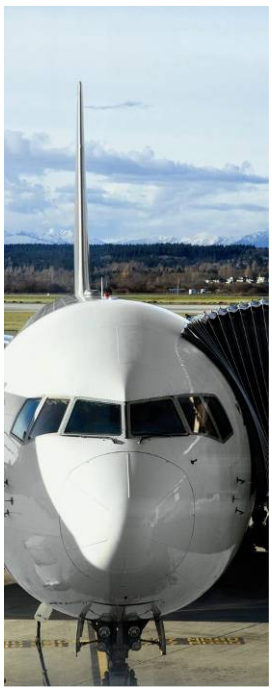


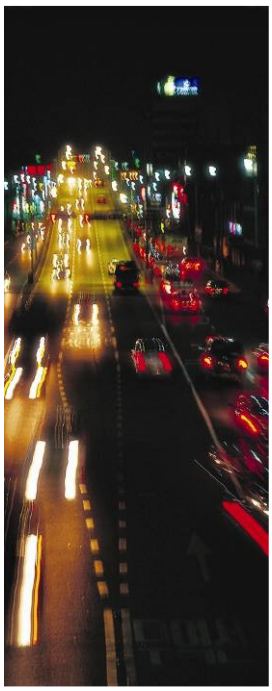

Solihull Core Strategy

Transport and Infrastructure Assessment – Qualitative Evidence Review

January 2010

Solihull MBC and The Highways Agency

Mott MacDonald

Solihull Core Strategy

Transport and Infrastructure Assessment – Qualitative Evidence Review

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Content

Appendices 85

1. Introduction

From 2011 the Solihull Local Development Framework (LDF) will replace the Unitary Development Plan (UDP) as the main planning framework for the Borough. The emerging Core Strategy will be the main LDF document; it is essential, therefore, that it is underpinned by a sound evidence base.

Transport is a fundamental consideration of the Solihull LDF Core Strategy and an assessment of potential transport impacts is critical to enabling an informed response to spatial proposals. The movement of people and goods is an essential function of established communities and proposed development sites. Therefore, transport and infrastructure provision, and future plans and demand, form a key part of the evidence base required.

Solihull MBC has commissioned Mott MacDonald to complete a Transport and Infrastructure Study to consider how development in Solihull and across the West Midlands region is likely to affect existing movement patterns and how transport networks could be changed to meet additional demands driven by development . The assessment covers the whole of the Borough; however it has a particular focus on the M42 corridor (incorporating Solihull town centre) and the impacts of the Core Strategy on the strategic network.

1.1 Scope of the policy and evidence review

1.1.1 Purpose of the review

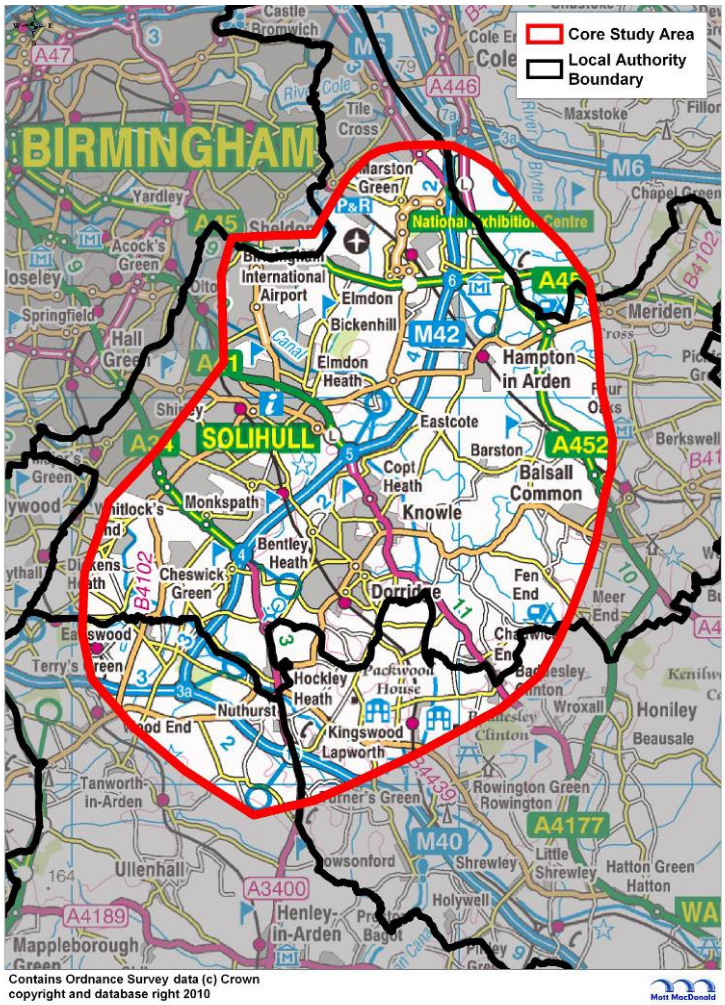
This report makes a detailed assessment of existing qualitative evidence to support the wider assessment. It provides an in-depth review of national, sub-national and local transport policy and strategies in order to develop a deeper understanding of the current and future transport challenges of Solihull and the M42 corridor. It focuses on those that relate to Solihull and the wider sub-region and which are likely to affect transport movements, network capacity and the actions required to manage future development and growth. Also included is an overview of the interventions (incorporating both hard and soft measures) currently committed and/or are proposed, considering their feasibility going forwards in a period of significant policy change and increasing fiscal austerity.

The Transport and Infrastructure Assessment contributes to the preparation of the Solihull Local Development Framework Core Strategy and to the Action Plan for Solihull Town Centre. This qualitative study will contribute to the wider function of that Assessment, considering how development in Solihull will affect existing movement patterns as well as how transport networks could be changed to meet additional demands when development is brought forward.

1.1.2 Spatial scope

The review covers the whole of the Solihull Metropolitan Borough. It places an appreciation of the local planning policy in Solihull within the national policy context, as well as the context of the former West Midlands region, the West Midlands Metropolitan Area (the WMMA – the wider West Midlands conurbation[1]) and the Birmingham and Solihull sub-region (and emerging Local Enterprise Partnership [LEP] area). However, the review focuses on the M42 corridor (and particularly on Junctions 3A to 7, where many of the area's key assets and economic drivers (including Birmingham Airport, the National Exhibition Centre, Land Rover, Birmingham and Blythe Valley Business Parks, and Solihull Town Centre) are located.

Map 1.1: Core Study Area



Source: Contains Ordnance Survey Data Open Data © Crown copyright and database right 2010

[1] Comprising of the Cities of Birmingham, Coventry and Wolverhampton and the Metropolitan Boroughs of Dudley, Sandwell, Solihull, and Walsall.

1.2 Sources of evidence

The development of the LDF Core Strategy for Solihull draws upon a comprehensive evidence base. Qualitative evidence contributes significantly to the development of a more detailed understanding of the transport patterns and challenges across the Borough and how transport infrastructure and development scenarios could change throughout the life of the LDF.

The evidence base includes national, sub-national and local land use planning strategies as well as policy and strategy specifically relating to transport infrastructure (focussed on highway, rail and air links).

1.2.1 Transport policy

Nationally, transport policy is still undergoing review. However, the Spending Review 2010 outlined a programme of spending on transport infrastructure and a four year, £10 billion commitment to the national highways network, as well as £14 billion for Network Rail over the same period. Commitments to a number of schemes including High Speed Rail Two (HS2) and, in the West Midlands, an extension to the existing Metro service were also identified. Primarily, evidence relevant to the Department for Transport's (DfT) Developing a Sustainable Transport System (DaSTS) strategy and HS2 proposals is considered in the review.

At the sub-national level (composed of a number of different geographies, including the former West Midlands region and the WMMA), the following transport planning documents have been examined as part of the evidence base:

- National Networks 'Access to Birmingham' Study – Evidence Review;
- West Midlands Regional Spatial Strategy (RSS) – Transport evidence base;
- Regional Transport Priorities Plan;
- West Midlands Local Transport Plan (LTP2 and LTP3);
- West Midlands Transport Innovation Fund (TiF) Study; and
- West Midlands Rail Development Plan.

At the local (Solihull Metropolitan Borough) level, the following policy and evidence will be reviewed:

- Evidence Base for the Solihull LDF and Core Strategy;
- Solihull Town Centre Study;
- M42 Active Traffic Management (ATM)[2] Monitoring Report;
- National Trip End Model (NTEM) Traffic Growth Rates;
- Birmingham Airport Surface Transport Master Plan; and
- Airport and NEC Integrated Transport Access (ANITA) scheme delivery.

1.2.2 Planning and economic policy

In planning terms new Government policy is heralded the abolition of Regional Spatial Strategies (RSSs), regional governance structures such as the Government Offices for the regions and the Regional Development Agencies (RDAs). This has been accompanied by the establishment of Local Enterprise

[2] Since its launch ATM has been renamed Managed Motorways

Partnerships (LEPs) comprising local authorities and business leaders as the chief vehicles for sub-national economic development, with influence over planning and wider infrastructure.

The following national, sub-national and local planning documents are to be examined as part of the evidence base.

- Birmingham Airport Master Plan;
- Strategic Housing Land Availability Assessment Interim Report;
- Strategic Housing Market Assessment;
- Settlement Studies;
- Coventry, Solihull & Warwickshire Employment Land Study;
- Solihull Town Centre Study;
- Solihull Retail, Leisure and Offices Study;
- Investment Impact Locations; and,
- Homes and Communities Agency (HCA) Business Plan.

1.2.3 A developing evidence base

The evidence base will continue to shift and develop in this period of intense policy revision and the evidence may need to be further refreshed later on. It will need to react to any further updates to the policies and strategies outlined herein, particularly in light of the revocation of the RSS.

In addition, while cognisance of the HS2 proposals will be taken in to account, it is not expected that the scheme will be delivered within the LDF Core Strategy implementation period. Given the level of uncertainty around the HS2 proposals, a further study examining their impact will most likely be required.

1.3 Structure of report

Chapter 2 of this report considers the relevant policy context in more detail, considering in turn national, sub-national and local transport and planning policy. This context provides the backdrop for a more detailed qualitative consideration of the evidence base in chapters three to nine, in which analysis of the evidence base into sub-divided under the following headings:

- spatial and socio-demographic characteristics of the area;
- transport and network characteristics of the area;
- plans for development and growth;
- transport challenges that are likely to emerge as a result of growth;
- future commitments in terms of projects and plans designed to meet the challenges identified;
- other potential ways of addressing the highlighted challenges; and
- gap analysis highlighting where the evidence base is lacking.

2. Policy context

The Core Strategy is being prepared in a period of significant policy shift and many of the strategies and policies upon which the Strategy is based are changing. However, the current policy context contains a number of fixed points from which a qualitative assessment of the transport and infrastructure evidence base can proceed.

2.1 Background

Since the general election in May 2010, the Coalition Government has implemented a number of significant shifts in policy. These shifts, which have been supplemented by the recent Spending Review have left the majority of Whitehall departments facing four years of cuts to staff and front line services; the future of many programmes is now in doubt and while significant. Whilst funding has been allocated to transport infrastructure, the policy context for planning has been radically altered. It is against this backdrop of intense austerity and ongoing change that the Solihull LDF and Core Strategy must be set.

2.2 National transport policy and priorities

2.2.1 The Eddington Transport Study

In recent years there has been a progressive shift in transport planning priorities, with an ever-increasing emphasis on developing a transport network which is characterised by sustainability (a combination of economic, social and environmental challenges). Progress towards sustainable transport gathered particular pace following the publications of The Eddington Transport Study[3] and The Stern Review[4], in 2006. Both of these documents challenged the perception that climate change mitigation (through CO_2 reductions) and economic growth are mutually exclusive, illustrating instead how they are compatible and complementary.

Sir Rod Eddington investigated the effects of transport on economic growth, competition and productivity and highlighted the importance of a high quality transport system as an enabler of sustained economic prosperity. Eddington estimated that road congestion costs the UK economy around £7-8 billion annually. He predicted that this would rise to £22 billion by 2025 if left unchecked. Eddington recommended that the strategic economic priorities for long term transport policy should be to address growing and congested urban areas and their catchments; key inter-urban corridors; and access to the key international gateways. He also highlighted the need to price transport costs correctly, especially in relation to its wider environmental impacts.

2.2.2 Delivering a Sustainable Transport System (DaSTS)

DaSTS (Delivering a Sustainable Transport System) emerged as the previous Government's response to Eddington and Stern and was the core policy driver to deliver the DfT's central objectives and new transport infrastructure across England.

[3] Eddington, R (2006) 'The Eddington Transport Study'

[4] Stern, N (2006): 'The Economics of Climate Change: The Stern Review'

The DaSTS strategy encompasses a number of sub-national studies. Its timescales extend from 2014 to 2019 and the five goals of the strategy are:

1. To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
2. To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change;
3. To contribute to better safety security and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health;
4. To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society; and,
5. To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

While transport policy remains under review, challenges facing the transport network in Solihull and the M42 corridor in particular, as a key link in the strategic network, must continue to follow the DaSTS sustainability principles.

2.2.3 Strategic National Corridors

Following the publication of Eddington, Stern and DaSTS, the DfT identified the transport corridors that were felt to be of particular strategic importance, in terms of linking large urban areas and important international gateways (the Strategic National Corridors or SNCs). The roads and rail services which are currently used for journeys along these corridors were identified.

The national focus is on maintaining and improving the connectivity of national strategic infrastructure that is critical for the functioning of the transport system as a whole. This strategic infrastructure is made up of a network of 14 SNCs connecting the ten largest urban conurbations and 17 international gateways in England. The West Midlands lies at the heart of this network providing a hub serving four of these corridors.

Once the 14 SNCs were identified, the DfT undertook analysis of current and future transport challenges on the relevant road and rail corridors, and this led to the development of a set of studies aimed at addressing the identified challenges, one of which is 'Access to Birmingham', detailed below. The evidence review incorporates relevant challenges and solutions derived from this study.

2.2.4 High Speed Rail2

In March 2010 DfT released proposals for a second high speed rail line ('HS2') between London and Birmingham, alongside possible extensions further north to Manchester and Leeds. The rail line is expected to reduce the travel time between London and Birmingham to approximately 50 minutes and Solihull Borough is likely to house key assets for the scheme.

However, the consultation for the scheme will be a lengthy process. If approved, the construction of the line is unlikely to commence before 2019, and operation is unlikely to commence before 2026. Therefore, as indicated above, HS2 is currently beyond the scope of the developing Solihull Core Strategy. Considering the consultation requirements, the planning approval steps and the predicted timescales the project would only have an impact in the longer term and with the consultation period only now commencing, the proposals could significantly change over time.

2.3 Sub-national transport policy and priorities

2.3.1 National Networks Access to Birmingham

The National Networks 'Access to Birmingham' study is the proposed method of delivery for the former regional transport plans from 2014 onwards. Prior to this date it is anticipated that projects will continue to be delivered in line with Regional Transport Priorities and the West Midlands Local Transport Plan strategies.

To develop the strategy proposals, a series of four projects are currently being undertaken jointly by the West Midlands authorities. The focus of these studies is as follows:

- Reducing the demand for travel and changing travel behaviour;
- Access to Birmingham (focussing on Birmingham, the Black Country and Solihull);
- Improving Connectivity in the Coventry North / South Corridor; and,
- Improving Connectivity to and within North Staffordshire.

The Access to Birmingham Study develops the principles of DaSTS further within a sub-national context and provides the transport evidence base in conjunction with potential packages of interventions. There remains uncertainty over the future of the next phase of modelling these packages. Nonetheless, this qualitative review is cognisant of the Access to Birmingham Study and its evidence base alongside other key DaSTS studies that have progressed over the last 12 months.

The other studies, while less significant for Solihull and the M42 corridor are nonetheless likely to have some impact. In particular, reducing travel demand and changing travel behaviour, particularly in terms of developing smarter, more active and more sustainable travel modes may impact travel patterns in this particularly busy part of the West Midlands.

2.3.2 Regional Spatial Strategy for the West Midlands

In the now revoked RSS, Solihull was identified as one of 25 strategic centres in the former West Midlands region to be a focus for major retail, large scale leisure and office development. Transport formed a key part of this policy regime and when integrated with land-use policy was to provide a catalyst for development and economic transformation.

The RSS for the West Midlands was intended to remain as the statutory regional transport planning document until 2014, however the Coalition Government has confirmed that the regional strategies should be replaced as soon as practicably possible. At this time the National Networks Access to Birmingham (which also incorporates the Black Country and Solihull) appears set to take over this regional transport planning role.

The RSS identified a number of schemes that were to be delivered to 2015; the ones relevant to this study are summarised in table 2.1 below. To enable the proposed growth identified in the Core Strategy, a number of these schemes will be required. The Core Strategy will identify which of the schemes will be taken forward.

Table 2.1: RSS Policy T12 Priorities for Investment

Scheme	Policy link	Key delivery role	Implementation period
Behavioural change package of measures	T1, T2, T3, T4 and T5	Local authority and operators	Through to Post 2015
M42 Active Traffic Management Pilot	T9	Highways Agency	Ongoing
M42 Widening Jct 3 to Jct 7	T9	Highways Agency	Post 2015
Active Traffic Management for M5 / M6 / M42 motorway box		Highways Agency	2011 to Post 2015
West Midlands rail capacity and performance enhancements	T5 and T10	Strategic Rail Authority	2001 to Post 2015
Birmingham International Airport improved surface access	T11	Birmingham Airport, Centro, Highways Agency, Strategic Rail Authority, Local transport authorities	2001 to 2012
Bus super showcase / High quality bus networks	T5	Centro and operators	2001 to Post 2015
Improved access to regeneration areas	T5	Local Transport Authorities and developers	2001 to Post 2015
Park & Ride opportunities	T6	Centro and developers	2001 to 2010
Road network management / priority	T5	Highways Agency / local authorities	2001 to Post 2015

Source: West Midlands Regional Spatial Strategy (2008)

Whilst the future of these projects remains uncertain, the evidence base developed to underpin them constitutes the most informed review of transport and land-use requirements available for the West Midlands. This qualitative evaluation therefore draws on the details of these schemes alongside additional evidence, in order to assess the transport challenged faced by the area.

2.3.3 Regional Transport Priorities Action Plan

The Regional Transport Priorities Action Plan[5] was published by the now-abolished West Midlands Regional Assembly (WMRA) in December 2008. The document sets out the main infrastructure and policy priorities for the region and how these should be progressed in the short term. The six defined projects or suites of projects are as follows,

1. Birmingham New Street Gateway;
2. Birmingham Airport – runway extension and surface access improvements;
3. M5/M6 capacity improvements and Motorway Box Active Traffic Management (Managed Motorways);
4. Rail Freight Upgrades – Peterborough and Southampton to Nuneaton;
5. Black Country 'strategic transport spine'; and
6. North Staffordshire Integrated Transport Package.

The most significant of these for the M42 corridor is the plans for Birmingham Airport, which will impact transport patterns in the area directly. Also significant is the redevelopment of Birmingham New Street, which will impact heavily on passenger flow, both in the short term during the construction phase and in the long term, in terms of the intended increase in passenger numbers. Also indirectly relevant to Solihull and the M42 corridor is the further roll-out of Managed Motorways on other part of the Birmingham box

[5] West Midlands Regional Assembly and Advantage West Midlands (2008): 'West Midlands Regional Transport Priorities Action Plan'

motorway network. It's introduction on the M6 and M5 are likely to have consequences for traffic flow across the box, and in the heavily used M42 stretch.

In addition to the projects listed above there are a set of themed priorities which cover a broader range of measures,
1. Regional rail capacity, both for passengers and freight;
2. New Growth Points/Settlements of Significant Development; and,
3. Smarter Choices.

2.3.4 West Midlands Local Transport Plan

2.3.4.1 Second Local Transport Plan for the West Midlands (LTP2)

The second Local Transport Plan for the West Midlands (LTP2) was published in March 2006 and included a comprehensive suite of measures to ensure the safety and efficiency of the local transport network.

As part of the LTP, a series of major schemes have been and continue to be delivered. The 'Birmingham Airport / NEC Public Transport Links' scheme is included as part of the current work package and comprises new bus lanes, a public transport hub, real-time transport information, SMS messaging and infrastructure up-grades on routes serving the area including the link with the Coleshill Multi-Modal Interchange Major Scheme.

Additional LTP2 schemes that have the potential to influence the Solihull Borough (where they are still set to go ahead in light of the recession, change in Government and Spending Review 2010) are as follows:
- West Midlands Urban Traffic Control measures;
- Midland Metro 2 (line 2b would connect the city centre with Birmingham Airport / NEC);
- Birmingham / North Solihull Mobility and Access; and,
- Strategic Park & Ride (including a possible facility serving the M42 corridor).

2.3.4.2 Third Local Transport Plan for the West Midlands (LTP3)

The Third Local Transport Plan for the West Midlands (LTP3) takes the strategy on from 2011 towards 2026 and is currently undergoing consultation. Whilst the overall strategy plan examines the period to 2026, the scheme implementation plan focuses on the period to 2014 and, therefore, no individual schemes are identified for delivery after this date.

2.3.5 West Midlands Rail Development Plan

The consultation document for the West Midlands Rail Development Plan was released by Centro in June 2009 and the strategy is currently being updated in response to the comments received. The completion of the Rail Development Plan is subject to the information contained within the LDF Core Strategy (this will confirm user demand and therefore influence expansion proposals) and also the outcomes of the Access to Birmingham Study.

The Plan identifies the National Rail schemes relevant to the West Midlands which are included in the five year business plan (Control Period 4) released in March 2009. These schemes include:
- Birmingham New Street Gateway;
- Chiltern platform lengthening;
- West Midlands platform lengthening;

- Redditch branch enhancement;
- Bromsgrove cross-city improvements;
- Cotswolds line re-doubling options;
- Westerleigh – Barnt Green line upgrade; and
- Wrexham to London Marylebone journey time improvements.

Most significant for Solihull are, again, Birmingham New Street, and the platform lengthening plans for the Chiltern line, and on other stations across the West Midlands. The Chiltern line runs through Solihull along the M42 corridor and platform alterations to incorporate longer trains, has the potential to impact upon rail passenger numbers in the borough.

Beyond the 2014 time period it is expected that the West Midlands and Chilterns Route Utilisation Strategy will make a series of recommendations for the period 2014 to 2019. The baseline data collected for the strategy study includes passenger capacity and travel time information and this data has been fed into the qualitative analysis where appropriate.

2.3.6 Regional Freight Strategy

Rail freight has grown rapidly in the last ten years and the Network Rail Freight Route Utilisation Strategy (RUS), published in March 2007, forecasts growth of up to 30 percent, which is the equivalent of an extra 240 freight trains per day over the next decade. It also notes that for this additional demand to be met by road freight, it would lead to around an extra 1.5 million lorry journeys on the roads each year. Movement of freight by rail therefore, has clear and substantial environmental benefits for the country compared to the alternative of moving this freight by road. Changes impacting on the movement of freight by road is particularly relevant to the M42 corridor, which sees extremely high volumes of freight movement at peak periods. Increases in movement of freight by rail is likely to have an impact on congestion along the M42 corridor.

