

Shrewsbury Transport Innovation Fund Package



PUMP-PRIMING FUNDING BID

OFFICIALLY
 **excellent**

*Officially rated as
an excellent council by
the Audit Commission*

Executive Summary

The opportunity

The government's Transport Innovation Fund provides a unique opportunity for a radical and far reaching transformation of Shrewsbury's transport system. We do not want to miss this opportunity, and are prepared to move forward with the consideration of ideas and innovations which would, previously, have been unthinkable or beyond our reach.

Our vision

Our transport vision is to have a town which is accessible, but which is as free as possible from traffic. A town with a top quality public transport system which really works for people: so good that some people will consider it to be a more attractive option than the car for a significant proportion of local journeys. A town where it is safe, convenient and pleasant to walk or to cycle. A town in which those journeys which do need to be made by car can be made without suffering serious congestion and without degrading the environment of the town centre or the places where people live. Above all, our vision is of a town which is better able to fulfil its potential as a sub-regional centre, becoming a beacon of environmental excellence, a place which people want to visit, where people enjoy a high quality of life and where businesses can thrive.

Some of the greatest obstacles to achieving this vision are traffic congestion, increasing car dependency and the pernicious environmental degradation that these inevitably cause. We believe that these obstacles can be overcome.

Our track record

Much has already been achieved in Shrewsbury, but we are now in danger of losing ground without radical interventions. We successfully delivered the "Shrewsbury Package" in the late 1990s, with a bold re-allocation of road space in the central area, establishment of a very successful Park and Ride service, an effective parking strategy and development of a core cycling network. These measures led to significant improvements in safety and environmental quality and are still seen as national examples of good practice. But traffic levels and congestion are increasing again whilst public transport usage is declining. Park and Ride is operating below capacity. The time is right to take the next, more radical steps to put things right.

Why now?

Traditionally, town centre businesses are often the last to endorse radical transport measures. Now, however, key business leaders are calling on the Council to embrace a bolder vision of a more traffic free town centre, albeit one which remains highly accessible. Again, the time is right: we must not let it pass!

Traditionally, environmental concerns and economic imperatives have been seen as pulling in opposite directions. Now, there is an increasing realisation that this

need not be the case. Globally the economic consequences of failing to reduce CO₂ emissions are potentially devastating. Throughout the UK, rising congestion poses a real threat to competitiveness. And in Shropshire, the high quality natural and historic environment is a unique selling point, crucial to our future prosperity. In Shrewsbury we believe the time is right to consider radical transport measures which will both improve the environment and support the local economy.

Why Shrewsbury?

There are several reasons why we believe Shrewsbury is ideally qualified for the Transport Innovation Fund:

- Shrewsbury is small enough for a fairly modest package of measures to have an immediate and dramatic impact – an ideal demonstration town.
- Shrewsbury is nevertheless big enough, and sufficiently well known, for a successful TIF package to be of national, even international interest.
- We have an excellent record of delivery of transport measures, through the TPP Packages and LTP system.
- We are prepared to think big, and are prepared to try things in Shropshire which might normally only be considered for larger urban areas. (Our extensive real time bus information system is one example.) We are therefore prepared to consider a town-wide system of road user charging, not just on one or two roads, provided this is part of a major complementary programme of transport investment.
- Shrewsbury is, by virtue of its geography, ideally suited to the sort of measures which need to be considered under the TIF. The historic town centre is very compact, as the River Severn creates a natural cordon with only three crossing points. The town is free standing, with a simple network of radial and semi-orbital roads. Many residents live within walking or cycling distance of work, shops or employment. It has a good basic public transport network, including Park and Ride, and it is not difficult to identify the improvements needed to bring the overall transport and highway network up to the standard needed.
- For these reasons, and because of the work already done in many areas, we believe a TIF project could be delivered quickly and relatively simply in Shrewsbury.

What do we want to achieve?

Our basic vision for transport improvements is very simple, and much of it has been well rehearsed:

- A significant improvement in public transport, with greater frequencies, improved reliability, more bus priority, better quality buses and better

passenger infrastructure;

- Completion of the Park and Ride system, possibly linking this to longer term plans for a new railway station.
- Completion of the town's cycle network and development of a better pedestrian network;
- Completion of environmental improvements and road space re-allocation in the historic town centre, including major alterations to a riverside route currently carrying heavy through traffic;
- Improvements to congestion hotspots and junctions which are presently difficult for pedestrians, cyclists and users of public transport;
- An opportunity to remove all remaining local through traffic from the town centre and its approach roads by the potential completion of the final "missing link" in town's strategic road network – the Shrewsbury North West Relief Road. A considerable amount of preparation work has already been done, including extensive public consultation.
- Effective demand management measures, including road user charging, to "lock in" the benefits of the above improvements and reduce congestion by encouraging modal shift. Charging would also need to provide an assured income stream for the future long term support of enhanced public transport services in Shrewsbury. We believe that the technology is, or will soon be available, to do this. It is crucial to the success of a scheme that the technology is simple, cost-effective and non-intrusive, that any charges are seen to be fair, and that people can quickly see the benefits for the town and themselves personally.

The TIF, uniquely, would enable us to evaluate the benefits of a major highway scheme as part of a wider package of complementary transport improvements and demand management measures. This is much more than a classic "carrot and stick" approach. We believe that the opportunity now presented by the Transport Innovation Fund creates the only possible context in which these two very different but equally significant and sensitive transport measures can be considered fairly and objectively.

What are we bidding for?

We are bidding for "pump priming grant" to enable us to develop these ideas in much more detail and engage more fully with a wide range of stakeholders. The clear aim of this work is to enable us then to bid effectively for a share of the Transport Innovation Fund, so that the vision may, within a few years, become a reality.

It must be obvious that, for any authority, but perhaps even more for a Shire County like Shropshire, even the submission of proposal such as this is a bold move. It is a measure of our commitment to Shrewsbury and its economic and

environmental future that the County Council is prepared to take this preparatory step. We have a clear vision, a workable proposal, and – subject of course to the outcome of the investigative work over the coming months - the dedication to see it through.

In Shropshire, we have a small but very dedicated team of transport planners and other transport professionals, committed to working closely with the Department for Transport to ensure that this project is delivered to the highest possible standard.

The detailed Pump Priming Bid which follows sets out our proposal in much more detail. We do not want to be unduly prescriptive, and we are fully prepared at any stage to discuss with the Department of Transport alternative approaches to the work to be undertaken with the Pump Priming Grant, should that be required.

We have pleasure in submitting our bid.

XXXXXXXXXXXXXXXXXX
Leader of the Council
Shropshire County Council

xXXXXXXXXXXXXXXXXX
Cabinet Member for Transport

XXXXXXXXXXXXXXXXXX
Chief Executive
Shropshire County Council

XXXXXXXXXXXXXXXXXX
Corporate Director
Economy and Environment

7 October 2005

Contents

1. Introduction	7
2. The case for Shrewsbury	12
3. Transport problems in Shrewsbury	17
4. Objectives and targets	29
5. Local support	32
6. The outline TIF package	34
7. Proposed development work	44
8. Feasibility study programme, costs and reporting	56
9. Conclusion	59

Appendix 1: Links to objectives and targets

Appendix 2: Travel and Congestion Data

1. Introduction

“The Transport Innovation Fund presents a unique opportunity for a radical and far-reaching transformation of Shrewsbury’s transport system. We do not want to miss this opportunity, and are prepared to move forward with the consideration of ideas and innovations which would previously have been unthinkable or beyond our reach”

Background

This document presents Shropshire County Council’s (SCC’s) bid for Transport Innovation Fund (TIF) pump-priming funding to develop and appraise a potential package of innovative transport measures including road user charging, for the county town of Shrewsbury.

The Transport Innovation Fund

The Government has announced a new Transport Innovation Fund (TIF) to give delivery partners incentives to develop and deploy smarter, innovative local and regional transport strategies. The TIF is expected to provide an estimated £9.5 billion of funding between 2008/09 and 2014/15.

The TIF represents an opportunity for local authorities to develop and implement bold and innovative approaches to tackling transport problems, specifically including demand management measures, as part of a wider sustainable transport strategy. We recognise that an innovative approach to demand management, preferably including road user charging, should be a fundamental element of a TIF package of measures.

TIF Pump-Priming Funding

The DfT have decided to offer TIF pump-priming funds (up to £18m over 3 years) to a limited number of local authorities to provide financial assistance in developing and appraising potential TIF packages, in advance of decisions on substantive TIF funding (from 2008/09). DfT are seeking to support a range of pilot projects, and will assess proposals in three broad categories:

- individual smaller towns and smaller cities and other traffic generators such as airports or national parks;
- groups of towns and cities in an area where the innovation covers more than one centre;
- major conurbations.

We understand that the offer of pump-priming funds DfT’s contribution is likely to be of the order of 50% of development costs but that there may be some flexibility on this figure. We also understand that provision of pump priming funds are not a guarantee of substantive TIF funding from 2008/09.

Shropshire County Council's bid for TIF pump priming funding

We believe that a TIF package based on the county town of Shrewsbury could deliver the Department's aspirations for TIF packages. We would be looking to develop a potential Shrewsbury TIF scheme which would:

- be a serious attempt to get a grip on congestion, air quality and travel demand;
- combine road user charging as the primary demand management, with modal shift and better bus services;
- be deliverable within a relatively short timescale;
- include innovative mechanisms to raise new funds for reinvestment, primarily in public transport improvements;
- have the potential to be modified and/or expanded over time;
- be beneficial to the local economy;
- offer high Value for Money (VfM);
- help to create a climate of understanding with respect to demand management; and
- be developed in conjunction with DfT and with other local authorities pursuing demand management strategies; making it transferable elsewhere and compatible with the longer term objectives of a national road user charging scheme.

We have already set out our commitment to developing proposals for more radical improvements to Shrewsbury's transport system as part of a potential TIF project in our Provisional LTP (*Section 6.12.2.6, page 184*). This includes a recognition that these proposals could lead to major improvements to public transport and innovative measures to manage demand.

We have undertaken a high level scoping study to establish whether there is likely to be a workable TIF solution for Shrewsbury. This has drawn upon the analysis and strategic thinking under-pinning our Provisional LTP. The conclusions of this work have been the identification of a concept TIF package for Shrewsbury that we believe has the potential to work and has given us the confidence to make a bid for TIF pump priming grant.

It should be noted that this concept should not be seen as a full proposal or final solution for Shrewsbury. The TIF Pump Priming grant would be used to undertake a full feasibility of all the potential solutions.

In summary the initial Shrewsbury TIF package concept comprises an integrated set of transport measures, as follows:

Enhanced demand management

- The potential implementation of a cordon-based road user charge focused on Shrewsbury's historic town centre, supported by complementary parking control measures to maximise the effectiveness of the cordon-based charging method;

Public transport

- Substantially enhanced bus services on all key radial corridors into Shrewsbury town centre, supported by greater levels of bus priority provision made possible by a reduction in road traffic due to demand management;
- The provision of new and enhanced bus services on orbital routes linking key residential, employment and service locations outside the town centre;
- The addition of a further park-and-ride facility to the east of the town, to complement the three existing facilities, possibly, in conjunction with the provision of a new parkway station on the Shrewsbury – Wolverhampton/Birmingham railway line;
- Improved integration of conventional bus and bus-based park-and-ride services;
- Expansion of the real time passenger information system;

Walking and cycling

- The provision of significantly enhanced facilities for pedestrians, incorporating environmental enhancements in Shrewsbury town centre and on key radial routes, made possible by the reduction in traffic due to demand management;
- The expansion of the Shrewsbury cycle network through on and off road cycleways and crossing and junction facilities, also made possible by the reduction in traffic due to demand management;

Highway network

- Highway changes in the town centre and at approaches to redistribute freed- up road space to sustainable modes and undertake significant environmental enhancements
- Improvements at congestion hotspots
- Targeted highway capacity improvements to cater for re-routed traffic, and/or the opportunity to complete the Shrewsbury ring road through construction of a Shrewsbury North West Relief Road (NWRR).

Each of the above measures are viewed as an integrated package, with each element reinforcing the benefits of one or more elements. These elements are shown in Figure 1.3 and are described in more detail in Chapter 5 of this submission.

Figure 1.3 – TIF Package Concept for Shrewsbury

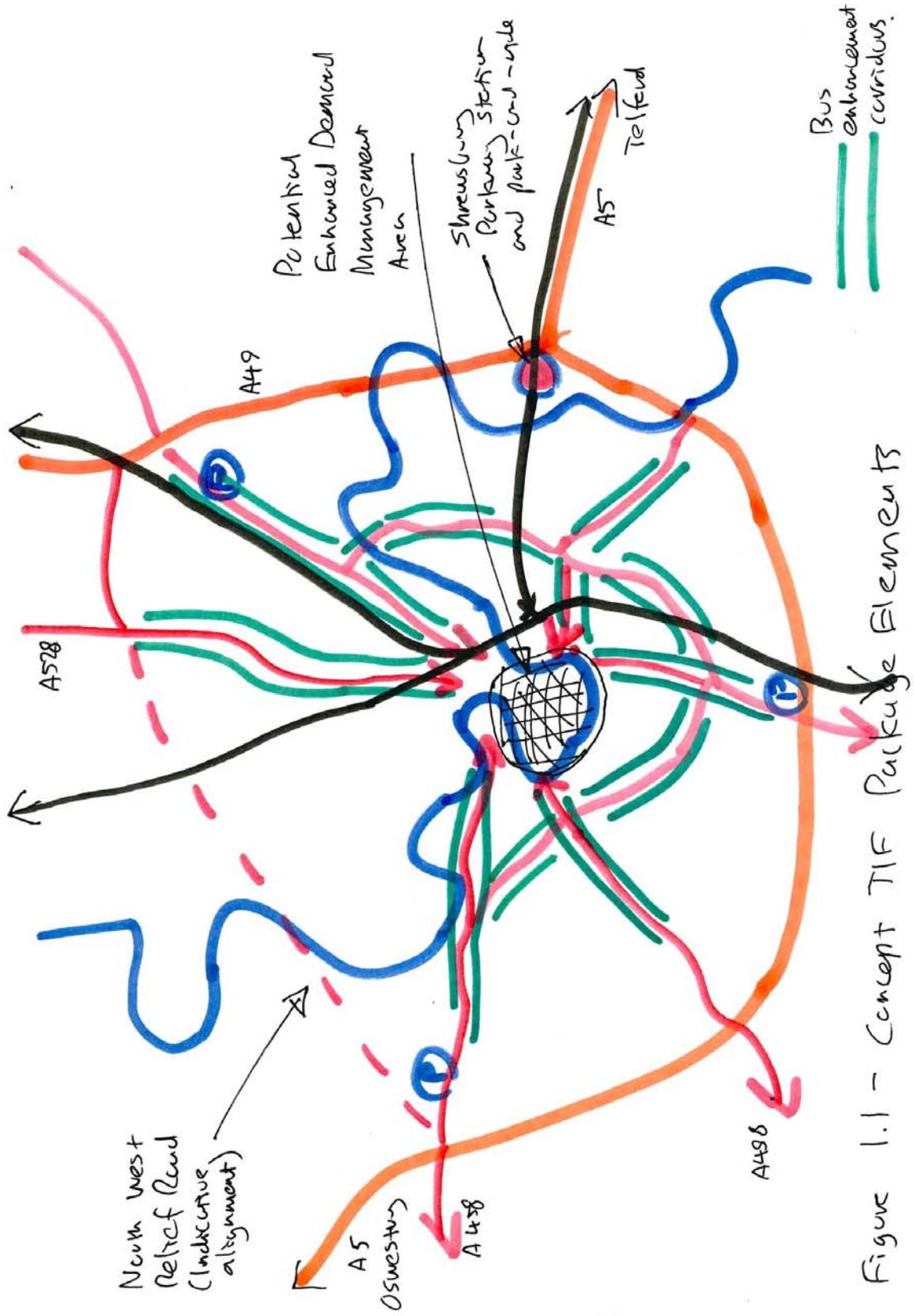


Figure 1.1 – Concept TIF Package Elements

We are seeking pump-priming funding of £480,000 to support the further analysis and development of this concept package, with a view to potentially making a full TIF package funding submission to DfT in the future.

