets

Endorsed minimum housing requirement target (September 2011)

- 2.21 In light of proposed changes to the national planning system, the Council has re-evaluated its proposed development strategy and in particular the minimum housing requirement target.
- 2.22 As a result, the Council has endorsed the use of a minimum housing requirement target of 300 dwellings a year as the basis upon which to make changes to its emerging Core Strategy in anticipation of the impending revocation of the East Midlands Regional Plan. This target would see an amended spatial distribution, with lower targets in most settlements and a large reduction in the requirement for Shirebrook. These amended housing figures are shown below in Table 1.

Table 1 - Endorsed Minimum Housing Requirements for Settlements in Bolsover District

Please note that although the figures below have been endorsed for working purposes by the Council's Planning Committee, they are provided without prejudice to the figures the Council may consider appropriate for inclusion in the forthcoming Publication version of the Local Plan Strategy.

Settlement	Dwellings as of April 2011	Minimum Requirement for Additional Planned Housing Supply 2011 to 2031
Towns		
Bolsover / Hillstown / Carr Vale	4,959	2,000
Clowne	3,391	700
Shirebrook	4,850	800
South Normanton	4,766	750
Main Villages		
Barlborough	1,245	200
Creswell	2,481	400
Pinxton	1,920	250
Tibshelf	1,595	200
Whitwell	1,741	100
Villages		
Blackwell	701	55
Bramley Vale / Doe Lea	337	50
Glapwell	710	35
Hilcote	198	0*
Hodthorpe	306	75
Langwith / Whaley Thorns	976	80
New Houghton	630	125
Newton	686	55
Palterton	172	0*
Pleasley	450	35
Scarcliffe	160	0*
Shuttlewood	375	95
Westhouses	286	0*
Small Settlements		
Countryside	1,382	0*
Total	34,316	6,005

Note: 0 does not mean that no residential development would be allowed in these villages or small settlements, just that there would not be any site specific allocations made within the Local Development Framework.*

Summary

- 2.23 Despite the forthcoming revocation of the East Midlands Regional Plan and the introduction of the National Planning Policy Framework, it is clear that the main thrust of higher tier transport policy as defined by the above national and sub-regional policies is still to use the planning system to generally support a pattern of development which facilitates the use of sustainable modes of transport whilst at the same time helping to facilitate economic growth.
- 2.24 In reflection of this, the District Council has endorsed a minimum housing requirement target that still reflects an ambitious level of growth for the District, albeit lower than that set out in the East Midlands Regional Plan.

3. Explanation of Core Strategy policies and principles on transport

Introduction

- 3.1 The Core Strategy: Revised Preferred Options was prepared in the context of the East Midlands Regional Plan and the Government's Planning Policy Statements and Circulars. However, whilst the key documents providing this wider policy context have changed since publication of the Core Strategy, as stated in the previous section the main thrust of higher tier transport policy has not substantially changed.
- 3.2 Despite this situation, it is appropriate to reassess the spatial principles and policies that have informed and are contained in the Core Strategy: Revised Preferred Options to enable these to be retested in light of the new wider policy context and the latest evidence base information.

General Objectives of the Core Strategy: Revised Preferred Options

- 3.3 At its heart, the Core Strategy: Revised Preferred Options sought to support the vision set out in the Bolsover Sustainable Communities Strategy and the Derbyshire Sustainable Communities Strategy. As a result, the Core Strategy Vision envisaged:

“By 2026 Bolsover’s communities will have become more sustainable, prosperous, safe and healthy. New development will have taken place in towns and villages in a way that enhances the environment, local distinctiveness and sense of place, strengthens local economies and improves the local quality of life. The district will have provided greater opportunities for more sustainable lifestyles by achieving a better balance between employment and housing in its main settlements, by concentrating development on public transport routes, and by implementation of low carbon energy systems. A network of green spaces will have been improved to link and enhance the setting of the District’s key heritage sites, offer a wide range of opportunities for recreation and sustain wildlife.”

- 3.4 This vision would be delivered by a series of strategic planning objectives and spatial principles which generally sought to support a pattern of development which facilitates the use of sustainable modes of transport alongside planning for ambitious levels of growth within the District's towns (30% growth), main villages (20% growth) and villages (15% growth).
- 3.5 In relation to transport, the Core Strategy contained strategic planning objectives and spatial principles that sought to:
- promote sustainable patterns of development by using the settlement hierarchy and concentrating growth where suitable opportunities exist in the larger settlements (Strategic Planning Objectives A & B and Spatial Principles 1 & 2);
 - promote major mixed use developments, villages and neighbourhoods as an essential part of strategy to address climate change (Strategic Planning Objectives B & C and Spatial Principles 1, 2, 3, 4 & 7);

- achieve a better balance of housing and employment provision to provide more opportunities for residents to live a more sustainable lifestyle and work closer to home (Strategic Planning Objective C and Spatial Principles 3 & 4);
- reduce the amount of out commuting from the District by concentrating growth in the larger settlements to achieve a better balance of housing and employment provision and by limiting residential growth in those settlements close to the M1 that lack a local centre or substantial employment provision (Strategic Planning Objective E and Spatial Principles 1, 2, 3, 4 & 6);
- facilitate a transport system which improved accessibility and widens choice of transport modes by seeking a better balance of housing and employment provision in the larger settlements and seeking less growth in those settlements that lack a good provision of local services and employment (Strategic Planning Objective I and Spatial Principles 1, 2, 3, 4 & 6).

Core Strategy Policy

3.6 Based on this approach, the Core Strategy: Revised Preferred Options included thirty-three strategic policies to guide development, land use and wider spatial planning in the District over the plan period in order to achieve the desired sustainable pattern of development. These policies can be largely grouped into the following three categories:

- Policies CS 1 to 4 – the key guiding policies that outline how the desired sustainable pattern of development will be achieved.
- Policies CS 5 to 20 – the more detailed policies which outline how the desired sustainable pattern of development will be delivered through the themes of:
 - living and housing targets;
 - working and employment targets;
 - protection and enhancement of environmental resources;
 - inclusive communities and proposals to protect and improve service provision.
- Policies CS 21 to 33 – the more detailed policies outline how the desired sustainable pattern of development will be delivered through the proposals for the District's towns, main villages and rural areas.

3.7 Whilst all of these policies contribute to efforts to achieve the desired sustainable pattern of development, certain policies articulate the Council's transport policy more forcefully. As a result, these policies and in particular policy CS 3 – Transport and Accessibility will be discussed in more detail below.

Policy CS 3 – Transport and Accessibility

Development and the provision of services should be located so as to minimise the need to travel. Convenient access via footpaths, footways, bridleways, cycle paths and public transport should exist or be provided, thereby encouraging the use of these modes of travel for local journeys and

reducing the need to travel by private car and improving the accessibility of services to those with poor availability of transport.

Where appropriate developments will make provision for off-street parking, service and emergency access.

Transport schemes that lead to improvements in accessibility, promote road safety for all highway users, and manage traffic to avoid congestion will be approved. Where significant volumes of traffic are likely to arise from a development the proposal shall be supported by a traffic impact assessment and the potential for facilitating sustainable means of transport addressed, including the preparation of travel plans.

- 3.8 Part 1 of the policy provides the key statement designed to integrate planning and transport at the local level and to guide the location of development in order to minimise the need to travel. It also provides the starting point for efforts to ensure that new development facilitates the use of sustainable modes of transport through its emphasis on convenient and where possible improved access via footpaths, footways, bridleways, cycle paths and public transport. Finally, it also provides emphasis to reducing the need to travel by private car.
- 3.9 Part 2 of the policy provides a more detailed statement on scheme design requirements to emphasise certain important functions of the road network.
- 3.10 Part 3 of the policy provides the key statement on how the impacts of new development on the highway network will be managed to ensure that an appropriate balance between facilitating economic growth and supporting reductions in greenhouse gas emissions and congestion is achieved. It also makes it clear that Transport Assessments and Travel Plans will be central to this and the method of achieving this appropriate balance on a case by case basis.

Policies CS 2 – Location of Development, CS 5 – Housing Provision and Location, CS 8 – General Principles for Economic Development and CS 9 – Employment Land Provision

- 3.11 These four policies provide the framework for the spatial distribution of new development across the District for the plan period of 2011 to 2031.
- 3.12 Guided by the vision of achieving sustainable, prosperous, safe and healthy communities, policy CS 2 – Location of Development sets out the settlement hierarchy as the organising basis for the location of new development and service provision within the District in order to reduce the need to travel and to make the most efficient use of infrastructure and services.
- 3.13 This hierarchy sees the towns of Bolsover, Clowne, Shirebrook and South Normanton as the primary locations for employment, shopping and community facilities. The ‘main villages’ of Barlborough, Creswell, Pinxton, Tibshelf and Whitwell then follow as secondary locations. Beyond this, the thirteen identified ‘villages’ are identified as

normally only suitable for limited infill development with a few exceptions where either opportunities for significant new development or existing commitments exist.

- 3.14 Based on this hierarchy, policy CS 5 – Housing Provision and Location then distributed the East Midlands Regional Plan housing target of 8,000 new dwellings across the towns, ‘main villages’ and ‘villages’. This saw the four towns take the majority of the required new dwellings, between 5,005 and 5,535 over the plan period, due to the towns’ greater potential for accommodating significant new development close to existing services and facilities. However, due to differing levels of potential between the four towns, lower amounts of new development would be distributed to Clowne and South Normanton.
- 3.15 Following on from this, the ‘main villages’ would take between 1,660 and 1,840 new dwellings given it would be desirable to encourage further residential development to help support local services. However, again each settlement was judged to have a number of constraints that led to moderate rather than high growth rates.
- 3.16 Finally, the ‘villages’ would take between 855 and 945 new dwellings between them in order to allow some support for local services.
- 3.17 Due to the desire to achieve a better balance of housing and employment provision to provide more opportunities for residents to live a more sustainable lifestyle and work closer to home, the issue of employment land provision is fundamentally linked to residential development provision. As a result, policies CS 8 – General Principles for Economic Development and CS 9 – Employment Land Provision sought to make provision for at least an additional 250 hectares of employment land and to protect, manage and enhance the following strategic employment areas as the strategic economic drivers for the District:
- the existing Barlborough Links Employment Growth Zone (comprising land to the south of Barlborough);
 - the existing Markham Employment Growth Zone (comprising Markham Vale and the former Coalite site);
 - the existing Shirebrook Employment Growth Zone (comprising Brook Park and Portland Drive, South Shirebrook);
 - the existing Castlewood Employment Growth Zone (comprising land at Carter Lane, Wincobank Farm and Pinxton Castle); and
 - the proposed Clowne Employment Growth Zone (comprising part of land north of Clowne).
- 3.18 Alongside these strategic employment commitments and allocations, these policies also sought to identify, safeguard and recycle accessible and well located employment sites to support sustainable communities with a statement that preference will be given, wherever appropriate, to:
- mixed use development;
 - high quality serviced office space and incubation units, especially for knowledge based firms, in or on the edge of town centres;

- small, flexible, low cost industrial units within settlements;
- attractive and high quality mixed employment units for a range of employment sectors with Employment Growth Zones.