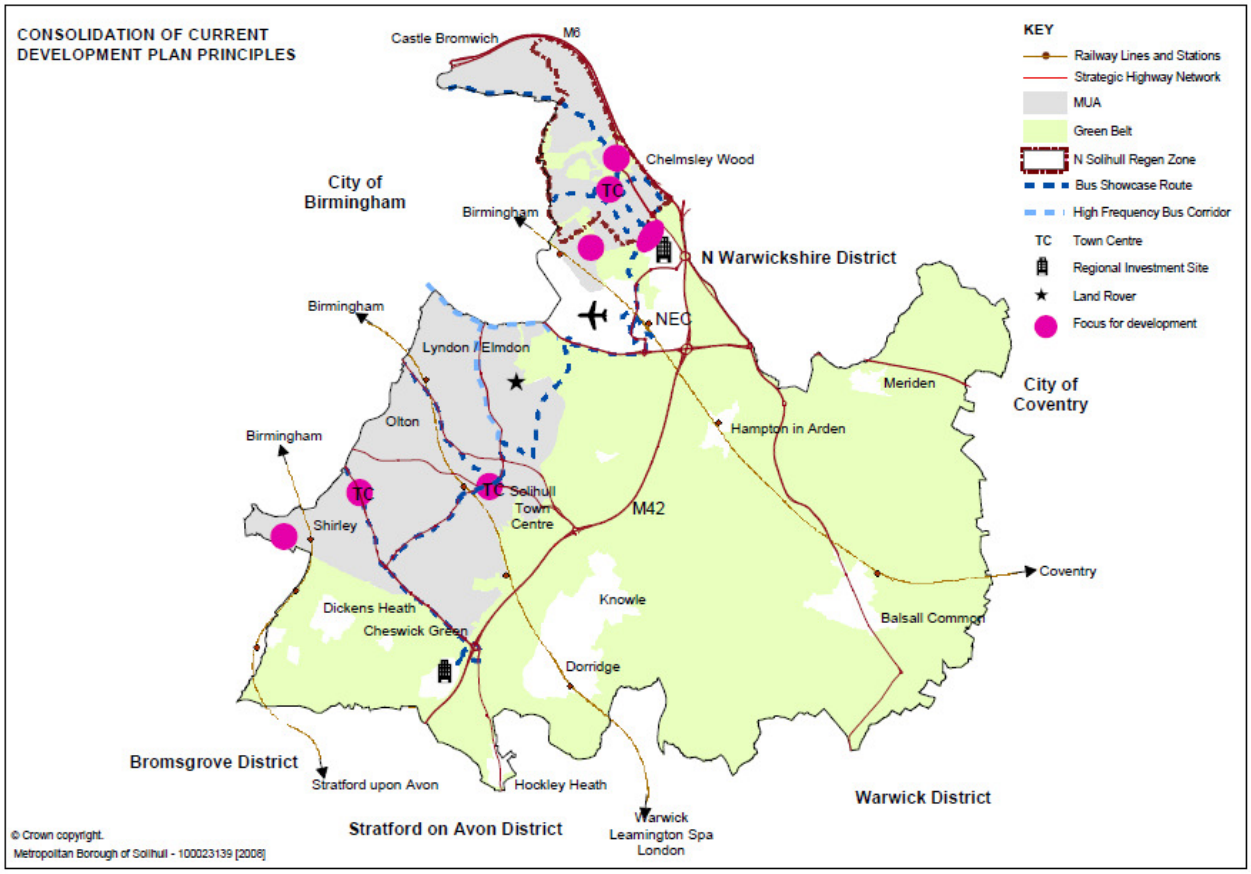
2.4 Local transport policy and priorities

2.4.1 The Solihull Local Development Framework Core Strategy

The LDF Core Strategy will, when adopted, form the central component of Solihull's future plans from April 2011, at which time existing Unitary Development Plan policies will be replaced. The LDF will cover the period 2011 to 2026.

The LDF includes three options for development principles and these are described within the "*Challenges and Choices*" document (December 2008). The consolidation option is illustrated in Figure 2.1 below.

Figure 2.1: Solihull LDF Development Plan consolidation option



Source: Solihull LDF Core Strategy "Challenges and Choices"

The Solihull LDF was required to include the development scenarios identified within the West Midlands RSS and also react to the future regional policy requirements that would influence the location and the delivery of new housing and commercial expansion. With the abolition of the RSS it is assumed that Solihull will follow a largely similar approach in their Core Strategy. For the purposes of this qualitative review, the information contained within the existing RSS is relied upon where necessary.

2.4.2 Solihull Town Centre Study

The Solihull Town Centre Study was published in May 2009. The study reviewed transport requirements alongside existing land use provision; It identified that access to the town centre was dominated by the private car (70% of all trips across the Borough were completed by car) although access by bus was three times higher than both regional and national averages (22% travelled to work by bus).[6]

In terms of transportation infrastructure and supporting proposals, the following improvements were recommended:

- Develop a new town centre transport 'model';

[6] Solihull Metropolitan Borough Council (2009): 'Solihull Town Centre Study', p.32

- Undertake feasibility study of a new public transport interchange at Monkspath;
- Prepare a town centre car parking strategy (to include Park & Ride options);
- Work with Centro/bus operators to expand the network of high quality Bus Showcase/Red Routes serving the town centre; and
- Consider potential funding options.

Since the completion of the study bus services throughout the West Midlands have continued to be improved, however no alterations have been made to the public transport interchange infrastructure or the need for an updated car parking strategy. Impacts of any new development in the Town Centre may have significant impacts on the M42 corridor and these are considered in more detail in this qualitative review.

2.5 National planning and economic policy and priorities

2.5.1 Planning policy requirements

The following central government policy guidance and circulars have been considered as part of this qualitative evaluation of the evidence base. They are relevant to transport assessments at the sub-national and local levels.

2.5.1.1 Planning Policy Statement 4: Planning for Sustainable Economic Growth

Planning Policy Statement 4 (PPS4)[7] entitled 'Planning for Sustainable Economic Growth' was published in June 2009 and sets out the required policies for economic development across England. The statement confirms that when producing development plans the following should be adhered to:

- Local authorities should ensure that the plan identifies, protects and promotes key distribution networks, and locates or co-locates developments which generate substantial transport movements in locations that are accessible (including by rail and water transport where feasible), avoiding congestion and preserving local amenity as far as possible.

- Plans for the delivery of the sustainable transport and other infrastructure need to support their planned economic development and, where necessary, provide advice on phasing and programming of development.

The qualitative evaluation of the evidence base will need to incorporate the requirements and objectives of PPS4 throughout.

2.5.1.2 Planning Policy Statement 12: Local Spatial Planning

Planning Policy Statement 12 (PPS12)[8] covers local spatial planning and explains local planning processes and how local spatial planning plans and policies should be developed. The Core Strategy is the key document of the local planning framework. PPS 12 states:

[7] Department for Communities and Local Government (2009): 'Planning Policy Statement 4: Planning for Sustainable Economic Growth'

[8] Department for Communities and Local Government (2008): 'Planning Policy Statement 12: Local Spatial Planning'

> 'The new spatial planning system exists to deliver positive social, economic and environmental outcomes, and requires planners to collaborate actively with the wide range of stakeholders and agencies that help to shape local areas and deliver local services.'

Every local authority Core Strategy must include:

- an overall vision which sets out how the area and the places within it should develop;
- strategic objectives for the area focussing on the key issues to be addressed;
- a delivery strategy for achieving these objectives. This should set out how much development is intended to happen where, when, and by what means it will be delivered. Locations for strategic development should be indicated on a key diagram; and
- clear arrangements for managing and monitoring the delivery of the strategy.

The Core Strategy must be supported by evidence of the infrastructure requirements that would be needed to support the developing proposals. **Where possible**, this information should include the following:

- infrastructure needs and costs;
- phasing of development;
- funding sources; and
- responsibilities for delivery.

PPS 12 acknowledges that comprehensive funding information may not be available at the time the Strategy is being prepared. However, the requirement for infrastructure to support development and the prospect for delivery of the infrastructure within the Strategy timescales must be considered to be 'reasonable'.

PPS 12 identifies that joint working between planning authorities and bodies responsible for infrastructure delivery is critical at the Strategy development stage. Key stakeholders are local highway authorities, the Highways Agency, Network Rail, public transport bodies (including Centro) and airport operators.

The guidance states that the development of the Core Strategy must be based on a sound evidence base. This includes participation of key stakeholders and detailed factual research.

2.5.1.3 Planning Policy Guidance 13: Transport

Planning Policy Guidance paper 13 (PPG13),[9] which covers planning in relation to transport, sets out the objectives to integrate planning and transport at the national, regional, strategic and local level and to promote more sustainable transport choices both for carrying people and for moving freight.

2.5.1.4 Circular 2/07: Planning and the Strategic Road Network

Like PPG13, Circular 2/07, entitled 'Planning and the Strategic Road Network'[10] is concerned with the relationship between planning and transport, focusing primarily on the UK's highways. The Circular details how the Highways Agency (HA) participates in 'the planning process with Government Offices, regional and local planning authorities, local highway/transport authorities, public transport providers and developers to ensure national and regional aims and objectives can be aligned and met.'

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[9] Department for Communities and Local Government (2001): 'Planning Policy Guidance 13: Transport'

[10] Department for Transport: 'Circular 2/07: Planning and the Strategic Road Network'. See: http://www.dft.gov.uk/pgr/regional/strategy/policy/circular207planningandstrategic

The Government's policies for growth and regeneration are in part premised on the creation of employment opportunities and the development of sustainable communities, including new housing developments, through the planning system. Most of these objectives are delivered by encouraging the use and sustainable development of land, through the granting of planning permission.

Regional and local planning authorities are required to set out realistic objectives and policies for regional, sub-regional and local sustainable development. The Circular states that the HA will offer advice and technical support that will guide the scale and location of proposals in relation to the strategic road network.

The HA now also provide guidance on the scale and nature of improvements to the strategic road network and demand management measures that will be considered in order to facilitate development. This guidance is relevant to both public and private sector investment decisions.

2.5.1.5 Guidance on Transport Assessment

This specific guidance[11] on transport assessment was jointly published by the Department for Transport (DfT) and the Department of Communities and Local Government (DCLG) in March 2007. The guidance reflects the PPG13 policies and requires all transport assessment work to consider the following:

- Encouraging environmental sustainability
  - Reducing the need to travel, especially by car;
  - Tackling the environmental impact of travel;
  - The accessibility of the location; and
  - Other measures which may assist in influencing travel behaviour.
- Managing the existing network
  - Making best possible use of existing transport infrastructure; and
  - Managing access to the highway network.
- Mitigating residual impacts
  - Through demand management;
  - Through improvements to the local public transport network and walking and cycling facilities;
  - Through minor physical improvements to existing roads; and
  - Through provision of new or expanded roads.

The qualitative evaluation adopts this broad approach of 'Reduce – Manage – Invest' as appropriate, ensuring consistency with current guidance. This approach places emphasis on the need to contain demand and make better use of existing networks as well as investing in infrastructure schemes. The approach has been adopted more widely for the West Midlands Local Transport Plan (LTP) and the Access to Birmingham Study.

2.6 Sub-national planning policy

As indicated above, the sub-national dimension of planning policy has undergone radical restructuring since the General Election. The regional tier of policy making has been effectively dismantled with greater powers devolved to local authorities and LEPs between local authority and business leaders. While the picture remains unclear, a sub-national perspective will continue to be relevant through the changeover to

[11] Department for Transport, Department for Communities and Local Government (2007): 'Guidance on Transport Assessment'. See: http://www.dft.gov.uk/pgr/regional/transportassessments/guidanceonta

these new arrangements (to around March 2012), and beyond as the balance between national and local policy making is struck.

2.6.1 Sub-National Review of Economic Development and Regeneration[12]

The Sub-National Review of Economic Development and Regeneration was published in July 2007 and presented proposals on how to improve sub-national economic development and to tackle deprivation by enabling regional, sub-regional and local partners to tailor solutions to their specific problems and make best use of available talent and opportunities.

The key principles for the Sub National Review were to ensure that policy is managed at the right spatial levels, ensuring all levels are clear in their roles and that the review enables places to reach their potential. The review sought to empower and incentivise economic development, supporting collaborative working across all tiers of local government, streamlining the regional tier and reforming the relationship between central and regional and local governments.

2.6.2 Regional Spatial Strategy for the West Midlands

As highlighted in section 2.3.2 above there is significant uncertainty surrounding regional planning following the announcement to abolish RSSs. The evidence base produced for the RSS for the West Midlands nonetheless remains the most up-to-date information for the proposed scale of development within the West Midlands region. It, therefore, is the best starting point at this stage for planned development growth. Housing and employment trajectories have been provided by Solihull MBC. Schemes for inclusion in future modelling have also been workshoppped with Solihull and remain as was the case for RSS2.

2.6.3 West Midlands Economic Strategy

The West Midlands Economic Strategy (WMES) sets the vision for the West Midlands *'to be a global centre where people and businesses choose to connect'* and focuses on closing the GVA output gap in the region. Five headline indicators of performance are identified which also provide the context of the scale of the economic challenge facing the West Midlands, these are:

- Gross Value Added (GVA) per head;
- GVA per employee;
- Percentage of the working age population who are unemployed or economically inactive;
- Index of Sustainable Economic Wellbeing; and
- Carbon emissions per £10,000 GVA.

The WMES proposes a strategic approach to influencing the key drivers for economic growth and prosperity, this focuses on:

- **Business:** the contribution that business and other organisations can make to growth and productivity and demand for employment;
- **Place:** the role that place can make in facilitating economic growth e.g. high quality environments which attract investment and a highly skilled workforce; and
- **People:** the contribution that the region's people and their skills can make and ensuring that people meet their potential.

[12] HM Treasury, Department for Business, Enterprise and Regulatory Reform, and Department Communities and Local Government (2007): 'Review of sub national economic development and regeneration'

Following the formation of a new UK government in May 2010, the WMES is subject to a comprehensive review. It is expected that this review will be complete early in 2011. Regenerating the West Midlands economy remains a key driver for the conurbation. Nonetheless, with the establishment of LEPs and significant cuts to central and local government budgets, there remains some uncertainty as to how investment will be considered in the future. [13]

2.6.4 Impact Investment Locations

In 2007 twenty Impact Investment locations (IILs)[14] were identified throughout the former West Midlands region by Advantage West Midlands and the West Midlands Regional Assembly, which were designed to deliver elements of the Regional Spatial, Transport, Housing and Economic Strategies. The IILs were identified primarily based on particular strategically significant projects identified therein and the associated contribution they would make towards strengthening and sustaining the region's economy, and assisting urban and rural renaissance.

The IILs were introduced in order to 'prioritise and focus public sector funds on key regional developments for economic and housing growth as this would help to maximise the impact of public sector investment and help to ensure that key developments were still progressed during the economic downturn'. Several of those locations – including North Solihull Regeneration Zone and Birmingham Airport expansion plans – are located within Solihull and are discussed in more detail below.

2.7 Local planning and economic policy context

2.7.1 Other relevant local strategic documents

The Solihull LDF has linkages with other local areas in the WMMA, most notably other parts of the Birmingham, Solihull and the Black Country conurbation, and with Coventry and wider Warwickshire. These areas, as well as being impacted by wider sub-national strategy have in place their own development and planning strategies. These are outlined below.

2.7.1.1 Coventry, Solihull and Warwickshire Sub-Regional Planning Strategy

In recognition of the strong links and common characteristics across Coventry, Solihull and Warwickshire, the CSW Partnership has recently produced a development strategy, with this intended to provide an effective mechanism for delivering the RSS across the sub-region. It aims to focus housing developments in the North-South Corridor. As a result, employment land will also be developed in accordance with designated principal growth areas. Underpinning the successful allocation of housing and employment land is an identified need for upgrading the strategic transportation infrastructure. In particular, the strategy notes that there needs to be far greater recognition of sub-regional linkages across highway authority boundaries.

[13] Advantage West Midlands and West Midlands Regional Assembly (2007): 'Connecting to Success: The West Midlands Economic Strategy'

[14] Information taken from West Midlands Regional Observatory Website (www.wmro.org)

2.7.1.2 Birmingham Big City Plan

Birmingham's Big City Plan is the emerging spatial strategy for development in the City Centre over the next 20 years, and forms part of Birmingham's LDF. The Plan, when adopted will set a vision for the transformation of the city to bring it amongst the top 20 most liveable cities in the world; looking at five key drivers for competitiveness:

- Innovation and skills;
- Economic and cultural diversity;
- Connectivity;
- Strategic capacity; and
- Quality of place.

The Plan notes that although centrally placed with a good transport network around it, transport hubs in the centre suffer from capacity constraints, making the arrival experience into the centre a poor one. The Plan draws attention to current lack of connectivity between different parts of the City Centre and the severance caused by the major highway and railway corridors, to both cyclists and pedestrians. Key schemes such as the redevelopment of New Street Station and Smarter Choices measures to increase accessibility within the centre are promoted through the Plan.

2.7.1.3 Black Country Joint Core Strategy

The Black Country Authorities are currently preparing their LDFs which will be used to guide future planning decisions. The LDFs are comprised of Local Development Documents in which the Black Country Joint Core Strategy (BCJCS)[15] will be the key document for each of the Black Country Authorities. The BCJCS is intended to build on the work that was undertaken for the Black Country Study[16] which focused on how to transform the sub-region.

The Strategy is a spatial planning document setting the vision, objectives and the detailed spatial strategy for future development in the Black Country up to 2026. It also draws attention to the methods in which land use, social, economic and environmental issues can be tackled within the area.

The Black Country Consortium has identified the issues that are covered in the Strategy. Although they will not be site specific, the Strategy will focus on the following:[17]

- The location and type of future housing developments;
- Where jobs should be located;
- How people can move around the Black Country;
- The location and size of new shopping, leisure and cultural facilities;
- Protection and improvement of the natural and built environment; and
- How to address the needs of the Black Country's diverse communities.

[15] Black Country Joint Core Strategy Website (http://blackcountrycorestrategy.dudley.gov.uk). Expected adoption of the strategy is March 2011

[16] Black Country Consortium (2006): 'The Black Country Study: The Future of the Black Country'

[17] Black Country Joint Core Strategy Website (http://blackcountrycorestrategy.dudley.gov.uk)

2.7.1.4 Black Country Study

The Black Country Study[18] has been produced to guide the strategic future of the Black Country. A key role for the study is to help produce the necessary LDFs. From the plans drawn up to help improve the sub-region, it will help stimulate growth in the surrounding areas. With 40% of the conurbations population living in the Black Country, the success of the LDFs will be a significant factor in the success of the City Region as a whole.

Some of the issues addressed in the Study include an under-performing economy; falling employment, a widening income gap; low skills and low business rates; further outward migration; and a reduction in the number of households within the sub-region. This study has now been completed and informed the Black Country Joint Core Strategy.

[18] Black Country Consortium (2006): 'The Black Country Study: The Future of the Black Country'

3. Spatial and socio-demographic characteristics

The qualitative assessment of the evidence base begins from an examination of relevant spatial and socio-demographic characteristics of the Metropolitan Borough of Solihull and the wider area. These characteristics include a spatial profile of Solihull itself, as well as its population, and the social and economic conditions in which they live.

3.1 Introduction

The development of the LDF Core Strategy requires a comprehensive evidence base. The evidence will be used to develop a detailed understanding of the transport patterns across the district (as well as specifically within Solihull Town Centre and the strategically important M42 corridor) and how the transport infrastructure and development scenarios could change through the LDF time period. The evidence reviewed includes regional and local land use planning strategies and also those specifically related to transport infrastructure.

Chapters three to nine present the main findings of the review of that evidence base. They draw on a broad range of transportation, planning and economic documents, including:

- evidence base material for all documents relating to Solihull Local Development Framework, the Core Strategy and the development of the M42 corridor;
- reviews, reports and guidance published for Solihull, the former West Midlands region, England and the United Kingdom;
- evidence base material for relevant strategies and plans; and
- relevant national and local policy documents.

The following chapters draw together this evidence in order to present and analyse:

- the social and spatial (and specifically transportation and planning) characteristics of Solihull as they are at present;
- the way in which those characteristics are projected to change, and the way in which Solihull and the M42 corridor is anticipated to develop and grow between now and 2026;
- the challenges that these developments are likely to present to the transport network, to the LDF and to the Core Strategy in the coming years;
- the strategies, programmes, projects and plans that are committed or under consideration to address these challenges (as well as any gaps).

3.2 Background – Solihull Overview

The Core Strategy Consultation document paints a picture of Solihull – highlighting its socio-demographic characteristics in conjunction with a number of key challenges that the Borough is facing and will continue to face up to (and beyond) 2026. These key challenges focus on: reducing inequality; addressing affordable housing needs; maintaining the attractiveness of the borough; maintaining economic competitiveness; and balancing the competing requirements of the Green Belt and housing needs.

The Core Strategy aims to meet the development needs of the borough between 2011 and 2026 – focussed around housing, employment and leisure. Transport has a key role to play in the development and delivery of this strategy.

3.2.1 Spatial characteristics

The Core Strategy contains a succinct spatial portrait of the Borough entitled 'Solihull Today'. Solihull lies on the southern edge of the West Midlands Conurbation. It covers 17,832 hectares adjoining the cities of Birmingham and Coventry as well as the rural counties of Warwickshire and Worcestershire. The Borough accommodates more than 85,000 dwellings – home to more than 200,000 residents.

Strategically the Borough has traditionally 'looked both ways' – to the west and the Birmingham, Solihull and the Black Country conurbation, and to the east and the City of Coventry and ceremonial county of Warwickshire. This highlights the Borough's strategic significance and is reflective of its rural-urban character, with the urban centre to the west and the *Meriden Gap* of designated Green Belt to the east.

Solihull is well connected by road, rail and air, being home to important stretches of the strategic road network (such as the M42) and the West Coast Mainline, possessing key links to the regional centre, Birmingham, and to the capital, London. Solihull is also home to Birmingham Airport.[19]

The core strategy identifies three distinct and compellingly diverse areas within the Borough:

- The Urban West, which includes Solihull Town Centre, has a strong economy and good services, experiences high levels of affluence and is home to many of the West Midlands most strategically important assets, such as the National Exhibition Centre (NEC), Birmingham and Blythe Valley Business Parks, and Birmingham Airport.
- The Rural Area, which covers two-thirds of the Borough and is mainly green belt, is also generally affluent and commuter focussed with a high quality built and natural environment.
- North Solihull Regeneration Zone, which is characterised by high levels of deprivation, poor quality and high rise housing stock, dated retail centres and significantly lower income levels compared with the rest of Solihull.[20]

3.2.2 Solihull town centre

Solihull town centre is located on the south east fringe of the Birmingham, Solihull and the Black Country conurbation in the western part of the Borough. It is the administrative and commercial centre for Solihull Borough, and contains the main Council administration functions and extensive commercial office space.

The retail centre is focussed on the pedestrianised High Street with the recent Touchwood Shopping Centre lying to the south and the 1960's Mell Square development to the north. There are secondary shop frontages found to the west of the main retail area. Office and hotel developments are located to the south and north, with Solihull railway station to the west, lying on the Chiltern line to London.