The bid is put forward for assessment for pump-priming funding under the category of 'individual smaller towns and smaller cities and other generators of traffic'.

Document Structure

This submission sets out what we believe is a strong case for TIF pump-priming funding. It is structured as follows:

- **Chapter 2** outlines the case for developing a TIF package for Shrewsbury
- **Chapter 3** sets out the transport problems and issues faced by Shrewsbury in greater detail;
- **Chapter 4** describes how the TIF package relates to the transport objectives for Shrewsbury;
- **Chapter 5** details local support for developing a TIF package;
- **Chapter 6** outlines a potential concept TIF package – that we would assess and develop further should we receive pump-priming funding;
- **Chapter 7** presents a structured and costed work programme for the TIF package development.
- **Chapter 8** presents a summary of the feasibility study programme, costs and reporting mechanisms
- **Chapter 9** presents our conclusions

2. The case for Shrewsbury

“Shrewsbury is ideally suited to the sort of measures which the Transport Innovation Fund is designed to deliver. The historic town centre is compact, almost an island, surrounded by the River Severn with just three principal points of access – a natural cordon. Many residents live within walking or cycling distance of work, shops or employment.

Small enough for a TIF package to have a big impact; large enough to be of national and international interest, it is not difficult to identify and deliver the improvements needed to bring the town’s transport system up to the high standard we aspire to. A TIF project could be delivered quickly and relatively simply in Shrewsbury.”

The Vision for Shrewsbury

An overall vision for Shrewsbury is expressed in a range of policy documents for the town including the multi-agency Town Centre Strategy, Visitor Economy Strategy and Shrewsbury 2010.

The Vision is of a nationally renowned historic centre that welcomes visitors from the local community, the wider region and beyond who are aware of the Shrewsbury’s charm and who are noticeably impressed by the quality of the environment, the ease with which they can walk around the town centre, the range of facilities/attractions available and the uniqueness of the overall shopping and visitor experience.

This is the very aim which this bid seeks to build upon and deliver.

Fig 1.0 The Square, part of the historic core of the town



Description of Shrewsbury

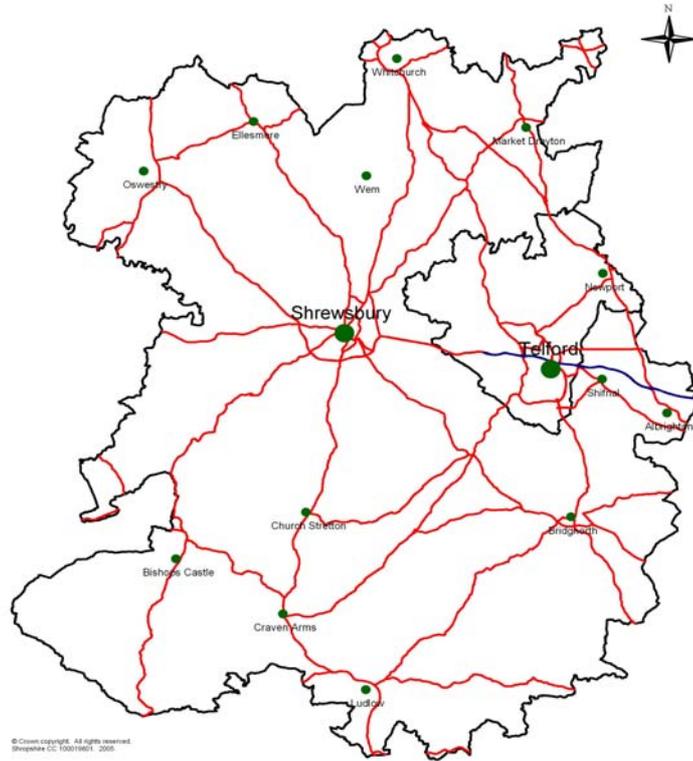
The historic town of Shrewsbury is the county town of Shropshire. With a population of around 67,100, it is an important regional centre for Shropshire and mid-Wales and a sub-regional centre for the West Midlands.

The mediaeval town, which forms the present day town centre, is almost entirely contained in a loop of the River Severn. The street pattern has changed little over the centuries, and many people still live in the centre of the town. This, together with a rich history and many fine buildings, gives Shrewsbury a unique character, which is much valued by local people, and makes the town an important centre for tourists and visitors. Beyond the river loop are the main residential and employment areas, schools and hospitals, as well as out-of town retail areas.

FIG 1.1 SHREWSBURY IN A NATIONAL & LOCAL CONTEXT



© SHROPSHIRE TOURISM



© Crown copyright. All rights reserved.
Shropshire CC 100019801, 2005

 Shropshire
County Council

The Shirehall, Abbey Foregate
Shrewsbury, Shropshire, SY2 6ND

Why Demand Management is Needed

As we review in greater detail in Chapter 3, Shrewsbury faces significant problems of congestion, pollution, safety and accessibility, as do other similarly-sized towns in the UK. However, the particular characteristics of Shrewsbury's transport network, which has always been constrained by the town's physical location on the River Severn and by the historic town centre, exacerbates the severity of transport problems. There is also a need to protect the unique physical setting of the town and its heritage resources from the adverse effects of traffic. Additionally, while the town has a well used predominantly commercial local bus network, its role as a regional centre for a very large rural hinterland requires it to provide for high levels of car accessibility from areas not easily served by conventional public transport.

To date Shropshire has, in partnership with Shrewsbury and Atcham Borough Council, pursued a demand management strategy focused on controlling town centre parking alongside the introduction of edge of town park-and-ride facilities. This has enabled traffic growth for movements into the town centre to be constrained, while still increasing the number of visitors and maintaining the town centre's economic vitality

There are many regional centres, similar to Shrewsbury, that have successfully adopted a parking restraint plus park-and-ride package as a means of managing demand and providing a suitably attractive public transport alternative for travel into town or city centres.

In Shrewsbury's case, however, it appears that there is now a need for a step change in the approach to demand management. Over the last year or so park-and-ride patronage appears to have plateaued and is in danger of declining, while town centre traffic levels have started to rise again.

Travel patterns have also started to change, driven by extensive new development – residential and employment – in the outer areas of the town and substantial residential infill and resulting population densification closer in to the town centre. Both these factors mean that the cross-town journeys – predominantly by car – are rising and are expected to rise further. Although there are route and modal alternatives to traversing the town centre by car they are currently less attractive and these types of movement will place an increasing pressure on the constrained town centre approaches and the central area itself. For certain movements there are very limited realistic route or mode choices other than driving through the town centre. Conventional parking restraint measures are ineffective in managing demand for such travel movements.

As well of the potential to raise additional revenue to supplement transport funding, there is, therefore, a need in Shrewsbury to consider how a more radical demand management strategy can be implemented so as to better deliver on sustainable transport objectives.

We also believe that while Shrewsbury has many unique attributes, it has features in common with most regional centres serving rural hinterlands throughout England, and most of these towns and cities face similar pressing problems about where to go next in terms of an enhanced demand management strategy.

Fig 1.2 Congestion is a problem at key links and junctions across the town



The Viability of a TIF Package for Shrewsbury

Whilst keen to undertake a TIF feasibility study SCC is also aware of the need to be realistic. The outcomes of a feasibility study are clearly unknown at this stage but it is helpful to have a degree of confidence in the process. We have therefore undertaken a high level scoping study to establish whether there is likely to be a workable TIF solution for Shrewsbury. This process has been very informative and has enabled us to set out a concept which we believe has the potential to work. However, we do not necessarily see this as the final solution and are keen to use the feasibility study to explore all the options in much more detail.

The precise nature of the TIF measures will need to be worked up in detail and will require the support of council members and local stakeholders. Clearly, as part of the development of the TIF package we would undertake extensive stakeholder engagement.

The scoping study was based on a high level assessment of objectives, potential solutions, expected benefits and implementation costs.

The case for TIF Pump-Priming Funding

Most local authorities have recognised the huge opportunity that the TIF initiative presents in terms of accessing funding that can enable them to both introduce enhanced demand management measures and deliver a step change in transport infrastructure and service provision. The competition for pump-priming funds could therefore be severe.

The case for Shrewsbury as one of the TIF front-runners would, perhaps, initially be seen by many as weak. We see it very differently, for a number of reasons:

- The match against TIF requirements – the elements of our potential concept TIF package comprise all the key ingredients of tackling congestion, promoting modal shift and providing better bus services. This is seen as critical in being able to demonstrate to stakeholders and the public that an enhanced demand management strategy will bring benefits to towns such as Shrewsbury.
- The scale of the demand management scheme – the physical characteristics of Shrewsbury do lend themselves to a relatively small and easily defined charging area. This will increase the practicality of implementation in terms of design and cost. It will also assist in addressing issues of public and political acceptability. The charging area would also map on to the historic core of the town, further supporting its case. However, it is recognised that other factors such as consideration of the nature of a potential national road user charging scheme may result in a more complex solution being introduced on Shrewsbury;
- Complementary schemes – we have already worked up or have clear ideas on the type of schemes that would potentially be a part of a TIF package. More radical demand management could not possibly be implemented without such measures either in place or being implemented;
- Wider applicability – for more radical forms of demand management to be implemented in the UK in small towns such as Shrewsbury experience of their application is needed. A key aim of Shropshire's transport innovation fund package would be the gaining experience which could be transferred to other medium sized and historic towns across the UK.

3. Transport Problems in Shrewsbury

“Traffic congestion, increasing car dependency, and the pernicious environmental degradation that these inevitably cause are major obstacles to achieving our vision for Shrewsbury. We cannot stand by and allow things to get worse, since this would damage our local economy. The TIF project would significantly reduce traffic levels and congestion and improve air quality. It would also reduce accidents, improve accessibility and encourage economic growth. The time is right to take the next, more radical steps towards putting things right.”

Headline Indicators

- The average number of cars entering the town centre has risen from by around 7% since 2000 and 9% elsewhere in the urban area.
- The traffic model has estimated that on average it takes twice as long to travel through the town in the peak times than the inter peak periods.
- Several of the key junctions used by vehicles entering the town centre are at or are over capacity during the peak period.
- Despite initial increases in Park and Ride patronage levels in the late 90's, patronage has now stabilised with similar numbers using the services in 2004 as 2000. Excluding Park and Ride, bus patronage has fallen in the Shrewsbury area by around 17% since 2000. It should be noted that the situation could have been much worse had the roll out of RTP1 to all Shrewsbury services not occurred.
- We have begun to witness a modal shift in school journeys with fewer pupils being taken to school by car alone. The proportion of pupils at schools in the urban area of Shrewsbury walking or cycling to school has risen from 60% in 2002 to 64% in 2004.
- Fatal and serious accidents in the Shrewsbury urban area have been halved since the beginning of the first LTP 2000-2006 period.
- An Air Quality Management Area has been declared in 2005 encompassing the town centre of Shrewsbury.

Traffic and Travel Patterns

Car Dependency

Shrewsbury has relatively high levels of car ownership and use. Table A.2, Appendix 2, shows that car ownership is higher than the national average. Car use for the journey to work is higher than the national average and the average for Shropshire as a whole. There are slightly higher levels of walking and cycling

to work, public transport use is much lower than the national average. Through an extensive roll out of school travel plans and targeted road safety education and engineering we are beginning to witness an increase in numbers of pupils walking or cycling to school. We believe that the TIF proposals would provide the opportunity of not only increasing the modal shift in school journeys but other journeys such as work and utility trips.

Journey patterns and road layout

The layout of the town, with many key travel generators including employment areas, schools, hospitals, and retail areas located on the outskirts of the town (see fig 2.1) means that there are a large number of cross town journeys that are currently much easier to make by car than alternative modes. Due to the road layout much cross town traffic passes through the historic town centre. The historic nature of many of the streets in the town centre area can create bottle necks especially when deliveries occur or inconsiderate / illegal parking occurs.

Cross-town travel by road within the town is limited by the location of the River Severn crossings.