Other Themed Policies

- 3.19 Whilst not as central to transport policy, the following policies will also specifically contribute to the desire to achieve sustainable, prosperous, safe and healthy communities through their direction of certain types of development to town and local centres, their priority to being accessible by sustainable modes of transport, their requirements on design or their priority to protect settlement identity.

CS 10 – Retail, Town Centre and Local Centre Development

CS 11 – Tourism and the Visitor Economy

CS 12 – Creating better quality design and places

CS 14 – Settlement Identity

CS 18 – Sustainable Construction, Renewable Energy and Energy Conservation

CS 19 – Protection and Provision of Services and Facilities

CS 20 – Leisure and Recreation

- 3.20 In particular, policy CS 14 – Settlement Identity sought to provide continued protection to both the North East Derbyshire Green Belt and to the Important Open Areas as defined in the Bolsover District Local Plan. Of particular relevance are the implications of this policy on the Important Open Areas along the A617 that maintain the distinctiveness of Bramley Vale, Glapwell and Pleasley and so restrict further development along the A617 corridor to reduce the potential for unsustainable patterns of development.

Towns, Main Villages and Rural Area Policies

- 3.21 In view of the focus on growth at the District's towns due to their better infrastructure and greater range of shops and services and the associated desire to achieve a better balance of housing and employment provision, policy CS 21 – Development of the Towns allocated an approximate scale of residential and employment development in each town in order to achieve the required 'employment density'.
- 3.22 Within this, the town of Bolsover was identified as the principal point of growth and policies CS 22 – Bolsover and CS 23 – Strategic Allocation: Bolsover North outlined this. In relation to transport policy, these policies outlined that new growth would be directed to the east of the town due to constraints to the west but also due to easy access to the town centre, schools and public transport. Furthermore, the policies outlined that in addition to further employment to the west of the town at the Markham Employment Growth Zone, employment development would also be pursued to the east of the town close to new areas of residential growth in order to provide opportunities for greater use of sustainable modes of transport to these employment areas. On a more detailed point, the policies also sought convenient and attractive pedestrian and cycle routes to the town centre and provision of bus services within the Bolsover North Strategic Allocation.

- 3.23 Shirebrook was identified as the second point of growth and policy CS 26 – Shirebrook outlined this. In relation to transport policy, this policy outlined that growth would largely come from the South Shirebrook committed sites and within the established settlement boundary to prevent further expansion and to take advantage of existing or planned infrastructure and services. Additional employment would be sought in the south east of the town and around the town centre to take advantage of locations with good access to the Robin Hood railway line.
- 3.24 Clowne was identified as the third point of growth and policies CS 24 – Clowne and CS 25 – Strategic Allocation: Land north of Clowne outlined this. In relation to transport policy, these policies outlined that new growth would be directed to the north and south west of the town in locations with easy access to the town centre, schools and public transport and due to constraints to the west. Furthermore, the policies outlined that as Clowne has a relative low job density, given that the nearby Barlborough Links Employment Growth Zone was counted as part of Barlborough, substantial additional employment land provision would be required. In terms of location, it was considered that the north side of town would be the best location due to the prospect of easy access to the M1 without the need for traffic to cross the town centre. On a more detailed point, the policies also sought convenient and attractive pedestrian and cycle routes to the town centre and provision of bus services within the Clowne North Strategic Allocation.
- 3.25 Unlike the District's other towns, South Normanton was identified to have moderate growth due to the number of constraints faced by the town and policy CS 27 – South Normanton outlined this. In relation to transport policy, this policy outlined that this moderate growth would largely be accommodated within the established settlement boundary with relatively minor extensions to be considered at the site allocation stage. South Normanton's close relationship with the M1 and A38, both of which are heavily used already, was identified as a constraint and the off-centre location of the town centre and out of town location of the nearby East Midland Designer outlet are both noted as posing challenges to encouraging more sustainable modes of transport.
- 3.26 Beyond the growth planned at the Towns, policies CS 28 – Development of the Main Villages and CS 29 – Main Villages: Strategic Principles proposed some growth in Barlborough, Creswell, Pinxton, Tibshelf and Whitwell in recognition of their basic level of services and facilities, that at least 80% of village residents have good accessibility (within 800 metres) to these services and facilities and in order to achieve the required 'employment density'.
- 3.27 In relation to transport policy, these policies outlined that new growth would principally be located within existing settlement frameworks with limited extensions to villages where these would provide good opportunities for sustainable modes of transport. In addition, these policies sought to prioritise improved links for pedestrians and cyclists between existing and new residential and employment areas, in particular between Barlborough and Clowne given the employment provided by the Barlborough Links Employment Growth Zone.
- 3.28 In addition to the 'Main Villages', some growth was planned in a number of smaller villages and policies CS 30 – Residential Development in Villages, CS 31 – Residential

development on Rural Exception Sites, CS 32 – Supporting the Rural Economy and CS 33 – Needs of Rural Communities outlined how this would be sought.

- 3.29 In relation to transport policy, these policies outlined that new growth would generally be infill developments within certain villages or grouped villages, namely Bramley Vale / Doe Lea, Hodthorpe, Langwith / Whaley Thorns, New Houghton and Shuttlewood, where this would help to sustain important local services and improve sustainability by better access or improved public transport links to higher order settlements.

Consideration of Alternative Options

- 3.30 Throughout the Core Strategy: Revised Preferred Options, a series of alternative options to those selected were considered. These generally relate to differing spatial distributions of development where more or less development would be allocated to individual or tiers of settlements. Particular examples include targeting major growth to Glapwell, Stanfree or Hodthorpe.
- 3.31 These alternatives were generally rejected due to the overall desire to achieve sustainable communities through a sustainable pattern of development, given that these alternatives would draw development away from the towns and main villages and the support to achieving a better balance between homes and workplaces. In a number of cases, both increasing or restricting the allocation of land for employment were rejected due to their adverse effects on levels of out or in commuting. However, the alternative in Glapwell was particularly rejected due to it being likely to add proportionally more traffic to M1 than similar developments elsewhere and so undermine the strategic planning objective to reduce the amount of out commuting from the District.
- 3.32 Another alternative rejected was to prioritise highway schemes and shift to a more car-based strategy with lower priority on improving public transport and walking and cycling. Also encouraging large predominantly single use developments was rejected due to this providing fewer opportunities for reducing need to travel between homes and workplaces.

Summary

- 3.33 In general, this policy framework sought to support a pattern of development which facilitates the use of sustainable modes of transport whilst also planning for the ambitious levels of growth contained in the East Midlands Regional Plan.
- 3.34 Furthermore, the emphasis on seeking to achieve a better balance of housing and employment provision, i.e. the required 'employment density', within the District's towns, main villages and villages is considered to recognise the significance of journeys to work within traffic patterns and peak hour congestion.
- 3.35 Based on this, it is considered that planning to minimise the negative impact of new development on overall journeys to work by locating development away from locations that will be more likely to generate additional traffic, together with efforts to provide greater opportunities for shorter journeys to work by seeking a better employment

density, represents an appropriate transport strategy. Efforts to provide alternatives to car based journeys, particularly to work, through an improved network of attractive and convenient cycleways and walking routes to complement the better balance of housing and employment provision are considered to further enhance this strategy.

- 3.36 Furthermore, in terms of compliance with the new National Planning Policy Framework, it is considered that the approach set out in the Core Strategy as assessed above conforms well with the economic, social and environmental dimensions to sustainable development.

4. Current Situation

Overview

- 4.1 Bolsover District is a semi-rural area with a dispersed settlement pattern and the local transport networks reflect this semi-rural and undeveloped character.
- 4.2 The local highway network demonstrates this semi-rural and undeveloped nature across the majority of its extent and particularly between the main towns in the northern half of the District: Bolsover, Shirebrook and Clowne. These three towns fall between the key routes of the A619 and A617 which run to the north and south and link Chesterfield to Worksop and Mansfield respectively. These routes are of a relatively high grade of highway and the A617 has sections of dual carriageway at the approaches to J29 on the M1 and at the Pleasley roundabout, although the section through Glapwell is single lane and particularly busy at the junction to Bolsover and Hardwick. In recognition of this situation, there is a long standing proposal to bypass Glapwell via a diversion of the A617 to the north or to the south of Glapwell although this has been recommended for rescinding within the new Local Transport Plan (2011). However, a decision is yet to be made to confirm this recommendation and / or to address the Glapwell junction situation.
- 4.3 Between these key routes the local highway network is still very rural in character. In particular, the B6417 which runs down the middle of the northern half of the District and essentially connects the A619 and A617 is still in general a very rural single lane, narrow road with a series of sharp bends, dips, humps and pinch points, with no footways in certain hamlets. Just south of the A619 it enters Clowne at an intersection with the A616 to the north of the town centre and runs southwards just to the east of Bolsover before heading south-east down to the Pleasley roundabout on the A617. At Bolsover the B6417 intersects the A632 which runs west through Bolsover town centre and onwards to Chesterfield along a relatively high grade of highway. However, to the east of Bolsover the A632 is another very rural single lane, narrow road and provides a poor link from Shirebrook to the strategic highway network. Not surprisingly, the roads that connect the main villages and villages are even more rural in character.
- 4.4 In the southern part of the District, the key routes of the local highway network are the B6309 which runs southwards from the A6175 at Holmewood and to J29 on the M1 through Tibshelf and close to Newton and Blackwell until it meets the A61 just north of Alfreton. The main town in this part of the District, South Normanton, is connected to Alfreton and J28 on the M1 by the B6019. These roads are of a slightly higher grade than the B6417 and A632 in the north, with few bends and pinch points but despite this they are all single lane roads. Again, the roads that connect the main villages and villages in the south of the district are more rural in character.
- 4.5 Overall, this situation reflects that throughout the District there has been little investment over the previous plan period in upgrading the District's road network.
- 4.6 Framing this relatively rural local highway network are elements of the strategic road network, including a section of the M1 which runs north-south along the spine of the District and the A38 which runs east-west from J28 on the M1 at the southern end of

the District just to the south of South Normanton. Further to the east and largely just outside the District is the A60. Whilst there has been little investment in the local network, there has been investment on the M1 and this has seen the motorway widened south of J28 and north of J31 although the proposed widening between these two junctions and within the District has been replaced with a proposal for a Hard Shoulder Running scheme instead.

- 4.7 The public transport network also reflects the semi-rural nature of the District, meaning that the District does not have high frequency and extensive public transport services. Use of public transport is also low, with levels of commuting by public transport lower than the national average.
- 4.8 Bus services are generally subsidised by the County Council, particularly between the Main Villages and Villages. However, services connecting Bolsover and Clowne to Chesterfield and Worksop, connecting Shirebrook to Mansfield and connecting South Normanton to Alfreton and Sutton are largely commercially provided.
- 4.9 Rail services within the District are limited to the Robin Hood Line which runs from Worksop to Nottingham with stations at Whitwell, Creswell, Langwith-Whaley Thorns and Shirebrook. However, the Robin Hood Line has relatively low usage and in terms of numbers of passengers provides no higher level of service than a bus link. Despite this lack of connectivity within the District, main line services are available from the nearby towns of Chesterfield, Alfreton, Mansfield and Worksop.
- 4.10 Alongside these operational rail lines, the District has a large number of disused mineral rail lines dating from the development of the Derbyshire and Nottinghamshire coalfields. A good number of these have been brought back into use as multi-user trails but a number remain that have been protected in the Bolsover District Local Plan (2000) due to their potential for reopening for passenger use. These are:
1. Pye Bridge to Kirkby via Pinxton
 2. Bolsover to Chesterfield via Staveley.
 3. Creswell to Staveley via Clowne
- 4.11 Associated with these protected routes, sites for new railway stations in Bolsover and Clowne are also protected in the Bolsover District Local Plan (2000).
- 4.12 The cycling and walking networks also reflect this semi-rural character, although as mentioned above investment over the previous plan period a number of former mineral railway tracks have been converted to multi-user trails. As a result, the recreational network is very good in places and in general is considered a valuable green infrastructure asset. However, the network is not yet complete and there are strategic gaps in coverage between Clowne, Bolsover, Hardwick, Shirebrook, South Normanton and Pinxton.
- 4.13 Despite this good provision, the District is poorly catered for in terms of on-street cycling infrastructure. In particular, there are no dedicated cycling routes to enable safe and attractive cycling routes to the District's major employment areas.