The development of Touchwood has significantly enhanced the role of the town centre in terms of both the quantity and quality of retail floorspace, as has the opening of the only John Lewis store in the West Midlands. Despite this, other parts of the town centre, including Mell Square, have seen a decline in their environment and retailer representation.[21]

[19] Solihull Metropolitan Borough Council (2010): 'Emerging Core Strategy Consultation', p.6

[20] Solihull Metropolitan Borough Council (2010): 'Emerging Core Strategy Consultation', pp.6-8

[21] Solihull Metropolitan Borough Council (2010): 'Emerging Core Strategy Consultation', p.8

Solihull is one of 25 'strategic centres' listed in the West Midlands Regional Spatial Strategy (RSS) as being the focus for most major new retail development (10,000 sqm and above), large-scale leisure, B1(a) office development and other town centre development. However, there are no policies in the existing Solihull Unitary Development Plan (UDP) 2006 that reflect the centre's strategic significance or provide guidance on the scope for change over the period to 2021 (the period covered by the now-defunct RSS). The Solihull Town Centre Study and other work in preparation for the new LDF seeks to provide a 'long term vision' for Solihull.[22]

The economic performance of Solihull town centre is important to the continued growth and prosperity of the Borough as a whole. As the principal centre in the Borough for retail, leisure and service uses, it has a significant role to play in driving the growth and economic development of the Borough in the future.[23]

3.2.3 The M42 Corridor

To the east of Solihull town centre lies the M42 corridor. The M42 stretches from Bromsgrove in the south, through south west Birmingham and Solihull, and into north Warwickshire. The M42 corridor is the concentration of major strategic economic assets located alongside or in close proximity to the motorway as it passes through Solihull. It is focussed on Junctions 3 to 7 and is known as the M42 Corridor Growth Area and it encompasses a number of large developments (characterised mostly by single land use):

- Birmingham Airport
- the National Exhibition Centre (NEC)
- Birmingham Business Park (a high technology and industrial business park)
- Blythe Valley Park Business Park
- Land Rover's Lode Lane Facility
- Solihull Town Centre.[24]

The M42 serves Birmingham Business Park at Junction 7, Birmingham Airport and the NEC at Junction 6, Solihull Town Centre at Junction 5 and Blythe Valley Business Park at Junction 4. In particular, Birmingham Airport and the NEC were both identified as being of overall strategic importance to the delivery of the objectives of the under-review WMES, whilst Blythe Valley Business Park and Birmingham Business Park were previously identified as Regional Investment Sites (RIS) in the now-revoked RSS. Land Rover continues to be a highly significant employer in the West Midlands, while Solihull town centre has been identified above as a major economic driver and source of new business and job opportunities.[25] Other large developments include, Elmdon Trading Estate (and its extension, Birmingham International Park), and Trinity Park (an office and business park).[26]

The M42 corridor is indicative of the particular value and contribution that Solihull makes to the economic development of the wider sub-regions of the Birmingham, Solihull and the Black Country Conurbation, and the Coventry, Solihull and Warwickshire economic area. The M42 corridor sits within a wider functional area that is characterised by:

- Strong economic performance and growth

[22] Solihull Metropolitan Borough Council (2009): 'Solihull Town Centre Study', p.10

[23] Solihull Metropolitan Borough Council (2009): 'Solihull Town Centre Study', p.10

[24] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', pp.14 and 18

[25] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', p.19

[26] Birmingham International Airport (2007): 'Towards 2030 Planning a sustainable future for air transport in the Midlands, Airport Masterplan to 2030'

- Extensive knowledge based sectors and economic activity
- Quality or life and environment which, in combination with transport accessibility potential, underpin economic success and increase attractiveness.[27]

It can be anticipated that future development of the Airport and the NEC in particular will exacerbate pressure on this already congested stretch of the M42, especially at Junction 6. Transport investment to increase capacity is therefore likely to be required in order to help address future travel demands on this principal route and realise the full economic potential of the area.

3.3 Social profile

3.3.1 Household demographics

Solihull presently accommodates more than 87,000 dwellings and is home to approximately 205,500 residents.[28] It is a location experiencing growth in terms of population (as well as in terms of economic prosperity – see below). The Borough's total population is projected to rise to approximately 229,600 by 2026, with the number of households rising to more than 100,000 in the same period. The over 65 population is expected to rise from 37,100 in 2009 to 52,100 in 2021 – an anticipated rise of over 40%.[29]

The Borough's population is mixed, and this is reflected in its housing tenure and house prices. The owner occupation rate is 79.0% and 3.6% of households rent privately.[30] The average property price in Solihull was £187,491 in September 2009, increasing by an average of 85% since 2000. Average earnings have increased by 27% over the same period and the median income of taxpayers was £34,195 in 2008.[31]

However, there are also 11,789 households on the Council's Housing Register and 12.2% of homes are rented from the council, with a further 2.5% rented from Registered Social Landlords (RSLs). On average families spend 864 days on the Register[32]. 26% of all households in the Borough are comprised of people living alone. [33]

3.3.2 The Birmingham, Solihull and Black Country conurbation

Information for Solihull is enhanced by further information on the wider urban area. The urban conurbation that is comprised of the Cities of Birmingham and Wolverhampton and the Metropolitan Boroughs of Dudley, Sandwell, Solihull and Walsall is known as the Birmingham, Solihull and the Black Country (BSBC) conurbation.[34] The City of Birmingham also plays a key role as the principal centre of commercial, educational, retail and cultural activities in the conurbation.[35]

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[27] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', p.17

[28] Solihull Metropolitan Borough Council (2010): 'Emerging Core Strategy Consultation', p.6

[29] Solihull Metropolitan Borough Council (2010): 'Solihull Housing Strategy 2010/11 – Working Document'

[30] Solihull Metropolitan Borough Council (2010): 'Solihull Housing Strategy 2010/11 – Working Document'

[31] CACI, 2008

[32] Solihull MBC Housing Register, June 2009 figures; Solihull Metropolitan Borough Council (2010): 'Solihull Housing Strategy 2010/11 – Working Document'

[33] Solihull Metropolitan Borough Council (2010): 'Solihull Housing Strategy 2010/11 – Working Document'

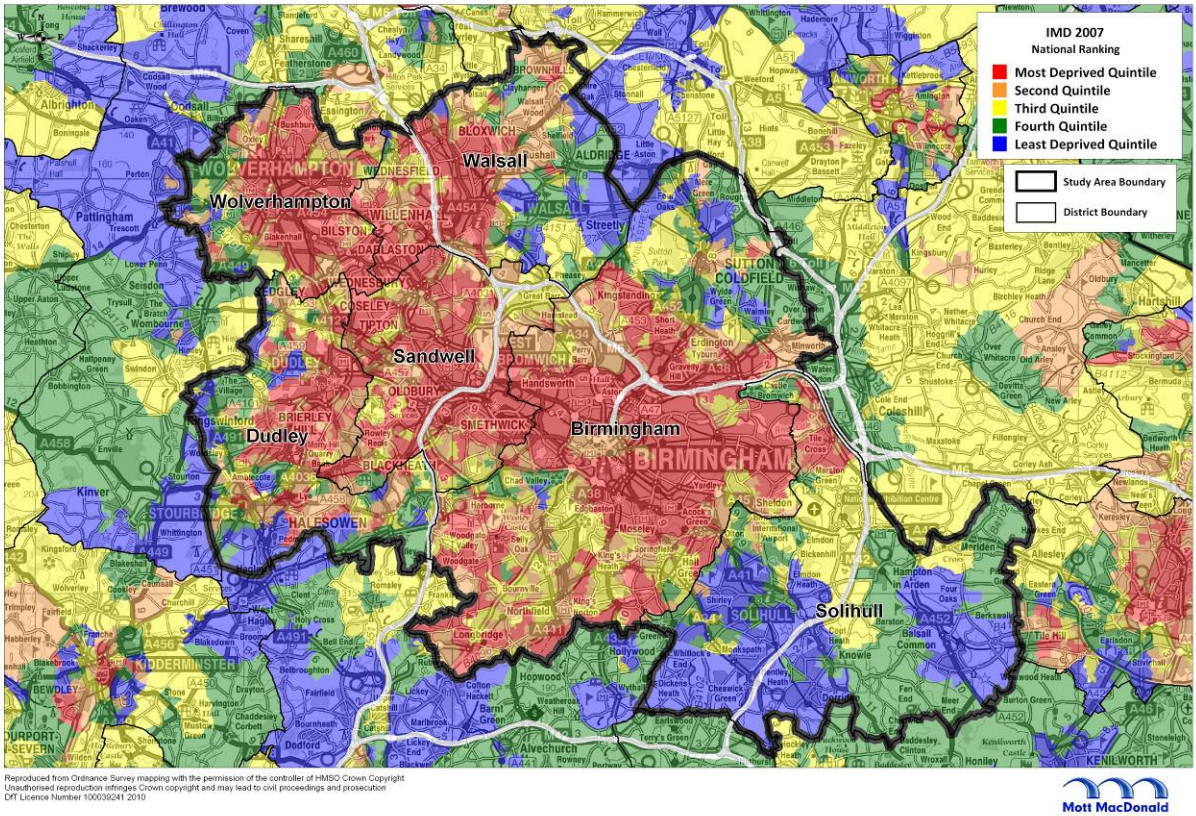
[34] The conurbation was used as the defined study area of the DaSTS 'Access to Birmingham Study' and so provides a relevant wider contextual reference for this examination of Solihull.

[35] Department for Transport (2010): 'National Networks: Access to Birmingham Study'

The conurbation has a diverse, youthful population with residents hailing from a wide range of ethnic backgrounds. 2008 mid-year population estimates[36] suggest the population of the BSBC conurbation is approximately 2.3 million, of whom 1.1 million live in Birmingham. Forecasts indicate that the population is expected to grow by 16.9% between 2009 and 2033[37].

Levels of deprivation are high. The map below provides an illustration of the national Index of Multiple Deprivation (IMD) rankings within the BSBC conurbation. It shows that a large proportion of the conurbation is within the most deprived IMD quintile. Many rural areas (particularly to the east) fall within the middle of the quintile range. Within the conurbation, the most deprived areas surround the City Centres of Birmingham and Wolverhampton, and the town centres in Sandwell. Solihull experiences generally very low levels of deprivation, and the majority of the Borough falls within the two least deprived IMD quintiles. The key exception to this is the wards in the north of the Borough (Chelmsley Wood, Kingshurst and Fordbridge, and Smith's Wood), which are some of the most deprived nationally, making it a Borough of stark economic contrasts.[38]

Map 3.1: Index of Multiple Deprivation, 2007



Sources: Neighbourhood Statistics

Department for Transport (2010): 'National Networks: Access to Birmingham ', p.21

[36] Mid-2009 population estimates taken from the Office for National Statistics website (http://www.statistics.gov.uk)

[37] 2008-based Sub National Population Projections, Office for National Statistics website (http://www.statistcis.gov.uk)

[38] Department for Transport (2010): 'National Networks: Access to Birmingham Study'

3.4 Housing market profile

Solihull is a mixed urban and rural Borough with its urban core sitting to the north and west adjacent to the City of Birmingham, while its rural hinterland lies to the south and east. Around 67% of the Borough covered by designated Green Belt. The Solihull Housing Market Assessment (SHMA) provides a succinct overview of the housing market situation in Solihull – including this rural/urban contrast – as well as additional context to the study generally:

> 'Solihull offers an attractive residential environment and high performing schools in the public and private sectors which has attracted professional and managerial households. Historically there has been a high level of demand for housing in the Borough which is reflected in higher than average house prices compared to the rest of the West Midlands region. Private sector rents are also higher than elsewhere in the West Midlands Metropolitan Boroughs with high levels of demand from company lettings and high earning short term contractors. However, it is also a Borough of contrast, which displays a wide range of social and economic indicator scores across its Housing Market Areas. Indeed the gap between affluent communities within the south of the Borough and the rural areas, and the high levels of deprivation and worklessness in the north is one of the most pronounced of all English local authority areas outside of London.'[39]

3.4.1 Housing market areas

The SHMA breaks down Solihull's housing markets into three local housing market areas (HMAs) based on wards. All are interconnected, however:

- **Regeneration** – The North Solihull wards of Chelmsley Wood, Kingshurst and Fordbridge, and Smiths Wood. This area is characterised by high levels of social housing and adverse socio-economic conditions such as low average household incomes, low educational attainment and skills levels, and high levels of worklessness.

  The Regenerating North Solihull programme forms a focus for the area. The area contains significant numbers of affordable and social housing built in the late 1960s and early 1970s to provide overspill housing for the inner city areas of Birmingham. Culturally and economically, the area tends to have closer ties with Birmingham than to the rest of Solihull. The location of the NEC and Birmingham Airport to the south add to the physical separation of North Solihull from the rest of the Borough.[40]

- **Urban** – Includes Castle Bromwich, Elmdon, Lyndon, Olton, Silhill, Shirley East, South and West, and St Alphege wards. The Boroughs two main retail areas, Solihull Town Centre and Shirley fall within this area as do the majority of the Borough's (and indeed the West Midlands') economic assets (such as eth NEC, Birmingham Airport and Birmingham Business Park).

  The urban HMA is classically suburban in character, featuring a predominance of detached and semi-detached housing. Solihull Town Centre is a significant component of the Borough's housing market in its own right, fulfilling the role of its retail, leisure, cultural and administrative hub.[41]

[39] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report', p.1

[40] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report', pp.i, 2

[41] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final

- **Rural** – Includes the wards of Bickenhill, Blythe, Dorridge and Hockley Heath, Knowle and Meriden. Much of this area is contained in the Green Belt but there are also sizeable rural settlements including Knowle and Balsall Common. Household surveys suggest that some 40% of households have moved into this housing market area within the last ten years, including many from outside the Borough.

  The rural HMA sits under Green Belt designation, although containing a number of defined settlements within that designation, the largest of these being the grouping of the Knowle, Dorridge andBentley Heath rural settlements, Balsall Common and the relatively new settlement at Dickens Heath. It also contains a number of smaller settlements and dwellings in open countryside.[42]

Table 3.1: Housing market summary

Characteristic	Regeneration HMA	Urban HMA	Rural HMA
Wards	Chelmsley Wood, Kingshurst and Fordbridge, Smith's Wood	Castle Bromwich, Lyndon, Elmdon, Olton, Shirley East, Shirley West, Shirley South, Silhill, St Alphege	Meriden, Knowle, Blythe, Dorridge and Hockley heath, Bickenhill
Age Profile	Younger than Borough average	A slightly older structure than Borough average	Age structure similar to Borough average
BME Population	Slightly above Borough average	Slightly higher BME population than Borough average	Lower BME population than Borough average
Council Tax Bands	A significantly higher proportion of properties in A and B bands. Less than 1% in E to H bands	A greater number of properties in bands C and D; less in bottom and top bands, mirrors Borough average	A very high proportion in bands E, F and G; a small proportion in bands A and B than Borough average
Majority Tenure	48% owner occupied; 48% affordable housing	85% owner occupied	87% owner occupied
Majority Dwelling Type	Terraced	Semi-detached	Detached
Affordability Ratios	5.8	6.3	6.9

Source: Solihull Housing Strategy.
See: http://www.solihull.gov.uk/Attachments/Housing_Strategy_Appendices_(2009_update)_July_2010.pdf

3.4.2 Travel to work patterns

Travel to work patterns vary significantly across the Borough and illustrate the contrasting characteristics of the three different HMAs. The Regeneration HMA has significant levels of net in-commuting, in particular from Birmingham. In-commuting from Birmingham tends to be quite localised with the South East Birmingham wards such as Acocks Green featuring strongly.[43]

The Urban HMA also experiences net numbers commuting in from Birmingham and net numbers commuting out to other locations. Just over 40% of commuting occurs *within* the urban area. This

Report', pp.i, 3

[42] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report', pp.i, 3

[43] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report', p.20

demonstrates the comparative strength of employment profile opportunities within the Urban HMA in comparison to that within the Regeneration area.[44]

Many rural areas surrounding large urban areas often function as net exporters of labour, playing host to more affluent professionals working in the urban area. Approximately 26% of those resident in the rural parts of the Borough travel to work within those rural areas. This may reflect the presence of the NEC, Birmingham Airport and Birmingham and Blythe Business Parks within the rural border.

The Rural HMA shows the highest proportion (approx 24%) of commuting to areas outside of both Solihull and Birmingham ('elsewhere') and also draws in the highest proportion of its workforce (approx 34%) from elsewhere. This illustrates the rural area's strong spatial relationship with east and south facing markets in Coventry and Warwickshire.[45]

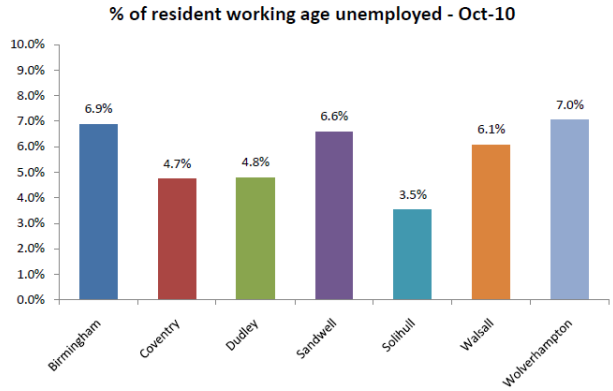
3.5 Economic profile

3.5.1 Employment and unemployment in Solihull

Solihull has the lowest unemployment rate of all the Boroughs in the Metropolitan Area, with 3.5% of the resident working age population unemployed. See table 3.1 below.

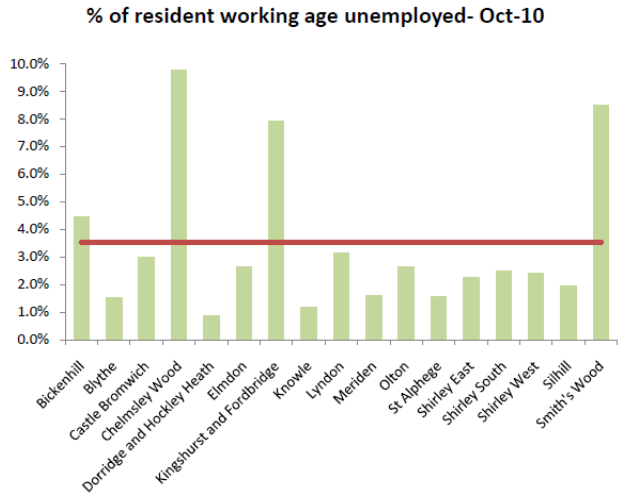
Rates of employment in Solihull are generally high, although this masks significant intra-borough variation. The highest level of unemployment is in Chelmsley Wood ward, located within the North Solihull Regeneration Zone, and stands at 9.7%. The lowest level of unemployment is in the ward of Dorridge and Hockley Heath, where the rate of unemployment is 0.9%. (See figure 3.2 below)[46]

Figure 3.1: Unemployment by Borough



Source: http://www.solihull.gov.uk/Attachments/unemp.pdf

Figure 3.2: Unemployment by Ward



Source: http://www.solihull.gov.uk/Attachments/unemp.pdf

[44] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report', p.20

[45] It must be remembered that these figures are based on 2001 Census data and therefore patterns may have changed over the intervening period.

[46] Source: ONS 2010; updated from Solihull Metropolitan Borough Council (2010): 'Solihull Housing Strategy 2010/11 – Working Document'

3.5.2 North Solihull

While the majority of Solihull experiences low levels of unemployment and deprivation and benefits from a diverse and strategically important employment base, North Solihull shares far more characteristics with the eastern side of Birmingham than the rest of the Solihull Borough. Key relevant key issues and needs in North Solihull include:

- Insufficient bus and rail links from North Solihull to the NEC, Birmingham Airport, Birmingham Business Park and Shopping Centre to enable residents to reach these key employment sites. There are insufficient evening services both within the North Solihull area and to destinations outside the area.
- There is stark need for more jobs to be provided locally, within the North Solihull wards and their immediate surrounds.
- Many residents feel part of a community and many have lived there for a long time – there is little desire to move for employment purposes.
- There is a need for more and better car parking.
- There is support amongst residents for increased variety and quality of the shopping offer both in Chelmsley Wood Town Centre and the neighbourhood centres, although there is a general level of satisfaction with the current facilities to meet day-to-day needs.

North Solihull is part of a regeneration initiative, which has been ongoing for several years, and which, until recently was covered by the East Birmingham North Solihull Regeneration Zone (EBNSRZ). The 'regeneration principles' that have been applied to North Solihull include the following:

- To increase prosperity through improved education, training, employment and transport.
- The establishment of 'Community Hubs' providing integrated services that benefit local people – with a range of services including health, education, leisure and sports as well as retail options.
- To provide neighbourhoods with local shops that offer choice in both quality and price.
- New and refurbished schools adaptable for community use, with enhanced facilities for leisure activities and delivery of community based services.[47]

3.5.3 Birmingham, Solihull and the Black Country

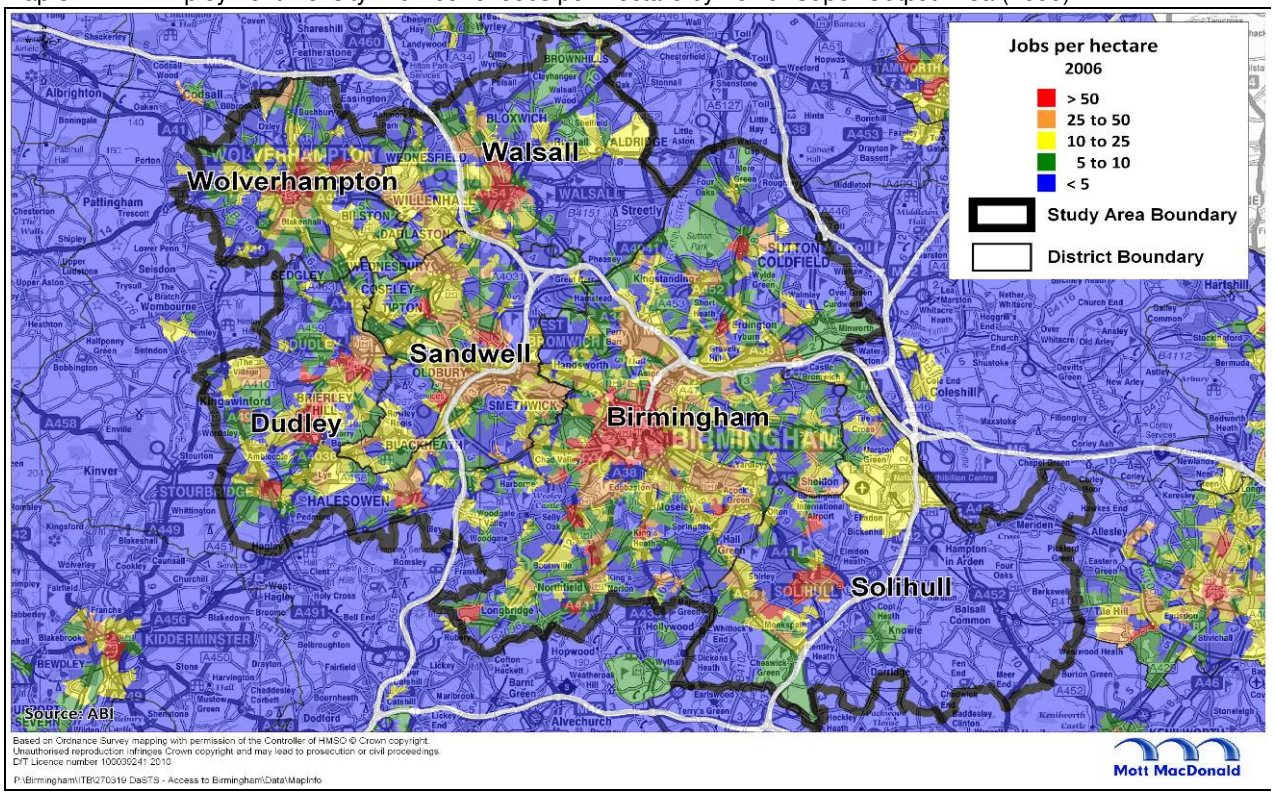
The area's industrial heritage is reflected in the concentration and predominance of manufacturing industry across the conurbation. Key economic sectors include aerospace, automotives, and food and drink. Business services are mainly located within Birmingham City Centre with areas such as information and communication technologies (ICT) and medical services of growing importance. The NEC supports its own niche cluster of industries and higher value and value-added industries are focussed around the M42 corridor. Residual low-value manufacturing is more typically found in outer parts of Birmingham and the Black Country.

The dominant employment sectors within the BSBC conurbation are currently: the public sector (29%); distribution, hotels and restaurants (23%); and finance, IT and other business activities (21%), with Birmingham City Centre providing the greatest concentration of employment in the conurbation (see map 3.2 below).[48]

[47] Solihull Metropolitan Borough Council: 'North Solihull Framework'. See: http://www.solihull.gov.uk/Attachments/NSframework.pdf

[48] Department for Transport (2010): 'National Networks: Access to Birmingham Study'

Map 3.2: Employment Density: Number of Jobs per Hectare by Lower Super Output Area (2006)



Source: Annual Business Inquiry Employee Analysis

Manufacturing, hitherto an important part of the region's economy, now makes up 13% of all jobs which, while significant, is only marginally higher than the UK average of 10% and well below the level of 50% seen in the 1970s. Employment grew by 1.7% between 1998 and 2008 against a GB average of 9.5% growth[49]. Private sector employment declined in the same period.