Crossings are provided on:

- A49 eastern bypass
- A5112 Telford Way to the east of the town
- Welsh bridge, west entry point to the town centre
- English bridge, east entry point to the town centre
- Kingsland bridge, south entry point to the town centre (private toll bridge with a current charge of 10p)

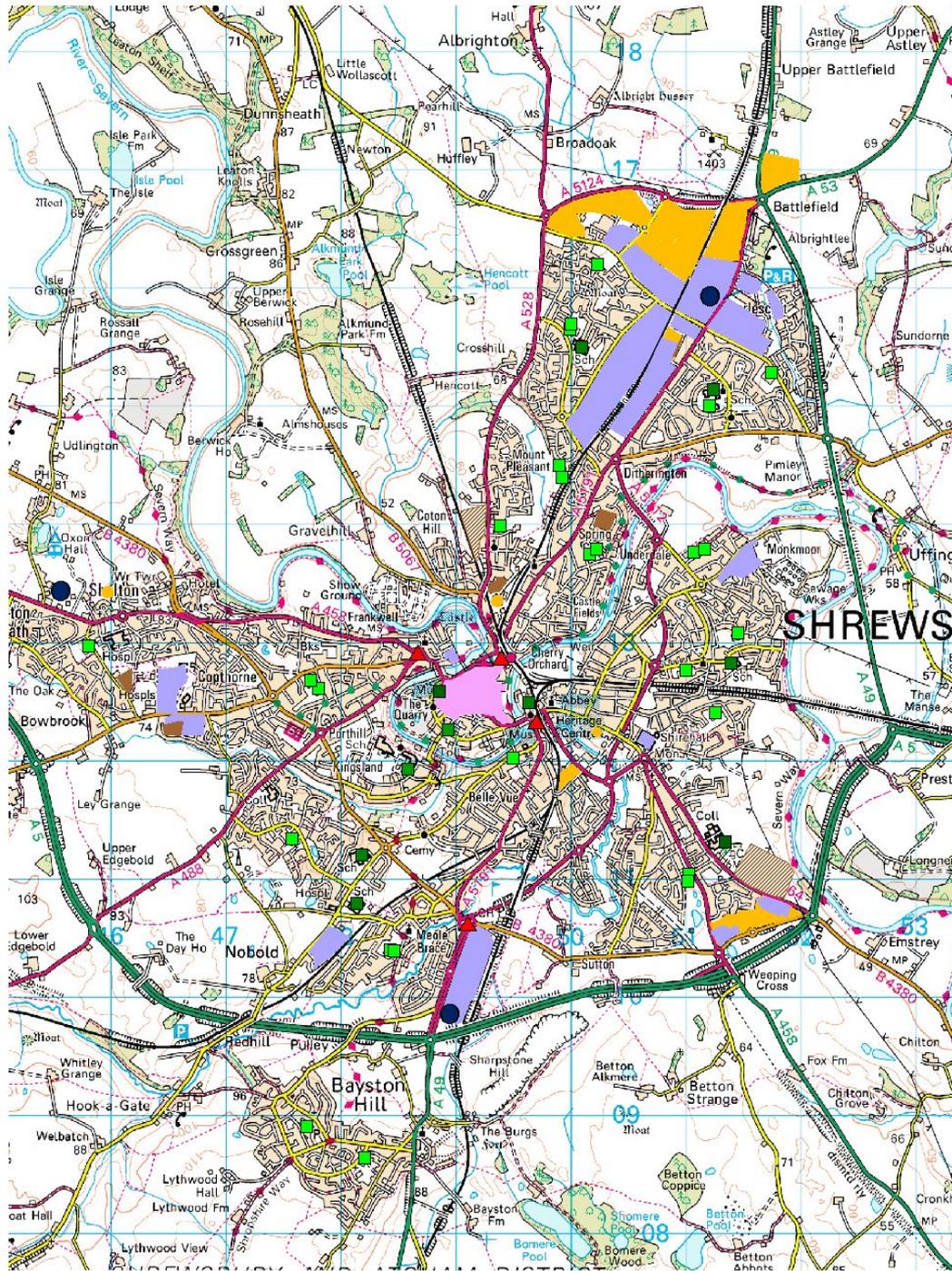
Work journey patterns

Shrewsbury has good road connections with the West Midlands conurbation, with a direct connection via the A5 trunk road to the M54 motorway at Telford. A bypass around three quarters of the town caters for much of the longer distance through traffic, and low bridges in the town centre mean that most heavy through traffic use the bypass route.

Due to the lack of a western river crossing local journeys made between the north and west of the town tend to pass through the town centre. It is estimated that 40% of the traffic using Smithfield Road in the town centre has an origin and destination outside of the river loop.

This local through-traffic passing through the town centre river loop adds to the congestion and impacts upon the environmental quality of the historic centre.

Shrewsbury Overview



© Crown copyright. All rights reserved.
Shropshire CC 100019801. 2005.

- Primary Schools
- Sixth Form Colleges
- Secondary Schools
- Private Schools
- Park and Ride Sites
- ▲ Congestion Hot Spots
- Town Centre
- Future Housing
 - Allocated
 - Potential
 - Current Employment
 - Future Employment

Fig 2.1 Shrewsbury Overview

Traffic levels and congestion

The main congestion in Shrewsbury occurs on the entry points to and within the town centre river loop. Fig. 3.2 shows that while the number of vehicles entering the town centre reduced slightly in the early 2000's traffic levels have started to rise again. With more development planned within the town we anticipate further town centre traffic growth if no action is taken.

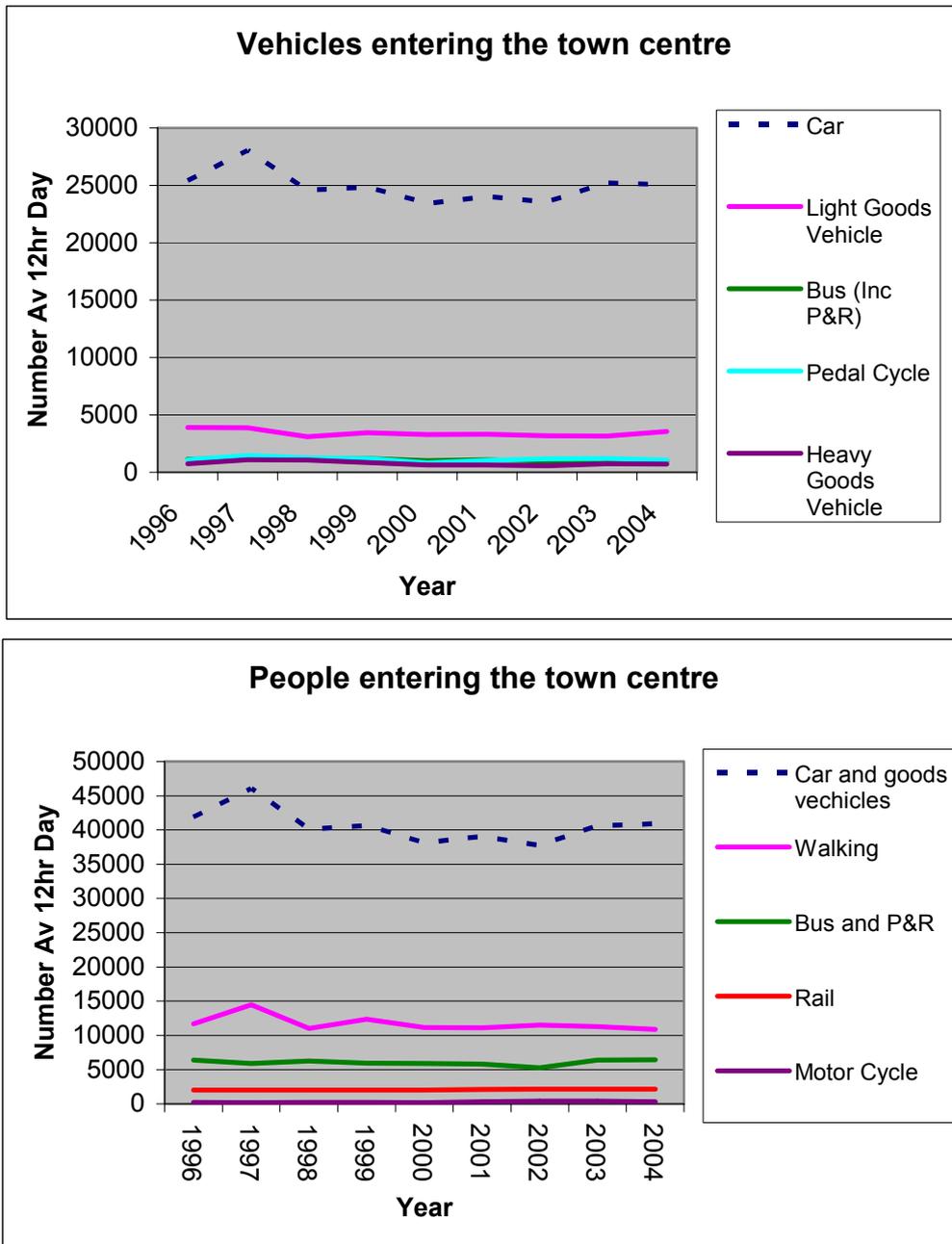


Fig 2.2 Traffic levels in town centre river loop



Fig. 2.3 Shrewsbury Town Centre

Congestion hotspots

Detailed analysis of congestion is possible for Shrewsbury using the detailed traffic model recently developed as part of the North West Relief Road study (see Appendix 2). In terms of the town centre it is clear that several key junctions are at or over capacity resulting in queuing and significant vehicle delay during peak periods:

- The Chester Street gyratory system
- Coleham Head
- Frankwell Island

Outside of the immediate town centre several junctions are at capacity incurring vehicle delays and queuing:

- Monkmoor Road / Abbey Foregate junction
- Meole Brace roundabout
- A49 Eastern Bypass/A5 Trunk Road
- Whitchurch Road/Harlescott Lane crossroads – this junction is also impacted upon by a nearby level crossing and pressure is likely to increase with planned retail expansion nearby.

- Anecdotal evidence also suggests that the Dobbies Island (the key interchange for vehicles travelling N-S Wales and N Wales to West Midlands) witnesses significant queuing at peak times and especially during school vacations.

Development plans for Shrewsbury (incorporating the emerging Shrewsbury & Atcham Borough Council Local Development Framework)

Housing Development

- Provision will be made for around 6,500 phased new dwellings (35% affordable housing) in the Borough between 2004-2021. The strategy will seek to achieve 65% of additional housing to be built on brownfield sites. The Shrewsbury urban area will accommodate the majority (75%) of new housing with the remainder (25%) in rural areas of the Borough.



Economic and Employment Development

- The Local Development Framework aims to promote economic prosperity consistent with sustainable development policies enabling the diversification of the economic base of urban and rural Shrewsbury. An additional 34 ha of employment land is proposed to ensure a total of around 100 ha of land (the Borough's Strategic Employment Land Requirement) is available for employment use (85% of additional land being in the Shrewsbury urban area and 25% in rural areas). It is proposed that the majority of additional development in Shrewsbury takes place on existing sites as well as a major new business park on land easily accessed by the Shrewsbury A49/A5 bypass.
- Major construction work currently underway includes the relocation of the existing livestock market to an edge of town location, the Shrewsbury Business Park is continuing to expand and will accommodate 50,000m² of office space.

Retail

- It is proposed that major new retail development will take place in the town centre, proposals for development will incorporate an improved High Street and town centre shopping Mall. Proposals for significant edge of centre or out of centre sites will be resisted unless justified. Local shopping centres will be supported and enhanced, in addition to this new shopping facilities may be provided to serve new housing sites.
- The construction of a new superstore is due to begin shortly at Harlescott on an edge of town site currently occupied by the livestock market.

Tourism & Leisure

- Provision will be made to expand and enhance both the role of tourism and leisure in Shrewsbury as a strategic centre in the Region and as key visitor destination. Most new tourism provision will be consolidated in the town centre.
- Preliminary works have begun in the centre of Shrewsbury to create a new theatre. A Sports Village is currently being progressed at Sundorne in the northeast of the town.

Air quality issues

There are currently three identified Air Quality Management Areas (AQMAs) in Shrewsbury:

AQMA	Predicted 2005 NOx Level
Bayston Hill	36-44 $\mu\text{g}/\text{m}^3$
Heathgates	36-40 $\mu\text{g}/\text{m}^3$
Extended Shrewsbury Town Centre	36-51 $\mu\text{g}/\text{m}^3$



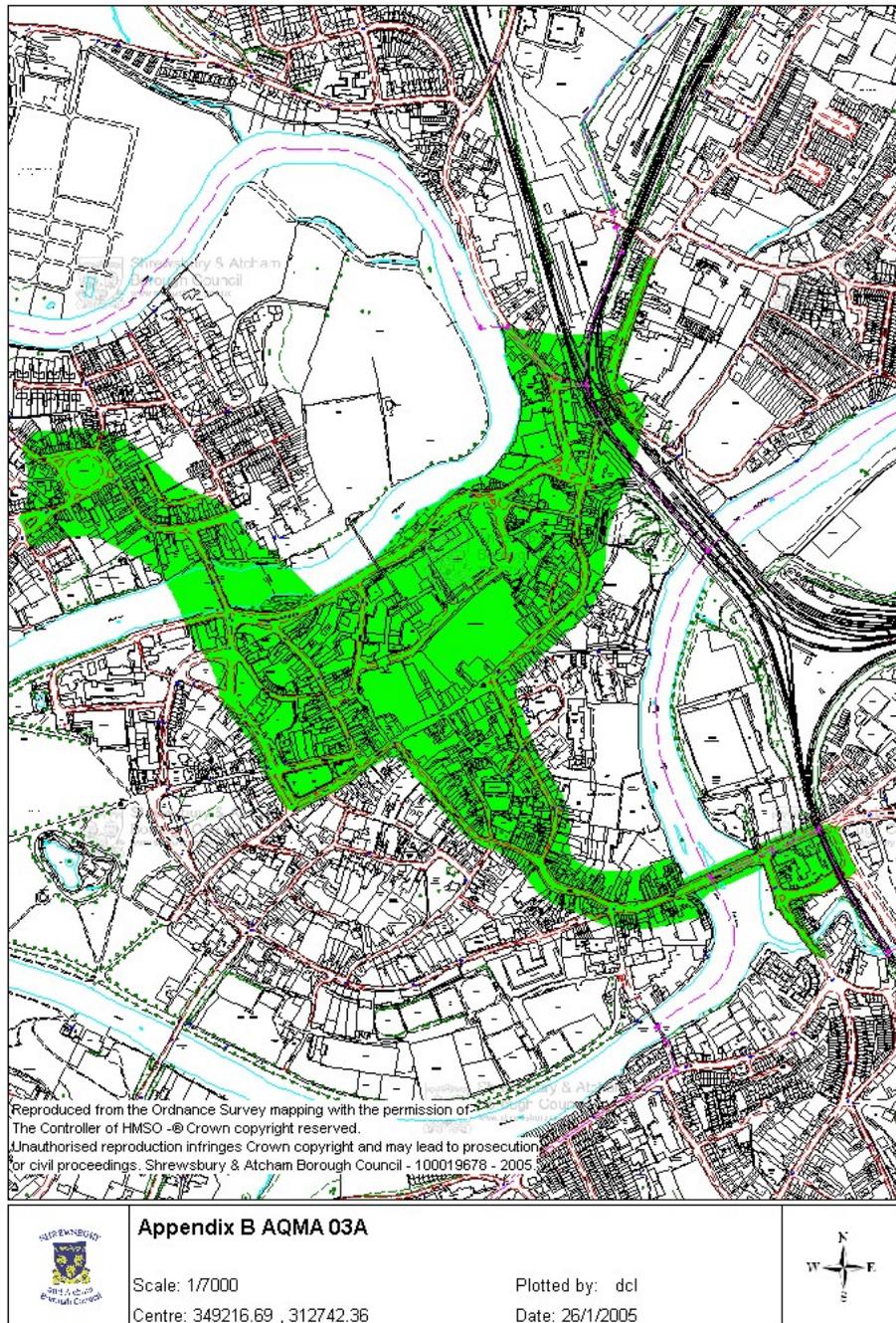


Fig. 2.4. Town Centre Air Quality Management Area

Wider environmental and economic issues

The town centre is covered entirely by a conservation area (one of seventeen in Shrewsbury) which attempts to protect and enhance the natural and built environmental assets of the town. Around 3.1 million visitors come to Shrewsbury each year¹ and bring with them vital revenue streams for local businesses. With increased numbers visiting the historic county town comes increased pressure on

the very assets which so many people come to visit, it is therefore paramount that we manage the environment and streetscape in ways which will secure the long term future of the town as both a local and regional centre.