- 4.14 As a result, a large number of potential cycle routes were protected in the Bolsover District Local Plan (2000), although little progress has been made with implementation and limited investment has taken place to date.

Travel patterns e.g. commuter flows

- 4.15 Within this overview, the 2001 Census provides information on travel patterns and in particular on both out and in commuting. The following tables use this available data to illustrate the relative travel patterns for employment related journeys.

Table 2 - Workplace destinations

Workplace destinations of employed people living in Bolsover (by local authority area)	2001 Out no.	2001 Out %
Within Bolsover	11,301	38.4%
Bolsover to Chesterfield	2,925	9.9%
Bolsover to Bassetlaw	2,125	7.2%
Bolsover to Amber Valley	2,072	7.0%
Bolsover to Ashfield	2,065	7.0%
Bolsover to Mansfield	1,911	6.5%
Bolsover to North East Derbyshire	1,325	4.5%
Bolsover to Sheffield	1,259	4.3%
Bolsover to Nottingham	714	2.4%
Bolsover to Rotherham	517	1.8%
Bolsover to Derby	396	1.3%
Bolsover to Derbyshire Dales	384	1.3%
Bolsover to Newark and Sherwood	330	1.1%
Bolsover to Broxtowe	166	0.6%
Bolsover to Gedling	122	0.4%
Bolsover to Others	1,848	6.3%
Total	29,460	

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Table 3 - Home Locations

Residential locations of people working in Bolsover (by local authority area)	2001 In no.	2001 In %
Within Bolsover	11,301	51.9%
Ashfield to Bolsover	1,814	8.3%
Amber Valley to Bolsover	1,630	7.5%
North East Derbyshire to Bolsover	1,385	6.4%
Mansfield to Bolsover	1,362	6.3%
Chesterfield to Bolsover	1,138	5.2%
Bassetlaw to Bolsover	404	1.9%
Sheffield to Bolsover	378	1.7%
Newark and Sherwood to Bolsover	270	1.2%
Rotherham to Bolsover	268	1.2%
Derby to Bolsover	209	1.0%

Broxtowe to Bolsover	205	0.9%
Derbyshire Dales to Bolsover	195	0.9%
Nottingham to Bolsover	188	0.9%
Gedling to Bolsover	152	0.7%
Others	890	4.1%
Total	21,789	

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- 4.16 These tables illustrate Bolsover District's position as having a high level of out commuting, with more people leaving the District to travel to surrounding local authority areas for work (18,159 in 2001) than people travelling to the District from surrounding local authority areas for work (10,488 in 2001).
- 4.17 In relation to the destinations for out commuting, the first table shows that the neighbouring Derbyshire and Nottinghamshire authorities also account for the majority of destinations for work – accounting for over 45% of Bolsover's workforce whereas the cities of Derby, Nottingham and Sheffield together accounted for less than 10%. This also illustrates greater numbers of journeys along the A38, A617, A619 and A632 corridors and potentially the M1 as well.
- 4.18 In relation to the destinations for in commuting, the second table shows that it is those neighbouring authorities linked by the A38 corridor that generate the most journeys to work, followed by those neighbouring authorities linked by the A617, A619 and A632 corridors. Whilst the majority of in commuting is potentially relatively local, i.e. from within the District or from a neighbouring authority, it is noted that a reasonable proportion, over 5%, comes from further a field and potentially using the M1 for a significant part of their journey.
- 4.19 In themselves these out and in commuting travel to work patterns may not demonstrate undesirable or unsustainable transport patterns, particularly given the general shape of the District and the close proximity of a number of larger towns and cities or specific employment areas. However, the mode of transport chosen to make these commutes will influence significantly the degree of sustainability.
- 4.20 To investigate this further, the 2001 Census also provides information on the modes of transport facilitating out commuting.

Table 4 - Mode of Transport used by Bolsover Residents for Commuting Purposes in 2001

	car / van	public transport	on foot	bicycle
Bolsover	73.8%	6.6%	9.9%	1.3%
Derbyshire	71.3%	6.9%	10.1%	1.8%
East Midlands	68.4%	8.0%	10.5%	3.3%
England	62.1%	14.9%	10.0%	2.8%

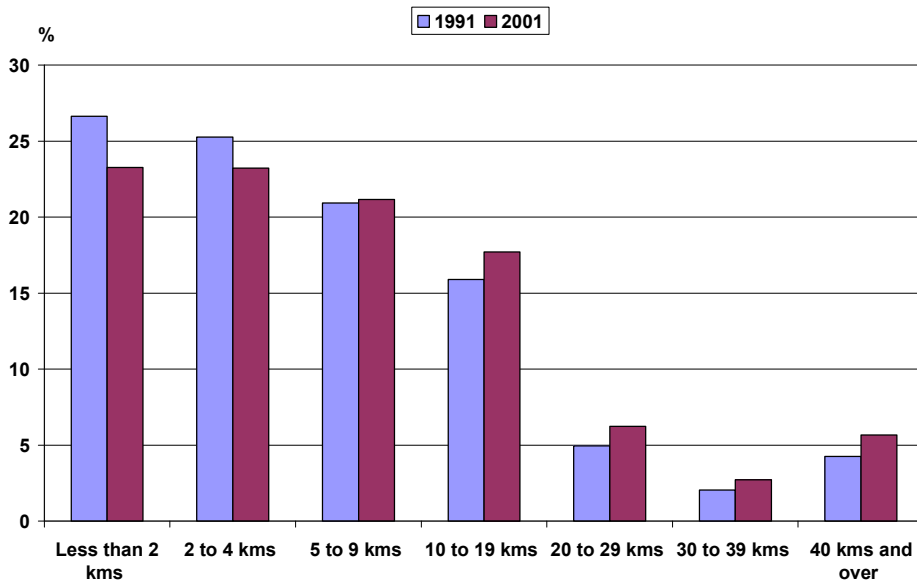
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Note: the travel to work percentages indicate the number of residents using a particular mode of transport as a percentage of the number of employed / self employed residents.

4.21 This information illustrates that the overwhelming majority of out commuting is carried out using private cars and vans, with only small proportions of journeys being made on the more sustainable transport modes of public transport, on foot or by bicycle. In comparison to county, regional or national averages, the picture in Bolsover District is one of less use of sustainable modes of transport, although this perhaps reflects the generally rural character of the District and its transport networks.

4.22 This situation, coupled with the majority of out commuting being to neighbouring Derbyshire and Nottinghamshire authorities, suggests that out commuting distances are not overly long although local data is not currently available to confirm this. The national data from the 1991 and 2001 Censuses (shown below in Figure 2) illustrates that the majority of commuting distances are less than 4 kilometres, although a trend moving to longer commuting distances was visible in 2001.

Figure 2 - Commuting distances in the UK, 1991 and 2001 Censuses



4.23 However, the large proportion of short journeys nationally and potentially locally demonstrates that targeted efforts to encourage commuters out of their cars and onto more sustainable modes of transport could lead to real benefits.

4.24 In terms of detailed analysis of the 2001 Census information at the individual settlement level, the following points can be identified:

- areas of high levels of private car and van use appear to be situated in modern housing estates in Barlborough, Bolsover and South Normanton, although sparsely populated rural areas also exhibit car dependent commuting patterns;
- multiple areas of high public transport usage exist in Bolsover, Shirebrook, Creswell, Whitwell and Whaley Thorns;
- areas of lower public transport usage exist in the south of the district;
- multiple areas with high levels of journeys on foot exist in Shirebrook, Pinxton, Creswell and Whaley Thorns;

- several areas with moderate levels of journeys on foot exist in Bolsover and Clowne;
- fewer areas where walking is commonplace in South Normanton and Barlborough, in particular from the Broadmeadows and Barlborough Links modern housing estates;
- within the low levels of journeys by bicycle, the south of the District contains the most notable cluster of higher cycling usage, particularly in South Normanton and Blackwell where better links exist that connect into the urban areas of Ashfield to the east and Alfreton to the west.

- 4.25 Overall, analysis of the 2001 Census information shows that almost half of the people working in the District also live within the District but that despite this, the overwhelming majority of these people use their car or van to get to work. Alongside this, there are still a substantial number of people travelling out of the District during the week with an equally substantial number of people travelling into the District as well.
- 4.26 It is necessary to add that this data is over 10 years old and so will not take account of the travel patterns generated by the development at the Employment Growth Zones at Brook Park in Shirebrook, Castlewood near South Normanton, Markham Vale near Bolsover and at Barlborough Links near Clowne. It is quite likely that the 2011 Census will reveal longer travel patterns, particularly with greater usage of the M1.
- 4.27 Furthermore, a greater understanding of local journey distances should be possible when interrogation of the data contained within the 2011 Census outputs is possible (expected under the second release between November 2012 and February 2013), preferably with that from the 2001 Census. This should enable the Council to monitor the impact of its new Local Plan in helping to foster less work based commuting.

Congestion hotspots

- 4.28 Derbyshire County Council undertakes regular traffic counts across the whole local road network as part of their role as local highway authority. Based on the 2008 traffic count, the busiest local roads in the district are:
- 1) A617 from M1 J29 eastwards to Pleasley (B6417) 10,000 – 25,000 Annual Average Daily Totals traffic flow
 - 2) A632 from Chesterfield to Bolsover 10,000 – 25,000 Annual Average Daily Totals traffic flow
- 4.29 Related to this, the County Council's 2008 traffic count also identified locations of congestion within the district. These are ranked in terms of severity and the most severe locations for congestion are shown below in Table 5.

Table 5 - Locations of congestion within Bolsover District

	AM	PM
High	<ul style="list-style-type: none"> Whitwell 	<ul style="list-style-type: none"> Storth Lane, South Normanton
Medium / High	<ul style="list-style-type: none"> A38 (B6406 to Birchwood Lane, South Normanton) Shirebrook centre Pinxton centre South Normanton centre Hodthorpe centre 	<ul style="list-style-type: none"> A38 (B6406 to Birchwood Lane, South Normanton) Shirebrook centre Pinxton centre South Normanton centre Hodthorpe centre
Other Hotspots	<ul style="list-style-type: none"> Barlborough (Junction of A619 / A616 / A6135 and M1 J30) Shirebrook 	<ul style="list-style-type: none"> Barlborough (Junction of A619 / A616 / A6135 and M1 J30) Shirebrook

4.30 How this situation compares with the wider local road network is illustrated on the diagrams below. From these diagrams, it is clear that the majority of the network in the district has low levels of congestion.