The key economic sectors in the conurbation have a varied dependence on transport. New higher-value sectors increasingly require 'just in time' delivery capabilities. In addition, knowledge-based industries require access to pools of highly skilled labour and good business to business connectivity both within the conurbation and to other national and international destinations.[50]

3.5.4 Gross Value Added

In 2009 the West Midlands region contributed over £94.5 billion (or 7.5%) to national output.[51] However, in spite of its importance nationally, the economy across the West Midlands has performed poorly in recent years in terms of growth compared to the UK as a whole. During the period 1999-2007, Gross Value Added (GVA) growth for the BSBC was 38% and for the West Midlands as a whole was 36% compared to a UK

[49] Annual Business Inquiry Employee Analysis

[50] Department for Transport (2010): 'National Networks: Access to Birmingham Study'

[51] Regional, Sub-regional and local Gross Value Added, 2009 Statistical Bulletin; Office for National Statistics; December 2009

average of 46%. This has contributed to an estimated output gap[52] across the whole West Midlands of around £16.5bn[53]. Of this gap, 80% has been attributed to the economic structure and productivity of the region's economy, while the remaining 20% has been attributed to 'economic exclusion' – i.e. unemployment and economic inactivity.

As Table 3.1 below illustrates, within the region, Solihull has displayed the most significant growth (at 53% between 1999 and 2007) and remains the only location **ahead** of the UK average in terms of increase in GVA per capita. Solihull has a strong knowledge-intensive private sector and a number of key strategic assets.

Table 3.2: GVA per capita 1999 – 2007(£000's)

Location	1999	2007	Change
Solihull	**£14,743**	**£22,581**	**+53%**
Birmingham	£14,220	£19,358	+36%
Dudley and Sandwell	£11,983	£15,117	+26%
Walsall and Wolverhampton	£12,046	£16,053	+33%
Birmingham Solihull and the Black Country Conurbation	£13,248	£18,227	+38%
West Midlands	£12,499	£17,044	+36%
North West	£12,154	£16,967	+40%
North East	£10,758	£15,460	+44%
Yorkshire and the Humber	£12,038	£16,670	+38%
East Midlands	£12,426	£17,614	+42%
United Kingdom	**£14,020**	**£20,430**	**+46%**

Source: Office for National Statistics (December 2009) 'Regional, Sub-Regional and Local GVA';
Department for Transport (2010): National Networks Access to Birmingham Study'

3.6 Summary

Solihull is a Borough that has experienced high levels of growth over the past 15 years. That growth has slowed since 2007, but the Borough remains economic strong due to the location of the key economic assets of the M42 corridor. The population appears set to grow due to the desirability of the Borough, its retail performance and housing stock and its balance between the rural (and the associated connection with Birmingham) and the urban. However, Solihull remains a Borough of two halves, with the North Solihull wards continuing to lag behind. Regeneration initiatives in these areas aim to boost local services and employment in these areas.

[52] The difference between potential output and actual output.

[53] West Midlands Regional Observatory (2010) 'West Midlands Economy Post Recession – Draft Interim Report'

4. Transport characteristics

Solihull has a unique transport profile that makes its strategically significant locally and nationally. The M42 corridor sustains significant levels of local and national travel and is home to many of the key economic assets of the former West Midlands region – including Birmingham Airport and the National Exhibition Centre.

4.1 Introduction

The West Midlands' geographical location at the centre of England's strategic network for both road and rail, means its transport systems are required to deal with high levels of traffic that serve national, sub-national and local demand. The wider transport network is based around the North South corridor of the M6 and the West Coast Main Line (WCML) which connect London to Manchester and the North West. National motorway routes connect the 'Birmingham Motorway Box' (comprising of the M42, M5, and M6) to other parts of the UK.[54]

4.2 Modal patterns in the West Midlands

Private car remains the predominant mode of transport in the former West Midlands region. Car ownership continues to increase with fewer households having no car, whilst increasing numbers have multiple cars and recent research indicates that 68% of those making trips are car drivers and/or car passengers.[55] The West Midlands sees on average fewer walking trips, a greater number of trips by car and generally fewer trips by public transport than regions in the north or in England as a whole. See table 4.1 below.

The Transport Statistics Great Britain 2007 report reinforced this. It estimated that, within the metropolitan area, 74% of trips to work are made by car, with 12% by bus/coach. A total of 8% of trips are made by walking and 3% by rail with only 1% each by motorcycle and cycle. Motorway traffic forms a significant proportion of total traffic in the area. With such a high proportion of trips made by car, the network across the area is put under considerable strain at peak periods. This situation is described in greater detail below.

Table 4.1: Average number of trips per person per year (2005/06)

Former Government Office Region	Walk	Car as Driver	Car as Passenger	Other Private	Local Bus	Other Public	All modes
West Midlands	229	461	249	18	66	20	**1,043**
North West	278	455	242	24	71	30	**1,100**
North East	231	406	211	19	84	44	**995**
England	249	433	231	28	63	40	**1,044**

Source: PRISM data 'National Networks: Access to Birmingham Study'

[54] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', pp.99-101

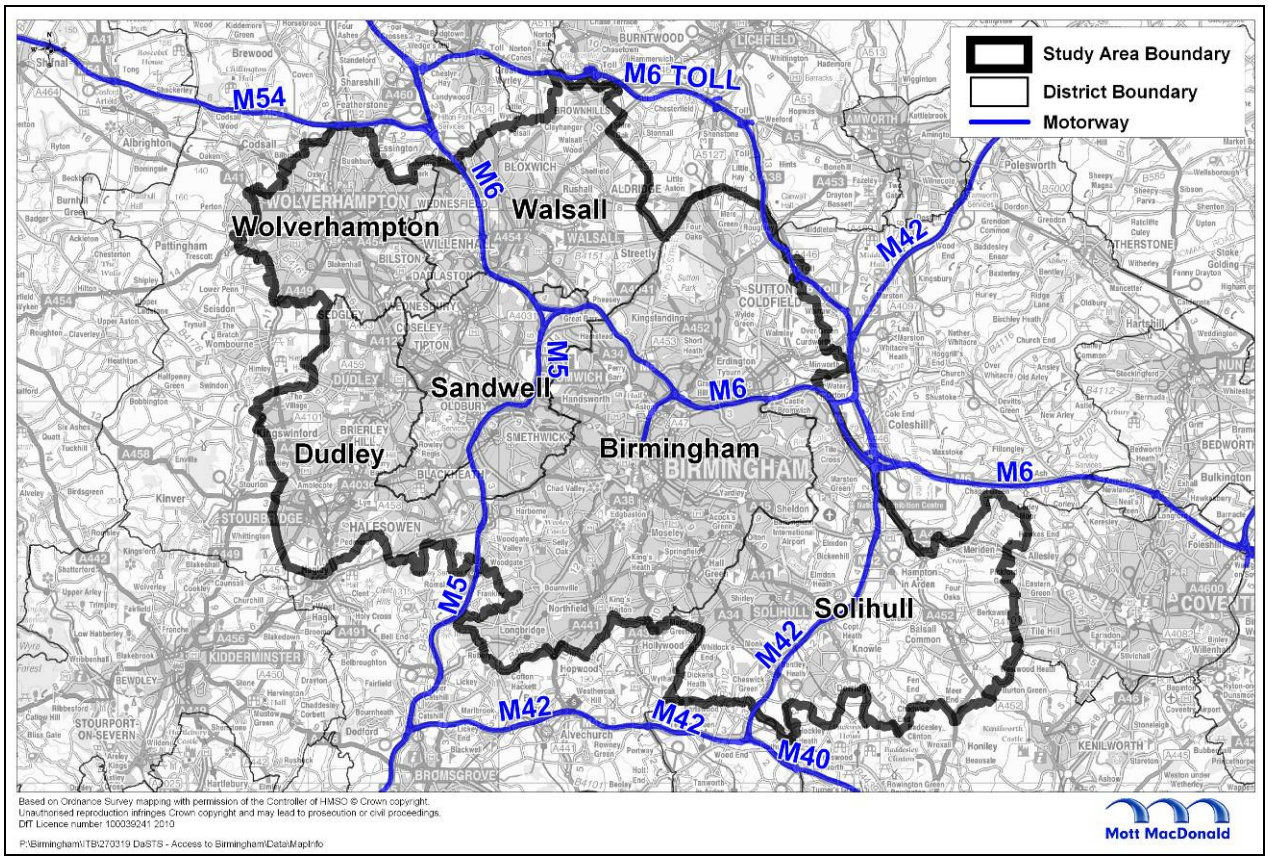
[55] Advantage West Midlands (2008): 'Towards a Strategic Transport Vision for the Region: Phase 1 Study – Draft Report'

4.3 The Strategic Road Network

The BSBC conurbation is partially contained within a motorway box comprising the meeting of the M5, M6 and M42 (see Figure 3.1), all forming part of the strategic road infrastructure. The M40 and the M54 are also a further element of the motorway network.

The M42 (as the primary focal point of this review) connects the M5 in the west to the A42 in the north east and is approximately 40 miles in length. It is characterised by major interchanges with the M40 (at Junction 3A) and the M6 (at Junction 7) For much of its length the M42 runs through the Metropolitan Borough of Solihull and is particularly significant to the West Midlands transport network as it serves a high proportion of the region's strategic economic assets (Birmingham Airport, the NEC, Land Rover, Solihull town centre, Birmingham Business Park and Blythe Valley Business Park) as well as serving major road and rail routes.[56] Figure 4.1 below illustrates the Birmingham motorway network, as drawn from the 'Access to Birmingham Study'.

Figure 4.1: Birmingham, Solihull and the Black Country Strategic Road Network



4.3.1 Traffic Volume

The high level of car use in the region have a significant impact on the Strategic Road Network across the West Midlands, on the Birmingham Motorway Box, and in particular on the M42. The strategic road network

[56] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', pp.99-101

provides access into and out of the conurbation but also carries considerable through traffic. There are some 1.5 million vehicles registered to owners in the WMMA[57] with over 17 billion vehicle kilometres travelled on the conurbation's road network every year; of these a quarter are on the strategic road network.

The motorways are especially heavily used averaging two-way traffic in excess of 100,000 vehicles a day, with some sections of the M6 carrying up to 140,000 vehicles per day and the M42, where hard shoulder running is permitted, carrying over 150,000 vehicles per day. The highest proportion of trips are undertaken for commuting (29.6%) with a significant proportion of the traffic made up by HGVs and Light Goods Vehicles (LGVs), 13.1% and 17.6% respectively.[58]

Table 4.2 indicates the proportion of vehicles travelling on key motorway stretches around Birmingham, including the M42 through Junction 3a. The vast majority of traffic using this stretch of the M42 is made up Regional or long distance trips. The majority of travellers have either origins or destinations outside the metropolitan area, with 31% of vehicles either LGV or HGVs.

Table 4.2: Proportion of Journeys within the WMMA and West Midlands Region (WMR)

Motorway Section	WMMA internal	WMR internal	External
M40-M42 J3a	3%	65%	33%
M6 J3a to J3	12%	33%	55%
M6 J9 to J8	35%	37%	28%
M6 J8 to J9	18%	43%	39%

Source: AM peak data from PRISM 2006

4.3.2 Congestion and Delays

Delays due to congestion on the Midlands "Motorway Box" have gained national notoriety and are said to affect business confidence as far away as Scotland and the North-West of England. On the non-motorway network, congestion is particularly apparent in Birmingham City Centre, and other centres and environs at Wolverhampton, Dudley, Walsall, West Bromwich, Solihull and Halesowen.

All radial approaches to Birmingham City Centre suffer severe congestion at peak periods near to the city centre and at their junctions with the motorway system. Traffic growth on much of the primary route network in the central areas of the conurbation has slowed to less than 1% per annum (daily flows), due to the limiting factor of congestion.[59]

There are a variety of data sources which consider the performance of the road network.[60] When considered together, these give an overall picture of the performance of the highway network through Solihull, the West Midlands and beyond.

[57] Department for Transport (2008) 'Regional Transport Statistics'.

[58] 2006 PRISM data (Note: Links include: M40-M42 J3a, M6 J3a-J3, M6 J9-J8 and M6 J8-J9); 'Access to Birmingham Study'

[59] Government Office for the West Midlands (2001): 'West Midlands Area Multi Modal Study'

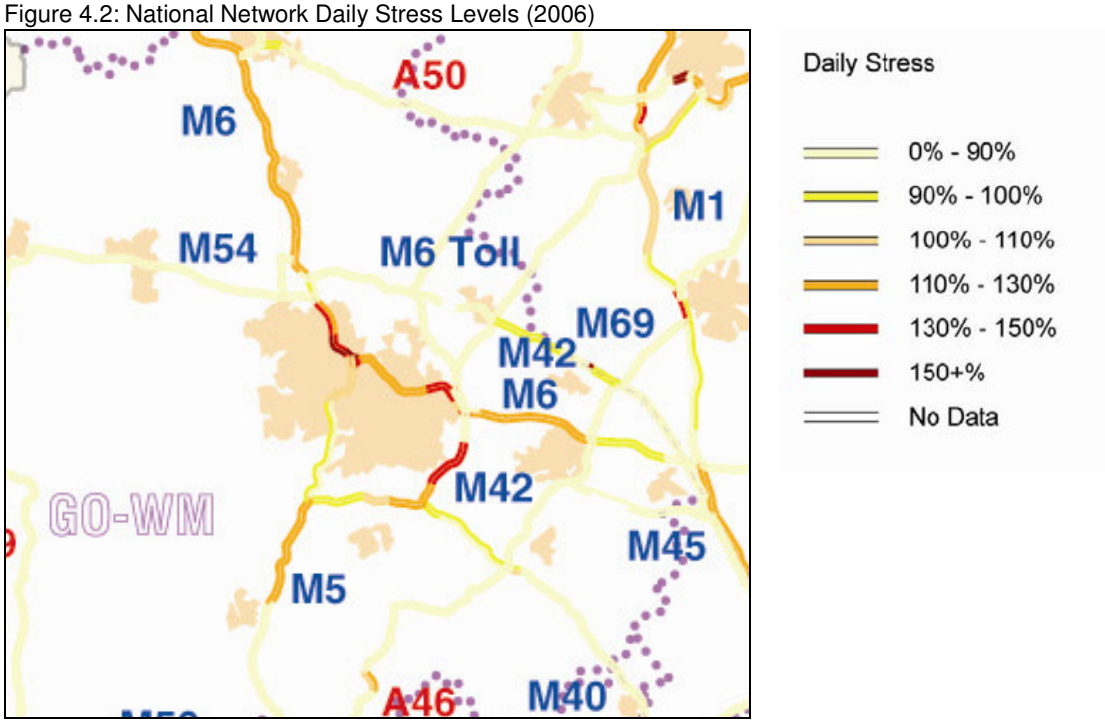
[60] These include, Highways Agency Stress level data, PRISM model data, DfT data on the Strategic Road Network (SRN) and data from the DfT's National Transport Model.

The Highways Agency quantifies existing traffic problems in terms of 'network stress' – the extent to which road lengths must operate above their capacity. For the Birmingham motorway box, the road lengths with high daily stress levels (above 130%) in 2006 were:

- M6 – between Junctions 3a and 4;
- M6 – the point between Junctions 8 and 9 up to and including Junction 10;
- M6 – between Junctions 4a and 5;
- M6 – between Junctions 7 and 8; and
- M42 – between Junctions 4 and 7.

Conditions on the M42 have improved through the introduction of Managed Motorways in September 2006 (see more details below); this has left the M6 from Junction 3a to 10 as the most stressed section of the motorway network in the West Midlands as shown in the Figure 4.2 below. Nonetheless, the M42 continues to operate at more than 130% of capacity.

Figure 4.2: National Network Daily Stress Levels (2006)



Source: Highways Agency (2008) 'National Network Report for England'

4.3.3 Managed Motorways on the M42

Management of the M42 between Junctions 3A and 7 has been in operation since 2005 (known as Active Traffic Management – ATM – and latterly Managed Motorways – MM). As has already been established, a combination of long distance and local traffic makes the M42 section between J3A and J7 one of the busiest motorways in the UK. Three junctions located within the Solihull stretch of the M42 section allow for local traffic to use part of the section to reach their destinations. This is particularly true at Junction 6, which provides the main link between Birmingham Airport and the motorway network, as well as being the main junction allowing access to the NEC.

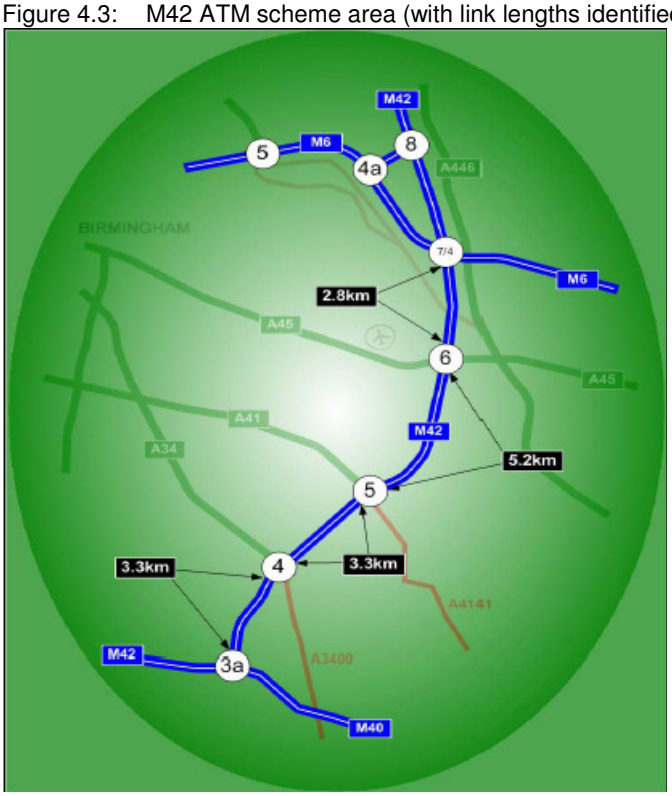
Between December 2005 and August 2006 variable speed limits were introduced in the managed section of the M42. Hard shoulder running was introduced in September 2006. Ramp metering (traffic signals on the on-slip roads) was introduced in October 2008, and these two systems continue to run.

In addition, over the last eight years there have been a number of infrastructure changes along this stretch of motorway, including:

- A construction period for Managed Motorway infrastructure.
- Developments at Birmingham Airport and at the Business Parks near to the M42.
- The M6 Toll opened in 2004. The M42 section is the main arterial motorway to accommodate the traffic travelling from the M40 and the southern part of the 'Birmingham box', towards the M6 Toll.[61]

The area covered by the ATM scheme is shown in Figure 4.3 below.

Figure 4.3: M42 ATM scheme area (with link lengths identified)



Source: ATM Monitoring and Evaluation 12 Month Report (Highways Agency)

The main findings of the 12 month monitoring report were as follows:

- Traffic growth was recorded as being consistent with national trends;
- Monthly flow and speed variations were reduced;
- As a result of demand increase and speed limit compliance, average journey times increased by 9%. However, journey times in peak conditions and journey time variability was reduced by 22%;
- Although only limited data was available, the personal injury accident rates had fallen significantly as compared to the scenario before implementation scheme; and,
- Vehicle emissions have been reduced by between 4 and 10%.

[61] Highways Agency (2009): 'M42 ATM Monitoring and Evaluation: Project Summary Report'

- Fuel consumption has also reduced by approximately 4%.[62]

Monitoring and evaluation of the managed sections of the M42 have shown that:

- Observed capacity increased under hard shoulder running and variable speed limits operation by an average of 7-9%.
- An extra 7% of users encountered no congestion on the managed section in 2007 compared to 2003.
- The scheme reduces average journey times by up to 24% in the northbound direction and 9% in the southbound direction.
- Drivers are now able to better predict journey time, with a 22% reduction in the variability of journey times.
- In 2007, 30% of long distance users felt that the M42 was better or much better than other UK motorways, compared to 16% in 2003.
- The overall impression from Regional Control Centre Operators was that they were content that hard shoulder running and variable speed limits performed as well as was expected, and did not lead to an increase in incidents, or poor driver behaviour.[63]

As part of a range of measures that are being applied to the M42, the HA is now piloting a through junction running (TJR) scheme at J5 of the M42 southbound. Previously hard shoulder running is set up to act as a dedicated off-slip i.e. traffic using the hard shoulder is fed onto the slip road at the downstream junction. The operation of TJR will enable traffic on the hard shoulder to continue along the main carriageway without the need to change lane. The overarching aim of TJR is to increase the utilisation of the hard shoulder and potentially increase throughput on the motorway, further easing congestion.

4.4 Rail Network

The rail network is based around the West Coast Main Line (WCML), with the region well linked with frequent direct services to destinations across the UK including London, Liverpool, Manchester, Glasgow, and Edinburgh.

There are numerous local stations within Solihull Borough, providing local services to Birmingham City Centre and to Coventry and the rural areas to the east of the conurbation. Within the M42 corridor, there are four established railways stations, the main one being Birmingham International serving Birmingham Airport and the NEC. Services to Leicester, Cambridge and Stansted Airport as well as direct services to London are available from stations in Solihull via the Chiltern Line.