The bid for TIF pump priming money provides the opportunity to radically rethink the allocation of road space to different uses, the nature of parking provision and formulate schemes which will provide long term economic and environmental enhancements

A key document providing a way forward for the town centre is 'The Shrewsbury Town Centre Strategy' the objective of which is - 'To build upon the natural, built and cultural assets of Shrewsbury town centre in order to secure its future economic, environmental and social well being. In doing so we will achieve a prosperous, sustainable and vibrant town centre.'¹

Accessibility and social inclusion issues

Bus Network

By Shropshire standards Shrewsbury has a fairly comprehensive bus network, with most weekday daytime services running commercially, operated by Arriva. Virtually all areas of the town are within 400m of a bus stop with at least an hourly bus service. The network operates with radial services around a hub of the town centre bus station.

A Quality Bus Partnership have been agreed for some routes within the town, some services operate with low floor buses, and new bus shelters are in place throughout the town. Over the last 5 years an extensive real time passenger information system has been introduced covering much of the town network.

¹ SABC Town Centre Strategy, 2004

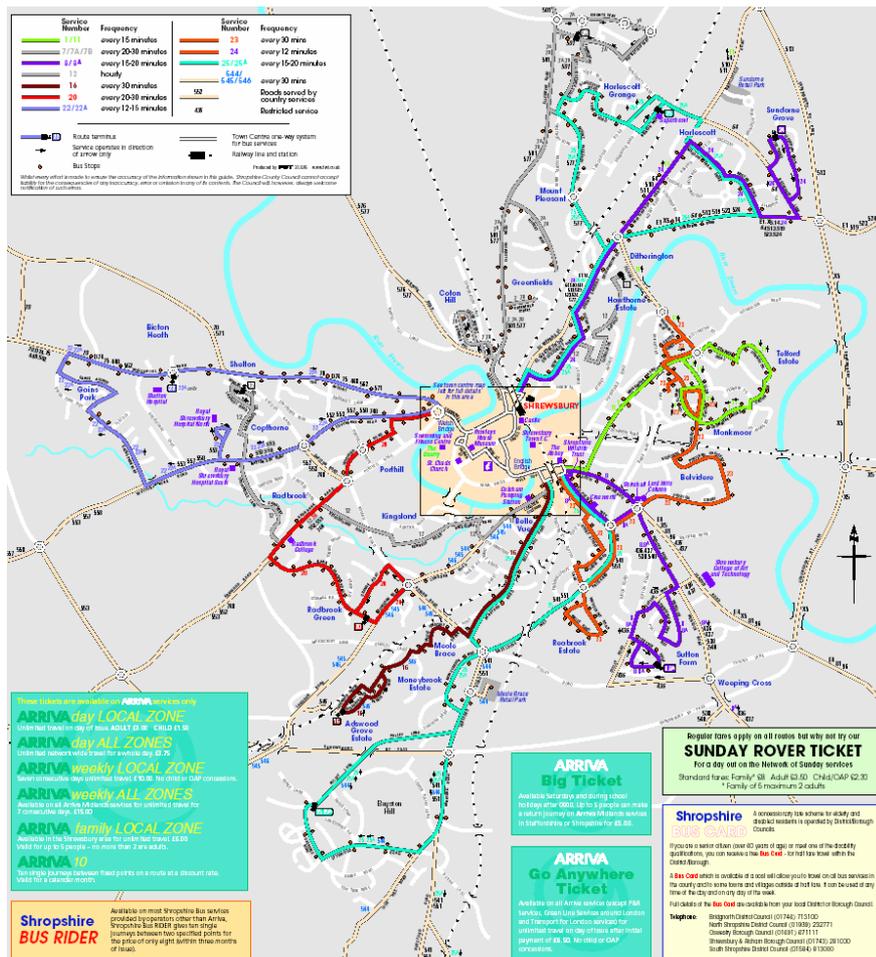


Fig 2.5 Shrewsbury bus network

Bus use (excluding park and ride) to the town centre is low and accounts for only around 7.5% of people journeys in to Shrewsbury

While bus user satisfaction in Shropshire is relatively high (78%) key barriers preventing greater use of the town bus services include costs and lack of cross town and circular services.

Rail access

Shrewsbury is a hub of the railway network, with lines from Aberystwyth, Chester, Crewe, Wolverhampton, Cardiff and Swansea converging in the town. The railway station is within reasonable walking distance of the town centre and close to the bus station. However, access to the station by car is made unattractive due to town centre congestion and limited parking availability. Access by other modes is also hampered by traffic and congestion impacts.

Cycle Network

A core cycle network, much of it using off carriageway cycle tracks, has been developed connecting key residential areas with the town centre, schools and employment areas. A high quality traffic free route runs around the river loop and along the river forming National Cycle Network Route 81 to the east, and three additional foot/cycle river crossings in the town centre and suburban rail bridges

enhance permeability, and provide time advantages over travel by car for some local journeys

However, there are still key gaps in the cycle network, particularly for travel through the town centre where busy and congested roads provide an unattractive environment for cycling.

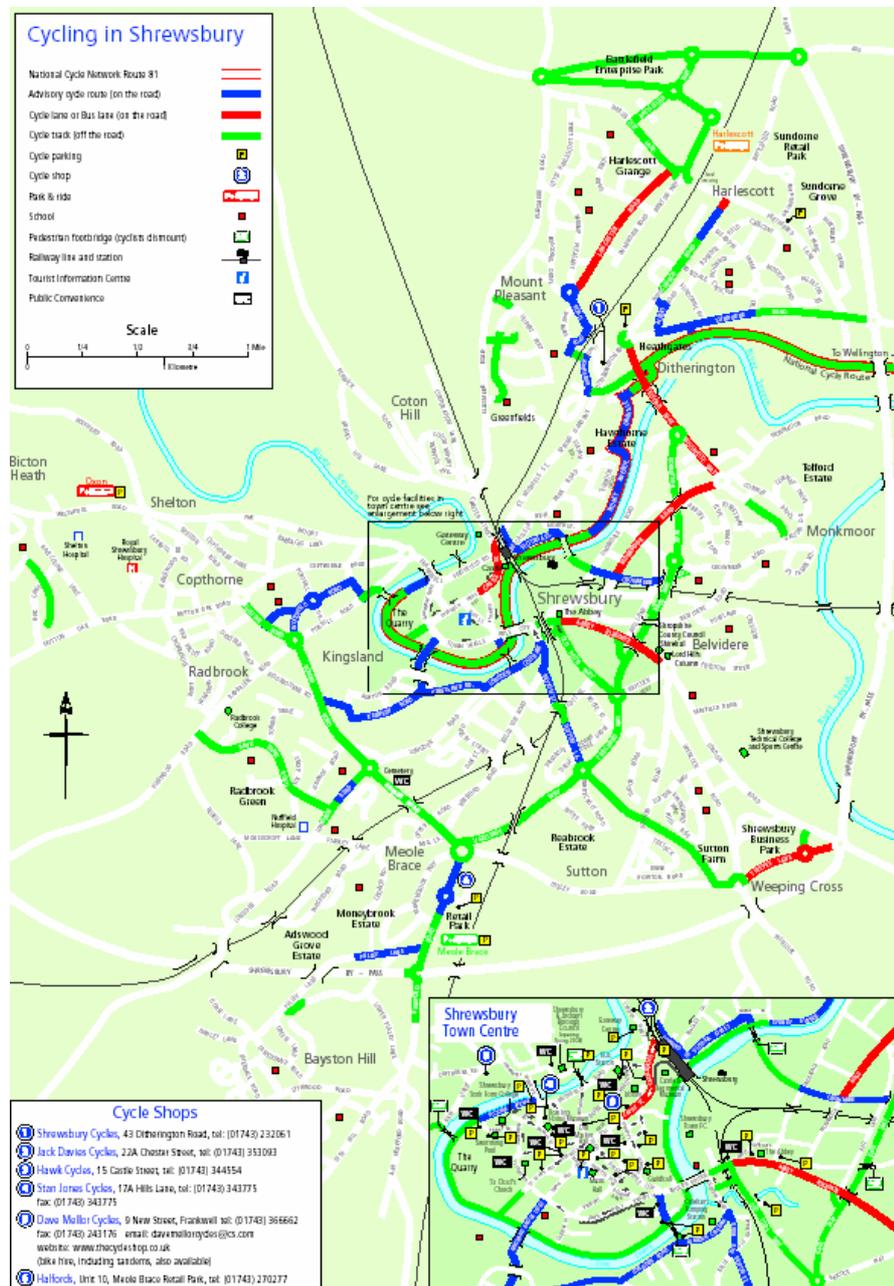


Fig 2.6 Shrewsbury cycle network

Pedestrian Network

In recent years significant progress has been made towards improving the pedestrian environment in the main shopping streets. Further work is required to enhance pedestrian access on routes into the town, and to suburban trip generators.

Safety and Health issues

During 2004, a crime perception survey of around 980 people across the Borough was undertaken (within 2004 Crime & Substance Misuse Audit). 30% believed car crime was a problem in the town centre. 24% of respondents saw road safety as being a problem in the town centre, only 7% perceived street lighting as a problem. It would though seem that there is a shift in perceptions depending upon the time of travel – on the whole people feel more secure during the day than at night. 60% of the sample felt safe using footpaths and alleyways during the day as opposed to 24% at night. Likewise 80% of people felt safe waiting for public transport during the day however at night this figure fell to 36%. Evidently fear of crime is a barrier to promoting non-car usage and measures should be taken in conjunction with other key stakeholders to address this, potential TIF related measures could include CCTV provision or improving the ambience of street environment.

4. Objectives and Targets

“We have already set clear objectives and targets for transport in Shrewsbury, in our Local Transport Plan. The proposed TIF project will enable us to deliver these objectives sooner and more fully, whilst allowing us to set even more challenging targets for radically improving transport in the County town. The time is right for us to raise our sights and aim for the best possible outcomes for the future of Shrewsbury.”

Shropshire Transport Objectives

Shropshire’s transport vision, objectives, priorities and targets are set out in Chapter 4 of our Provisional LTP.

It sets out our overarching objectives as:

Accessibility - To improve access to jobs and facilities in ways which are sustainable, particularly for people from disadvantaged groups or areas.

Environmental - To protect and improve the built and natural environment and reduce the impact of traffic on local communities.

Economy - To support sustainable economic activity and rural regeneration.

Safety and health - To create safer roads and healthier, more secure communities.

Shrewsbury Transport Objective

Our specific objectives for transport in Shrewsbury are identified as (see also Section 4.2 Provisional LTP):

- To improve local environmental quality and reduce the impact of traffic
- To reduce and prevent congestion
- To reduce road accident casualties
- To improve air quality particularly in AQMA's
- To reduce greenhouse gas emissions from transport

A TIF package for Shrewsbury would aim to accelerate progress towards achieving these objectives and seek to deliver outcomes that significantly exceed the targets set in the Provisional LTP.

Wider policy objectives for Shrewsbury

Regional economic and spatial strategies identify the important role of Shrewsbury as a key sub-regional economic, social and cultural centre and foci for growth, helping to support the regeneration of surrounding rural areas. The further development of the visitor economy has been identified as one of the key drivers for economic growth, and The West Midlands Visitor Economy Strategy identifies Shrewsbury as one of the most important destinations for investment.

The local Visitor Economy Strategy has a key target is for a 25% increase in numbers and a 40% increase in spending over five years. However, the transport impacts of increased numbers of visitors will need to be addressed in order to build upon the identified brand positioning statement blue print for future development of Shrewsbury:

“Shrewsbury provides the ideal antidote to the stresses of urban life where visitors can re-charge and re-invigorate through the relaxed experience of an accessible but unspoilt historic English town that balances the surprising discoveries of its antiquity with sophisticated pleasures in a safe, clean and friendly environment.”

The Shrewsbury Town Centre strategy identifies a number of aspirations for the town including:

- To provide a high quality public realm which complements the quality of the natural and built environment;
- To provide a town centre that is accessible but promotes greater pedestrian movement throughout the town centre;
- To provide a town centre that is alive in the evening as well as the daytime and encourages people to stay longer;
- To provide a quality of life that is comparable to the most desirable locations throughout the UK;
- To provide a town centre that is recognised as an international tourist attraction, and education/leisure destination well beyond the sub region; and
- To provide a town centre whose future economic prosperity will be enhanced by its new found status.

The Draft Shrewsbury and Atcham Borough Council Air Quality Management Area Action Plan 2005 sets out a series of measures which should be pursued in order to improve air quality in the town, such measures included:

- Upgrading passenger transport infrastructure
- Expanding the cycle network
- Investigation of a congestion/access charging scheme
- Investigation of options for further pedestrianisation of the town centre

TIF Objectives

Building on the LTP objectives and priorities our specific objectives for the Shrewsbury TIF package are:

Outcomes

- A outstanding town centre with a high quality, unspoilt environment which is largely traffic free that attracts people to Shrewsbury and makes them want stay and return
- Improved air quality - low levels of pollution, substantially exceeding AQMA thresholds
- Reduced congestion throughout the town- with minimal delays for all road users and reliable journey times throughout the day
- A net reduction in greenhouse gas emissions from transport in Shrewsbury
- Improved health through higher levels of walking and cycling
- Fewer road accidents and improved perceptions of road safety and security
- Improve accessibility and more travel choice and opportunities for people without access to a car.
- Improved accessibility for people with disabilities
- A transport system which can successfully support growth and diversification of the local economy
- Stabilise traffic levels throughout the town, and reduce traffic in the town centre and congested areas
- Modal shift – more walking and cycling throughout the town, greater use of park and ride and buses and increased use of rail for longer distance journeys to/from Shrewsbury
- Traffic to utilise the most appropriate routes, where there are the fewer environmental and safety impacts.
- Increased public awareness of travel choices and use of appropriate travel options

Outputs

- Effective use of demand management measures including road user charging and complimentary parking controls, as well as softer measures such as car sharing.
- A top class bus based public transport network providing frequent, direct and competitively priced which provides an attractive travel option compared to the private car
- Enhanced park and ride facilities fully integrated into the town bus and cycle networks
- High quality, convenient, safe and secure cycle and walking networks inspired by the best European examples
- Easier access to and from the national rail network
- Necessary improvements to the local and trunk road network in and around Shrewsbury, possibly including a new North West Relief Road
- Development and implementation of innovative transport measures, utilising new technologies, which could be transferred to other similar towns across the UK.

Table A1.1 and A1.2, Appendix 1 identify how the elements of the potential TIF scheme link to the national shared priorities and LTP objectives; and how a TIF scheme would impact on Shropshire LTP targets

5. Local Support

“Traditionally, people and businesses are often reluctant to endorse radical transport measures. However, in recent years, key business leaders in Shrewsbury have been challenging the Council to embrace a bolder vision of a more traffic free town centre, albeit one which remains highly accessible. A significant proportion of local people now tell us that road pricing should be considered as a solution to traffic problems. The time is right to bring together the widest possible range of people and interest groups to build on the emerging consensus that we need to do more, and better, than hitherto.”