4.31 This situation differs markedly to the high levels of usage of the strategic highway network. The M1 is the most used road in the district by some margin, with over 100,000 vehicles daily, with the A38 coming second with between 25,000 and 50,000 vehicles daily.

Figure 3 - Weekday AM Peak Hour Vehicle Delay

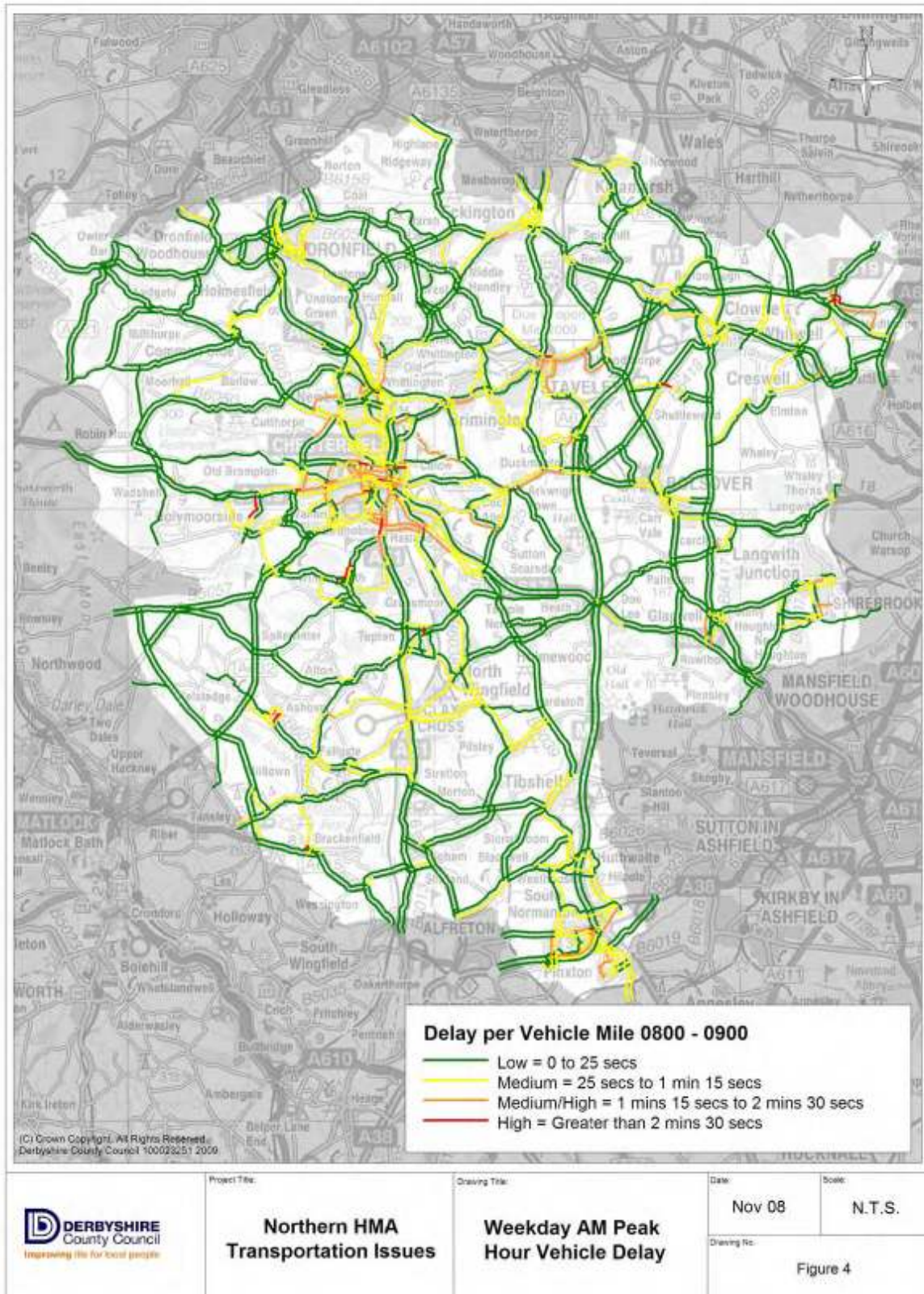
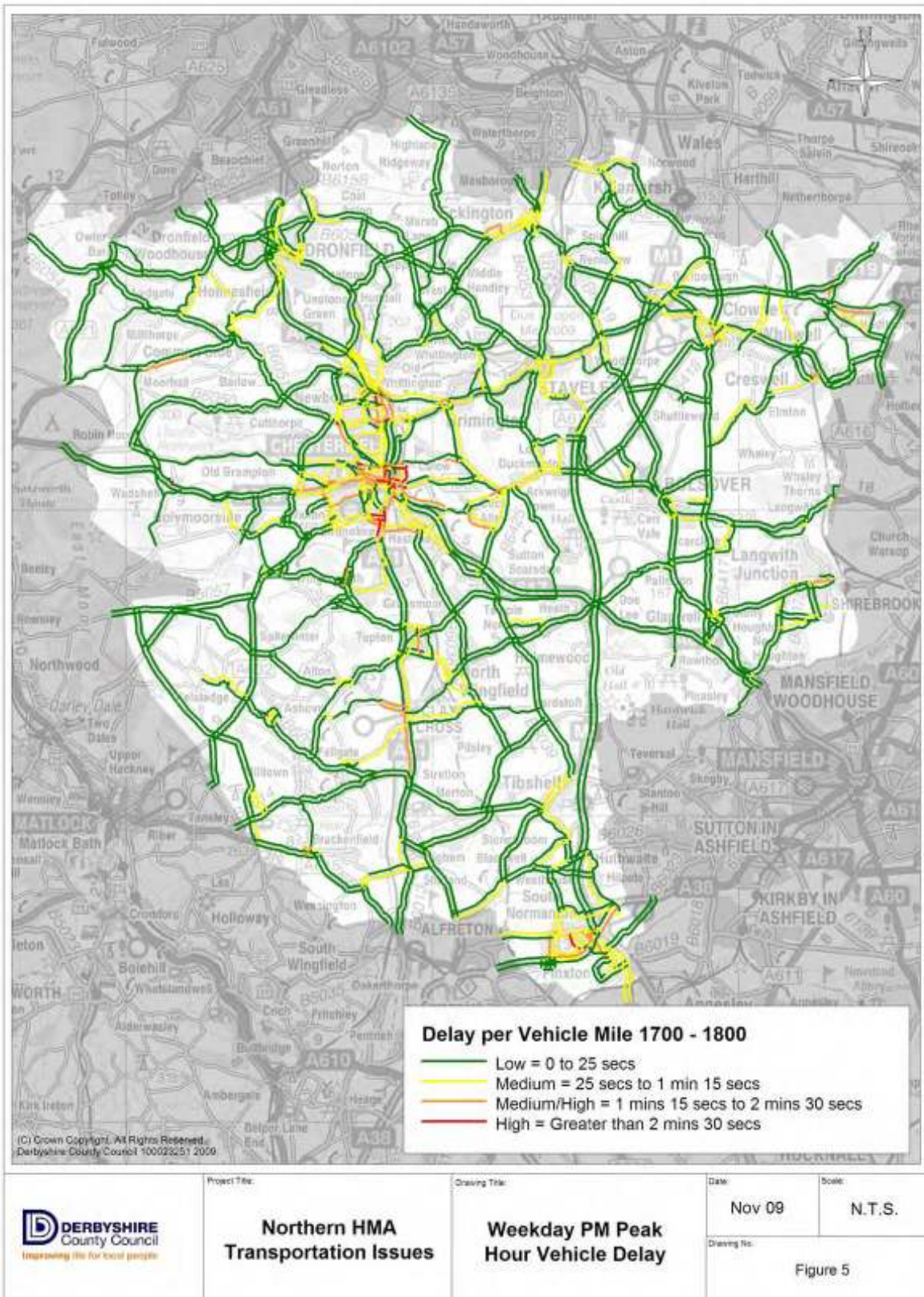


Figure 4 - Weekday PM Peak Hour Vehicle Delay



Bus and rail services

- 4.32 As a semi rural area with a dispersed settlement pattern, Bolsover District does not have high frequency and extensive public transport services. Use of public transport is also low, with levels of commuting by public transport lower than the national average. This situation exists despite having higher rates of households that do not have access to a car than both the county and regional rates.
- 4.33 There are 25 bus services within the District that connect settlements to the larger towns and cities that surround the District.
- 4.34 The key rail line serving the district is the Robin Hood Line. The Robin Hood Line is a local passenger service running between Nottingham and Worksop, with stations in the district at Shirebrook, Langwith-Whaley Thorns, Creswell and Whitwell. The line is also used for freight.

Table 6 - Frequency of bus and rail services within Bolsover District

Settlement	Mon-Fri (total services per day)	Sun (total services)	Mon-Fri (higher order centre services per day)	Sun (higher order centre services)
Towns				
Bolsover	114	54	80	43
Clowne	88	43	82	43
Shirebrook	165	47	113	30
South Normanton	159	60	127	50
Main Villages				
Barlborough	92	42	77	41
Creswell	98	29	97	28
Pinxton	85	14	64	7
Tibshelf	80	13	53	6
Whitwell	98	28	97	27
Villages				
Bramley Vale / Doe Lea	72	35	61	35
Blackwell	67	13	34	6
Glapwell	71	35	61	35
Hilcote	13	0	7	0
Hodthorpe	62	28	61	27
Langwith	106	65	45	17
New Houghton	79	49	79	49
Newton	54	13	17	6
Palterton	28	14	18	14
Pleasley	137	61	108	55

Scarcliffe	42	22	18	11
Shuttlewood	28	14	18	13
Whaley Thorns	102	17	92	17
Westhouses	54	13	17	6

- 4.35 This information illustrates that South Normanton with 127 is the best served settlement in terms of weekday services to sub-regional centres, followed by Shirebrook (113), and surprisingly for a village, Pleasley (108). The next best are Creswell and Whitwell (97), Whaley Thorns (92), Clowne (82), Bolsover (80), New Houghton (79), Barlborough (77). Pinxton (64) and Tibshelf (53), have half as many services as South Normanton.
- 4.36 The most poorly served settlements are the smaller villages ranging from Palterton, Shuttlewood and Scarcliffe with 18 services down to Hilcote with just 7 services. Shuttlewood with just 18 services for 810 people, Westhouses with 18 services for 777 people, and Newton with 17 services for 1,427 people, are particularly poorly served considering their populations.

Greenways / Cycleways

- 4.37 At present, only 1.3% of residents cycle to work which is less than half the proportion that cycle to work both regionally and nationally. This is perhaps explained by the general poor provision of off road trails that connect larger centres of population to employment areas, where only Tibshelf is reasonably well connected to the large Industrial estates at Holmewood in North East Derbyshire via the 5 Pits Trail.
- 4.38 Aside from this, the district has an extensive network of recreational trails that provide good access to the countryside although the network could be further enhanced.
- 4.39 The Council identified a number of cycle routes for further evaluation in the Bolsover District Local Plan (February 2000) but a number of these still require work to be fully considered. However, they provide a useful starting point.