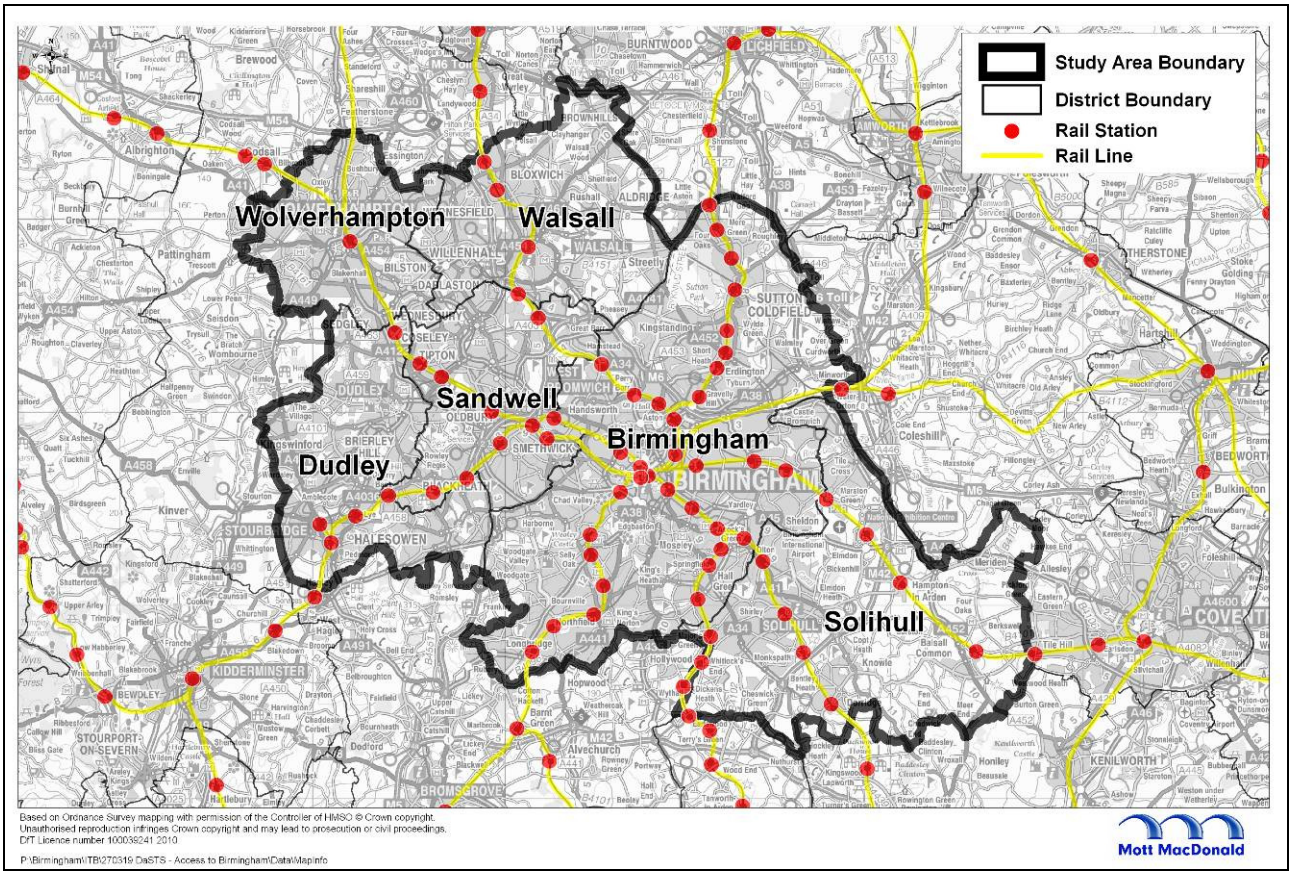
Birmingham International is directly connected not only to London, but also to other major cities such as Manchester and Leeds via the Cross Country network (whose hub is Birmingham New Street), reflecting its strategic network importance. The station is a significant interchange and it accommodated nearly 40,000 interchanges in 2006/07. However, it is also worth noting that, due to its proximity to Birmingham Airport and the NEC, Birmingham International remains very much a 'destination' station in itself, accommodating nearly 2.5 million passengers during that period.[64]

[62] Highways Agency (2009): 'M42 ATM Monitoring and Evaluation: Project Summary Report'

[63] Highways Agency (2009): 'M42 ATM Monitoring and Evaluation: Project Summary Report'

[64] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', p.113

Figure 4.4: West Midlands Strategic Rail Network



The rail system is an important part of the local transport network and Birmingham New Street is a major hub on the national rail network. Mirroring the situation on the motorway network, major rail capacity problems exist at Birmingham New Street station, and on the Wolverhampton – Birmingham – Coventry - Rugby, Cross-City, Coventry-Leamington, and Snow Hill-Leamington lines. Capacity problems also exist at other stations, particularly Wolverhampton and Walsall. There is overcrowding on some routes at peak times, rail services are perceived as unreliable and there is inadequate 'Park and Ride' capacity at some stations.[65]

The West Midlands Rail Development Plan notes the high stress on the rail network, particularly in Solihull. It notes that:

> 'A common issue across the region's network is a sharing of track capacity between inter city, regional, local and freight services. There is little segregation between these different traffic flows, and on some corridors (such as between Coventry and Birmingham) all the traffic types have to be accommodated within an extremely intensive timetable.'[66]

[65] Government Office for the West Midlands (2001): 'West Midlands Area Multi Modal Study'

[66] West Midlands Regional Rail Forum (2009): 'West Midlands Rail Development Plan'

4.5 Air Travel - Birmingham Airport

4.5.1 Birmingham Airport Passenger Profile

Birmingham Airport (formerly Birmingham International Airport, or Birmingham Airport) lies in the south-east of the conurbation close to both the motorway and rail networks. It is the primary airport in the former West Midlands region, and the sixth largest in the country, handling just over 9 million persons per annum at present[67].

Birmingham Airport is the largest passenger airport in the Midlands and serves as an important international gateway to the region. Over 50% of businesses cite access to other cities and international access as being vital for choices of business location[68].

Less than 40% of the demand for air travel within the former West Midlands region is served within the region itself.[69] Birmingham Airport's share of the Midlands' regional market is only 36%; the aspiration is to grow to 57% by 2030 to support an annual passenger throughout of more than 27 million (200% increase on 2006 passenger throughput).

4.5.2 Access to Birmingham Airport

Birmingham Airport is located adjacent to the NEC in a corridor of high value employment including major business parks serving high value industries, at the intersection of the four strategic national corridors which pass through the West Midlands.[70]

In 2006, 53.2% of passengers and 71.8% of employees travelled to the airport by private car.[71] The Airport and NEC are located only a mile from Junction 6 of the M42. It is estimated that about 85% of passengers coming by car use this route.

The short term modal split targets for Birmingham Airport passengers travelling to and from the airport site are identified in 3 below.

Table 4.3: Birmingham Airport passenger modal share targets

Passenger Mode Shares %	2003	2004	2005	2006	2012 Target
A. Car	61.8	58.5	58.5	57.1	55.0
B. Taxi	20.4	21.9	20.7	21.2	20.0
C. Off-site Car Park	7.3	9	9.1	7.5	9.0

[67] Birmingham International Airport (2007): 'Towards 2030 Planning a sustainable future for air transport in the Midlands, Airport Masterplan to 2030', p.19

[68] This information is taken from the European Cities Monitor

[69] Birmingham International Airport (2007): 'Towards 2030 Planning a sustainable future for air transport in the Midlands, Airport Masterplan to 2030', p.7

[70] Department for Transport (2010): 'National Networks: Access to Birmingham Study', p.9

[71] Towards 2030 Planning a sustainable future for air transport in the Midlands, Airport Masterplan to 2030, Birmingham International Airport, 2007, p.67

Passenger Mode Shares %	2003	2004	2005	2006	2012 Target
D. Rail	8.2	8.6	9.1	11.7	12.0
E. Coach	0.8	0.6	0.8	1.0	2.0
F. Local Bus.	0.8	0.6	0.7	0.6	1.0
G. Cycle					
H. Other	0.7	0.8	1.1	0.9	1.0
Public Transport	17.8	19.6	20.8	21.7	25.0

Source: Birmingham Airport Surface Access Strategy

The short term modal split targets for Birmingham Airport staff travelling to and from the airport site are identified in Table 4.4 below.

Table 4.4: Birmingham Airport employee modal share targets

Passenger Mode Shares %	2001-3	2002-4	2003-5	2004-6	2012 Target
A. Car	81.9	81.3	77.4	74	73.0
B. Taxi	1.5	2.1	2.3	2.7	2.0
C. Off-site Car Park/Ho	0.0	0.0	0.0	0.0	0.0
D. Rail	4.5	5.0	4.5	5.3	6.0
E. Coach					
F. Local Bus.	9.9	10.1	13.4	15	16.0
G. Cycle	0.6	0.5	0.7	0.7	2.0
H. Other	1.6	1.0	1.7	2.2	1.0
Public Transport	14.2	16.7	20.3	23.2	25.0

Source: Birmingham Airport Surface Access Strategy

The pattern of trips to and from the Airport throughout the day is different to the traditional traffic profile. In general, the peaks are earlier and shallower. The morning peak hour at the Airport (0500-0600) is before the normal peak period (0730-0930) and more condensed, so that highway capacity for Airport traffic is rarely a problem at this time. However, the level of Airport trips during the traditional peak periods does contribute to peak problems on the highway network.[72]

In 2002, the Airport Company opened the new A45 Inbound and Outbound Access Roads, which provided a direct access between the Passenger Terminal Site and the A45 and reduced pressure on surrounding junctions. Traffic capacity in this area is generally adequate. When problems do occur, they are usually as a result of heavy traffic volumes emerging from the NEC, in combination with incidents on the motorway or local road network.[73]

The relatively limited access to rail within the Airport's passenger catchment area (compared to the road network) means that it serves longer trips best, where the relatively high speeds can off-set the access times. However, rail is also the most expedient public transport mode between the Airport and Birmingham City Centre.

[72] Birmingham International Airport (2006): 'Moving Together: Birmingham Airport Surface Access Strategy 2006/2012'

[73] Birmingham International Airport (2006): 'Moving Together: Birmingham Airport Surface Access Strategy 2006/2012', p.24

Overall, and at current demand levels, surface access is acceptable compared to other UK airports. At present there are congestion problems, most notably at Junction 6 of the M42 which significantly impedes access at certain times. There is some over-crowding on rail services, and anecdotal evidence suggests that this is a particular issue when events are also running at the NEC. Passengers travelling to the airport by rail share services with commuters and business users and as such may struggle to find seats or luggage space at busy times of the day.

Extension of the runway at Birmingham Airport is one of the Regional Transport Priorities and is supported by the DfT's White Paper 'The Future of Air Transport'. The Airport Company has submitted a planning application to take the extension plans forward. Realisation of the proposals is expected to see Birmingham Airport take a significantly higher share of the passenger market.

4.6 Town Centre Access

The Solihull Town Centre Study was published in May 2009. The study reviewed transport requirements together with a review of the land use provision. The study identified that access to the town centre was dominated by the private car (70% of all trips across the Borough were completed by car) although access by bus was significantly higher than regional and national averages (22% travelled to work by bus).

4.7 Transport in North Solihull

In spite of its close proximity to several access points on the strategic network, North Solihull is, in general, poorly connected to the rest of the Borough, and to employment opportunities in neighbouring Birmingham. Existing transport facilities in North Solihull may be summarised as follows:

- Car ownership is low – 42% of the population have no access to a car in North Solihull compared to 21% for Solihull as a whole and a national figure of 27%.
- East-west bus links between North Solihull and Birmingham City Centre are better than existing north south links connecting North Solihull with Birmingham Airport, Solihull and Sutton Coldfield.
- Chelmsley Wood and Kingshurst and Fordbridge are better connected to each other than Smith's Wood.
- There is no direct rail access to North Solihull although there are limited bus connections to Marston Green and Birmingham International stations.
- There are general and long-term proposals to extend the Midland Metro from Birmingham City Centre to Birmingham Airport.
- Whilst there are some cycle links in North Solihull, they are disjointed and overall the provision is poor.
- Accident records show that the levels of pedestrian accidents are 72% higher than the Borough average and 237% higher when considering child pedestrians.[74]

As such, North Solihull struggles to benefit from the extensive opportunities that are available.

4.8 Walking and Cycling

Cycle usage accounts for around 2% and walking 26% of all trips in the WMMA or BSBC conurbation. There is nominally an extensive local cycle network in each of the local authorities, however in most cases these facilities are not of a standard which is likely to encourage cycle usage. Achievement of current

[74] Solihull MBC: North Solihull Framework. See: http://www.solihull.gov.uk/Attachments/NSframework.pdf

Government targets looks unlikely without a major change in behaviour and significant investment in improved facilities.

4.9 Summary

In terms of the road network, congestion is the most prominent and longstanding problem within the Region and in Solihull. Solihull is expected to witness particularly high increases of 34% more car trips and 43% more public transport trips by 2021.[75]

Analysis undertaken as part of the West Midlands TIF study indicates that the annual costs of delays in the metropolitan area amounted to some £700m in 2005, 16% of total journey cost.[76] As outlined in the Transport Characteristics Briefing Paper, Junction 3 to 7 on the M42 corridor has been identified as a current congestion hotspot and is predicted to remain so over the next decade. Planned economic development at several sites in and around the M42 corridor, including at Birmingham Airport and the National Exhibition Centre (NEC), as well as a growth in through traffic are cumulatively expected to increase demand for use and congestion of the M42, particularly around Junction 6.

Public transport access from Solihull as a whole into Birmingham City Centre is limited. Solihull town centre has only limited access to Birmingham via public transport, and parts of the M42 corridor have only limited access to Solihull by public transport. Each of the principal economic assets within the M42 corridor is served by at least two bus services. Services to Birmingham Airport and the NEC are particularly numerous, although north/south connectivity in Solihull remains poor, particularly in relation to Solihull rail station. The Solihull rail corridor has a seated load factor of greater than 100% at peak times

Crucially, the M42, having recently benefited from the Managed Motorways investment, is consequently unlikely to be a priority for investment in the shorter term, whilst the future likelihood of widening or similar improvements is uncertain.[77]

[75] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor'

[76] This information is taken from the West Midlands abortive Transport Innovation Fund bid.

[77] Mott MacDonald (2008): 'Realising the potential of the M42 - Opportunities and constraints briefing paper', p.5

5. Development and growth

As a key strategic location in terms of national and sub-national transport infrastructure and economic assets, and as a desirable location to live, work, shop and enjoy leisure pursuits, Solihull has continued to experience economic and population growth.

5.1 Introduction

The economic success story of Solihull over the past 15 years – including its growth in GVA, and its net inward migration of households from outside the Borough – is clearly connected to the proximity of such a concentration of strategic economic assets. The prosperity of the urban and many of the rural parts of Solihull, and growth of the town centre, including the development of the Touchwood retail centre have contributed to this growth. Solihull has continued to buck regional and even national trends, and has grown at faster rates than neighbouring Birmingham, the former West Midlands region, and England.[78] The recession of 2008-10 continues to have an impact, but there is strong evidence to suggest that Solihull, while continuing to experience high levels of unemployment in the North Solihull Regeneration Zone, has fared well due to the prevalence of high tech manufacturing focussed around the M42 corridor. There is further strong evidence to suggest that growth will continue, abated, it would seem, only temporarily by the impact of the recession.

5.2 Population growth

According to the latest Office National Statistics (ONS) 2006-based sub national population projections, Solihull's population will increase from a base of 203,600 in 2006 by approximately 26,000 people from 2006 to 2026 and just under 33,000 people from 2006 to 2031. This represents a population increase of 12.8% over the period to 2026. This compares with an 11.4% projected increase for the West Midlands as a whole and 10.4% for the West Midlands Metropolitan Boroughs over the same period. As such, Solihull is projected to see population growth over and above the West Midland average and the components of this growth are considered within the next sub-section.[79]

5.2.1 Housing market growth

In 2006 the Solihull Strategic Housing Market Assessment quoted these ONS projections for Solihull's population, suggesting that this would be fuelled largely by natural change and internal migration. The number of households in the Borough would therefore experience a 23.8% increase to 2031 from 84,000 to 104,000. [80]

The Assessment also found that found that:

- of the 1,544 households predicted to form between 2006 and 2011, over 70% would be unable to afford in the open market

[78] Department for Transport (2010): 'National Networks: Access to Birmingham Study', p.25

[79] ONS, 2010; Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report'

[80] ONS, 2010; Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report'

- there was a backlog of need for 3,777 households in the Borough, as well as net newly arising need of 427 households per year (based on gross newly arising housing need of 1,344 households less a supply of 917 re-lets each year)
- there is a need for 1,342 additional affordable homes per year over the 5 year period 2009-2014. Of these 81% are required to be for social rent and 19% for intermediate housing (such as shared ownership or intermediate rent). The study also shows that 69% of the affordable dwellings should be houses, to accommodate families.[81]

The recession has impacted on the construction industry, leading to a fall in house building, stemming the supply of new housing stock. Future house building will be dictated, to a large degree, by the capacity of the industry to recover from its current slump. Wider economic conditions and growth may also dictate, and in some cases temper, issues of demand and affordability.

The revised new build targets in the RSS call for a new increase of 10,500 dwellings (all tenures) up to 2026, which converts to a land requirement for 15,000 dwellings taking into account demolitions and conversions. New housing will be spread across all local housing markets but regeneration policies highlight North Solihull and Solihull Town Centre as a focal point for new build. The Regeneration Housing Market Area has been targeted as a key location for net housing growth, with the aim of achieving a tenure shift – towards owner occupation – without reducing the volume of social housing stock. Managed housing growth is also planned for the town centre although the reliance on the apartments market needs to be regularly reviewed given the current and future state of the market.

Older households will increasingly make up a higher proportion of future households. In 2006 there were 31,356 households occupied by people 60 and above. This is projected to rise to 40,416 by 2026, partly resulting from the ageing population, and partly from a trend towards single person households with more older people now living alone. This has implications for housing type and the need for adaptations and supporting services, in terms of both housing and social services. [82]

Other groups (as set out in the Strategic Housing Market Assessment) with specific housing needs include:
- Householders with learning disabilities (some 136 cases anticipated 2009-14) requiring independent living but with support needs.
- BAME households. There are just under 4% 'non-white' households in Solihull, mostly within the Regeneration and Urban Housing Market Areas. These are drawn from different ethnic groups and some have specific housing and locational needs (e.g. proximity to cultural facilities and places of worship)
- There are approximately 300 gypsy and traveller households, a number likely to grow by a further 27 before 2017
- Young people, especially those entering the housing market and facing the greatest difficulties in terms of affordability. This group is also more likely to be homeless and more likely to call on support and housing advisory services. The survey has identified specific issues for new householders in rural areas where the choice and availability of affordable housing is more limited
- Key workers, another group often facing problems of affordability.

[81] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report'

[82] Solihull Metropolitan Borough Council (2009): 'A Housing Market Assessment for Solihull Metropolitan Borough Council: Final Report'; Government Office for the West Midlands (2008): 'Regional Spatial Strategy for the West Midlands'

5.3 Economic growth

Solihull is home to over 8,000 businesses which employ around 100,000 people. The Borough has seen strong economic growth during recent years, experiencing the strongest output growth of any sub-region in the UK during 1995 to 2005. Business numbers grew by nearly a third over the period 1998 to 2007 - around twice the national and regional growth rates. This included very rapid growth in the business and professional services sector to become the highest concentration in the region in 2006.

Growth has also been focused around the key assets – Birmingham and Blythe Valley Business Parks, Birmingham Airport and the NEC which together make a key contribution to the local and national economy. Over 3,350 jobs have been created at Blythe Valley alone since it opened in 2000. In addition, Touchwood, which opened in 2001 in Solihull Town Centre, has created approximately 2,000 jobs and has enhanced Solihull's reputation as a retail destination.

However, economic growth rate has slowed since 2003/04 and Solihull's strong comparative performance in terms of output per head (exceeding the South East average) has also weakened since 2003.[83]

Significant economic development activity was planned as part of the West Midlands RSS. Whilst there is uncertainty about regional governance, with the abolition of the regional tier including RSS's, delivering growth at the right scale and in the right locations is a key issue which will need to be addressed by the Solihull Core Strategy. It is vital for the future economic growth and competitiveness of the area and therefore it is equally as important that the associated transport infrastructure needs are quantified and deliverable to enable development growth to continue.

As such, a number of sites in Solihull have plans for significant investment. These include the following:

1. Redevelopment of Solihull town centre;
2. Expansion plans at the Land Rover's 139 hectare site;
3. Birmingham Airport expansion;
4. The NEC, which unveiled plans in 2008 for a new £90 million conference and leisure development (expected to include a number of restaurants and bars, a hotel and state-of-the-art events and conferencing facilities with up to 1,000 additional jobs); and,
5. Emerging proposals for the HS2 Parkway station.

All of these developments are intended to reaffirm Solihull as a key business destination but are also likely to have an impact on both the local authority highway network and the M42 traffic volumes and congestion.

5.3.1 Employment Land

In June 2007 the Coventry, Solihull and Warwickshire sub-region published an Employment Land Study for the area, and significant focus was placed on Solihull. Across the sub-region it is forecast that between nine and 12 hectares of land will be required to accommodate around 159,000 to 202,000 square metres of office floorspace over the next five years. Solihull, as well as Coventry and Warwick, is expected to experience the highest levels of demand for office space.[84]

[83] Solihull MBC: Solihull LIP, p.41. See: http://www.solihull.gov.uk/Attachments/SLIP_master_revised_June_10.pdf

[84] Coventry, Solihull and Warwickshire Sub-Region (2007): 'Coventry, Solihull and Warwickshire Employment Land Study', p.33

This is accompanied by a net decline in manufacturing. The impact of employment change within industrial sectors has been subdivided into light industrial (B1 b/c) and more traditional manufacturing/industrial B2. 'In both cases the employment forecasts suggest a net decline in [manufacturing] employment.'[85]

Developer interest remains generally strong across Coventry, Solihull and Warwickshire. The sub region has been dominated by a number of high profile developments over the last five to 10 years including Hams Hall, Coventry Business Park, and in Solihull, Blythe Valley Business Park. The nature of these headline developments reflects developer interest in terms of market sectors and geographic focus. These are high profile business parks offering high-grade office space and a range of premises aimed at stimulating the service sector and high technology economy. Development in other parts of the Coventry, Solihull and Warwickshire sub-region has been typified by large storage and distribution development as developers have made the most of the area's excellent road links.

The outgoing Solihull Unitary Development Plan confirms the success of large sites such as Birmingham and Blythe Valley Business Parks within the Borough. It encourages the further development of major employment locations such as Birmingham Airport and the NEC, noting the buoyant office market and the favourable location of Solihull with regard to accessibility to the national, regional and local highway network.

5.4 The M42 Corridor

5.4.1 The Strategic Road Network

The report 'Realising the potential of the M42 Corridor', published in 2008, considered the likely growth in travel demand taking account of the impact of the RSS and WMES, as well as the schemes programmed to be implemented under the current RFA. The key findings from this were:

- The number of daily trips made across the West Midlands is expected to rise by approximately 20% by 2021 to 8,754,440. This 20% increase will be evident for both car and public transport modes.
- Modal split figures for daily trips within Solihull show that the borough accords with regional trends, with nearly 87% of journeys being made car. Bus trips account for only 11.6%, whilst the collective total for Metro and light rail is only 1.8%.
- Each of the metropolitan boroughs will be the destination of 15% more car trips and over 10% more public transport trips by 2021.
- Trips to Solihull by both car (34% of all trips) and public transport (43% of all trips), are expected to see a level of growth well above the average of the metropolitan area.

This is partly attributable to the concentration of employment sites in and around the centres, particularly in Solihull, combined with significant projected household and population increases on the outskirts.[86] This anticipated growth is now surrounded by uncertainly in light of the current financial and political climate. However, growth in Solihull continues to be a realistic possibility. The Regional Infrastructure Capacity Study, which looked at AWM's planned economic development sites, revealed several congestion hotspots where network capacity would be put under strain should developments take place. Of particular note is that there is potential for expansion at Birmingham Business Park, Blythe Valley Park and the Solihull Business Park to cumulatively add to M42 congestion between Junction 4 and Junction 6.

[85] Coventry, Solihull and Warwickshire Sub-Region (2007): 'Coventry, Solihull and Warwickshire Employment Land Study', p.34

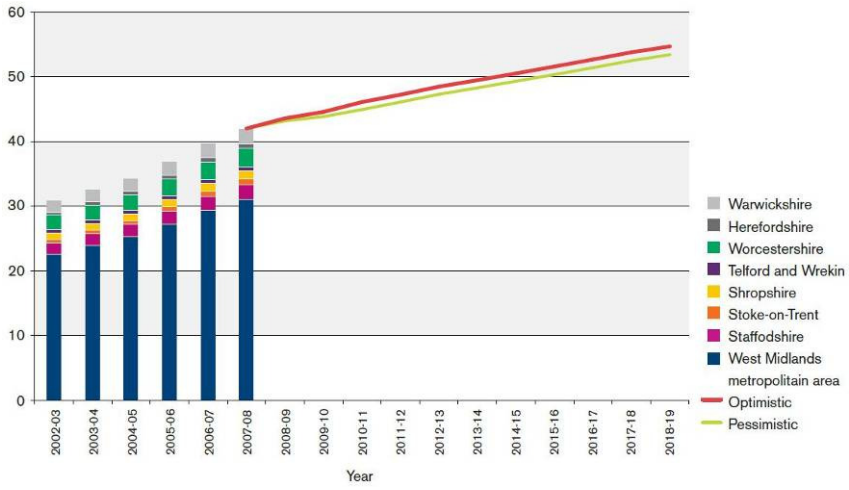
[86] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', 108

5.4.2 Rail Developments

The most recent comprehensive analysis of passenger demand was the West Midlands Route Utilisation Strategy (WMRUS). This identified that rail use in the West Midlands had grown faster than the national average during the period 1995 to 2004 with journeys up by 44% compared to 34% nationally. Since 1995 there have been a number of significant service improvements. The Jewellery Line opened in June 1995 and service improvements since 2002 have resulted in more frequent services on the Cross City and Snow Hill Lines and to London Marylebone. The Cross Country line and WCML has also had upgrades. Other factors include retail expansion in Birmingham, especially the Bull Ring in September 2003 and employment growth in Birmingham City Centre.[87]

In addition, the West Midlands Rail Development Plan consultation document was released by Centro in June 2009 and the strategy is currently being updated in response to the comments received. The completion of the Rail Development Plan is subject to the information contained within the Core Strategy and also the outcomes of the Access to Birmingham Study. The expected rise in passenger numbers is summarised in the table below.