Public Opinions and Perceptions

There is a very strong public desire to reduce the impacts of traffic within Shrewsbury town centre. A recent public consultation regarding proposals for the North West Relief Road (May 2005) generated over 1,000 responses and showed that the great majority (80%) of these want something done to reduce or manage town centre traffic. This in itself is hardly surprising, but the consultation also identified strong support for the improvements to alternative modes with a clear majority of respondents supporting improvements for walking, cycling, buses and Park and Ride.

Although no specific details or proposals for road pricing were set out in these consultations, nearly 40% of respondents stated that they would support road pricing. We believe that this level of support would be significantly increased if appropriate road pricing proposals were put forward as a part of an integrated package to address the strong public concerns regarding traffic in Shrewsbury town centre.

Initial Stakeholder Consultation

The County Council's plans to submit a detailed TIF proposal, and its wish to undertake a feasibility study of road user charging for Shrewsbury were set out clearly in the Provisional LTP 2006-2011 (pages 183 and 117). The Provisional LTP was subject to wide ranging consultation and supported by all key stakeholders.

Initial discussions regarding a potential Shrewsbury TIF package (including road pricing) have been held with the representatives of the Department for Transport and Government Office West Midlands. These discussions helped us to understand more clearly what the DfT wants to achieve through TIF proposals.

Clearly the submission of this TIF pump priming bid will generate a great deal of interest and discussion locally. We fully expect to hear a wide range of views from individuals, interest groups and organisations, and are prepared to listen carefully to each of these and engage constructively with them all, should the PPG bid be successful. We have not, however, promoted a wider public debate or undertaken formal consultations about the proposed TIF bid in advance of its submission. We see that as part of the study we have to undertake, and in this

we are no different from any other Council which has decided to pursue the TIF route. We have, however, discussed the proposal in principle with the Shrewsbury Business Chamber, which includes senior representatives of the County Council, Shrewsbury and Atcham Borough Council and local business leaders. This group sees the TIF as an opportunity that should be explored, though it is too early, and would clearly be presumptuous, for any group to formally commit itself to a future TIF project at this stage.

We have shared our intention to submit this PPG bid with representatives of our neighbouring Telford and Wrekin Council, and other West Midlands authorities. We see possible synergies to be exploited should a TIF PPG bid from the West Midlands be submitted and accepted.

We have also shared our intentions with Arriva, the main local bus operator who would be an important partner in delivering any TIF project.

Partners

Part of the TIF development work will include the establishment of an extensive consultation programme and a management group made up of key stakeholders. Further details are given in Chapter 6.

6. The Outline TIF Package

“Through the TIF project, we intend to provide much better public transport, an improved Park and Ride service, a more comprehensive network of pedestrian and cycle routes, major environmental enhancements and road space reallocation, and lower levels of congestion. To achieve this we will be considering major improvements to the transport and an effective system of demand management through road pricing – not as competing solutions or crude “sticks and carrots”, but as complementary measures which can ‘lock in’ the benefits of reduced congestion.”

Overview

This chapter sets out the Council’s initial concept ideas for a package of measures that could potentially be delivered using Transport Innovation Funding, providing a more detailed description and rationale for the package as summarised in Chapter 1. The measures identified here have been developed through an option scoping process, drawing upon a high level assessment of expected benefits and implementation costs. It is emphasised that this concept is by no mean seen as the only or final solution for Shrewsbury. The TIF Pump Priming grant would be used to undertake full feasibility of all the potential solutions for Shrewsbury. Importantly, we would actively liaise with DfT and other local authorities taking forward TIF development work in order to ensure that on a national basis there was adequate investigation of the range of viable road user charging mechanisms, and to identify and exploit synergies between pilot schemes which could reduce costs and enhance benefits. We would be particularly keen to work closely with other authorities within the West Midlands taking forward TIF development work.

We recognise that at this stage any potential TIF bid should include innovative ways of delivering:

- Demand management measures
- Passenger transport initiatives
- Walking and cycling improvements
- Road space reallocation/highway improvements

Demand management

The TIF guidance asks authorities to seriously consider the case for radical demand management measures. Shropshire has historically, in partnership with Shrewsbury and Atcham Borough Council, pursued a relatively low intensity demand management strategy focused on controlling town centre parking alongside the introduction of edge of town park-and-ride facilities. While this has been successful there is, as discussed in Chapter 1, increasingly recognition that higher intensity measures are required – what we have termed an enhanced demand management strategy.

Demand management measures

A high-level scoping exercise has sought to identify the enhanced demand management tool(s) appropriate to the specific needs and circumstances of Shrewsbury for more detailed investigation. In line with TIF guidance we recognise that some form of charging for road use is needed. While there are opportunities to introduce further layers of parking controls – including workplace parking – our initial conclusions are that these would not provide sufficiently focused demand management tools. Although the case for conventional parking restraint measures and workplace parking will need to be reviewed in more detail as part of TIF package development study, it is considered that some form road user charging should form the basis of the initial candidate.

Up until the TIF initiative it was perhaps difficult to conceive how some of the smaller towns and cities in England could progress with more radical demand management measures such as road user charging. The TIF process potentially provides a mechanism and the funding to do this. The TIF initiative also recognises that for measures such as congestion charging to be rolled out on a national basis there must be a proven case of their benefits in towns such as Shrewsbury. To this end, the scoping process has considered a number of key dimensions of a potential road user charging scheme.

Charging area

The charging area is that within which drivers would be charged for using their vehicles. Consideration was given to a number of charging area options, as follows:

- (i) Selective point charging at key locations on the local strategic highway network;
- (ii) A charging area focused on Shrewsbury town centre – defined by the River Severn loop;
- (iii) A charging area focused on the town centre and inner area – within the inner ring road (formed by the old A5 to the south, now the B4380, and the A5112 to the east);
- (iv) A charging area focused on the town centre and inner area – just outside the inner ring road (formed by the old A49 to the south now the B4380 and the A5112 to the east); or
- (v) A charging area within the outer bypass (i.e. the A5 to the south, A49 to the east and A5124 to the north, and if constructed the NWRR to the west).

Drawing upon a review of the pros and cons of different area, Option (ii) is considered the initial preferred option for further consideration as part of the TIF process, for the following reasons:

- It focuses on the area on travel movements where traffic congestion and pollution is currently greatest, enabling demand management measures to focus both on radial movements into the town centre and on town centre through movements.

- It is a small area making the scheme relatively simple and cheap to implement and for users to understand;
- There is limited possibility for multiple crossings of the charging area boundary – i.e. drivers would not be faced with route choices that require entering and then re-entering the charging area;
- The scheme would discourage through traffic – i.e. vehicles that pass through the town centre but do not have either an origin or destination there. (As there are limited alternative routes, a further potential option is for the availability of suitable alternative routes to be further enhanced with the construction of the NWRR);
- By focusing on the town centre the scheme ensures that there are public transport alternatives available for trips to and from the central area, by rail, bus and park-and-ride.
- The nature of the town centre area with a defined physical barrier in the form of the River Severn means that there will be no significant adverse boundary effects caused by traffic using unsuitable local roads as a means of avoiding entering the charging area;
- The nature of the scheme means that the number of cordon entry points can be kept low – thereby reducing the implementation cost of the scheme and increasing the practicality of delivery;
- The scheme maps onto the objectives to protect the historic core of Shrewsbury and tackle air quality in the Air Quality Management Area; and
- The small scale of the scheme, the availability of alternative modes and routes, and its linkage to clear objectives for the town centre are likely to engender more public and political support than schemes with a wider geographic scope. It is noted that the precise location of the entry and exit points of the charging area would need to be confirmed by further more detailed feasibility study.

The type of charge – whether area licensing (payment to drive within a given area) or a cordon charging (payment to cross a cordon) scheme – would be likely to be dependent on the technology applied (discussed further below). It is also noted that in the longer term combinations of charging areas could be considered (e.g. central area plus outer cordon).

Hours of Operation and Charge Levels

The precise hours of operation of the scheme and the level of the road user charge would be a key issue that would need to be assessed as part of a detailed feasibility study. The hours of operation should as a minimum focus on those times of day when congestion is at its worst. This may include Saturdays as well as weekdays. Consideration could also need to be given to operating the scheme at off peak periods.

Charge levels will need to be set at a level that contributes to achieving a change in travel behaviour such that traffic levels are reduced and the use of other modes are increased. Charge levels will also need to be set so that the scheme raises sufficient revenue to cover its operating costs and provide an ongoing funding stream for other transport improvements in Shrewsbury. It is noted that the selection of charge level and hours of operation will also need to be

considered in conjunction with parking charges as well as the provision and price of travel by bus and park-and-ride.

Charge levels would also need to be set at a level that was both publicly and politically acceptable given the need to balance tackling congestion and pollution against the maintenance and enhancement of the town centre's economic vitality.

Exemptions

Certain groups of road user would be expected to be exempt from the payment of the road user charge. A range of factors would need to be considered, though noting that exemptions will need to be kept to a minimum for the scheme to function effectively. Again, this would have to be the subject of further study and ultimately consultation.

Technology

The selection of appropriate technology with which to implement the enhanced demand management scheme is something we would wish to discuss further with the Department.

Although the traffic and transport problems faced by the town are significant, it is recognised that the scale of a congestion charging solution is small relative to other major cities and conurbations. Realistically this would suggest that for towns like Shrewsbury, the congestion charging technology would need to be cheap to implement and operate, to ensure that the scheme can generate revenue to invest in other transport improvements.

However, a key element of the TIF process is to ensure that technology applied is aligned with an eventual national scheme and that scheme implementation adds to a climate of understanding on road pricing. Thus the selection of an appropriate technology option for Shrewsbury would ultimately need to be seen in the wider national (and potentially) regional context. Nevertheless, at this stage of concept development, we see that a technology solution that is suitably low cost will be most appropriate for towns such as Shrewsbury. However, there is a balance between selecting systems with low set up costs and high ongoing operating costs against higher set up costs yet lower operating costs.

Of the current available technologies Automatic Number Plate recognition (ANPR) is considered to be the cheapest to deliver, and as in London could be used as an enforcement mechanism (i.e. the technology is used to detect drivers who have not paid such that they can then be issued with penalty notices). It is recognised that the cost of running such a system could be high, thereby eroding revenue generation benefits. The use of "tag and beacon" via Dedicated Short Range Communications (DSRC) technology is also an alternative. This is yet to be used in the UK in a full cordon based charging application. This, coupled with the high start up costs could make it infeasible for application in Shrewsbury. However, such a system could operate as a charging system (i.e. charging vehicles by debiting a driver's account) rather than just as an enforcement mechanism) and potentially have relatively low operating costs.

One of the key issues for both systems is the number of potential road users who would at some point in time wish to enter the charging area. Potentially there is a large number of very occasional users – Shrewsbury is the regional centre for a large rural hinterland as well as being a tourist destination. The charging system would need to be sufficiently flexible to accommodate such users. While an ANPR-based enforcement system would only require occasional users to register for payment on the day in question, the “tag and beacon” approach requires an in-vehicle unit (IVU) in each car. A high level of occasional system users would therefore mean that some form of ANPR back up system is likely to be needed to the “tag and beacon” system.

It is emphasised that a detailed assessment of technology options would need to be made against overall scheme objectives. For the purposes of setting out a concept enhanced demand management scheme it is considered that either an ANPR or “tag and beacon” based system could be deliverable in Shrewsbury.

Operation

The means by which the enhanced demand management system could be procured and operated would also need to be the subject of further study.

Complementary Demand Management Measures

In conjunction with the implementation of charging based on a town centre cordon, changes would be required to parking controls. This would require:

- Setting parking charges inside the charging area to a level such that the combination of area/cordon charge and parking charge is acceptable and encourages appropriate travel behaviour responses; and
- Introducing parking controls in areas outside the charging area to prevent inappropriate parking in residential or commercial areas by drivers parking outside the charging area and then walking in.

The Council is already progressing with Decriminalised Parking Enforcement (DPE) which will increase the effectiveness of parking controls.

Passenger Transport Improvements

A significant enhancement to the quality and the capacity of public transport services would be a fundamental part of any Shrewsbury TIF package. This would be critical to enhancing accessibility, increasing travel choice and achieving modal shift.

Bus services

The TIF package would enable bus services to be substantially improved, as follows:

- **Further bus priority measures** - SCC has already implemented some bus priority measures, and installed real time information on many of the main bus corridors in Shrewsbury. As set out in the Provisional LTP, we plan to implement further priority measures. However, under existing conditions options for bus priority are limited; both due to limited funding

and road space. The implementation of the enhanced demand management scheme would be expected to reduce traffic levels significantly on the approaches to the town centre and within the central area itself. The TIF package would therefore permit more extensive bus priority measures to feasibly be introduced, thereby giving significant journey time and reliability benefits.

- **Improved service quality and service frequencies** – working in partnership with the main local bus operator and through tendered services, SCC has been able to deliver service improvements on many corridors in the town. The ability to provide further bus priority enhancements and the availability of additional revenue funding that the demand management measures should raise will enable further service improvements to be secured, These should include newer, higher quality and more accessible vehicles and more frequent services.
- **Improve the waiting experience for passengers**– all local buses operating in Shrewsbury already utilise real time information, though not all stops are equipped. The TIF package would enable the system to be expanded faster than would otherwise be possible. Other measures to improve the security and comfort of passengers waiting for public transport services.
- **Provision of orbital services** – the Council is already progressing the development of an orbital bus route in conjunction with a major retail site that will also serve the hospital. As part of the TIF package we envisage that further orbital services could be introduced funded initially as supported services.
- **Development of cross-town routes** – as with many urban areas, bus operators are reluctant to operate bus services across town or city centres on ground of service reliability. In a scenario with significantly less congestion on the approaches to the town centre coupled with enhanced bus priority we believe that there is very significant scope to work with the operator in developing better linked cross-town services.

Park-and-Ride

Shrewsbury has had a successful park and ride scheme since the early 1990's. Enhancement of park and ride facilities and services would be seen as a key part of a TIF package, to ensure excellent accessibility to the town for people living in the large and sparsely populated rural hinterland of Shropshire and beyond. SCC has a longer term ambition for a fourth bus-based park-and-ride site to complement the three already successfully in operation. The TIF package concept assumes that the delivery of this fourth site could be accelerated to be within the LTP2 horizon. It is noted that the business case for a fourth site would be strengthened by the application of enhanced demand management in the town centre.

Rail

We have already undertaken an initial feasibility study for a Parkway Station to the east of the town at Preston Boats on the Shrewsbury-Birmingham line at the junction of the A5 and A49. This preferred location could:

- Be accessed by the Shrewsbury bypass (A49 and A5);
- Provide substantially more car parking and very substantially improved car access than the current town centre station, and thereby enhance accessibility to rail for those living in the rural hinterland, and contribute significantly to greater use of rail for longer distance travel;
- Also provide the fourth park-and-ride site for bus-based park-and-ride for journeys into Shrewsbury.