5. Assessing Impacts, identifying solutions and strategic aspirations

Introduction

- 5.1 In view of the general conformity of the Council's policy with national and sub-regional policy and the general understanding of the current transport situation in the north Derbyshire area, a number of studies have been carried out in partnership with Chesterfield Borough Council and North East Derbyshire District Council under the lead of Derbyshire County Council as Local Highway Authority (with input from the Highways Agency) in order to understand the cumulative impact of the three Council's proposed development strategies on both the strategic and local highway networks.
- 5.2 These studies were started prior to the publication of the Core Strategy: Revised Preferred Options and this work has continued over the last couple of years. The studies look at both the wider strategic network picture and seek to forecast any key locations of congestion or overloading at the end of the plan period. Whilst these have principally focused on the north Derbyshire area, the District Council has also sought to drill down to a more detailed level within Bolsover Town with a more focused study given the proposal to concentrate growth at this settlement.
- 5.3 The studies have all been finalised and form part of the Council's evidence base for its emerging Local Plan (Part 1 Strategy) and the findings of the studies are detailed below. These findings will inform the preparation of the District Council's Infrastructure Delivery Plan to set out the infrastructure required to deliver the development strategy set out in the emerging Local Plan.
- 5.4 Beyond this, the findings will also inform the District Council's wider transport strategic aspirations that will inform more long term infrastructure requirements.

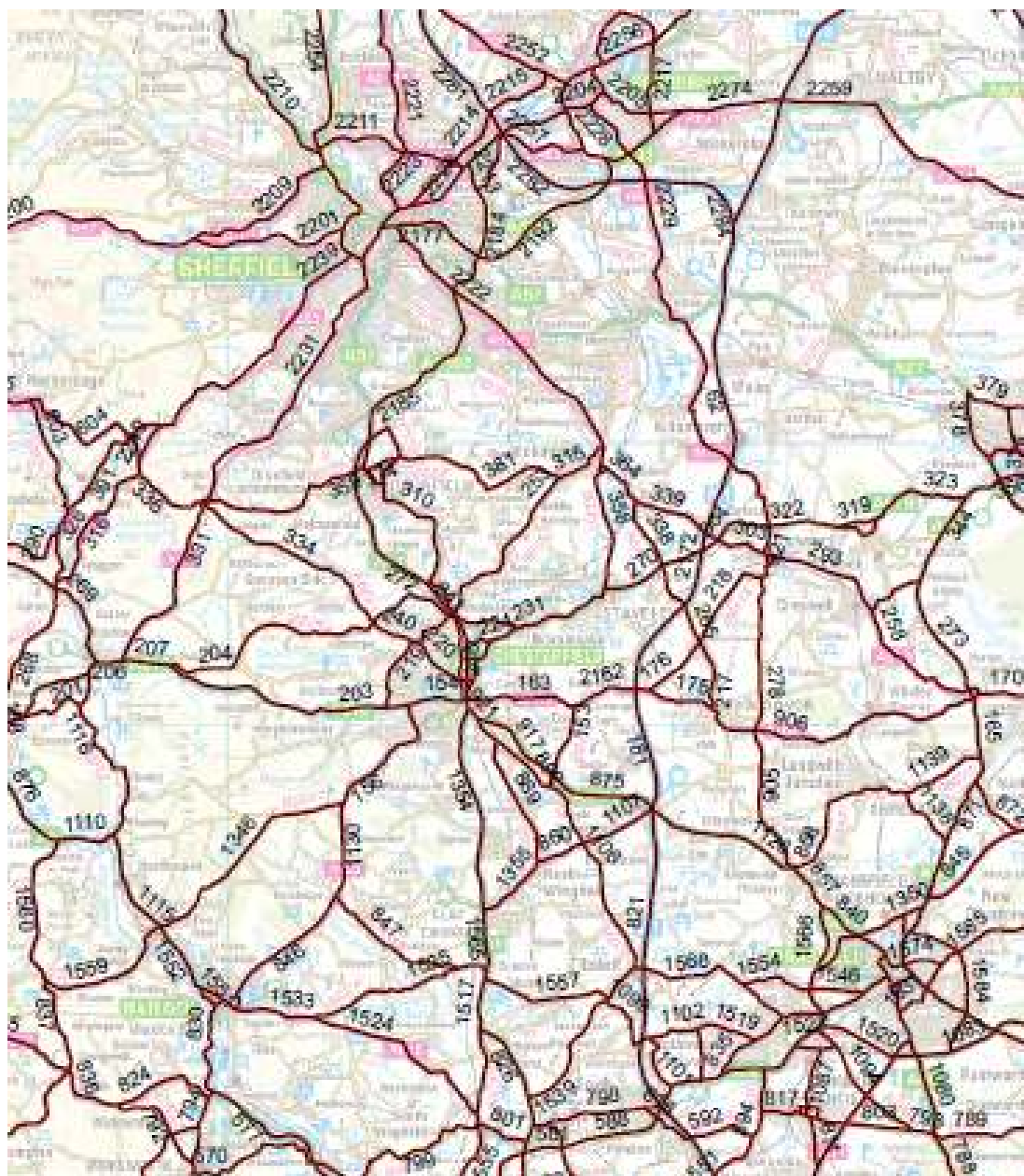
Stage 1: Strategic Transport Issues Report (using DCC 2008 Traffic Count database information) – March 2010

- 5.5 This study identified that despite measures to promote sustainable travel to and from the development, the quantum of development proposed by the emerging Core Strategies of Bolsover, Chesterfield and NE Derbyshire would generate additional trips on the strategic and local highway networks. The study further advised that these additional trips would exacerbate the known congestion hotspots (as listed in the previous section).
- 5.6 In terms of solutions, the study identified that the first step in identifying a suitable mitigation package is to prepare a strategy for accommodating as many trips as practical by sustainable modes. This includes for land-use planning techniques that maximise the likelihood of using alternative modes; such as providing higher density, mixed-use development.
- 5.7 However, at this stage, it was recognised that each of Bolsover, Chesterfield and NE Derbyshire would need to select a range of potential development sites for testing to allow for a more objective assessment of the impacts of development in any one particular location.

Stage 2: Traffic Impacts of Proposed Development Bolsover Assessment (using Highways Agency approved DIAMOND Model) – May 2010 (draft report)

5.8 This study examined the impact of the Council's selected range of potential development sites for testing based on the Core Strategy: Revised Preferred Options (April 2010) at intervals of 2016 and 2026. In running this test through the DIAMOND Model, the study identified that overall the greatest impact came from trips moving into zones representing the A617 east of Junction 29, around Bolsover and in the south of the District, near South Normanton. However, due to the large scale zonal structure of the DIAMOND Model (see Figure 5 below), not all trips move between zones and the model assumes that some trips are wholly contained within individual zones.

Figure 5 - DIAMOND Model zonal structure



- 5.9 In relation to key impacted roads in Bolsover District, the study identified the following impacts.

Table 6 - Link Capacity Reduction 2016 during AM Peak Hour

Road	Capacity Reduction
B6419 (Renishaw to Bolsover) Mastin Moor to Shuttlewood section	16%
B6419 (Renishaw to Bolsover) Shuttlewood to Bolsover section	8%
B6417 (Rotherham Road) Bolsover to Pleasley section	8%
A632 Bolsover to Rotherham Road	6%
B6042 Craggs Road	6%
A617 (Chesterfield to Mansfield) M1 Junction 29 to Pleasley section	5%
B6047 Pleasley to Warsop Vale	5%
A616 Through Clowne section	4%
A616 Clowne to Barlborough section	3%
A616 Through Barlborough section	2%

Table 7 - Link Capacity Reduction 2026 during AM Peak Hour

Road	Capacity Reduction
B6419 (Renishaw to Bolsover) Mastin Moor to Shuttlewood section	33%
B6417 (Rotherham Road) Bolsover to Pleasley section	32%
B6419 (Renishaw to Bolsover) Shuttlewood to Bolsover section	26%
A632 Bolsover to Rotherham Road	25%
B6417 (Rotherham Road) Through Clowne section	23%
B6039 (Temple Normanton to Tibshelf) Holmewood to Tibshelf section	17%
B6042 Craggs Road	17%
B6014 Through Tibshelf	15%
B6418 (Shuttlewood to Chesterfield) Shuttlewood to Clowne section	15%
B6418 (Shuttlewood to Chesterfield) Shuttlewood to Duckmanton section	15%
A618 Rotherham Road	15%
A616 Clowne to Creswell section	14%
B6047 Pleasley to Warsop Vale	13%
A616 Through Clowne section	12%
A616 Clowne to Barlborough section	12%
M1 Junction 29 to 28 section	10%
B6026 Tibshelf to B6046	10%
A38 M1 Junction 28 to B6406	10%
B6417 (Rotherham Road) Bolsover to Clowne section	9%
A617 (Chesterfield to Mansfield) M1 Junction 29 to Pleasley section	7%
A38 B6406 to B6027 section	7%
A632 Chesterfield Road, Bolsover section	6%
A616 Through Barlborough section	6%
A38 M1 Junction 28 to Alfreton section	6%

A619 Mastin Moor to Barlborough section	4%
A38 Link to Junction 28 section	3%

5.10 Based on this assessment, whilst junctions are not explicitly modelled within the DIAMOND Model and that the above results relate principally to changes in flow on links, the study forecast that the following key junctions within or serving the District could be impacted by the proposed LDF developments of Bolsover, Chesterfield and NE Derbyshire. The study also identified potential improvement schemes to increase junction capacity.

Table 8 - Junctions that could be affected significantly by anticipated levels of development

Junction	Current Capacity	Potential Improvement
A616 / A619 / A6153 junction	It is understood that this is due to be improved via a partial signalisation scheme in association with approved development schemes.	Could be improved via a full signalisation scheme, with enlargement; or via improved linkages for southbound traffic from Barlborough area to Junction 29A.
A38 (Junction with M1)	This is already a fully signalised scheme and identified in the Highways Agency's RNR as being a source of congestion.	Not without significant spend and land acquisition such as that related to a Grade Separation scheme.

5.11 In terms of solutions, the study identified that in addition to preparing a strategy for accommodating as many trips as practical by sustainable modes, schemes could be developed to address congestion in the following locations:

- It is noted that there is expected to be some congestion around Junction 30 and the A619 / A616 roundabout junction. The roundabout itself could likely be improved by a stand-alone scheme. However, it would likely also be beneficial to seek to establish routes from the Barlborough / Clowne area to Junction 29A to split traffic demands across two different trunk road junctions and allow for additional routes into eastern Chesterfield;
- It is noted that much traffic flow appears to be heading to / from southern Sheffield via the A6135 and A618. Within the study area, this may lead to the requirement for localised junction improvements through Eckington and Killamarsh, such as at the junction of the A618 / B5058. This effect may also need to be discussed with Sheffield City Council;
- The large changes in flow on the A38 could lead to junction issues as this route passes through Sutton and Kirby in Ashfield, which would need to be discussed with Ashfield District Council; and Mansfield District Council in relation to the impact on the MARR.