Figure 5.1: West Midlands Rail Passenger Predictions



Source: West Midlands Rail Development Plan June 2009

Demand is expected to continue to rise strongly; by 3.9% per annum for the next five years. [88] Key potential drivers include:

- Increased frequency/capacity/speed of services to London and other areas;
- Continuing employment growth in central Birmingham;
- Population growth in rail served settlements across the Region;
- Rising congestion and the environmental drive to reduce car usage; and
- Provision of a full seven day timetable.[89]

[87] The Network Rail Route Plan 2007 – Route 17 West Midlands, (2007), Network Rail; M42 Corridor, page.114

[88] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', 114

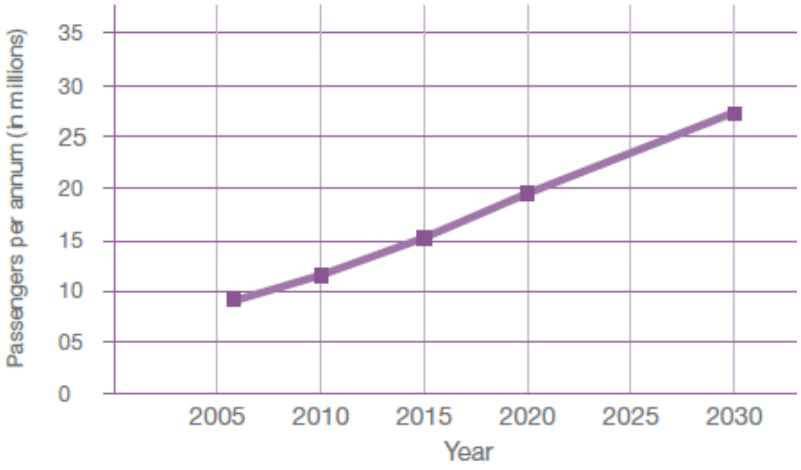
[89] Advantage West Midlands (2008): 'Realising the Potential of the M42 Corridor', 114

5.4.3 *Expansion of Birmingham Airport*

Birmingham Airport currently has planning consent for a runway extension which will allow longer haul flights to operate. This is likely to increase the Birmingham's share of the Midlands market by reducing the need to travel from other UK airports. The proposals for HS2 and the decision not to support a third runway at Heathrow Airport both create further potential opportunities at the site: whilst these cannot yet be quantified the Airport may play a more significant national role in the future. Moreover if the West Midlands moves to a higher value economy with greater demand for improved international connectivity, Birmingham Airport may become strategically more important to the UK as a whole, and access to the Airport and adjacent facilities may hinder growth.

'Towards 2030: A Sustainable future for air transport in the West Midlands' is the Birmingham Airport master plan. It was published in 2007. The master plan identifies the forecast growth in passenger movements and also the required infrastructure alterations that would be needed to support such growth. Figure 5.2 identifies the proposed growth in passenger numbers to the year 2030. Growth by 2025 (which aligns with the end of the Core Strategy period) is expected to reach approximately 24 million passengers per year.

Figure 5.2: Birmingham Airport Predicted Passenger Growth (2005 – 2030)



Source: Towards 2030: A Sustainable future for air transport in the West Midlands

The longer term passenger number predictions are summarised in Table 5.1.

Table 5.1: Birmingham Airport future passenger predictions

Year	2006	2015	2020	2030
Passenger millions	9.15	15.3	19.6	27.2

Source: Surface Access Strategy (dependent on runway extension and T3 proposals)

By 2030 staff numbers are also expected to double from 2006 staff levels (in 2006 the Airport supported approximately 10,500 jobs including indirect and induced impacts) and this will also have an impact on the airport surface transport network.

5.4.4 Expansion of the National Exhibition Centre

The NEC unveiled plans in 2008 for a new £90 million conference and leisure development expected to include a number of restaurants and bars, a hotel and state-of-the-art events and conferencing facilities with up to 1,000 additional jobs.

5.5 Developing Solihull town centre

The Solihull Town Centre Study noted that maintaining and enhancing the quality of the town centre will be important if Solihull is to retain its competitive position within the former West Midlands region and within the Coventry, Solihull and Warwickshire sub-region. The Study noted that: 'the town centre has a multi-functional role and its relatively high level of accessibility for all modes of travel, including public transport, means that it has a vital part to play in achieving a more sustainable development pattern in the Borough.'[90]

The development ambitions for Solihull town centre are focussed around the following infrastructure developments:

- Consolidation of the existing retail core by the improvement of the outdated Mell Square;
- Extension of the High Street as part of the retail core through new development along Station Road;
- Further expansion of retail, leisure, cultural and civic uses to the south of Touchwood and east of Mell Square;
- Reinforcing the western edge of the town centre by the redevelopment of sites on Lode Lane and Station Road for mixed use, predominantly residential development;
- Consolidation of the office quarter by incorporating new development with positive frontages onto Princes Way as well as Homer Road;
- Improving public transport through the creation of a bus mall on Poplar Road and investigating the potential for the development of a new public transport interchange in Monkspath Hall Road;
- Creating new residential quarters for medium density housing within easy walking distance of the town centre;
- Ring road enhancement by reinforcing and creating tree lined boulevards and active frontages;
- Environmental enhancement of other key roads;
- Better car parking and improved access to the town centre; and
- Providing a connected network of streets, paths and spaces.[91]

5.6 Summary

The wider metropolitan area of Birmingham, Coventry, Solihull and the Black Country was cited in the RSS as a major economic driver and source of employment opportunities. Provided a sufficient choice of attractive residential environments is made available, the RSS assumed that net out-migration can be stemmed. Achieving the levels of housing identified for the metropolitan area to accommodate these people will depend upon a commitment to large-scale housing renewal and redevelopment, a proactive approach to redevelopment with high replacement ratios for cleared housing stock and a willingness to support a significant increase in overall densities.[92]

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[90] Solihull Metropolitan Borough Council (2009): 'Solihull Town Centre Study', p.2

[91] Solihull Metropolitan Borough Council (2009): 'Solihull Town Centre Study', p.2

[92] Government Office for the West Midlands (2008): 'Regional Spatial Strategy for the West Midlands', p.35

6. Transport challenges

Development and growth presents the transport network in Solihull with a number of challenges. Growth associated with the M42 corridor and the strategic assets located there will likely be accompanied by increased pressure on the transport network and the strategic road network in particular.

6.1 Introduction - challenges identified in the Solihull Core Strategy

Population, housing market and economic growth, driven in no small part by the developments along the M42 corridor, pose additional challenges for the transport network in Solihull.

The Core Strategy for Solihull identifies nine key challenges facing the Borough.[93] Those with significant links to transport infrastructure are outlined below to provide context for a wider discussion of the transport challenges that have arisen and are likely to arise by growth and development within the Borough, and which have been highlighted as a result of the review of the evidence base.

Challenge A – Reducing inequality

The challenge to reduce inequality in the Borough, particularly between the North Solihull Regeneration Zone wards of Chelmsley Wood, Kingshurst and Fordbridge and Smith's Wood and the rest of Solihull identifies a number of associated strategic transport challenges. In order to reduce inequality, transport links, and particularly public transport links with the south of the Borough, require significant improvement. The supply of business premises in the Regeneration Zone area is low and there is little capacity for new small and medium sized enterprises (SMEs).

Challenge B – Addressing affordable housing needs across the Borough and improving stock within the North Solihull Regeneration Zone

The challenge to address affordable housing needs, focussed on the provision of sufficient affordable housing, choice and quality, and the need for extra care housing is accompanied by additional access and infrastructure requirements.

Challenge D – Maintaining competitiveness

Maintaining the strategic role and competitiveness of Solihull means sustaining the Borough key economic assets of Birmingham Airport, the NEC, Birmingham and Blythe Valley Business Parks and Land Rover. This can only be achieved by ensuring effective transport infrastructure. The Strategy acknowledges the impact of congestion on the M42 which facilitates all of these key assets and the increasing pressure on the highway and rail networks that are likely to stem from increased growth. In Solihull Town Centre the pressure of increased development, including the delivery of as many as 1,500 new homes,[94] will also place pressure on transport links. Congestion is already a problem in the Town Centre and is a problem also experienced in Shirley where high levels of through traffic causes further congestion. Management of these high levels of traffic, attributed to high levels of affluence in the Borough and associated car ownership is therefore a priority objective for Solihull Council.

[93] Solihull Metropolitan Borough Council (2010): 'Solihull Core Strategy', pp.11-16

[94] Solihull Metropolitan Borough Council (2010): 'Solihull Core Strategy', p.29

Challenge E – Protecting key gaps between urban areas and settlements

Managing the impact of urban extensions and the expansion of larger rural settlements, and managing the impact of regeneration in the north of the Borough have clear spatial and transport consequences, though the extent of these is likely to depend on particular developments.

Challenge G – Concentrations of poor housing mix and shortage of Gypsy and Traveller sites

Shortages of market housing, smaller affordable housing and authorised Gypsy and Traveller sites also have spatial and transport consequences for the Borough.

Challenge H – Accessibility and sustainable transport

The Core Strategy identifies a key challenge in providing access to services, facilities and employment for some residents. High car use in the more affluent parts of the Borough has consequences in terms of congestion (and its associated social and environmental impacts), and is compounded by poor perceptions of public transport and walking and cycling. A key transport challenge, therefore, is reducing car dependency and managing travel demand while improving accessibility through appropriate development practices.

6.2 Existing and future transport challenges for the M42 corridor

Not only does the M42 corridor pass through the West Midlands' most significant economic assets, but further economic development activity is planned in the corridor up until 2026. There are expansion plans at Land Rover's 139 hectare Lode Lane site, Birmingham Airport and the NEC. The Coventry, Solihull and Warwickshire sub-region is also one of the main drivers of the regional economy and many other developments in that area lie in the hinterlands of the M42 corridor. All of these developments will reaffirm Birmingham and Solihull as key business destinations but are also likely to have an impact on M42 transport volumes and congestion along the corridor, not least road access issues around Junction 6.[95]

The West Midlands Area Multi Modal Study identified in 2001 the potential conflict between plans for growth at the Airport and the M42, and this remains a constraint on regional growth. In general, the south-east of the West Midlands, including Solihull, is considered to be an economic driver for the region and so localised congestion is of particular concern.

Plans for HS2 also impact the study area. It is proposed that one of the key stations will be located close to M42 Junction 6. This proposal would significantly alter the local highway network, including changes to the motorway junction itself, and also introduce new transport infrastructure between the HS2 station and Birmingham International Station/ Birmingham Airport (proposed as a monorail / people mover system). Whilst this is a significant future issue for the Council and the Highways Agency it is beyond the scope of this study to consider the impacts of HS2.

Birmingham Airport received permission for the extension of its runway in 2009. This extension should lead to an accelerated growth in passenger numbers and also staff working at the Airport (approximately 2,600 additional staff by 2030). The Airport estimates (Airport Master Plan 2007) that total passenger numbers

[95] Solihull Metropolitan Borough Council and the Highways Agency (2010): 'Solihull Core Strategy and Infrastructure Assessment: Scoping Report'.

will rise from 9.2 million in 2006 to 27.2 million in 2030. Such an increase will require that surface transport impacts are actively managed and that the mode split targets (agreed with Solihull MBC) can be achieved.

6.3 Challenges for the strategic road network

6.3.1 The cost of congestion

The Eddington Transport Study[96] estimated that road congestion costs the UK economy around £7-8 billion annually rising to £22 billion by 2025 if left unchecked. As part of the West Midlands Transport Innovation Fund (TIF) Study[97], research indicated that the cost of congestion was around £1.3 billion per annum.

Wider challenges in the Birmingham, Solihull and the Black Country conurbation

The BSBC conurbation suffers from extensive congestion across transport networks (affecting private and public transport). Economically it is underperforming compared to the national average; with GVA in areas such as the Black Country well below the national average. Output in the region contracted more than any other region during the recent recession, although it has recovered somewhat since then. Access to Birmingham City Centre (the economic core of the BSBC conurbation) by public transport from many parts of the Black Country is very poor. Closely related to the poor performance of the economy are large parts of the conurbation that are within the lowest quintile in the country in terms of deprivation levels.

At present there is widespread congestion and poor reliability across the West Midlands. The M6 corridor is of particular concern at a national level where it is one of the worst performing sections of the motorway network. Within the BSBC Conurbation, congestion problems are widespread and cannot be linked to a specific centre or corridor. In the case of Birmingham City Centre, congestion is primarily a problem on radial routes of which the A38 provides the principal link to the motorway network (and the highest traffic volumes), and as such experiences the greatest overall levels of delay.

Birmingham City Centre

Given the high concentration of employment, Birmingham City Centre is important to the success of businesses in the BSBC conurbation. An analysis of congestion and journey time reliability on the motorway network corridor and key radials into the City Centre indicates significant challenges on these routes. This not only impacts on those travelling by car but also on those travelling into the City Centre by bus. The extent to which public transport can address congestion and reliability problems on the roads into the City Centre is influenced by bus network performance (which in turn is impacted by congestion), and limited (or a total lack of) spare capacity on key rail routes through the BSBC conurbation, where a large number of routes have seated load factor of over 90%.

Available forecasts of the impact of growth suggest that congestion will become an increasing problem on many parts of the network, and that committed improvement schemes (for example Managed Motorway schemes contained within the current Roads Programme) are unlikely to address those problems.[98]

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[96] Eddington, R (2006) 'The Eddington Transport Study'

[97] Tackling Congestion, Delivering Growth, March 2008

[98] Solihull Metropolitan Borough Council and the Highways Agency (2010): 'Solihull Core Strategy and Infrastructure Assessment: Scoping Report'

Local versus national

The conurbation lies at the intersection of a number of strategic national corridors, and as such there is significant conflict between the needs of national and sub-national travellers. Problems relating to congestion and poor reliability on the both the SRN and local road network, and capacity on the rail network are widespread. Amongst these issues, the M6 through the conurbation is notable, not only as being one of the most congested and unreliable motorway sections in the country, but also as being fundamental to the growth of the economies of the North-West of England, North Wales, and much of Scotland.

Birmingham Airport provides transport links between the conurbation and a range of international destinations, and is recognised as being of critical importance to the economy of the conurbation and wider Midlands regions. Planned growth at Birmingham Airport (see above) is therefore likely to act as a further driver of transport demand in the conurbation. Situated near the strategic road network surface access problems relating to congestion and reliability are a regular occurrence, although this has been marginally alleviated by the Managed Motorways scheme on the M42. Future forecasts of delays and congestion indicate that by 2026 there may be limited spare capacity on the road or rail network to accommodate future growth at the Airport, and as such its growth could be constrained.

Freight

The SRN within the BSBC conurbation, and the M6 in particular is one of the most heavily used corridors by freight in the UK (with around 20,000 freight vehicles daily). The congestion and reliability problems on the SRN are likely to cost in the region of £200 million per annum with further implications on the national economy. Forecast increases in daily freight traffic of between 4% and 6% indicate that, without further intervention, the predicted cost of the existing congestion and reliability on business will increase.

One of the main contributors to the problems identified in the evidence review is the M6, which as a major freight corridor (carrying up to 270,000 tonnes per day of freight, a significant portion of which are long distance national/ international freight trips), is of critical importance to the national economy. The M6 also serves a critical sub-national economic role, supporting access to labour markets, business and freight movements through the BSBC conurbation. The road however experiences substantial levels of delay and poor journey time reliability which is most pronounced around the BSBC conurbation; this impedes freight connectivity, business to business connectivity and access to labour markets; thus hindering both national and local economies. The parallel M6 Toll caters for a substantial portion of long distance car trips, and as such, is deemed to be supportive of longer distance business to business movements through the most heavily congested sections in the West Midlands.

Current congestion and poor journey time reliability is already hindering freight connectivity and access to labour markets, thus impacting on existing economic activities within the conurbation and nationally. Forecast increases in traffic congestion are likely to give rise to additional economic costs over time, thus hindering future economic growth at a national and local level.

Public transport impacts

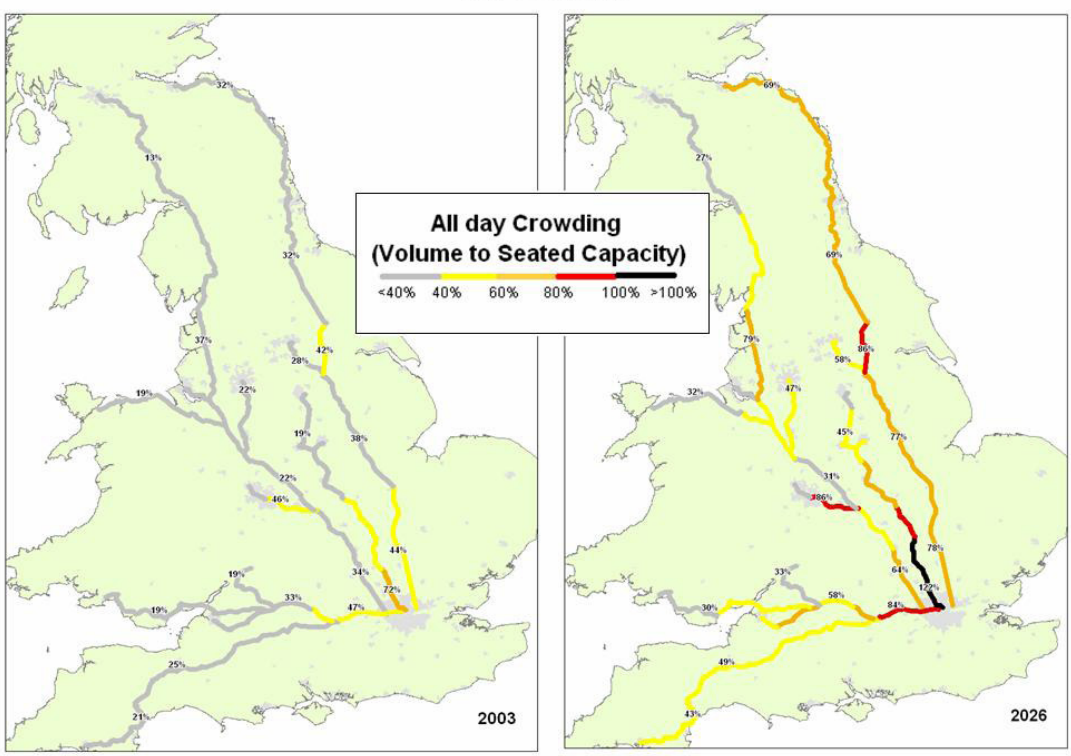
Despite the introduction of some priority measures, buses continue to suffer delays like other vehicles on shared road space. Although rail patronage has increased substantially in the past few years, the extent to which rail can continue to accommodate future growth is limited by capacity.

6.4 Rail challenges

6.4.1 National rail crowding

The rail network in the West Midlands and in Solihull is already close to capacity. The problem of crowding on inter-urban services, while less severe than the AM and PM peaks on local services, is nonetheless significant and services will approach and potentially exceed capacity in terms of all day crowding on parts of the West Coast Mainline in the West Midlands by 2026. See Map 6.1 below.

Map 6.1: Rail Crowding



Source: Atkins Inter Urban Rail Study

The conflict between local and national journeys, in combination with increased demand (further exacerbated by increasing strain on the road network), stands to push passenger volumes beyond capacity on the rail network in the West Midlands.

6.5 Challenges resulting from airport expansion

There will inevitably be consequences as a result of airport expansion up to 2030. The Birmingham Airport Master Plan suggests that there will be 'journey time savings' due to increased share of regional air travel demand, reducing congestion at other airports and reducing the length of existing surface journeys. The

national impact of this is likely to be significant. However 'the growth of Birmingham … Airport will place additional demands on the surface transport network and systems', on a more local level[99]

The RSS urged that development plans in Solihull and neighbouring authorities should include policies to provide for the assessment of proposals for the expansion of the airport to meet the demand.[100]

6.6 Solihull town centre challenges

Solihull town centre also faces potential future challenges associated with increased car use. The Solihull Town Centre Study identifies the following 'transport and movement' challenges for the town centre itself:

- A lack of road capacity to accommodate additional traffic, which is likely to lead to additional congestion and its associated impacts (ranging from physical impacts, such as on air quality to economic impacts, such as on local businesses).
- A strategic objective of national (and, until recently, regional) government to reduce the number of car trips, where the preferred means of accessing the town centre is by private transport.
- A reduction in the number of available parking spaces, which has the potential to drive the use of more sustainable modes of travel, but only if it is matched by a parallel improvement in the choice and quality of public transport provision available.
- The knock on impact of environmental considerations, such as pollution, traffic noise, and the prevalence of accidents, which will have an impact on people's decision to visit an area.
- A need to maintain and improve accessibility to the centre, which will remain important if Solihull is to retain its competitive position.
- A significant likelihood of resistance to change amongst car-owners (who make up a majority of visitors for all trip-types) due to the current car-friendly town centre.[101]

[99] Birmingham International Airport (2007): 'Towards 2030 Planning a sustainable future for air transport in the Midlands, Airport Masterplan to 2030', pp. 31, 66

[100] Government Office for the West Midlands (2008): 'Regional Spatial Strategy for the West Midlands', p.122

[101] Solihull Metropolitan Borough Council (2009): 'Solihull Town Centre Study', p.15

7. Future commitments

These challenges form a significant part of the transport and infrastructure evidence base and establish the need for the interventions specified in local, regional and sub-national strategies. The shifts in policy since the general election have placed the funding for many interventions in doubt, but certain measures aimed at addressing transport challenges in Solihull are underway or committed.

7.1 Introduction

The transport challenges facing Solihull represent, in significant part, a worsening of existing challenges. Increasing congestion on the strategic road network and increasing overcrowding on the rail network are key amongst them. The various plans and strategies which provide the qualitative evidence base for the transport and infrastructure review contain a variety of committed and uncommitted projects and programmes. These are designed both to maximise the benefits of the development for the people of Solihull and the wider West Midlands and to alleviate the pressure that development is likely to place on the Borough's supporting infrastructure, and in particular the M42 corridor.

The following programmes still form part of packages where funding is committed. However, the information pertaining to these schemes is changing all the time and, as a consequence, a great deal of uncertainty now surrounds the vast majority of the programmes, projects and actions described in this section and the next. All information should be treated with caution.

7.2 Committed economic programmes in the West Midlands

7.2.1 High-technology Corridors

In order to encourage the diversification of the economy of the former West Midlands region, three High-Technology Corridors (HTCs) were identified under the previous government within which 'cluster developments', closely linked to the Region's critical research and development capabilities and advanced technologies, were to be promoted. These three Corridors extend out from the BSBC conurbation into the rural shires of Worcestershire, Warwickshire and Staffordshire/Shropshire. They are:

1. Birmingham to Worcestershire (referred to as the Central Technology Belt);
2. Coventry, Solihull and Warwickshire; and
3. Wolverhampton to Telford.[102]

The Coventry, Solihull and Warwickshire HTC aims to provide support to high tech and high value added businesses in the sub-region and has the potential to provide further jobs for the growing population in the Borough of Solihull, further increasing its competitiveness. While a review of all policies of the previous government is under way, there is as yet no sign that support for HTCs will be withdrawn. High Tech development within the corridor is therefore likely to continue.