The scheme is identified in the Provisional LTP as a candidate for a major scheme bid towards the end of LTP2. The TIF package could very significantly accelerate the delivery of the scheme in terms of funding, and would strengthen the business case for the scheme in terms of the park-and-ride linkage with demand management. However, it is recognised that the delivery of this type of scheme will be very complex and may be difficult to achieve in the time scales of the final TIF project.

Walking and Cycling

Shrewsbury is a relatively small and compact town with moderately high levels of walking and cycle use. The key barrier to maintaining and enhancing modal share by these active modes is seen as the provision of safe and attractive facilities.

The TIF package will enable enhancements to facilities for pedestrians and cyclists over and above those possible through the LTP2 capital allocation. On the approaches to the town centre the reduction in traffic levels associated with the demand management scheme is expected to enable improved footways and cycleways and increased pedestrian mobility. Inside the charging area itself, the traffic reductions could be expected to enable much greater priority to be provided for pedestrians and cyclists and these would incorporate environmental enhancements.

Highway Network

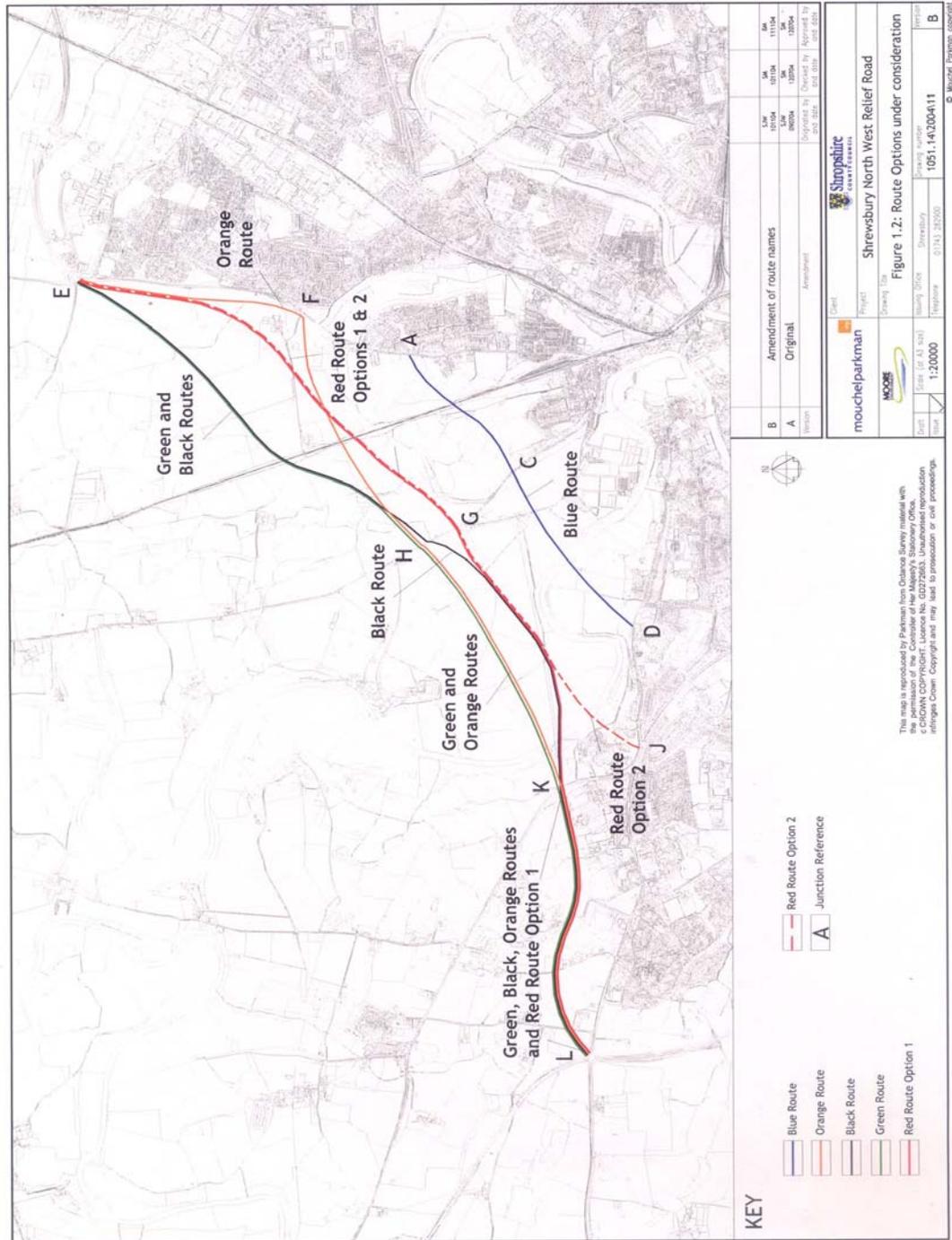
An important part of a TIF package would be complimentary highway improvement works.

This would include works within and on routes approaching the town centre to redistribute freed-up road space, turning more space over to public transport, pedestrians, cyclists and environmental enhancements. Important potential environmental enhancements could include major improvements to the riverside

area around Smithfield road; maximising the potential of this area currently lost to traffic; as well as underdeveloped West End area of the town.

There will also be the need to undertake targeted works to enhance the capacity of other junctions and roads within and around the town to cater for the impacts of re-routed traffic. This might involve improvements to the existing outer distributor road and ring road and/or the provision of the **Shrewsbury North West Relief Road (NWRR)**.

Fig. 6.1 Shrewsbury North West Relief Road Proposal – Route Alignment Options



The possible completion of the final “missing link“ in the towns strategic road network could potentially be a part of a TIF package bid. The Shrewsbury NWRR is identified as a possible major scheme for the LTP2 period in the Provisional LTP. The scheme would involve the construction of a new road to the north west of Shrewsbury providing a major new river crossing. The road could provide relief to the town centre and arterial roads from local through traffic by providing an alternative route between the north and west sectors of the town.

The Council is yet to decide on whether to progress with the NWRR scheme having just completed a major public consultation exercise. The economic benefits of a north-west relief road would significantly outweigh its costs; and the potential for traffic relief in the town centre and its approaches is widely supported; however there are significant concerns over the irreversible impacts a new road would have on the local environment. The route alignment options recently the subject of public consultation are shown in Fig. 6.1.

The enhanced demand management element of the TIF package would be strongly supported by a NWRR scheme, in that it provides an alternative to crossing the town centre by car for North-West movements. The presence of demand management in the town centre would also significantly reinforce the benefits of a NWRR scheme by ensuring that traffic reduction in the town centre would not eroded by new traffic growth.

Linkages and Synergies

The concept TIF package is not a collection of individual schemes. All elements are linked. This clearly implies that the full package would need to be implemented in order to achieve the maximum benefits of any one of the elements. The key linkages may be summarised as follows:

The enhanced demand management proposals would:

- Reduce road traffic levels in the town centre thereby enabling better provision for pedestrians and cyclists and for buses in the town centre itself and on the constrained road approaches to the town centre;
- ‘Lock in’ the benefits of congestion and traffic reduction
- Provide complimentary demand management measures to ensure the road pricing element had the desired impacts
- Raise revenue to support the implementation and operation of other package elements;

The public transport, cycling and walking improvements would:

- Provide realistic alternatives to the car facilitating modal shift and increasing acceptability of demand management methods
- Provide for higher levels of service quality and capacity to make bus park-and-ride, cycling and walking attractive and realistic alternatives for using the car for journeys to and through the town centre;

- Provide an alternative option to the town centre station for rail passengers wishing to access rail services by car;

The highway improvements would:

- Provide necessary highway improvements to prevent congestion occurring at other nodes of the network due to re-routing, and reduce impacts on unsuitable roads
- If the NWRR is pursued as part of a TIF package, this would provide an alternative route for car users between north and west sectors of the town to passing through the town centre, thereby further contributing to the town centre traffic reduction effect and enabling improvements to other modes.

Costs and Benefits

Outline costs and revenues have been calculated in developing the concept TIF package. These indicate that providing the ongoing operating costs of an enhanced demand management scheme can be kept to a minimum, the scheme could generate an acceptable revenue stream that could then be used to substantially improve Shrewsbury's transport system. However, the level of revenue generated by a publicly and politically acceptable scheme would be very unlikely to make significant contributions to the cost of the major transport infrastructure projects included in the package. These would require additional capital funding through the TIF process. Clearly the scheme's costs and revenues would need much more detailed assessment as part of the development of a full TIF bid.

7. Proposed Development Work

“We are bidding for pump priming grant to develop these ideas in much more detail and engage more fully with a wide range of stakeholders. We set out below what we believe needs to be done over the coming months next, but we do not want to be unduly prescriptive: we are prepared at any stage to discuss with the Department of Transport any alternative approaches to this important work, and to share what we have learnt as widely as possible.”

Overview

In order to fully develop Shropshire’s Transport Innovation Fund bid the following development work is required:

- a. Inception and project management.
- b. Media management and public consultation.
- c. Development of multi-modal transport model.
- d. Demand Management feasibility study.
- e. Multi-modal transport infrastructure and service improvements study.
- f. Technology and procurement options for the preferred scheme.
- g. Model testing of combined scheme packages and business case.

For each area of work we outline below the:

- Key tasks and study outputs.
- Timescale for undertaking the work.
- Interaction with the other studies.
- Indicative cost, partner contributions and funding sought.

a. Inception and project management

Key Tasks and Outputs

A project management group made up of key stakeholders will be established to oversee the TIF development work. We anticipate the following organisations being represented on the group:

- SCC- senior officers and cabinet member
- SABC- senior officer and cabinet member
- GOWM
- DfT
- Highways Agency
- Arriva bus
- Walking and cycling representative (e.g. Shropshire Cycle Forum).
- Chamber of Commerce
- Freight operators or their representative groups.

- Police and emergency services
- Town Centre Partnership
- Shrewsbury and Atcham LSP
- Motoring groups.
- Residents groups
- Environmental interest groups
- Local Access forums and other groups representing disabled people

This group will, in the first instance:

- Agree scope and parameters for the study
- Agree budget contributions.
- Issue a range of briefs for the various studies.
- Manage the process of appointing a consultant or consultants to the studies.

At this stage an inception report will be produced to outline in more detail the key tasks and (importantly) the commitment of study partners.

Timescale

It is anticipated that forming a project management group, full development and approval of the briefs and writing an inception report should take up to 4 months as this timescale will need to allow time to fully involve key partners in the process, member approval of the arrangements and appointment of suitable consultants via the OJEU process.

Interaction with Other Studies

The inception report is essentially a blue print for the whole project and should provide details as to how the other studies will relate to one another. However, it is hoped that some studies may be able to start before this work has been completed.

Indicative Costs

It is estimated that the inception process and report would cost around £15,000, with project management costs for the whole study process at around £90,000.

b. Media management and public consultation

It hardly needs saying that any TIF scheme is likely to be politically controversial and public support will need to be built up over time if there is likely to be any chance of success.

Key Tasks and Outputs

Therefore a key strategy throughout the study and implementation period is a pro-active consultation and media management strategy. At risk of simplification there are likely to be four main strands to this work, two of which are discrete projects and two are ongoing:

Discrete Projects

Market research of initial public views on the TIF proposals – in particular getting to see demand management as part of a wider beneficial package of measures to tackle key problems. This could include a series of household and workplace based structured interviews based on a revealed preference type questionnaire. The questionnaire would need extensive piloting in order to ensure that the most relevant questions were asked.

Strategic advice on managing detailed public consultation as the scheme is worked up (the actual consultation itself should be part of the individual studies) – based on case studies of similar schemes and the results of the market research. A detailed public awareness campaign to prepare people for scheme implementation (this is of course dependent on the scheme being accepted for TIF funding).

Ongoing Assistance

Regular close liaison with local press and radio to make the aware of the TIF work and ensure that coverage is balanced. Handling enquiries about the work from local residents, interest groups and others (including local authorities and transport professionals elsewhere in the UK) and maintaining a set of resources on a dedicated web site.

Timescale

The two discrete projects should be undertaken within the first two months of the development process – so that the advice is able to inform the conduct of the individual technical studies and the subsequent implementation phase. The ongoing support will, by definition, need to be available throughout the project although this should not be a full time task.

Interaction with Other Studies

By definition the ongoing public and media management work will need to reflect the conclusions from the studies – especially the conclusions on demand management.

Indication of Potential Cost

It is estimated that this phase of the study would cost around £35,000 on top of any normal costs associated with general LTP consultation.

c. Development of multi-modal transport model

Key Tasks and Outputs

In order to be available for use in both option analysis and assessing the business case for the overall scheme package, an essential initial task is the development of a transport model that is able to test the traffic effects of demand management options and (crucially) evaluate impacts on the use of all modes. The key tasks can be outlined as follows.

Scoping

It is very important that at an early stage the most appropriate modelling package is identified – in particular one that could test the impact of a range of road pricing scheme types. Specific tasks could include:

- A desk based investigation of the most appropriate multi-modal model package for assessing a range of possible demand management schemes in Shrewsbury. A number of previous road user charging studies should be assessed for their approach to modelling. The assumption is that this modelling work will build on the existing SATURN highway model.
- At this stage it is assumed that the existing highway model does not require substantial updating by new Road Side Interview Surveys.

Surveys

As there is likely to be little multi-modal data that can help to build and validate the model the following tasks are likely to be required:

- Revealed preference surveys that estimate current modal split (these could be undertaken at the same time as the market research survey).
- Stated preference surveys and group discussions in order to determine response to a number of pricing and service scenarios that form part of the proposed TIF package.
- Surveys of existing public transport services to provide information for input into the model – capacity, journey time, fare levels, reliability and walk times to bus stops.
- Patronage data and (depending on level of disaggregation) bus stop origin / destination data – both of which could be used to validate the base model output.

Model Building and Validation

The model has to be a robust tool for predicting future scheme impacts. Therefore based on the survey information the next stages should be:

- Construction and validation of the mode choice model based on the survey information.
- Development of future year forecasts so that any assessment of costs and benefits over time can be made.

Interaction with Other Studies

A validated base year and forecast model will be a key part of testing the demand management options, the infrastructure improvement options and (most crucially) the combined effect of the preferred package.

The selection of the most appropriate model will also have to make reference to the initial feasibility of various charging options (see below). There is little point in spending money on developing a model only to discover that the charging option for which it is best suited is not actually deliverable.

Timescale

The process of developing a multi-modal model is not a quick process and robust design and implementation of survey work will be particularly important. It is therefore suggested that a timescale of 5 months should be allowed.

Indication of Potential Cost

It is estimated that this phase of the study would cost around £170,000.

d. Demand management feasibility study

Key Tasks and Outputs

There are three broad options for demand management (which could be applied in combination with one another). These are:

- Cordon pricing – charging vehicles to cross a cordon around an urban area.
- Area pricing – charging vehicles moving within a defined area.
- Route pricing – charging vehicles for moving along a route.