- 5.12 Whilst the draft Stage 2 Bolsover report provided more detail than the Stage 1 report, two key issues emerged from this report and its sister reports for Chesterfield Borough and North East Derbyshire District. These were:
- That development occurring in one of the districts may impact on the transport networks within neighbouring districts; and
 - There were limitations in the available modelling tool.

- 5.13 As a result, it was considered more appropriate to combine its findings with the other individual reports and therefore the draft Stage 2 Bolsover report has not been finalised.

Stage 2: Traffic Impacts of Proposed Development Cumulative Assessment (using Highways Agency approved DIAMOND Model) – February 2012

- 5.14 This study sought to pull together the findings of the individual reports for Bolsover District, Chesterfield Borough and North East Derbyshire District and present them in a combined report.

- 5.15 Based on this approach, the study forecast that the following key junctions within or serving the District could be impacted by the anticipated levels of development in emerging Core Strategies of Bolsover, Chesterfield and NE Derbyshire.

1. Barlborough (Junction of A619 / A616 / A6135)
2. M1 J30
3. M1 J29
4. M1 J28

Note: The Stage 2: Cumulative Assessment did not include J29A due to a lack of baseline data.

- 5.16 In terms of solutions, the study identified that there are two generalised strategies which could be adopted to accommodate a large quantum of traffic growth.

- 5.17 The first is to acquire areas of land in order to construct additional highway capacity. This would also require additional urban core car parking to be provided.

- 5.18 The second is to aim for smart growth where growth is concentrated in compact walkable urban centres to avoid sprawl, with compact, transit-oriented, walkable, bicycle-friendly land use, including neighbourhood schools, complete streets * and mixed-use development with a range of housing choices. This would include:

- identifying key walking and cycling desire lines within the existing urban cores and seek schemes to ensure these are continuous (with priority over private traffic, wherever possible, and with cycle parking at key destination points);

- identifying the likely public transport network requirements of the future (in light of the proposed developments) in liaison with operators (and to include connectivity between bus and rail);
- identifying schemes to prioritise public transport traffic (i.e. buses) along the public transport network;
- reviewing and removing urban centre parking locations and adopt principles of Park and Ride (to remove traffic from the urban core by intercepting it from radial routes);
- increasing parking at rail stations;
- employing Smarter Choices transport planning techniques (such as Personalised Travel Planning etc.) to minimise single occupancy vehicle (SOV) trip making;
- holding queuing traffic on the inbound radials to ensure the good operation of town centre junctions through “gating”;
- identifying and improving bottleneck locations on a case by case basis with the aim of ensuring junctions do not “lock”; and,
- providing new highway infrastructure only where it provides access to development land or if it contributes to the above strategy.

** Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.*

Traffic Forecasting Report (using DCC approved SATURN Model) – April 2012

- 5.19 Following the identified limitations with the DIAMOND Model, the SATURN Model was commissioned by Derbyshire County Council (in partnership with Bolsover District Council, Chesterfield Borough Council and North East Derbyshire District Council) to provide a fully dynamic traffic forecasting model of the north Derbyshire area.
- 5.20 Based on the quantum of development proposed by Bolsover District Council (as approved by the Council’s Planning Committee in September 2011), Chesterfield Borough Council (as taken forward into its publication Core Strategy dated February 2012) and North East Derbyshire District Council (as provided for testing purposes), this study forecast that the following key junctions and road sections within or serving the District would become over capacity during or following build out of the potential developments in Bolsover, Chesterfield and NE Derbyshire.

Table 9 - Junctions that could be affected significantly by anticipated levels of development

Junction	2016 capacity info (equates to 25% build out)			2026 capacity info (equates to 100% build out, i.e. 2031)		
	am peak	inter peak	pm peak	am peak	inter peak	pm peak
M1 North bound to J28	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	102%	<i>DCC / URS to provide figure</i>
M1 J28 and A38 West bound approach	103%	<i>DCC / URS to provide figure</i>	101%	104%	<i>DCC / URS to provide figure</i>	103%
M1 J28 and A38 East bound approach	95%	<i>DCC / URS to provide figure</i>	99%	104%	<i>DCC / URS to provide figure</i>	105%
M1 North bound to J29	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	99%	<i>DCC / URS to provide figure</i>
M1 J29 North bound offslip	96%	101%	105%	99%	101%	107%
M1 J29 South bound onslip	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	87%	<i>DCC / URS to provide figure</i>
M1 J29A Eastern Roundabout	104%	<i>DCC / URS to provide figure</i>	<i>DCC / URS to provide figure</i>	107%	104%	104%

5.21 These findings indicate that the principal impacts within the district of the combined proposed development strategies of Bolsover District Council, Chesterfield Borough Council and North East Derbyshire District Council are upon the strategic highway network, i.e. the motorway and the A38. Beyond this, within Bolsover District the principal impacts of note are that there will also be flow increases on the B6417 Rotherham Road to the east of Bolsover and on the A619 as a result of the planned development in Shirebrook and the Whitwell area respectively during the plan period.

5.22 The study also looked at the potential for changes in behaviour that would lead to trips being made outside the am or pm peaks. However, in both the Reference Case and Core Scenario, the study identified that only a small amount of trips overall would be shifted to the inter peak period.

5.23 The study does not provide solutions to increase capacity but the traffic patterns predicted would appear to a general progression of existing trends. To address this, the creation of an appropriate pattern of development which facilitates the use of sustainable modes of transport alongside targeted physical improvements to increase capacity where required appears to be both a desirable and achievable strategy. More long term, it would appear that improvements to the stretch of the M1 will remain necessary and that these may need to fit into future National Infrastructure Plan considerations. However, this will require dialogue with both the Local Highway Authority and the Highways Agency to ensure that these targeted improvements can be delivered during the plan period.

Bolsover Town Transport Study (using DCC approved SATURN Model) – April 2012

5.24 This study has been commissioned by Bolsover District Council to investigate at a detailed level the impacts on the highway network in Bolsover Town given the concentration of growth proposed for the town. This investigation has been carried out within the context of the wider 'SATURN' traffic forecasting model of the north Derbyshire area in order to ensure any impacts are understood in the round.

5.25 In particular, the study looks at the current performance and capacity of the following junctions that will potentially see greater levels of traffic as a result of the growth in Bolsover Town:

- A632 (Chesterfield Road) / Buttermilk Lane / Markham Lane;
- Town End / Welbeck Road / Moor Lane;
- A632 (Langwith Road) / B6417 (Rotherham Road);
- B6417 (Rotherham Road) / Marlpit Lane;
- A617 / Bolsover Road / Rowthorne Lane;
- B6417 (Rotherham Road) / Mooracre Lane; and
- A632 (Langwith Road) / Portland Avenue / Mansfield Road.

5.26 The study identifies that at present each of these junctions operates within capacity (less than 85%), although the Town End / Welbeck Road / Moor Lane junction is now close to its capacity following its change from a higher capacity mini-roundabout to a signalised junction to address issues of pedestrian accessibility.

5.27 However, with the proposed growth in Bolsover Town, the study identifies that each junction will experience additional traffic and the findings of this are set out below.

Table 10 - Current and future traffic flows based on anticipated levels of development

Junction	Current flow * (2011)	Future flow * (2031)
A632 (Chesterfield Road) / Buttermilk Lane / Markham Lane	47.8%	76.2%
Town End / Welbeck Road / Moor Lane	82.3%	202.4%
A632 (Langwith Road) / B6417 (Rotherham Road)	55.1%	184.4%
B6417 (Rotherham Road) / Marlpit Lane	21.3%	75.9%
A617 / Bolsover Road / Rowthorne Lane	25.3%	54.6%
B6417 (Rotherham Road) / Mooracre Lane	14.8%	164.2%
A632 (Langwith Road) / Portland Avenue / Mansfield Road	76.6%	145.2%

** Taken as highest arm of junction*

5.28 Based on these findings, the study identifies that the following junctions will need improvement schemes to accommodate the expected increase in traffic to avoid significant queuing traffic in a number of locations:

- Town End / Welbeck Road / Moor Lane;
- A632 (Langwith Road) / B6417 (Rotherham Road);
- B6417 (Rotherham Road) / Mooracre Lane;
- A632 (Langwith Road) / Portland Avenue / Mansfield Road.

5.29 In each case, options for improvement schemes are proposed that would provide additional capacity to address the situation and bring the junctions back into acceptable parameters, although it is noted that the schemes represent one potential option to addressing capacity.

Table 11 - Current and future traffic flows based on anticipated levels of development and implementation of potential improvement schemes

Junction	Current capacity * (2011)	Future capacity with improvement schemes * (2031)
Town End / Welbeck Road / Moor Lane	82.3%	105.5%
A632 (Langwith Road) / B6417 (Rotherham Road)	55.1%	89.1%
B6417 (Rotherham Road) / Mooracre Lane	14.8%	77.8%
A632 (Langwith Road) / Portland Avenue / Mansfield Road	76.6%	85.9%

** Taken as highest arm of junction*

- 5.30 To achieve these future capacities, each junction will see a mix of different improvements, such as the introduction of roundabouts or traffic lights, increasing the number of approach lanes or new links. Improvements will be implemented during the plan period to increase capacity as new developments are built and will be based on the outcome of Transport Assessment and Travel Plan work during the determination of the relevant planning applications.

M1 Junction 29A Operational Capacity Assessment (using DCC approved SATURN Model) – July 2012

- 5.31 This assessment has been commissioned by Derbyshire County Council to investigate the operational capacity of Junction 29A. This has involved modelling of the four roundabout junctions which comprise Junction 29A and assessing both the committed and potential developments in Bolsover, Chesterfield and NE Derbyshire. This work has shown that three of the four junctions would become over capacity on at least one arm during or following build out of the potential developments.
- 5.32 As such, the study identifies that Junction 29A will require improvement to accommodate additional traffic generated by the potential developments. The study also identifies that potential mitigation options could be:
- enlarging the Eastern roundabout via entry width widening to the M1 Southbound off-slip to ensure queuing does not extend back to the M1 mainline and entry width widening to the A6192 westbound;
 - full or partial signalisation of the western (i.e. northbound off-slip) roundabout to ensure queuing does not extend back to the motorway main line; and

- enlarging the North-western (i.e. northbound on-slip) roundabout via entry width widening to the Erin Road northbound approach and provision of a two-to-one merge on the M1 On-Slip.

5.33 The study advises that the above options require further analysis and design work to confirm their feasibility. However, these potential improvement schemes have been discussed with the Local Highway Authority and the Highways Agency and will inform future investment plans.