7.2.2 Impact Investment Locations

In addition, twenty Impact Investment Locations (IILs) were identified throughout the former West Midlands region as part of the Regional Funding Advice Stage 2 process.[103] The IILs were identified largely due to

[102] Government Office for the West Midlands (2008): 'Regional Spatial Strategy for the West Midlands', p.48

the contribution they would make towards strengthening and sustaining the region's economy and assisting urban and rural renaissance. 12 of the IILs, as well as the HTCs, lie within the BSBC conurbation, in recognition of its role as the key economic driver for the West Midlands economy.[104] Two key locations are within the Borough of Solihull. The first is focussed around North Solihull Regeneration Zone and seeks to develop within Solihull a series of village centres designed to deliver new jobs, improved services, and better housing up to 2023.[105]

Of equal significance is the Birmingham Airport runway extension – also an IIL. The Birmingham Airport runway extension includes realignment of the A45 Birmingham to Coventry trunk road with the specific aim of reducing traffic congestion and creating capacity for future growth. Delivery on this location is expected in 2014.[106]

Commitment from regional partners has also been made to delivering and monitoring the progress of the projects identified within the IILs in order to achieve the objectives of the former West Midlands region for growth and prosperity. Figure 7.1 below shows the location of the 20 IILs within the former West Midlands region. Locations 2 (Birmingham Airport Runway extension/A45 relocation) and 14 (North Solihull Regeneration) are the primary locations relevant to Solihull.

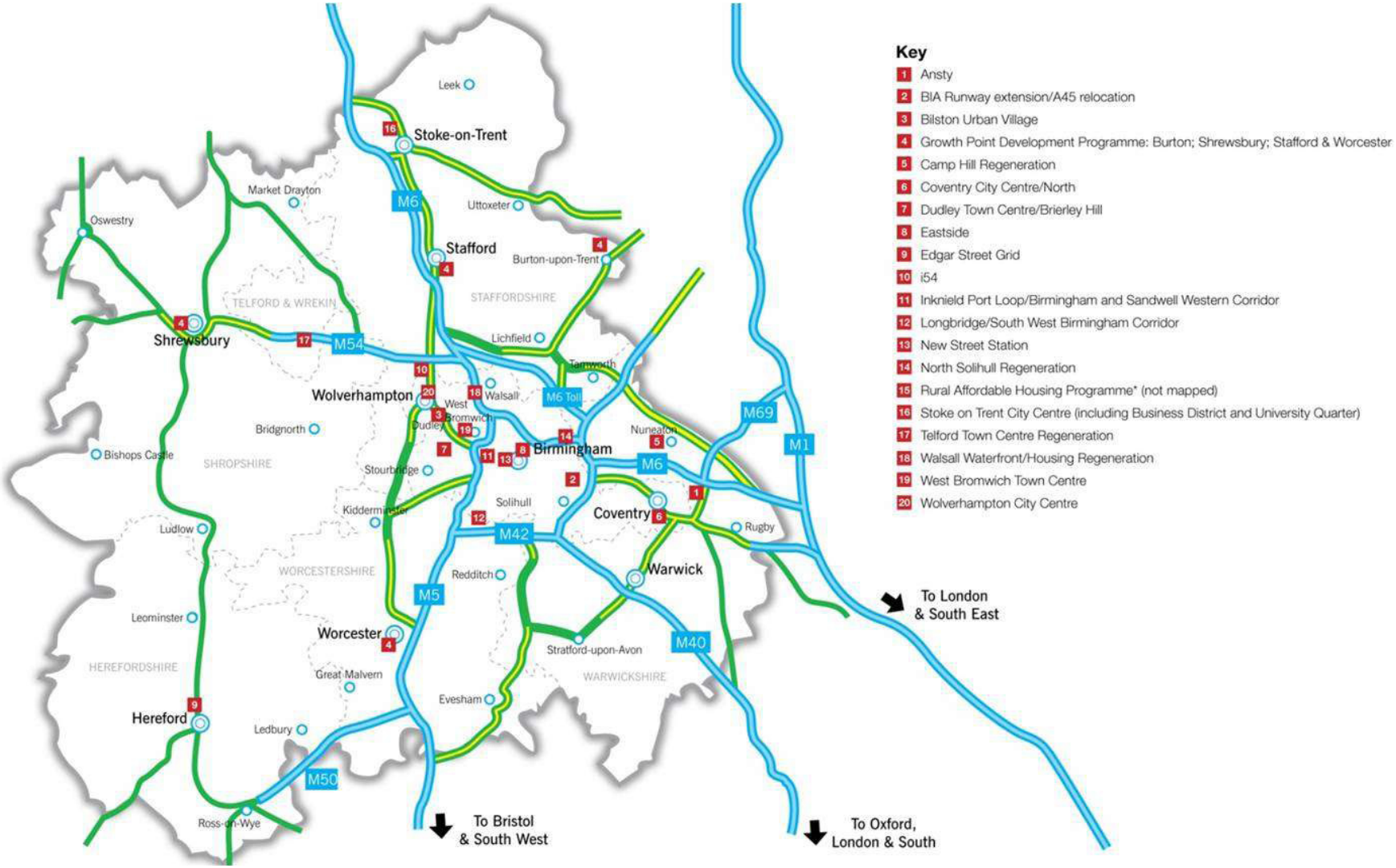
[103] West Midlands Shadow Joint Strategy & Investment Board (2009) 'The West Midlands' Regional Funding Advice to Government: February 2009'

[104] Advantage West Midlands (2010): 'West Midlands Impact Investment Locations: Overview for 2009/10'

[105] Advantage West Midlands (2010): 'West Midlands Impact Investment Locations: Overview for 2009/10', pp.4, 18

[106] Advantage West Midlands (2010): 'West Midlands Impact Investment Locations: Overview for 2009/10', pp.4, 19

Figure 7.1: West Midlands Impact Investment Locations



Source: Advantage West Midlands (July 2010): 'West Midlands Impact Investment Locations Overview for 2009/10'

7.3 All modes – 'Access to Birmingham'

The 'National Networks Access to Birmingham Study' identified the following committed infrastructure schemes for the BSBC conurbation (as defined above). The Study worked from the assumption that schemes set out in the first tranche in Motorways and Trunk Roads 2009[107], the High Level Output Specification (HLOS) 1[108] and Local Authority schemes with 'full approval' were classed as committed. As more details emerge in light of the Spending Review 2010, these commitments may change. The schemes within the West Midlands that are consistent with this are detailed below:

Schemes identified in the first tranche in Motorways and Trunk Roads 2009 include:
- Managed Motorways (Hard Shoulder Running) M6 Junction 4a to 5 (open);
- Managed Motorways (Hard Shoulder Running) M6 Junctions 5 to 8 (expected 2011/12);
- Managed Motorways (Hard Shoulder Running) M6 Junction 8 to 10a (under construction);
- Managed Motorways (Hard Shoulder Running) M6 Junctions 10a to 13 (expected 2015); and

The Managed Motorways scheme continues to be rolled out along the Birmingham motorway box with the direct objective of alleviating congestion along the busiest stretches. While the scheme is now fully operational along the busiest stretches of the M42 (with only through junction running – TJR – left to be rolled out in all areas), the M6 remains a significant barrier to achieving the desired levels of economic growth set out in current government plans. The implementation of Managed Motorways on the M6 therefore, is significant for the whole conurbation, and for Solihull as the connectivity of the network means that congestion on the M6 has knock on effects for the M42.

The High Level Output Specification also outlines commitments to improve the challenges posed by increasing passenger numbers. Rail schemes identified in the High Level Output Specification Plan include:
- Additional rolling stock for London Midland in the metropolitan area;
- Additional rolling stock for Arriva Cross Country between Birmingham and Leicester; and
- Additional Rolling Stock for Virgin West Coast between Birmingham and London.

The addition of rolling stock is potentially highly significant on the most overcrowded routes, including those utilising the M42 rail corridor and the West Cost Mainline.

Local Authority committed schemes[109] of relevance to Solihull and the M42 corridor include:
- A45 / A46 Tollbar End (operated by the Highways Agency);
- West Midlands Urban Traffic Control (CEPOG – West Midlands Metropolitan Area);
- SPARK – Leamington Spa / Warwick Public Transport (Warwickshire); and
- Birmingham Airport / NEC Public Transport Access (Solihull).[110]

In particular, implementation of schemes designed to improve access to the NEC and Birmingham Airport has the potential to significantly improve congestion in the M42 corridor, particularly around Junction 6. To a lesser degree, enhancements to the A45 and A46, which provide a key link to the area also stand to offer significant improvement in terms of congestion.

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[107] Department for Transport (2009): 'Britain's Transport Infrastructure, Motorways and Major Trunk Roads'

[108] Department for Transport (2007): 'High Level Specification Output Plan'

[109] Taken from West Midlands Regional Funding Allocation, 2006 for use within the Access to Birmingham study, 2010.

[110] Department for Transport (2010): 'National Networks: Access to Birmingham Study', p.12

Together these measures may contribute to improvements in accessibility by alleviating congestion on the roads and overcrowding on the already overstretched rail network.

7.4 Other highway schemes

A number of further highways schemes are still officially committed, though over the course of the last six months, available funding has become an area of significant concern.

7.4.1 Schemes identified in Regional Strategy

The West Midlands RSS has been revoked by the Coalition Government in line with its policy on regional and local governance, and as such there now exists significant doubt over the future of many policies. At the time of writing, funding for schemes had not been withdrawn and as such the highways policy elements relevant to this qualitative review are summarised in the table below. The measures include the Managed Motorways schemes (referred to in the RSS as Active Traffic Management), behavioural change packages, improved access to regeneration areas such as North Solihull, public transport improvements, and improved surface access to Birmingham Airport.

Table 7.1: RSS Policy T12 Priorities for Investment

Scheme	Policy link	Key delivery role	Implementation period
Behavioural change package of measures	T1, T2, T3, T4 and T5	Local authority and operators	Through to Post 2015
M42 Active Traffic Management Pilot	T9	Highways Agency	Ongoing
M42 Widening Jct 3 to Jct 7	T9	Highways Agency	Post 2015
Active Traffic Management for M5 / M6 / M42 motorway box		Highways Agency	2011 to Post 2015
Birmingham International Airport improved surface access	T11	Birmingham International Airport, Centro, Highways Agency, Strategic Rail Authority, Local transport authorities	2001 to 2012
Bus super showcase / High quality bus networks	T5	Centro and operators	2001 to Post 2015
Improved access to regeneration areas	T5	Local Transport Authorities and developers	2001 to Post 2015
Park & Ride opportunities	T6	Centro and developers	2001 to 2010
Road network management / priority	T5	Highways Agency / local authorities	2001 to Post 2015

Source: West Midlands Regional Spatial Strategy (2008)

Motorway capacity improvements and the Birmingham Box Managed Motorways schemes are also listed as transport priorities in the West Midlands Regional Transport Priorities Action Plan, published by the now-defunct West Midlands Regional Assembly in December 2008.[111] The document sets out the main infrastructure and policy priorities for the region and how these should be progressed in the short term. The defined projects or suites of projects involving the highways network and of relevance to Solihull and the M42 corridor are as follows:

[111] West Midlands Regional Assembly and Advantage West Midlands (2008): 'West Midlands Regional Transport Priorities Action Plan', p.2

- Birmingham Airport - runway extension and surface access improvements.
- M5/M6 capacity improvements and Motorway Box Active Traffic Management.

In addition to these projects there are a set of themed priorities which cover a broader range of measures, and which include smart choices around active modes and public transport usage. While the capacity improvements now focus on the M5 and M6 motorways, improvements across the Birmingham motorway box will help to alleviate congestion in the M42 corridor. Surface access improvements at Birmingham Airport will also support this process of alleviation and the effective implementation of smarter choices schemes and active travel may also have an impact (though, as stated earlier, many of the journeys which are the root cause of the congestion problem in the M42 corridor are not necessarily suited to active travel modes).

An Action Plan Progress Report was published in March 2010 and provides a summary of the steps made to deliver the transport priorities across the region. An overview of the current position of relevant actions is reviewed in the table below.

Table 7.2: Regional Transportation Action Plan Progress (March 2010)

Action Plan Transport Priority	Progress at March 2010
Birmingham International Airport - runway extension and surface access	Runway Extension and Surface Access - planning approval for the Runway Extension was confirmed in November 2009. The surface access public transport scheme "ANITA" received full funding approval from Department for Transport and has started on site.
M5/M6 capacity improvements and Motorway Box Active Traffic Management	Phase 1 of the project comprising of M40 J16 to M42 J3A; M42 J7 to J9 and M6 J4 to J5 was delivered by December 2009. Work on Phase 2; M6 J8 to J10a; started on site in April 2009 and is on-track for completion before April 2011.
New Growth Points/Settlements of Significant Development	Whilst information received on a scheme-by scheme basis suggests that, generally, transport schemes are progressing in line with forecasts; delays in regional and local planning processes and concerns around funding have resulted in progress being somewhat patchy. Technical work, including the development of local transport models, is progressing.
Smarter Choices	As a result of the delay in the Sustainable Travel Cities bid process (now subsumed into the Urban Challenge Fund) progress was initially slow. The momentum is beginning to be regained with a catalogue of successful projects being developed and delivered across the region.

Source: Regional Transportation Action Plan Progress Report March 2010

With surface access to Birmingham Airport (the ANITA scheme) now on site, ATM in operation or schedule for new stretches of the motorway network, delays in the implementation of growth points and smarter choices schemes may mean that commitment to them will be withdrawn. This, again, remains to be seen.

In addition, as part of the LTP a series of major schemes are being delivered. The 'Birmingham Airport / NEC Public Transport Links' scheme is included as part of the current work package and comprises new bus lanes, a public transport hub, real-time information, SMS messaging and infrastructure up-grades on routes serving the area including the link with the Coleshill Multi-Modal Interchange Major Scheme (Warwickshire).

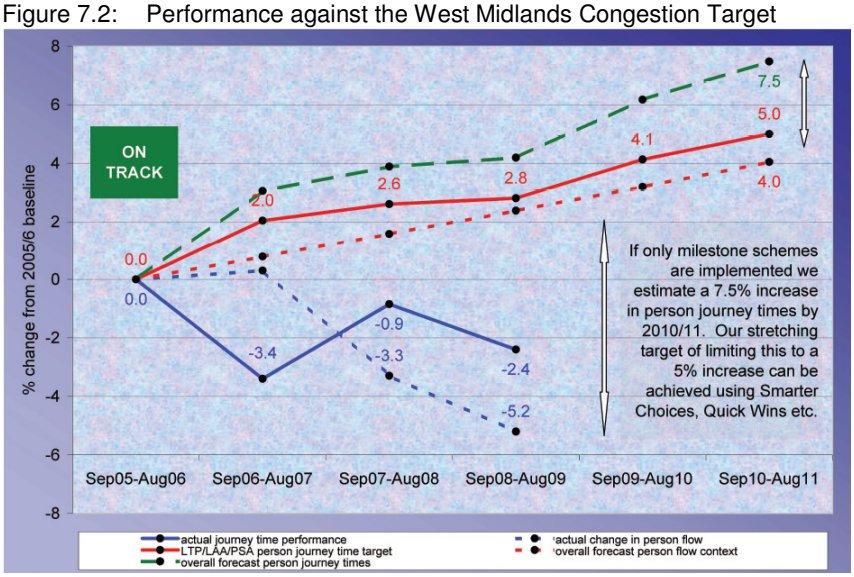
7.4.2 Long term congestion reduction

As part of the second Local Transport Plan, a congestion reduction strategy for the West Midlands Metropolitan Area was developed. The strategy set targets for short and long term reductions in journey

times across the strategy area: 'On target routes in the AM peak (0700 - 1000) accommodate an expected increase in travel of 4% with a 5% increase in journey times between 2005 and 2011.'

The latest update to the Congestion Target Delivery Plan Review was published in February 2010. A summary of the monitoring is provided in the figure below.

Figure 7.2: Performance against the West Midlands Congestion Target



Source: West Midlands LTP Congestion Target Delivery Plan Feb 2010

The results show that the strategy is on track to meet its congestion targets at the end of the LTP2 monitoring period. Only with long term congestion management will development and growth in Solihull be adequately accommodated by the strategic road network. The committed schemes (such as managed Motorways) have been shown to have an impact, but there is still more that must be done if desired growth is to be achieved.

7.5 Rail Interventions

A series of rail interventions and projects in Solihull (as well as in the wider BSBC conurbation, and Coventry Solihull and Warwickshire sub-region) remain committed, most notably the enhancement of New Street Station in neighbouring Birmingham, and, in the long term, the development of a High Speed Rail interchange within Solihull itself.

7.5.1 Interventions in the West Midlands

The RSS identified rail capacity and performance enhancements (policies T5 and T10) between 2001 and 2015 and at this point those enhancements are ongoing though the funding situation remains uncertain. The West Midlands Rail Development Plan also identifies the National Rail schemes relevant to the West Midlands which are included in the five year business plan (Control Period 4) released in March 2009. These schemes include:

- Birmingham New Street Gateway
- Chiltern platform lengthening
- West Midlands platform lengthening
- Cotswolds line re-doubling options
- Wrexham to London Marylebone journey time improvements

The possible rail scheme projects included in the Local Transport Plan funding process (confirmed in February 2009) and which could be implemented prior to the year 2014, are as follows:

- Birmingham New Street Gateway
- Stratford Park new station
- Coventry to Nuneaton rail improvements (KNUCKLE 1)
- Connecting Coventry – station improvements

As with the RSS, while funding for all of these schemes is now uncertain, many are committed (such as Birmingham New Street Gateway) and others form part of strategies that are now being implemented.

The Regional Transport priorities Action Plan also details prioty rail projects. The defined projects or suites of projects involving the rail network are as follows:

- Birmingham New Street Station Gateway;
- Birmingham Airport - runway extension and surface access improvements; and
- Rail Freight Upgrades - Peterborough and Southampton to Nuneaton.

In addition to the projects listed above there are a set of themed priorities which cover a broader range of measures including smarter choices and improvements to rail capacity within the former West Midlands region. The Action Plan Progress Report outlines progress made on committed rail schemes within the West Midlands. The table below outlines progress at March 2010:

Table 7.3: Regional Transportation Action Plan Progress (March 2010)

Action Plan Transport Priority	Progress at March 2010
Birmingham New Street Station	Funding from four public sector funding streams to be brought together with private sector contributions and provide a £425m funding package. Following approval of public sector funding, positive progress has been made and enabling works started on site in September 2009.
Rail Freight Upgrades - Peterborough and Southampton to Nuneaton	Construction on the £70m rail freight gauge enhancements between the Southampton to West Midlands/West Coast Main Line started in January 2009; key milestones achieved to date include completion of the Southampton Tunnels at Christmas 2009. Work also commenced on the £68m route between Peterborough to Nuneaton in summer 2009, with full completion due by the end of 2011.
Regional Rail Capacity	Cotswold Line Upgrade with the first phase of works complete in Summer 2009. Funding for a programme of smaller scale improvements has been included in the RFA; the projects to be included in the first tranche of the programme costing £19.29m have been agreed with the DfT. The “rail match funding programme” will provide investment for station and line improvements at key locations in the region:

Source: Regional Transportation Action Plan Progress Report March 2010

A key transport priority for the West Midlands is the Peterborough and Southampton to Nuneaton Rail Freight Upgrade[112]. This project involves upgrading the line to allow transport of high sided containers by rail. An increase in rail freight options, particularly from Southampton, could marginally reduce road freight demands on the M42.

Finally, Shirley station is part of the DfT ‘Access for All’ programme (which has secured funding for 2012-2015). The aim of Access for All is to provide an obstacle free, accessible route to and between platforms

[112] West Midlands Regional Assembly and Advantage West Midlands (2008): ‘West Midlands Regional Transport Priorities Action Plan’

at priority stations. Shirley station is the only station in the Solihull district on this list and the scheme is likely to deliver improved rail capacity at the station.

7.5.2 Birmingham New Street Station

The Birmingham New Street Gateway project was included in the LTP funding process.[113] The project is also listed as a transport priority in the West Midlands Regional Transport Priorities Action Plan.[114] The project will not increase track capacity but will drastically improve the passenger environment and it will provide more access and egress options. The redevelopment of New Street Station may encourage further increases in rail usage in Solihull, particularly at Birmingham International and other stations on the Coventry line.

7.5.3 High Speed Rail 2

HS2 will have a direct impact on Solihull alongside other investments in Birmingham and Coventry. As discussed above, however, the timetable for HS2 excludes it from consideration as part of the Solihull Core Strategy and therefore forms part of the very long term picture only.

7.6 Access to Birmingham Airport

7.6.1 Surface Access Improvements

Surface access improvements for Birmingham Airport are part of a suite of projects which includes the runway extension. This suite of projects is identified as a transport priority[115] and 'construction' of this scheme is programmed for 2012[116]

The Airport Company and NEC have agreed, in principle, to provide 'pump priming' in the form of revenue support to improve bus services in the area. This scheme was identified as a regional priority and was included in the programme by the DfT in July 2006.[117]

In addition, the following transport infrastructure improvements in connection with the development of the runways at Birmingham Airport are promoted by the Birmingham Airport Master Plan:

- The provision of the runway extension would require the realignment and tunnelling of the A45.
- By 2015 the link road to M42 Junction 6 would require an upgrade to cater for increased demand.
- Additional multi-storey car parking will be provided to support growth in passenger numbers.
- A series of improvements to the local road network would be required to support the development of new or expanded passenger terminals.
- The public transport facilities at the Birmingham International Interchange (the focus of rail and coach passenger movements for the immediate area) will need to be expanded to meet increased demand and the introduction of Terminal 3.

[113] West Midlands Regional Rail Forum (2009): 'West Midlands Rail Development Plan'

[114] West Midlands Regional Assembly and Advantage West Midlands (2008): 'West Midlands Regional Transport Priorities Action Plan', p.2

[115] West Midlands Regional Assembly and Advantage West Midlands (2008): 'West Midlands Regional Transport Priorities Action Plan'

[116] West Midlands Regional Assembly and Advantage West Midlands (2008): 'West Midlands Regional Transport Priorities Action Plan'

[117] Birmingham International Airport (2006): 'Moving Together: Birmingham Airport Surface Access Strategy 2006/2012', p.10

- Any plans to expand the Centro light rail network in the Solihull district will also need to be included.

7.6.2 ANITA scheme delivery

Solihull MBC is improving public transport between Solihull, Birmingham Airport and the NEC. This project is also known as the ANITA (Airport and NEC Integrated Transport Access) scheme. It is intended that the scheme will result in better bus services; reduced journey times; and improved facilities for passengers.

The scheme should also improve public transport links between the north and south of the Borough, allowing people to travel easily to access employment and leisure opportunities. The strategy aims to cut congestion in the area, especially when there are major events at the NEC.