The potential variables for charging are time, place and distance. A scheme that is able to charge vehicles for all three of these variables captures the amount of driving taking place in addition to where and when. This means that pricing would best reflect the actual social and economic costs of making a car journey in congested conditions.

The DfT Report Feasibility study of Road Pricing in the UK states:

“While a national scheme is at least ten years away, there are reasons for undertaking forms of road user charging on the more limited scale that is technically feasible now, in particular area or cordon congestion charging. These can help to address current problems on the road network, improve our knowledge of the practicalities and effects of pricing, and, through growing familiarity, should greatly improve understanding of its benefits.”

In view of the need for local schemes to effectively act as a trial for a possible national scheme, any demand management study for Shrewsbury should be careful not to rule out a particular form of charging until substantial technical work has been done. In particular the potential to charge vehicles by the distance they travel (in addition to time and place) could be considered even in the context of a small area such as Shrewsbury.

This Demand Management Feasibility Study should be a detailed assessment of options for congestion charging so that the overall concept is established before any detailed modelling assessment work is undertaken. In terms of the detailed tasks these should be as follows.

Definition of Scheme Types

This should be a desk based research project looking at the different scheme types and their ability to charge by time, place and distance. A number of active charging schemes should be assessed in terms of their advantages, disadvantages and (crucially) their potential applicability to Shrewsbury.

Problem Definition

The actual congestion problem in Shrewsbury needs to be defined and quantified in detail so that the scheme types can be assessed in relation to the problems that they have to solve. Important information will include:

- Traffic and travel patterns based on model data and (when available) the multi-modal model.
- Assessment of current and future congestion problems using traffic model data and any other sources (e.g. UTC).

Feasibility and Public Acceptability

Each scheme type should then be assessed for its potential contribution to congestion relief (based on the defined problems) and the feasibility and public acceptability of applying such a scheme to Shrewsbury. It may be the case that the optimum scheme in terms of congestion relief may be more expensive, time consuming and politically controversial to implement. There will need to be a thorough assessment of the trade offs so as to arrive at an optimum scheme concept.

In terms of comparing scheme types it may be possible to use the transport model to compare scheme traffic impacts or a desk based analysis may be sufficient.

Complementary Demand Management Measures

The role of any complementary demand management measures will need to be assessed with reference either to any residual problems that congestion charging schemes fail to address or new problems that they might create. The likely complementary measures are off-street parking control, on-street parking control, park & ride and workplace parking charging.

Detailed Scheme Analysis

As a result of stages (c), (d) and (e) the overall form of the optimum charging scheme and complementary measures should be established. The detailed analysis therefore needs use the model to test this scheme a series of scenarios in order to find the optimum demand management package. These scenarios should be based on place, time, price and (if appropriate) distance and could consider the following issues:

- Charging points and boundaries of the charging scheme (if area wide).
- The most appropriate times for charging.
- The level of charge to be applied.
- Discounts and exemptions.

An important part of this analysis is to define and rank the desired outcomes for the scheme analysis - such as traffic reduction, congestion reduction, traffic patterns (e.g. re-routing), air quality, and changes to modal split. This should allow a comparison of outcomes for a range of options tested.

Interaction with Other Studies

Before the optimum demand management package is decided upon there needs to be an assessment of how the measures would support improvements made to non car modes and to any scheme for the North West Relief Road. There should also need to be very close interaction with the ongoing public consultation workstream identified above. In addition the option development process will always need to consider issues of technical feasibility as there is little point in working up schemes that cannot be delivered.

Timescale

It is anticipated that this study would require 5 months to complete as ensuring a detailed level of public consultation on the emerging scheme options. Model testing the different scheme types may add another month to this programme.

Indication of Potential Cost

It is estimated that this stage of the study will cost around £250,000. A detailed study will be required in order to:

- 1) Further develop the concept options for the charging scheme including:
 - Type of charging e.g. cordon, multiple cordon or area wide charging
 - Scope of charging area
 - Period of the day for charging to apply
 - Role of complimentary demand management measures e.g. parking control
- 2) Research, develop and assess the technology options for the road user charging system.

3) Undertake research e.g. preference surveys to understand public acceptability and determine impacts on behaviour

4) Model the impacts on travel behaviour and traffic patterns of different charging options and different charge levels to assess their impact on:

- Commercial viability
- Modal shift
- Re-routing (with options including and excluding a new NWRR)
- Congestion
- Air quality
- Safety
- Social exclusion

5) Aspirations for and costs of public transport enhancements utilising the existing SATURN Shrewsbury Traffic model

6) Determine and consider impact of exemptions from the scheme e.g. residents, disabled

7) Identify key complimentary measures required to ensure preferred options have desired outcomes e.g.

- Parking changes and controls
- Improvements to Shrewsbury road network
- Standards for alternative travel options

e. Multi-modal transport infrastructure and service improvements study

Key Tasks and Outputs

If road pricing is to be successful in reducing car use and congestion it is absolutely critical that there are alternative options in place that are competitive in terms of – monetary cost of travel, spatial coverage, journey speed, journey reliability, safety and comfort / quality. This study should provide recommendations for multi-modal infrastructure and service enhancements that will deliver these alternatives on the ground. There are a number of key stages for this study.

Audit of Existing Provision

This first stage could use a combination of revealed preference survey data, service audits, discussions with local user groups and detailed work with the operators to identify key problems and opportunities for bus services, local rail services, walking and cycling. At an early stage existing information should be assembled and audited so that primary data collection does not duplicate material already available. It is quite possible that much of the required information will have already been gathered as part of the model building exercise.

The strengths and weaknesses should be related to the existing travel patterns – so that it is clear how and why the private car currently offers a more attractive

service for a variety of journey origins and destinations. A key aspect of this study should be consultation with both users and non users of public transport.

Best Practice Study

In order to get an idea of the potential improvements and their impacts a desk study of multi-modal improvements undertaken elsewhere in the UK and abroad could be undertaken. As far as possible locations studied should be similar to Shrewsbury (e.g. York, Worcester, Cambridge and Oxford).

Option Development

Based identified travel patterns a detailed study should consider a range of options for improving bus services, interchange at the railway station and walking / cycling routes. This should consider the types of journeys currently made by car and assess the best options for providing an attractive alternative. As an example the extent of cross town movements may result in the need to look at cross town bus services that minimise the interchange penalty that would currently experienced.

The options would be based on the key radial corridors into the city and could consider infrastructure (e.g. bus priority and additional park & ride) and service enhancements (e.g. higher frequencies). However the scope for orbital movements should also be considered if travel patterns reveal this to be an issue.

Assessment of Package Options

Using the multi-modal model various infrastructure schemes and service improvements could be tested. The scenarios to be tested could be based on differing assumptions of fares, bus priority measures, park & ride sites and service enhancements – with incremental progress from a do-minimum to a “do-everything” scenario. There also needs to be an assessment of the impact of the North West Relief Road. The objective should be to assess whether higher cost options will deliver a proportionally greater level of benefit.

Not all measures (e.g. cycling routes) may be appropriate for detailed modelling so there will need to be a qualitative assessment of what other measures could be included in the overall package.

Regulatory Framework

An important aspect of delivering practical improvements to public transport services is to work with the local operators to secure a regulatory framework that is able to deliver improvements on the ground. This study should therefore need to consider the advantages and disadvantages of informal quality partnerships, statutory quality partnerships and quality contracts.

Interaction with Other Studies

Before the optimum package of infrastructure and service measures is decided upon there needs to be an assessment of how they would support the chosen demand management package. This is particularly relevant to the North West Relief Road which will clearly have an effect on future traffic patterns by providing an alternative to the town centre for a range of car trips.

Timescale

It is anticipated that this study would require 5 months to complete.

Indication of Potential Cost

It is estimated that this stage of the study will cost £70,000.

f. Technology and procurement options for the preferred scheme

Key Tasks and Outputs

This is a study that almost certainly needs to be undertaken in two phases:

1. Initial feasibility of technology.
2. Detailed investigation of preferred scheme.

Phase 1 of the study should be an initial assessment at all the available technological methods for charging under the three broad options for demand management. The particularly crucial issues are:

- Cost (both capital and ongoing maintenance).
- Timescale for implementation.
- Contribution towards enforcement (i.e. can the technology ensure that people are unable to avoid paying?).
- Procurement and risk (in particular potential for significant increases).

Phase 1 should, wherever possible, look at actual schemes that have been implemented using the methods that are under review.

Phase 2 of the study should be look in more detail at how the technology of the preferred scheme option could be applied to Shrewsbury and how it can be cost effectively procured. This phase will also consider opportunities to pilot the technology as part of the development programme. This should consider the same issues as in Phase 1 but in far more detail and with clear reference to the preparation of the business case (see below). The ability of the technology to flexibly deal with issues such as charging variations, exemptions and discounts will be particularly important.

Interaction with Other Studies

Phase 1 of the technology options part of this study should be undertaken in parallel with the early work on the demand management feasibility study. Phase 2 should be undertaken later once the preferred charging option has been modelled (in order to provide a final reality check that the scheme is feasible).

Timescale

It is anticipated that this study would require 5 months to complete.

Indication of Potential Cost

It is estimated that this stage of the study will cost £60,000.

g. Model Testing of Combined Scheme Packages and Business Case

At some stage the various studies that have been undertaken to date have to be combined to produce a business case that considers the costs and benefits of a scheme that is evidently deliverable. When DfT is making a decision to fund a TIF scheme it is inconceivable that they will not want to see very detailed evidence that the scheme delivers transport benefits that are financially sustainable.

Key Tasks and Outputs

Conventional Business Case

Having tested various demand management and multi-modal service / infrastructure measures the final stage is to combine the two in order to assess the additional benefits that accrue from implementing the schemes as an overall package. This goes to the very heart of TIF which aims to demonstrate how combining demand management and multi-modal improvements will deliver outcomes that are greater than the sum of their parts.

The model testing of combined scheme packages should be undertaken as part of preparing the final business case for the preferred scheme and any alternatives. Although no guidance has been forthcoming it is assumed that the first part of the business case should be similar to that of a major scheme “Annex E” submission with a NATA appraisal and summary supporting assessments (such as financial sustainability and public acceptability).

Financial Performance and Sustainability

Unlike conventional Annex E submissions the business case should also contain a very detailed analysis of the revenue generated by the scheme and the ongoing administrative and maintenance costs of the scheme. Under the preferred scheme there are likely to be a number of charging options which will have different impacts both on traffic levels, use of other modes and revenues generated. The objective is to consider how any scheme (that is effective in transport terms) can be (at the very least) self financing and to assess the options for dealing with any surplus revenue (allowing for discounts and exemptions).

Another important issue is the impact of charging on the business of running buses – either conventional services or park & ride. The business case should assess the impact of charging (and changes to bus fares) on revenues and very close working with the transport operators will be required for this. The issue will be to understand exactly how demand for public transport changes in response to the price mechanism (as well as for other factors such as frequency enhancements).

Overall Economic Impact and Impact on GDP

One of the most important reasons for tackling congestion is the negative impact that it can have on economic growth in an area. Furthermore it is almost certain that local businesses will be very concerned that a congestion charging scheme could act as a disincentive for businesses to invest in the town and for people to come in to work and shop.

These issues can only really be quantified by the production of an Economic Impact Report that should seek to:

- Understand how traffic congestion limits current sustainable economic growth prospects (in terms of business investment and retail spending).
- Demonstrate how positive outcomes from any TIF scheme could therefore “unlock” this growth.

At the heart of the issue is the need to understand the link between transport conditions (and hence any potential changes) with investment decisions and issues such as retail spending. The impact of overall economic performance is a key aspect of the TIF process and should therefore form part of the overall business case of the scheme.

Interaction with Other Studies

In terms of the business case the key issue is to decide whether to test only one combination (i.e. the optimum demand management scheme and the optimum infrastructure / service improvement scheme) or whether to test other combinations (e.g. with and without the North West Relief Road). Therefore the preparation of the business case should pay close attention to the emerging results of the two preceding studies.

Timescale

Based on previous experience of preparation of major scheme business case submissions it is estimated that this study should take three months to complete. The Economic Impact Report, which could be started earlier, is likely to take around four months of research.

Indication of Potential Cost

It is estimated that this phase of the study will cost £40,000.

8. Feasibility study programme, costs and reporting

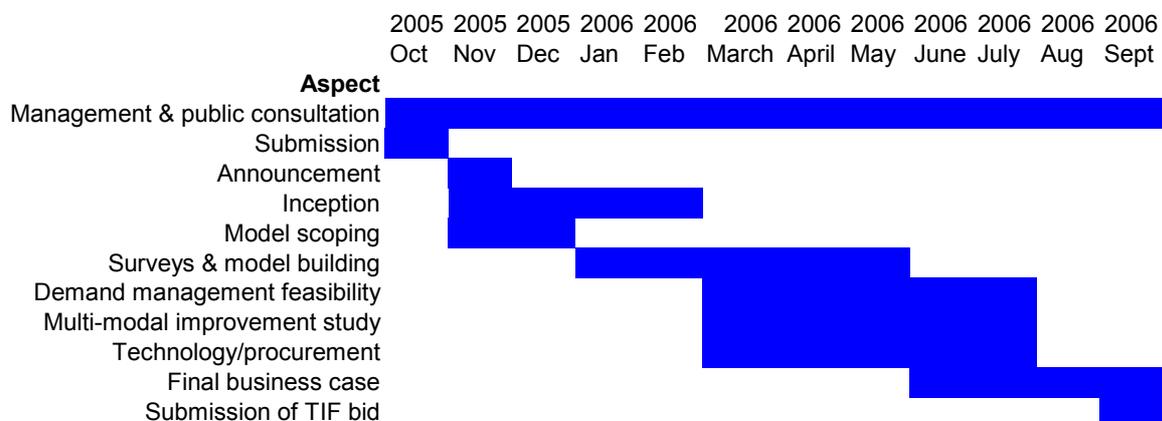
“We have set a clear programme for the work that needs doing in preparation for the submission of a full TIF bid, and have costed this out. This would allow for the full TIF bid to be submitted as early as Autumn 2006. We have set aside funds in the present financial year for this work, and will commit a proportion of future LTP capital to top up the Pump Priming Grant”.

Feasibility Project programme

Our feasibility study will consist of a series of technically robust studies, designed to fully investigate and evaluate options enabling us to develop a viable TIF package and robust business case.

A key factor in determining the feasibility study timescale is the desire to be a position to submit a full TIF bid that could be considered in time for the December 2006 settlement. This would produce a tight but manageable timescale for the work to be undertaken. However, if this timescale was met we would expect to undertake some refinement work on a number of aspects of the project during the later 2006 and early 2007.

Our initial view of the potential study timetable is:



The inception process will be important, requiring detailed involvement with key stakeholders to agree the project scope and develop project briefs. However, it will be possible to commission some work before this process is completed. The multi-modal model is key to many other elements of the study and it is therefore proposed to start the surveys and model building in January after a model scoping exercise. The remaining elements would start in March 2006 and run in parallel for about 5 months.