Conclusions

- 5.34 This evidence base identifies that the busiest roads in Bolsover District are those that form part of the strategic highway network, i.e. the M1 and the A38, and that these roads will get marginally busier as a result of the proposed and potential development strategies of Bolsover District Council, Chesterfield Borough Council and North East Derbyshire District Council.
- 5.35 The key congestion issues are those in the south of the District where the A38 meets the M1 at J28. This strategic junction will have become busier by the end of the plan period despite the modest growth planned at South Normanton and Pinxton, although it is noted that this junction takes traffic from wider afield due to its strategic function (together with the stretch of M1 north to J32 and the M18) connecting the West Midlands to the North and the East Yorkshire ports to London.
- 5.36 Second to this is the situation at J29 and then J29A. J30 of the M1 appears to be less affected following the District Council's decision to omit the Clowne North Strategic Allocation that was proposed in the Core Strategy: Revised Preferred Options.
- 5.37 On the local highway network, within Bolsover District the principal impact of note is that there will also be flow increases on the B6417 Rotherham Road to the east of Bolsover as a result of the planned development in Shirebrook and Whitwell during the plan period. At a more detailed level, in Bolsover Town the Town End / Welbeck Road / Moor Lane junction is the key location requiring capacity improvements within the plan period.
- 5.38 Alongside these issues, it is noted that efforts will be required to deliver a significant shift to more sustainable modes of transport. In view of this, it is considered that there would be benefits to investment in rail facilities to connect Bolsover and Clowne towns to the national network in the long term. However, to deliver the aims of the new Local Plan it is considered that the greatest potential for achieving a modal shift is in targeted investment in cycling and walking facilities during the plan period to improve linkages between the District's main employment zones and the towns they principally relate to and other key development sites, i.e. Markham Vale and Bolsover Town, Barlborough Links and Clowne, Castlewood to South Normanton and South Shirebrook and Shirebrook town centre. Efforts to link these facilities into the wider network will also be desirable given the general migration for work trends.

5.39 In view of this situation, it is considered that the key infrastructure requirements to deliver the development strategy set out in the emerging Local Plan are as follows and as illustrated in Figure 6:

- improvements to the Town End / Welbeck Road / Moor Lane junction, Bolsover;
- improvements to the A632 (Langwith Road) / B6417 (Rotherham Road) junction, Bolsover;
- improvements to the B6417 (Rotherham Road) / Mooracre Lane junction, Bolsover;
- improvements to the A632 (Langwith Road) / Portland Avenue / Mansfield Road junction, Bolsover;
- improvements to the A619 / A616 / A6135 junction, Barlborough (dependent on LTP assessment regarding Barlborough-Clowne links to M1 J29A discussed below);
- improvements to the A617 / Glapwell Lane junction, Glapwell (dependent on LTP assessment regarding A617 Glapwell Bypass discussed below);
- cycling and walking facilities to improve linkages between the District's main employment zones and the towns they principally relate to and other key development sites, i.e. Markham Vale and Bolsover Town, Barlborough Links and Clowne, Castlewood and South Normanton, and South Shirebrook and Shirebrook town centre.

5.40 However, whilst these are the key infrastructure requirements, it is noted that further requirements are likely to emerge when detailed appraisals are carried out of transport impacts arising from development of specific sites.

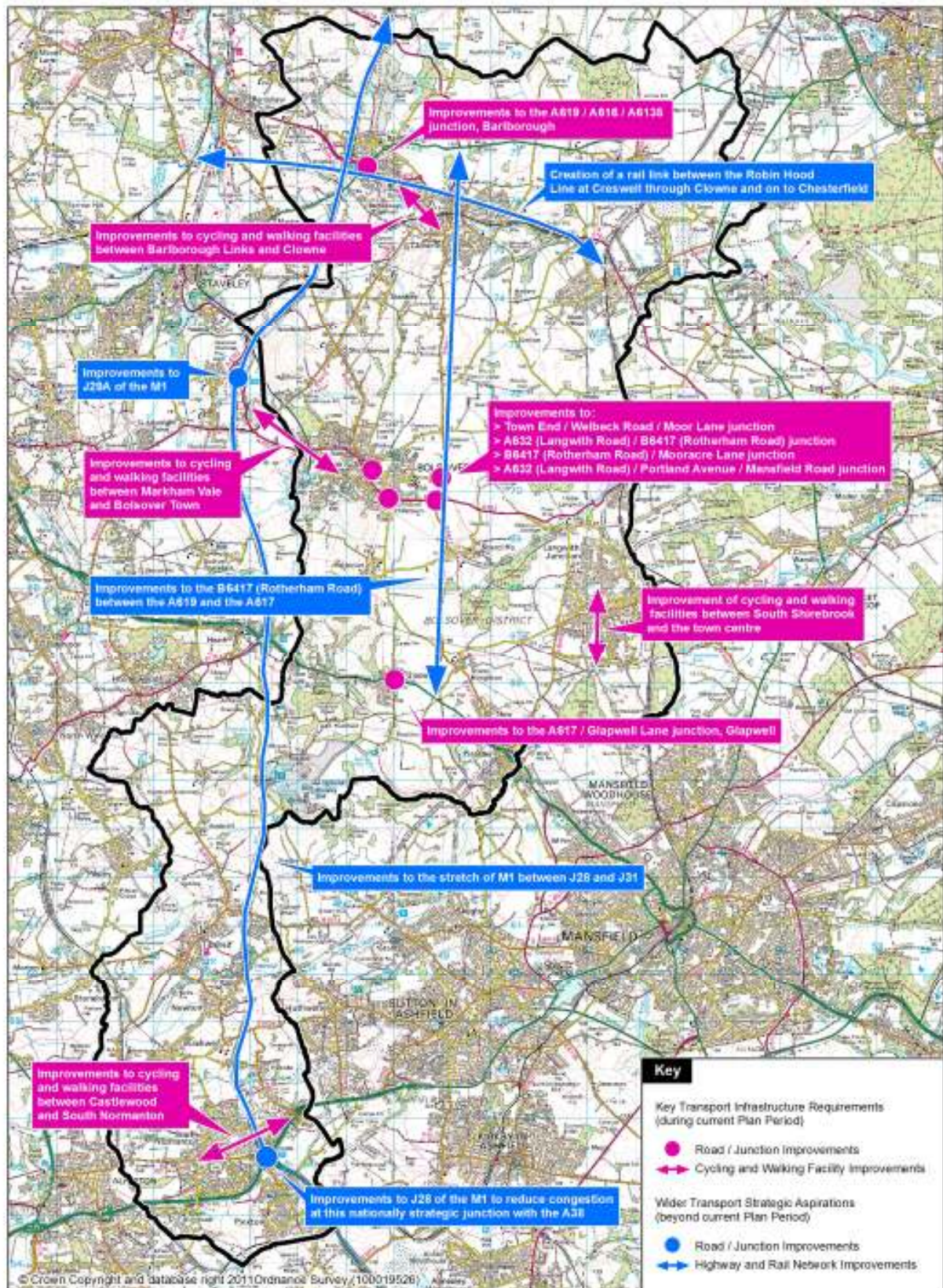
5.41 Beyond this, it is considered that this evidence base suggests a number of wider transport strategic aspirations that should inform more long term infrastructure requirements and these are shown below and illustrated in Figure 6.

Table 12 - Strategic Transport Aspirations for Bolsover District

Strategic Aspiration	Comments
Improvements to J28 of the M1 to reduce congestion at this nationally strategic junction with the A38	From discussions with the Highways Agency, it is noted that J28 is already a fully signalised scheme. Potential solutions to this would be to pursue a Grade Separation scheme to create an 'at-grade junction', although this would involve significant spend and land acquisition and currently does not feature in any Infrastructure Investment Plan.
Improvements to the stretch of M1 between J28 and J31	From discussions with the Highways Agency, it is noted that the full Motorway Widening Scheme has been reviewed and that this proposal has been substituted for consideration for Hard Shoulder Running. This proposal is being worked up currently and could commence in 2013/14.

Improvements to J29A of the M1	From discussions with Derbyshire County Council, it is noted that the Eastern and Western roundabouts will have capacity issues at the end of the plan period and that improvements may be required to mitigate the situation. Any proposals will require further analysis and design work before being taken forward.
Improvements to the B6417 (Rotherham Road) between the A619 and the A617	From the evidence base, it is noted that the M1 and the A61 provide strategic north-south links and that both suffer from congestion of traffic passing through the north Derbyshire area. Whilst not seeking to encourage additional traffic through the District, there would appear to be merit to improvements to the generally rural B6417 to provide another alternative north-south link and particularly between the A619 and the A617. This proposal should be considered for inclusion in future LTPs and during discussions relating to potential developments to the east of Bolsover and south of Clowne.
Creation of a rail link between the Robin Hood Line at Creswell through Clowne and on to Chesterfield	From discussions with Network Rail regarding the draft Infrastructure Study, it is noted that this proposal does not feature in any Infrastructure Investment Plan and would require lobbying of the DfT to seek the reopening of the line as a special condition through the national rail franchise process. At this stage it is not considered necessary for the delivery of the Local Plan Strategy but could form part of the Council's proposals for the following plan period. However, the strategic aspiration is considered to have merit and for this reason it is proposed to protect this rail line to enable retention of this option for future consideration.
Strategic road link to Shirebrook	From the evidence base, it is noted that Shirebrook has poor links to the strategic network. Whilst consideration has previously been given to address this via an extension from the once proposed Glapwell bypass, in view of the recommendation to delete this bypass scheme due to its high level of environmental harm for relatively low levels of transport and amenity benefit it is considered that an alternative approach could be a link from an upgraded B6417 Rotherham Road. This proposal should be considered for inclusion in future LTPs and during discussions relating to potential developments in the south Shirebrook area.

Figure 6 - Key Transport Infrastructure Requirements & Wider Transport Strategic Aspirations



5.42 This set of wider transport strategic aspirations generates the need for a fresh reassessment of the potential transport schemes contained within the Derbyshire Local Transport Plan (2011-2026) situated within Bolsover District and these are shown below.

Table 13 - Potential Derbyshire Local Transport Plan (2011-2026) schemes situated within Bolsover District

Potential Transport Scheme	LTP Priority Category and Status	Comments
Barlborough-Clowne Links to M1 Junction 29A	<p><i>Priority 3: Potential for further appraisal in association with land use plans</i></p> <p>Identified through responses to the consultation draft LTP and liaison over Bolsover LDF</p>	<p>This scheme was included in the LTP following the consultation on the Core Strategy: Revised Preferred Options that was published in April 2010. In view of the District Council's lower minimum housing requirement target and the proposed deletion of the Clowne North Strategic Site, guidance from Derbyshire County Council on whether this potential scheme is still required will be sought.</p>
A617 Glapwell Bypass	<p><i>Priority 4: Recommended for rescinding</i></p> <p>One of 'priority' schemes identified in preparation of second LTP. Under review for possible rescinding as impacts outweigh benefits. Formal decision yet to be made.</p>	<p>The District Council has sought clarification from the County Council as to when the formal decision stated in the LTP will be made in order to prepare its emerging Local Plan. To date, this clarification has not yet been provided. As a result, the District Council has assumed that the scheme will not proceed and therefore is not planning for it in the preparation of the Local Plan (Part 1 Strategy). Should this not be the case, it is expected that the County Council would formally notify the District Council of this.</p> <p>Despite the above, it is still noted that the junction of the A617 and B6417 Rotherham Road at Glapwell is a busy junction where visibility, particularly turning right from the B6417 towards J29, is poor and that improvements to this junction are likely to still be required should the bypass proposal finally be formally rescinded.</p>

5.43 It is hoped that consultation on this Topic Paper may provide greater clarification on these issues.

6. Consultation Responses

- 6.1 During the preparation of the Core Strategy: Revised Preferred Options, the draft spatial principles which underpinned the Revised Preferred Options were subject to consultation through the Bolsover District Citizens' Panel. The Panel, which is made up of 1,000 people, was consulted in November 2009 and the findings, based on a response rate of 43%, were taken into account in preparation of the Revised Preferred Options which were published in April 2010.
- 6.2 The spatial principles and the policies of the Core Strategy: Revised Preferred Options were also subject to a full public consultation exercise in April and May 2010. The outcome of this exercise was considered by the Council in November 2010, together with the responses from the Citizens' Panel.
- 6.3 The outcome of both of these consultation exercises has influenced the Council's development of transport policy and this is discussed in more detail below.