Table 7.4: ANITA scheme delivery components

Scheme	Delivery date	Scheme description
Station Way (Scheme 1)	May 2010	Introduction of a segregated left turn lane on the approach arm from the Station and additional carriageway on the approach arm from the A45 Roundabout (B4438 Bickenhill Lane); and, Additional carriageway width will be provided at the junction by using existing highway land.
Vanguard Way Link (Scheme 2)	April 2010	A new bus only link between Vanguard Way and Bickenhill Lane (B4438). This is roughly opposite the link between Bickenhill Lane and Birmingham International Train Station and to the south of the railway line and airport access route
Bickenhill Lane (B4438) (north of railway line) (Scheme 3)	July 2010	Provision of bus lanes both variable and permanent will be provided on Bickenhill Lane from where it passes over the railway to its junction with Coleshill Heath Road; Bus priority at the junction of Coleshill Heath Road and Bickenhill Parkway; Junction arrangements will remain as roundabouts; Provision of high quality shared footway / cycleways along the length of this section, the facilities linking to existing cycle routes; and, Toucan crossings are to be provided either side of the roundabout providing access to the Elmdon Trading Estate, to the south of the Starley Way Roundabout, and across Coleshill Heath at its junction with Bickenhill Parkway.
Cycling and walking Routes (Scheme 4)	December 2010	This will include new and upgraded cycle routes within the area of the NEC and Birmingham Airport linking into existing routes within residential areas.
Coleshill Heath Road (Scheme 5)	September 2010	Requirements are being refined; however, it is likely to include enhanced bus stops and upgraded links for pedestrians in order to encourage higher bus patronage; and, The works at Coleshill Heath are now focussed on the delivery of providing traffic signals at the junction of Coleshill Heath Road and Chelmsley Road. This junction improvement will assist with proposed enhancements to the bus service frequency.
Marston Green (Scheme 6).	N/A	Over the past few years CENTRO have progressed detailed work on the improvement of the existing facility at Marston Green rail interchange. This includes for a park and ride, re-aligned parking facilities at the station, and the moving of bus stops closer to the station building. The ANITA scheme has explored opportunities to ensure that all local issues have been addressed. The conclusion is that the ANITA scheme will not include any works here

Scheme	Delivery date	Scheme description
Bus Corridors (Scheme 7)	October 2010	In order to ensure that the scheme delivers coordinated benefits for the bus corridor network there will be scope to provide measures along a number of key bus routes, including bus priority and new/additional shelters with clearly defined pedestrian links; and, Bus infrastructure improvements have been planned to the enhanced routes that will improve the connectivity between the NEC/ Birmingham Airport and its employees, as well as creating employment opportunities for other areas of low employment.
Multi Modal Interchange (Scheme 8)	October 2010	Improved bus, car, taxi and pedestrian facilities at the Birmingham International Station; and, Enhanced (including higher frequency) bus services will put added pressure on the Interchange in terms of bus stop requirements. New stops will be provided.
Intelligent Transport Systems (Scheme 9)	N/A	The project will include the following ITS components: Dynamic Bus Lanes The bus lanes on Bickenhill Lane will be dynamically controlled so that they can be turned off during times of excess traffic flow. The operational status of the bus lane i.e. whether it is switched on or off will be communicated to drivers via variable message signs located along Bickenhill Lane. Real Time Information (RTI) Provision of real time information signs at selective bus shelters along key routes. RTI will also be provided at the Multi-Modal Interchange (MMI) and also within the baggage reclaim areas at Terminal 1 and 2 of the Airport Selective Vehicle Detection Provision of Selective Vehicle Detection (SVD) through the use of inductive loop technology SVD will help to improve journey time reliability for buses by giving them priority at traffic signals on key bus corridors.

7.7 Solihull town centre plans

In terms of transportation infrastructure and supporting proposals, the following improvements have been recommended by the Solihull Town Centre Study and, while funding remains uncertain, these recommendations have not been withdrawn:

- Develop a new town centre transport 'model';
- Undertake feasibility study of a new public transport interchange at Monkspath;
- Prepare a town centre car parking strategy (to include Park & Ride options);
- Work with Centro/bus operators to expand the network of high quality Bus Showcase/Red Routes serving the town centre; and,
- Consider potential funding options.

Since the completion of the Town Centre Study the bus services throughout the West Midlands have continued to be improved, however no alterations have been made to the public transport interchange infrastructure or the need for an updated car parking strategy.

7.8 Summary

Committed projects have reduced in number since the general election in May 2010. Key schemes designed to address the challenges posed by growth and development in Solihull (and indeed the West Midlands) are now focussed around management of the Birmingham Box motorways (including the M42 – for which most of the scheme is now operational) and the major strategic rail projects (one of which, Birmingham Gateway, falls outside the study area, and the other HS2, falls outside the Core Strategy time

period). It seems likely, therefore, that measures going forward will be insufficient to accommodate either the aspirations or the reality of development and growth in the Borough. However, the current Spending Review period (up to 2014-15) represents less than one third of the total programming period for the Core Strategy and Local Development Framework (which run to 2026). As such, those projects that remain without committed funding are likely still to have a role to play in the medium to long term. These projects are discussed in the final chapter, below.

8. Other potential solutions

Many of the challenges posed by the growth and development of Solihull are addressed by interventions that were developed during the pre-recession period, or that were part of the strategic vision of the previous government. As such, many interventions are no longer committed, but which nonetheless present opportunities that should remain under consideration, particularly in the medium to long term.

8.1 Introduction

Of the local and regional strategic frameworks established by the previous government, some have been retained, others no longer have committed funding, while others have been abolished altogether. Some of the plans considered date back to 2000 but it is foreseeable that abolished projects in these plans could re-appear in future strategies as economic conditions change.

8.2 Uncommitted highway schemes

A number of highway schemes were suggested in the West Midlands Multi Modal Study. These included widening and capacity improvements for several sections of the highway network including the A34, A441, A435 and A457. Full electronic road pricing was also considered as part of the study.[118]

Additional schemes outlined in the second Local Transport Plan that no longer have committed funding but which would nonetheless have an impact on the Solihull Borough if implemented are as follows:

- West Midlands Urban Traffic Control measures;
- Birmingham / North Solihull Mobility and Access (this scheme was to comprise of a quality bus partnership); and,
- Strategic Park & Ride (including a possible facility serving the M42 corridor).

Improved transport links to North Solihull would contribute to the sustainability of growth in the Regeneration Zone area, while the enhancement of Park and Ride facilities within the M42 corridor would contribute to a reduction in congestion, particularly during peak periods.

8.2.1 Bus Schemes

Part of the smarter choices agenda is focussed around increasing public transport patronage. Public Transport has tremendous capacity to alleviate the problem of congestion and increasing bus usage in particular has the potential to address problem of capacity both on the rail and highway networks. Ongoing measures implemented by Solihull Metropolitan Borough Council include the use of Red Routes, Bus Showcase schemes, improvements to public transport infrastructure around Birmingham Airport and the NEC, and strengthening links to North Solihull.[119] Selected new measures proposed by the Council are aimed at further increasing bus usage. These proposed measures include the following:

- Review Parking restrictions at bus stops to allow bus to stop at the correct location.

[118] Government Office for the West Midlands (2001): 'West Midlands Area Multi Modal Study'

[119] Solihull Metropolitan Borough Council (2007): 'Solihull Public Transport Strategy: 2007 Revision', p.16

- Identify Bus congestion spots and review opportunities for bus priority schemes.
- Explore the opportunities for using parking space supply and pricing policy to encourage public transport use.[120]

Other long term and ongoing ambitions of Solihull Council include:

- Continue supporting the 166 Service to Blythe Valley
- Continue supporting the 966 Service Partnership
- Continue to support 'Merlin Venture' operated and Centro supported 'Buster Werkenbak' bus services to Hams Hall and Birmingham Airport
- Progress East Birmingham North Solihull Mobility and Access Project
- Investigate additional parking at stations
- Real time information at stations
- Promote the development of Metro Phase 2 Birmingham – Airport scheme
- Introduction of Smart cards
- Promotion of Travelwise and business travel plans

A diverse and dynamic approach to long term public transport development has significant potential to combat corresponding congestion and overcrowding challenges. The short term, however, will see very little scope to make significant investment in schemes such as smart ticketing and Metro expansion.

8.3 Rail Schemes

8.3.1 High Speed 2 (HS2) Rail Proposals

Details of the proposed "HS2" rail line that is planned between London and Birmingham (with possible extensions further north) were released by DfT in March 2010. The rail line is expected to reduce the travel time between the two cities to approximately 50 minutes. The consultation period for the scheme will be a lengthy process and if approved, the construction of the line is unlikely to commence before 2019. This would mean that the line would be operational after 2026 and therefore would be beyond the scope of the developing Solihull Core Strategy.

Considering the consultation requirements, the planning approval steps and the predicted timescales the project would only have an impact in the longer term and with the consultation period only now commencing, the proposals could significantly change over time.

8.3.2 Light Rail – The Midlands Metro

The West Midlands Multi Modal Study which set out bold programmes from 2001 listed a number of Metro extensions. A route from Birmingham to Birmingham Airport via Sheldon was planned along with a route via Chelmsley Wood forming a loop from Birmingham to Sheldon, Birmingham Airport, Chelmsley Wood and back to Birmingham. Another route was proposed in the longer term program from Shirley to Solihull[121]. If the Shirley to Solihull route was built this would be the first rail / metro link in Solihull providing a service which isn't an arterial service focussed around Birmingham.

[120] Solihull Metropolitan Borough Council (2007): 'Solihull Public Transport Strategy: 2007 Revision'

[121] Government Office for the West Midlands (2001): 'West Midlands Area Multi Modal Study'

The RSS Phase 2 report stated that Centro agreed that funding was not yet assured for the proposed Metro line along the A45 to Birmingham Airport. However, it is stated that the A45 diversion and bridge works relating to the runway extension will make provision for the line[122].

Metro Expansion has subsequently been significantly scaled back, with firm commitments to expand only as far as Birmingham New Street Station. Further expansion of the Metro, while ambitious, remains unlikely and further study would be required to fully explore the potential impact of the Metro into Solihull.

8.3.3 Other infrastructure programs

The West Midlands Multi Modal Study suggested further capacity interventions on the rail network, including tunnelling under the existing Birmingham New Street platforms and building a new lower level underground station. Four-tracking was proposed on several lines including the West Coast Mainline, the route between Coventry to Wolverhampton and Birmingham to Water Orton. The report also shows a new heavy rail route between Coleshill Parkway and Birmingham International (although it should be noted that Coleshill Parkway had not been built at the time of this study). In a similar fashion to the Shirley to Solihull Metro route, if this link was built it would provide the first Solihull rail service not dominated by Birmingham and also the first North-South rail service.

No funding is allocated for any of these proposals at present, and with the redevelopment of Birmingham News Street now with allocated funding, many of the ideas within the Multi-Modal Study seem highly unlikely to proceed at *any* point in the future. Nonetheless, there remains significant scope for extensive enhancements to rail capacity both within the study area and within the wider sub-regions.

8.4 Air Travel Schemes

8.4.1 Birmingham Airport Expansion

The Birmingham Airport Master Plan states that future growth in activity will arise from both an increase in demand from the Airport's regional catchment area and a greater retention of traffic currently travelling outside the region to start air transport journeys at other airports. Birmingham Airport's share of the Midlands' regional market is currently less than 40%. By satisfying an increasing proportion of this demand in the region where it arises, this is forecast to grow to 57% by 2030.[123]

In addition, the existing length of the main runway precludes the commercial operation of flights to the distant east (beyond the Persian Gulf and the Asian Sub-Continent), and to the far west (beyond the East Coast of Canada and the Midwest of the USA). With an extension to the current runway, existing, new and emerging markets in the Asian Sub-Continent, South East Asia, China, the Far East, the Pacific Rim and South Africa could be served, together with the Canadian Mid West and the West Coast of Canada, and West USA and the West Coast of the USA.

[122] Government Office for the West Midlands (2009): 'Regional Spatial Strategy for the West Midlands: Phase 2 Revision'

[123] Birmingham International Airport (2007): 'Towards 2030 Planning a sustainable future for air transport in the Midlands, Airport Masterplan to 2030', p.20

8.4.2 *Airport Access Improvements*

The Airport Company is particularly keen to see improvements in services and frequencies for the following bus routes and corridors:

- Birmingham, including Acocks Green, Erdington/Sutton Coldfield and Sheldon.
- Coventry.
- Solihull, including Elmdon/ Elmdon Heath, Marston Green, Olton, Shirley and Solihull Town Centre (including Solihull Railway Station).
- North Warwickshire, including Atherstone, Coleshill and Nuneaton.
- South Warwickshire, including Leamington, Stratford upon Avon and Warwick (including Warwick Parkway Railway Station).
- Staffordshire, including Tamworth.

The Airport Company has also expressed its support for developing the Airport as a destination for the Midland Metro and, in the long term, for a further Midland Metro route linking the Airport and the NEC directly with the North Solihull Regeneration Zone. Such a route could form a natural extension to the currently on hold route between Birmingham City Centre and the Airport/NEC, with a subsequent extension onwards from the Airport/NEC and 'back-in' towards the City Centre, north east of the airfield.[124] The main schemes are outlined below:

Birmingham Airport Surface Access

Surface Access		
2012	A45 Diversion	Required for Main Runway Extension.
2015 - 2020	Improvements to M42	To improve surface access by car.
2015 - 2020	Improvements to Local Roads	To improve surface access by car.
2008 - 2030	Improvements to Bus and Coach Services	Phased improvements in surface access by bus and coach.
2008 - 2030	Improvements to Rail Services	Phased improvements in surface access by rail.
2015	Midland Metro	New Birmingham – Airport/NEC Midland Metro Route to improve surface access by public transport.
2018	Extend Birmingham International Interchange	To improve surface access by public transport. (with development of T3).
2005 - 2030	Additional Car Parking Capacity	Phased expansion of car parking capacity for Passenger Terminal Site.

Source: Birmingham Airport Surface Access Strategy

Further scheme incorporated into the Surface Access Strategy include:

- The extension to the Main Runway by 2012
- No Second Runway before 2030
- A Third Passenger Terminal.
- Additional commercial and operational facilities at the Elmdon Terminal Site
- Junction 6 of the M42 to remain the main highway access with long term improvements to this junction.
- Additional on-site car parking located north of the A45
- Long term public transport targets of 30% by 2022 and 35% by 2030.

[124] Birmingham International Airport (2006): 'Moving Together: Birmingham Airport Surface Access Strategy 2006/2012'

8.4.2.1 Airport Bus and Rail Access

Opportunities already exist for bus-rail links at Solihull Railway Station, with London Midland and Chiltern services to the south. However, this potential is limited by the frequency of connecting bus services to Solihull. If these can be enhanced, this potential will be increased.[125] The Airport Company's priorities for rail access include a number of measures focussed primarily on service availability.[126] These are:

- The maintenance of a frequent and reliable service to Birmingham New Street Station of around six trains per hour on weekdays. Currently interval targets of 12 minutes maximum are not being met.
- The operation of direct services to the maximum number of destinations within the Airports core catchment area including Banbury, Leamington, Milton Keynes, Northampton, Stafford, Telford, Wolverhampton and Worcester.
- A reduction in disruption (including the use of bus-replacement) to services at weekends during the Airport's busy summer period, which reduces the attractiveness of rail for access to the Airport.
- The provision of more early morning services, particularly from Birmingham New Street, for departing flights and for staff.

Improvements to rail services have significant potential to reduce congestion and facilitate growth around the M42 corridor. The connectivity of the NEC and the Airport and their significant share of the trips that result in localised congestion mean that rail improvements focussed on Birmingham International station, which services them, will continue to be important in the short to medium term. Improving services is vital both to ensuring modal shift of NEC and Airport users, and to increasing the capacity in order to accommodate that shift. Improved rail services, therefore, is a key element of a transport strategy for the area.

8.5 Solihull Town Centre schemes

The Solihull Town Centre Study, published in 2009 cited a number of 'structuring elements' as being essential to the development of the town centre. Those structuring elements with particular reference to transport and infrastructure are detailed in the table below and provide insight into the potential future shape of Solihull town centre.

Table 8.1: Structuring Elements

Aim	Measure
Creating New Residential Quarters	Developing sites for medium density housing within easy walking distance of the centre;
Ring Road Enhancement	Reinforcing and creating boulevards with substantial street trees, improved frontages addressed by buildings and active uses rather than car parks, blank walls and service areas, improved junctions and pedestrian crossings, and positive management of traffic flows;
Environmental Enhancement of Other Key Roads	Promoting positive and active frontages, improved facilities for pedestrians and cyclists and landscape improvements to the public realm;
Improved Access to the Centre	Encouraging greater use of public transport through a closer, better connected station and bus interchange, improved bus services into the centre with a new bus mall in Poplar Road. This will be complemented by accommodating the car in a series of multi-storey / underground /rooftop car

[125] Birmingham International Airport (2006): 'Moving Together: Birmingham Airport Surface Access Strategy 2006/2012', p.40

[126] Birmingham International Airport (2006): 'Moving Together: Birmingham Airport Surface Access Strategy 2006/2012', p.41

Aim	Measure
	parks around the edges of the centre, together with better shared utilisation of existing private car parks
Providing a Connected Network of Streets, Paths and Spaces	Ensuring that new development provides the key north-south and east-west pedestrian links that connect destinations and link to the existing grid of routes, and that high quality public spaces are incorporated

Source: Solihull Town Centre Study

In particular, improving city centre accessibility and encouraging smarter choices and active modes is likely to have a positive impact on congestion and network capacity.

There are also a number of site specific opportunities within the centre which have significant development potential in the short, medium and longer term. These are summarised in the table below:

Table 8.2: Site Specific Opportunities

Table Heading Left	Column
1. Mell Square:	This is the major short-term redevelopment/ refurbishment opportunity to expand and improve shopping and related facilities and introduce a significant element of residential development on upper floors.
2. Lode Lane:	This major redevelopment opportunity could replace the unattractive multi-storey car park and the dated, suburban scale uses along Station Road which provide a weak and unappealing approach to the centre, with a mixed-use development at a more efficient density that extends the more urban character of the High Street westwards, introduces residential and commercial activity and helps create a much improved northern gateway to the town centre. The opportunity for improved pedestrian links to the railway station should also be explored.
3.Station Road:	This is a major opportunity to replace former residential dwellings of a suburban character (and now accommodating low key commercial uses) by a new predominantly residential development with ground floor commercial uses that would create a new eastern urban edge to the centre and form part of a new northern gateway to the extended High Street. The opportunity for improved pedestrian links to the railway station should also be explored.
4.Police, Magistrates and Library Site:	In the medium term (up to 2016) there is the opportunity to take advantage of any potential relocation of the Solihull Police Station and Magistrates Court. This site could be redeveloped to form a southern extension of Touchwood with new offices onto Homer Road, to create a new entrance into the town centre from the south. Opportunities might also exist from such a scheme to improve the library, theatre and the setting of Library Square.
5.The Council Offices Site:	Another major medium term opportunity could follow any decision by the Council to review it's estates needs in the town centre. This might allow for the redevelopment of Councils existing offices to provide a further western extension of the retail core and a significant element of new residential and new civic uses, creating a new southern gateway and edge to the town centre.
6.Monkspath Car Park Site:	This represents the most strategically significant opportunity to improve public transport accessibility to the town centre and perceptions of its convenience and attractiveness. The site could accommodate a relocated station and bus station and associated commercial uses close to the core of the town centre. It could also support a substantial amount of new residential development within a few minutes walk of the centre, whilst still retaining the parking spaces it currently provides.
7. Station Quarter Site:	The potential relocation of the station and station car park would release a new redevelopment opportunity site for residential and/or commercial development to the west of the town centre.
8.Morrisons/Eastern gateway Site:	In urban design and townscape terms the site occupied by Morrisons and the adjoining Council multi-storey car park and filling station could provide a major opportunity to create a new eastern gateway to the town centre that would be of an urban scale and character, use the land more efficiently and improved the

Table Heading Left	Column
	public realm and connections to Mell Square. The site's redevelopment could integrate convenience shopping and associated parking, with residential and other uses, with a strong and attractive frontage to Warwick Road and a new public square within

Source: Solihull Town Centre Study

All of these developments are likely to be heavily impacted through the Spending Review period up to 2014-15. However, they represent a cross section of improvements that could have a positive long-term impact on Solihull town centre, retaining its retail and aesthetic appeal. They are less likely to result in significant improvements to accessibility, or provide extensive solutions to the development challenges faced by the Borough, but they will, if implemented, make a contribution to Solihull continued economic growth.

8.6 Walking and Cycling

Walking can play a much larger role in improving access across the urban areas and reduce demand for motorised modes. However, trips that use the M42 corridor are generally longer than walking distance (with many being regional or national journeys and many more being commutes in excess of several miles) and hence walking is confined to short journeys beyond the scope of this analysis.

Similarly, it is unlikely that cycling could replace journeys currently made using the infrastructure of the M42 corridor, although there would be benefits in a shift from car to cycle across motorway junctions e.g. Junctions 4 and 5, although this would require safe routes and crossings to be introduced.

Increased walking and cycling trips has significant potential in other parts of the study area. These changes will be agreed with Solihull MBC.

8.7 Multi-modal schemes

Finally, the background information prepared for the abortive West Midlands Transport Innovation Fund (TiF) bid, published in 2008, identified the following issues as critical for moving the West Midlands transport strategy forward:

1. Changing travel behaviour through development of "smarter choices" initiatives;
2. Effective congestion management including urban traffic management controls and the expansion of the M42 Managed Motorways project; and,
3. Delivering the integrated transport network through the effective organisation of funding sources.

The TiF analysis also included the following measures – many of which no longer have the commitment or associated funding from relevant bodies – that relate to the Borough:

4. Rail improvements including: station enhancements and platform extensions; and an increase of total provision of parking spaces at Solihull and Warwick Parkway stations to 1,200.
5. Improved rail depot facilities.
6. Improved access to Birmingham Airport including: traffic management and highway access improvements; bus enhancements; and new Park & Ride facilities.
7. Metro access including Birmingham Airport to City Centre Service.
8. Bus interchange facilities including: enhancement of passenger waiting facilities; and improved cycle and pedestrian access.

9. Motorway junction enhancements such as on the A45 Clockwise to the M42, and improved links to the M42 and into Airports.
10. Solihull Schemes including Solihull town centre highway infrastructure improvements and North Solihull highway infrastructure improvements.

8.8 Summary

There remains a portfolio of well developed projects that both address the transport challenges facing Solihull and that currently lack the required support or funding to do so. These projects are not likely to come on stream in the short term due to the constraints imposed by the current economic and political situation. As such, it is likely that the challenges they address – significant congestion on the strategic road network, and overcrowding on the rail network as a result of the concentration of economic activity around the M42 corridor – will endure for the foreseeable future.

9. Summary

Solihull is in general a thriving and prosperous Borough, comparing favourably to the sub-regions of which it is a part (the urban conurbation of Birmingham, Solihull and the Black Country and the rural-urban mix of Coventry, Solihull and Warwickshire), to the wider (and now former) West Midlands region and nationally in terms of economic growth. The M42 corridor is a key driver of this growth and provides a platform upon which future growth can build. It is a source of tourism, jobs, innovation, wealth creation, international connectivity and provides a focus for new and growing businesses in the area. This general picture also hides significant disparities, however, and the north of the Borough struggles, and is likely to continue to struggle to benefit from the economic growth generated and enjoyed by the south.

The Borough's transport network has become increasingly strained over the past 15 years and the challenge of connecting all of Solihull's residents, including, importantly, its more deprived communities, to the economic prosperity offered by the M42 corridor has become increasingly difficult. Congestion on the roads, and significant public transport connectivity and capacity issues present real challenges for the Core Strategy.

Development and growth surrounding the Borough's key economic assets are likely to compound these problems. The ambitions of the Borough risk being constrained by the already over-stretched transport network. The motorway network, and the M42 in particular, is already operating at above full capacity, and significant overcrowding on the rail network at peak periods serves to limit modal shift. Poor bus services mean that road-based public transport alternatives are lacking for Solihull, particular those living in the north of the Borough. Insufficient finances mean that expansion of the 'under-realised' Midlands Metro network are stalled, and appear unlikely to proceed in the near future. These challenges lead cyclically to increased reliance on the private car, further compounding the biggest challenge facing the Borough: congestion.

The primary measures developed to address the transport and infrastructure challenges posed by development and growth in Solihull have been set in place. Primarily, the Managed Motorways scheme, which is now almost fully operational along the relevant stretches of the M42, has already started to yield results in the form of more predictable journey times, reduced congestion without compromising user safety. There remains a lack of measures designed to address rail overcrowding, with key rail schemes – Birmingham New Street Gateway and HS2 – focussing on passenger experience and journey time, rather than on capacity. This represents a significant gap in provision going forward.

There remains a substantial stock of well developed projects and strategies to address the transport challenges faced by Solihull across the Core Strategy period. Current political uncertainty, particularly surrounding the revocation of the West Midlands RSS, as well as the cuts being made to local and national budgets as a result of the Spending Review 2010, mean that the future of many previously planned projects is now uncertain; it is likely that they will be placed (and will remain) on hold. It is further likely that this will be the case for the foreseeable future and at least until the next General Election, which will most likely coincide approximately with the end of the spending review period in 2015. This combination adds to the challenge of overcoming capacity and congestion issues, at least in the short term.

Appendices

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