Once the separate studies have been concluded they would need to be brought together into a final business case (which will also consider financial sustainability and overall economic and environmental impact). This final phase of work is

likely to take about four months, but could be started before all the other elements are complete.

This timescale would enable producing on an outline TIF bid in September 2006.

Summary of potential study costs and financing

Based on the estimated costs set out for each of the elements and a provision for overall project management we estimate that the total cost of the feasibility study will be in the region of:

Stage	Cost (£)
Project management	90,000
Scoping	15,000
Public relations	35,000
Surveys / model building	170,000
Demand management feasibility	250,000
Multi-modal improvement study	70,000
Technology / procurement	60,000
Final business case	40,000
TOTAL	£730,000

Shropshire receives a relatively small integrated transport settlement and the current consultation on Financial Planning Guidelines suggests that Shropshire will face a significant reduction (up to 25%) in capital allocations for integrated transport from 2006/7. This will result in cut backs in our current investment plans for sustainable transport in 2006/7. We would therefore find it very difficult to increase our investment in TIF feasibility work beyond £200,000 in 2006/7 without further jeopardising our capital investment programme and achievement of our LTP targets.

For this reason we would request consideration of an enhanced rate of intervention and propose the following financing arrangements:

	2005/6	2006/7	TOTAL
Shropshire County Council	£50,000	£200,000	£250,000
DfT	£50,000	£430,000	£480,000
TOTAL	£100,000	£630,000	£730,000

Proposals for reporting to DfT and wider dissemination

Following approval of the bid for pump-priming grant we would envisage working with our local partners (and DfT) to create key project milestones for reporting our findings and issues arising. This will not only provide the opportunity to inform local stakeholders of the progress being made but also inform the demand

management debate at a national level. We will be fully committed to sharing and disseminating information to other authorities who could use the findings to shape potential schemes elsewhere across the country. We would play a full and active part in any pilot feasibility study networking groups set up by the DfT.

Indicative costs and timescale for potential TIF project

The scale and the nature of a final TIF project will depend upon the outcome of the feasibility study. However, in order to assist the Department's forward planning we have made an assessment of the likely scale of a TIF project for Shrewsbury and a potential implementation timetable.

Capital Costs

It will be necessary to invest in passenger transport, walking, cycling and highway infrastructure in advance of a demand management scheme becoming operational. Taking these costs into account with those associated with the demand management infrastructure it is estimated that the capital element of a Shrewsbury TIF project could be of an order of £50 -£100 million.

Revenue Costs

The ideal scenario would involve a demand management scheme that raised sufficient revenue to fund the annual subsidy required to operate a high quality passenger transport system for Shrewsbury. These annual costs could be of the order of £1million. However, because of the pilot nature of the project, and the possible need to implement a demand management scheme that would usefully inform the evaluation of a subsequent nation scheme, it may be necessary for the TIF to provide a revenue stream, over the initial years at least. Consideration should also be given to the use of a revenue stream to undertake a modest programme of ongoing infrastructure improvements.

Timetable

The TIF feasibility study timetable indicates that we are aiming to be a position to start the implementation of a TIF project in 2007/8. The programme would start with the detailed development and design of the various project elements. Statutory process would be required for a North West Relief Road or any other major highway schemes and for the demand management element of the package, and these would be undertaken in parallel with the detailed design process over a two year period. The construction phase would start in 2009/10 and we would therefore expect the scheme to go live in late 2011/12. If statutory procedures could be speeded up, and if the final project did not include a major construction element, then this could potential shorten the timetable by 1 year.

9. Conclusion

“We have a clear vision, a workable proposal and – subject of course to the outcome of the investigative work over the coming months – the dedication to see it through. This first step, for which Pump Priming Grant is now sought, is an indication of our commitment to Shrewsbury and its economic and environmental future”

Shrewsbury has been identified as a town with a significant need to reduce congestion and other environmental impacts of traffic, particularly in its historic town centre.

SCC are prepared to seriously investigate the application of enhanced demand management measures including road pricing, as part of a package of transport investment, in order to address existing and potential congestion levels in Shrewsbury, offer realistic travel alternatives to visitors and residents, and aid the economic development of the town.

We are requesting TIF pump priming grant in the region of £480,000 in order to undertake in-depth analysis of what a potential TIF package could look like and deliver for Shrewsbury, and explore synergies with possible pilot schemes elsewhere.

Due the size and nature of the town we believe Shrewsbury could provide an excellent opportunity for a simple and easily implemented trial of road pricing technologies. The historic town of Shrewsbury also shares characteristics of many medium sized and historic towns across the country, and there is clearly potential for the findings here to be used elsewhere and inform national transport planning debate.

Appendix 1: Links to objectives and targets

Table A1.1 Potential schemes and relation to shared priorities.

Shared Priority Potential TIF aspect	Delivering accessibility	Tackling congestion	Better air quality	Safer roads
Enhanced Demand Management – including road user charging	Reduce congestion and therefore improves journey times and reliability of public transport	Lower traffic levels and therefore less congestion creating economic benefit to the local economy	Significantly reduce traffic levels and pollution in Air Quality Management Area	Fewer vehicles on the highway network could create a safe street environment
Improved bus network and services; including park and ride enhancements, cross – town services, bus priority, quality vehicles, more frequent services etc	Network enhancements would significantly improve quality, flexibility and convenience for people without access to a car	Less delays with dedicated bus priority in and around the town centre Increasing the appeal of bus services would lessen the demand for car travel	Purchasing new clean buses and lowering the demand for car travel would improve air quality	Enhanced safety with modal shift to public transport and newer vehicles
Shrewsbury Parkway Station (and park and ride site)	A Parkway station would improve access to mainline rail services including for ‘kiss and ride’ trips.	Reduce traffic needing to access Shrewsbury town centre, and lead to increased use of rail for longer trips to Telford and the West Midlands	Reduce traffic needing to access Shrewsbury town centre thereby tackling town centre air quality	Enhanced safety with modal shift to public transport
North West Relief Road	The relief road would be between the North and West of the town and provide the opportunity to reallocate road space in the town to sustainable modes	Coupled with the other potential measures in the town centre a relief road could reduce through town centre traffic by 40%	A 40% reduction in traffic in the town centre would significantly enhance air quality in this Air Quality Management Area	A new road would enhance safety by shifting journeys onto a higher specification road and reducing vehicle/vulnerable road user conflicts
Improved walking and cycling	Freeing up road space will enable	Attracting people out of their cars to	Air quality across the town would be	Creating dedicated traffic free routes would

facilities	significant enhancements to accessibility by foot and cycle; including enhanced provision in the town centre and on routes to residential areas, schools, employment and retail sites.	use other modes would lower congestion, especially for commuter and school journeys.	greatly improved	minimise conflicts in the use of road space and improve safety for pedestrians and cyclists.
------------	--	--	------------------	--

Table A1.2 Potential impact of a TIF package on meeting our Provisional LTP 2006-2011 targets

Provisional LTP Target	Target	Potential Impact of TIF
Accessibility		
Accessibility to Work (M)	TBC	☺ ☺ ☺
Accessibility to GPs (M)	TBC	☺ ☺
Accessibility to town centres (M)		☺ ☺ ☺ ☺
Availability of Transport (L)	TBC	☺ ☺
Environment		
AQMA Air Quality Improvement – Levels of NO _x emissions (M)	Below 40ug by 2010	☺ ☺ ☺ ☺
AQMA Air Quality Improvement – Traffic Levels (M)	25,209 vehicles in 2010/11	☺ ☺ ☺ ☺
Public transport patronage (BVPI102) (M)	6,750,000 in 2005/6 and 6,800,000 in 2006/7	☺ ☺ ☺ ☺
Satisfaction with local bus services (BVPI104) (M)	52% in 2009/10	☺ ☺
Change in area-wide road traffic mileage (M)	Levels of traffic growth in Shropshire to be below the national traffic growth average	☺
Park and Ride patronage (L)	10% increase by 2010/11	☺ ☺ ☺ ☺
Economy		
Change in peak traffic flows in Shrewsbury (M)	TBC	☺ ☺ ☺ ☺
Bus punctuality (M)	95%	☺ ☺
Temporary road closures (M)	3.0 in 2005/6 and subsequent years to 2010/11	☺
Safety and Health		
Total killed and seriously injured casualties (M)	50% reduction (200 no.) in 2010	☺ ☺
Child killed and seriously injured casualties (BVPI99(y)). (M)	60% reduction by 2010 but to be measured as a 3 year average (2008 to 2010) of 16 no. casualties	☺ ☺
Total slight casualties (BVPI99(z)). (M)	1215 no. in 2010 - no overall increase	☺ ☺
Motorcycle casualties (L)	120 no. 2006 to 2010 average	☺
Young Driver Casualties (L)	TBC	☺

Perceptions of road safety as a local problem (L)	TBC	☺ ☺
Proportion of schools with school travel plans (L)	90% (165 no.) in 2010/11	☺
Cycling Trips (M)	Increase by 10% by 2010/11	☺ ☺ ☺
Mode share on journey to school (L)	<ul style="list-style-type: none"> • 48% primary walking and cycling in 2010/11 • 40% secondary walking and cycling in 2010/11 • 21% primary travelling alone by car in 2010/11 • 6% secondary travelling alone by car in 2010/11 	☺ ☺ ☺
Asset Management		
Principal Road condition % of roads requiring structural maintenance (M)	40.7% in 2005/6.	☺
Non-Principal Classified Road condition % of roads requiring structural maintenance (M)	TBC	☺
Unclassified Road condition % of roads requiring structural maintenance in 2005/6 (M)	TBC	☺
Footway condition % of footways requiring structural maintenance (M)	23.0% in 2005/6	☺

L = Local indicator (SCC set)

M = Mandatory indicator (DfT set)

☺ = Will have a low impact on target

☺ ☺ = Will assist in meeting target

☺ ☺ ☺ = Potentially assist in exceeding target

☺ ☺ ☺ ☺ = Potentially assist in greatly exceeding target

Appendix 2: Travel and Congestion Data

Car ownership in Shrewsbury 2001 Census Data

	Total households	No Car %	1 Car %	2+ Cars %	Average no. cars per household
Shrewsbury & Atcham urban areas	31,566	22.8%	48.6%	28.6%	1.12
National figures	N/A	26.8%	43.8%	29.4	1.11

Table A2.1. Car ownership levels

2001 Census travel to work data			
Mode	Shrewsbury urban area	Shropshire	England & Wales
Public transport	6%	3%	14%
Motor vehicle	67%	66%	63%
Bicycle	5%	3%	3%
On foot	12%	13%	10%
Other	1%	1%	0%
Work at home	11%	13%	9%

Table A2.2. Travel to work data

Congestion data

Town Centre

Tables A2.3 and A2.4 identify levels of congestion at the key hotspots in the morning peak hour. These tables show the average queue length, average vehicle delays and ratio of traffic volume to junction capacity. Ratios greater than 1 indicate that junctions are over capacity and congestion can be expected. It should be noted that these figures are average values between 8am and 9am. Variations in traffic levels within this morning peak hour means that the data does not reflect the worst congestion situation.

Table A2.3 Congestion hot spots at junctions in Shrewsbury Town Centre

Location	Average Queue Length (car units)	Volume Capacity Ratio	Average Delay Incurred at junction
Chester St/Cross St	13.5	1.2	4:05 mins
Castle Gates – Smithfield Rd	7.3	0.7	0:27 mins
Old Potts Way – Coleham Head	34.3	1.2	3:48 mins
Coleham Head	6.8	1	0:32 mins
The Mount – Frankwell Island	4.2	0.6	0:50 mins

The most serious problem is at the Chester Street Gyratory where traffic from the north enters the town centre. The gyratory arm with the most significant delays is Chester St/Cross Street, where the average inbound delay through the morning peak hour is over 4 minutes.

Significant congestion is also experienced at the Coleham Head Gyratory, near to English Bridge, where traffic from the South and East enters the town centre. Traffic on Old Potts Way experiences average morning peak delays of over 3.5 minutes.

The town centre entry from the west towards Welsh Bridge is also of concern, with the junction of The Mount onto Frankwell Island experiencing the most significant delays.

Table 2.4 Congestion hot spots at key junctions in the Shrewsbury urban area

Location	Average Queue Length (car units)	Volume Capacity Ratio	Delay Incurred at junction
Monkmoor Rd/ Abbey Foregate	7.9	1	1:30 mins
Hazeldine Way/Meole Brace R/A	12.1	1	0:51 mins
Oteley Rd /Meole Brace R/A	18	0.9	1:04 mins
Hereford Rd / Meole Brace R/A	22.4	1.1	2:02 mins
A49/A5 R/A Shrewsbury Bypass	5.3	1	0:27 mins
Harlescott Cross Roads	5.2	1	0:58 mins

Outside of the immediate town centre, the Monkmoor Road / Abbey Foregate junction is seen as being at capacity, as is the Meole Brace roundabout where average delays are of up to 2 minutes. The roundabout junction of the A49 Eastern Bypass and A5 Trunk Road from the East is also shown to be at capacity, as is the Whitchurch Road / Harlescote Lane crossroads in the north of Shrewsbury (where significant new retail development is due to take place early in the LTP period). Whilst not identified by the model as being a significant problem there is concern that the Dobbies Island is becoming increasingly congested during peak periods, and particularly during holiday times. Dobbies Island acts as a key interchange between traffic travelling North – South Wales & the Midlands to the North and vice versa. The County Council is currently lobbying the Highways Agency to identify measures to improve the situation at this and other Highways Agency administered junctions on the Shrewsbury Bypass.

Key journey times

The existing model has also allowed us to investigate journey times on certain routes. Runs were undertaken in the AM and PM peaks as well as late morning, the late morning journey times allow us to understand a ‘free flow’ situation. The following movements are seen as the worst delays witnessed in the town centre (either in terms of actual time or significant divergence from the free flow situation).

Movement 1 Heath Gates R/A – Bridge St/Claremont Bank Signals (via High Street)

Freeflow average journey time: 7:38 mins
PM peak average journey time: 15:57 mins

Movement 2 Porthill R/A – Frankwell R/A

Freeflow average journey time: 2:01 mins
AM peak average journey time: 3:51 mins

Movement 3 Raven Meadows – Castlegates

Freeflow average journey time: 0:45 mins
AM peak average journey time: 1:28 mins

Movement 4 Castlegates – Wyle Cop

Freeflow average journey time: 1:31 mins
Pm peak average journey time: 2:24 mins

Movement 5 Old Potts Way – English Bridge

Freeflow average journey time: 1:21 mins
AM peak average journey time: 2:19 mins

Movement 6 English Bridge – Claremont Bank/Bridge St signals (via Town Walls)

Freeflow average journey time: 2:42 mins

PM Peak average journey time: 6:24 mins

Movement 7 Claremont Bank/Bridge Street signals – Frankwell

Freeflow average journey time: 0:57 mins

AM Peak average journey time: 1:21 mins

PM Peak average journey time: 1:45 mins