Citizens' Panel

- 6.4 As explained in Section 3, the Core Strategy: Revised Preferred Options sought to support the vision set out in the Bolsover Sustainable Communities Strategy and the Derbyshire Sustainable Communities Strategy.
- 6.5 This vision would be delivered by a series of strategic planning objectives and spatial principles which generally sought to support a pattern of development which facilitates the use of sustainable modes of transport alongside planning for ambitious levels of growth within the District's towns (30% growth), main villages (20% growth) and villages (15% growth).
- 6.6 Of these, spatial principles 1, 2, 3, 4, 6 & 7 together set out the direction of the Council's proposed transport policy and the results of the Citizens' Panel for these were as follows:
- Spatial principle 1 – 54% support
 - Spatial principle 2 – 53% support, with another 30% supporting even greater concentration in just towns and main villages
 - Spatial principle 3 – 32% supporting a proportion of 100%, with a further 43% supporting retaining the existing proportion of jobs to economically active residents
 - Spatial principle 4 – 72% support (indicating the majority of respondents want to keep provision of employment land at the same overall level (key principle 3) they would like it to be more evenly distributed closer to where most residents live)
 - Spatial principle 6 – 51% support

- Spatial principle 7 – 59% support

6.7 These results indicate strong levels of support for the Council's proposed transport policy and its desire to support a pattern of development which facilitates the use of sustainable modes of transport alongside planning for ambitious levels of growth.

6.8 Based on this strong support, it is considered appropriate to pursue this strategy further.

Core Strategy: Revised Preferred Options public consultation exercise

6.9 During this consultation exercise, some 628 representations were received from 127 respondents before the deadline for representations, together with 96 late representations from 6 respondents.

6.10 In relation to the spatial principles, 111 representations were received and these were split between:

- 34 support
- 13 support & comment
- 33 comments
- 31 objections

6.11 Overall, those supporting the spatial principles thought that the overall spatial strategy was appropriate and should help facilitate sustainable development. However, those objecting were principally focused on the overall level of growth in the District as carried forward from the East Midlands Regional Plan. In response to these comments, the Council decided that following the revocation of the East Midlands Regional Plan the Council would seek to adopt an interim housing target which was lower than that in the Regional Plan.

6.12 These results indicate reasonable levels of support for the Council's proposed transport policy and its desire to support a pattern of development which facilitates the use of sustainable modes of transport alongside planning for ambitious levels of growth.

6.13 Based on this support, it is again considered appropriate to pursue this strategy further.

Outcome of Sustainability Appraisal and Response

6.14 The Interim Sustainability Findings of the Core Strategy: Revised Preferred Options report, as prepared under the Strategic Environmental Assessment and Sustainability Appraisal process, assessed the likely environmental effects and sustainability performance of the strategy.

6.15 The assessment involved an appraisal each of the Spatial Principles and Core Strategy Policies and their stated Alternative Options (where presented) against the framework of sustainability criteria established within the 2009 Scoping Report. The

report provided a specific indication of how each policy will perform in respect of each of the sustainability criteria.

- 6.16 In summary, the Sustainability Appraisal finds the Spatial Principles set out in the Core Strategy would be likely to deliver considerable sustainability benefits across the topics of homes provision and quality, and the built environment generally. The main negative sustainability impact identified from analysis of spatial principles is that the growth proposed would not significantly reduce the level of freight movement by road.
- 6.17 The dominant theme of comments on the spatial options is that the benefits will almost always be dependent on the quality of development, both in terms of the provision of attractive locations, and the quality of built design delivered. Unless the quality is delivered then many benefits disappear, and the risk of negative impacts arises.
- 6.18 The Sustainability Appraisal notes that the application of the settlement hierarchy (based on settlement size and service provision) in respect of housing provision can be viewed as a positive measure in terms of improving the overall sustainability benefits of the plan, although there may be negative impacts in relation to surface water run off and flood risk in larger urban areas. In relation to employment the appraisal notes that economic activity in and around the district is likely to be heavily reliant on road transport. Unfortunately, the physical and spatial characteristics of the district make alternative approaches (such as concentrating development in centres served by rail transport) unattractive and may present more serious negative sustainability implications.
- 6.19 Based on this assessment, it is again considered appropriate to pursue this strategy further with where possible greater encouragement for targeted 'cycle and walk to work' proposals and support for the potential Rail Freight Terminal at Markham Vale.

7. Policy development

- 7.1 This paper has explored both the wider policy framework and the current transport situation. It has also summarised the findings of the technical studies that have been prepared through cooperation with both neighbouring authorities and the relevant highway authorities to understand the likely impact of the District Council's emerging Local Plan development strategy together with that of Chesterfield Borough Council and North East Derbyshire District Council.
- 7.2 In light of this, this section seeks to explain how the current policy has been developed to reflect and address this background.

Spatial Principle 6

- 7.3 As set out in earlier sections, this spatial principle seeks to restrict further development in Bramley Vale / Doe Lea and maintain a strategic gap between Glapwell and Pleasley with the purpose of seeking to minimise even greater levels of out commuting.
- 7.4 Out commuting for employment is a key issue for the District and a consequence of this given the dominance of the private car for commuting is additional traffic on the key roads and wider strategic highway network as borne out by both the congestion hotspots and the findings of the North Derbyshire area transport studies.
- 7.5 Based on this understanding, restriction of further expansion of Bramley Vale / Doe Lea and maintenance of a strategic gap between Glapwell and Pleasley appears to be a sound approach that complements the District Council's wider spatial strategy concerning the distribution of housing and employment.
- 7.6 Looking beyond our emerging Local Plan to those of our neighbours, it is clear that Mansfield District Council and North East Derbyshire are considering developments that would utilise the A617 and that national traffic trends indicate greater numbers of cars on the road network. Therefore, restricting growth in Bramley Vale / Doe Lea, Glapwell and Pleasley appears an appropriate approach to take, particularly if an almost continuous belt of intensive development over 20 kilometres long running from east Mansfield to Clay Cross is to be avoided.

Spatial Principle 7

- 7.7 As set out in earlier sections, this spatial principle seeks to promote major mixed use developments, villages and neighbourhoods as an essential part of strategy to address climate change.
- 7.8 Again, out commuting for employment is a key issue for the District and particularly as this out commuting is mostly carried out by the private car. The national information regarding length of commute journey indicates a trend towards longer journeys and this will involve greater use of resources and the burning of fossil fuels which is contributing to climate change.

- 7.9 Given that climate change is becoming and will become the most significant issue for the country and our local communities, efforts to reduce the amount of resources consumed as part of the journey to work is a key concern for the District Council to concentrate on through its role as local planning authority as part of its efforts to help mitigate and adapt to climate change. Therefore, whilst the District Council cannot control where individuals live and work, it can plan to make the distance between potential homes and workplaces as short as possible. The promotion of mixed use developments, villages and neighbourhoods continues to appear to be a sound approach that complements the District Council's wider spatial strategy to the distribution to housing and employment.
- 7.10 Looking beyond our emerging Local Plan to those of our neighbours, it is noted that the promotion of mixed use developments and seeking employment within existing settlements is a common approach.

Policy CS 3 Transport and Accessibility

- 7.11 As set out in earlier sections, this policy seeks to guide developments and the provision of services to those locations that minimise the need to travel and where travel is required that the use of more sustainable modes of transport should be encouraged.
- 7.12 Again, out commuting for employment is a key issue for the District and particularly as this out commuting is mostly carried out by the private car. Alongside the appropriateness of the District Council's spatial strategy, the evidence base illustrates the need for enhanced alternatives to the private car and it is for this reason that targeted efforts are proposed to provide cycling and walking facilities between the key employment areas and their local populations during the plan period. Furthermore, the stated strategic aspirations will help guide future policy development and resource matters.
- 7.13 Based on this, it is considered that this policy will contribute to and provide a mechanism to give strong weight to the District Council's transport objectives during the determination of applications for planning permission.
- 7.14 Looking beyond our emerging Local Plan to those of our neighbours, it is noted that there will be many opportunities to connect up cycling and walking facilities within Bolsover District with those of our neighbours and it is expected that cooperation on this issue will continue through the preparation of later parts of the emerging Local Plan and subsequent implementation of the plan.

Policy CS5 Housing Provision and Location

Policy CS 9 Employment Land Provision

- 7.15 As set out in earlier sections, these policies seek to provide the spatial framework that will guide developments and the provision of services to those locations that minimise the need to travel.

- 7.16 Based on the high levels of out commuting for employment and the key locations of congestion, the District Council has tested its housing and employment commitments and potential allocations that would provide the lower minimum housing requirement target through the north Derbyshire area transport studies. These have identified that subject to relatively minor junction improvements on the local highway network in Bolsover Town, the levels and general locations of proposed housing and employment development can be accommodated and that these improvements are considered to be deliverable.
- 7.17 Based on this, it is considered that these policies will help foster the sustainable communities envisaged in the emerging Local Plan by providing a framework that should lead to less out commuting and shorter journeys and also encourage a modal shift to more sustainable modes of transport. In particular, the concentration of growth in Bolsover Town is considered to provide an opportunity to seek to mitigate some of the expected traffic on the M1 travelling to and from the Markham Employment Growth Zone as it develops by offering commuters an alternative of living and working in Bolsover rather than travelling along the motorway each day. Furthermore, with targeted improvements to the cycling and walking facilities between Bolsover Town and Markham Vale, it is considered that significant opportunities to achieve a modal shift in commuting patterns are possible.
- 7.18 Looking beyond our emerging Local Plan to those of our neighbours, it is noted that a range of levels of growth are planned following the revocation of the East Midlands Plan. However, to date these would not appear to undermine the District Council's approach.

Policy CS 22 Bolsover

Policy CS 23 Bolsover North

- 7.19 As set out in earlier sections, these policies outlined that new growth would be directed to the east of the town due to constraints to the west but also due to easy access to the town centre, schools and public transport.
- 7.20 Based on the high levels of out commuting for employment and with the M1 being generally over capacity during the peak periods, these policies are considered to support the opportunity to seek to mitigate some of the expected traffic on the M1 travelling to and from the Markham Employment Growth Zone.
- 7.21 These policies are being reviewed in light of the local community consultation exercise carried out in February and March 2011. This exercise demonstrated strong support for the Bolsover North Strategic Allocation being required to provide green links through the site to the countryside, convenient and attractive pedestrian and cycle routes to the town centre and bus service provision within the development.
- 7.22 Based on this, it is considered that these policies will help make Bolsover Town a sustainable community that, with targeted improvements to the cycling and walking facilities between Bolsover Town and Markham Vale, could achieve a modal shift in commuting patterns.

Conclusion

- 7.23 Based on the discussion in this Topic Paper, it is considered that the Council's policies and principles on transport are in conformity with higher tier policy and are based on a sound understanding of the evidence base and represent an appropriate way forward.