



Worcester Transport Strategy

Phase 1

Major Scheme Bid - Executive Summary
April 2010



Executive Summary

Synopsis

The City of Worcester sits proudly on the River Severn, in the midst of some glorious countryside. For centuries, the changing fortunes of this remarkable city have been firmly woven into the fabric of English history, leaving a rich cultural heritage cherished by residents and visitors alike. The City is Worcestershire's principal social and economic hub, as well as being a key regional centre. Its important regional role is dependent on the ability of residents and visitors to move freely in, out and across the city to access the wealth of opportunities offered by this vibrant location.

Change is coming. In the next 20 years, the City of Worcester will grow significantly, following designation as a New Growth Point and Investment Impact Location and its location on the regionally important Central Technology Belt. The City must embrace this change. The Worcester Transport Strategy and Major Scheme Bid for Phase 1 of this strategy represent a strong, dynamic approach, which will empower the City of Worcester to respond to its changing fortunes in a way which will deliver lasting and far-reaching benefits.

Doing nothing is not an option. It is critical that investment in transport infrastructure and services is secured, to enable the city to continue to fulfil its role as a catalyst for enhanced social cohesion and economic growth across Worcester, Worcestershire and linking to and supporting the West Midlands region.

The delivery of enhanced transport choice is central to the Worcester Transport Strategy. Phase 1 of the Strategy is designed to deliver the Worcestershire Partnership's agreed outcomes of reduced congestion, improved accessibility, increased economic activity and greater levels of travel by sustainable modes. This is essential to support the well being of the city, its residents, economy and environment and ensure that policy targets at the national, regional and local levels are successfully achieved.

A very strong case for investment. The appraisal of Phase 1 of the Worcester Transport Strategy has been completed in accordance with the Department for Transport's latest WebTAG guidance and 'DaSTS' goals. This rigorous and challenging process has proven this scheme's exceptional worth. The Phase 1 package will result in very high value for money, with a Benefit to Cost Ratio (BCR) of 4.3:1 and net benefits of over £225m. The Phase 1 Package also improves the accessibility of the regionally important Central Technology Belt and therefore, supports the wider economic goals of the West Midlands Region.

Strong support from the public and stakeholders. It is, therefore, unsurprising that the scheme has enjoyed major support from stakeholders and members of the public alike, with 80% in favour of the Phase 1 package, rising to 83% in the case of residents of the City of Worcester.

The case to progress the preferred package is powerful. The Phase 1 Strategy will deliver excellent value for money, strong policy compliance and deliverability within proposed timescales.

Report Purpose and Context

This Major Scheme Business Case (MSBC) has been prepared to present the case for Phase 1 of the Worcester Transport Strategy (WTS). The MSBC is a package of measures that Worcestershire County Council (WCC) is seeking to implement with the support of funding from the Department for Transport (DfT). The bid puts forward the case for the proposed package and incorporates appraisal based on Transport Analysis Guidance (WebTAG).

The City of Worcester is the County's principal social and economic hub, as well as being a key regional centre. The city of Worcester is also a regionally designated New Growth Point (NGP) and Investment Impact Location (IIL). Hence, it is critical that investment in the transport infrastructure and services is secured, to enable the city to continue to fulfil its role as a catalyst for enhanced social cohesion and economic growth across Worcester, Worcestershire and linking to and supporting the West Midlands region. The WTS will, therefore, be absolutely essential to achieve the Worcestershire Partnership's vision for the County:

“A County with safe, cohesive, healthy and inclusive communities, a strong and diverse economy and a valued and cherished environment.”

The WTS represents a long-term, comprehensive, strategic approach towards the development of the multi-modal transport network for Worcester and its environs. This strategy recognises that promoting increased levels of traffic in the Worcester City Centre is not an option, as this will deliver a range of negative impacts which will harm Worcester's potential as a key economic and social hub. Therefore, the strategy focuses on significantly enhancing the efficiency of the current transport networks by increasing transport choice in the Worcester area and making better use of existing assets. The WTS, therefore, considers all transport modes, and focuses on reducing the impact of transport on sensitive environments (particularly in the City Centre).

The strategy has been developed to align with agreed national, regional and local policy objectives. These include The Department for Transport's latest policy document, “Delivering a Sustainable Transport System - DaSTS”, and the West Midlands Economic Strategy (WMES), where WTS will contribute toward increased economic prosperity and performance in the region through increased connectivity, accessibility and growth. This is linked to the Worcestershire Economic Strategy (WES) and the City of Worcester's NGP and IIL status.

Further, the WTS strongly supports the Worcestershire Sustainable Community Strategy (WSCS) which includes the following six themes, all of which are influenced by the performance and availability of transport infrastructure and services:

- *Communities that are safe and feel safe;*
- *A better environment for today and tomorrow;*
- *Economic success that is shared by all;*
- *Improving health and well being;*
- *Meeting the needs of children and young people; and*
- *Stronger Communities (including housing, culture, poverty and volunteering).*

The delivery of these outcomes is embedded in the WTS and associated Phase 1 Major Scheme Bid, as well as Local Transport Plan 2 (LTP2) and in the emerging LTP3.

Process to Define the Package

The composition of the WTS has been driven by a set of 'desired outcomes' (economic growth, increased accessibility, reduced congestion and more sustainable travel) which, in turn, have been derived from the following policies, analyses and information:

- *The socio-economic goals, which are supported in part or delivered in full by the City of Worcester and its environs, transport network and services, as set out in:*
 - *Worcestershire County Council, Worcestershire Partnership and City of Worcester policies, strategies and visions, including the Local Transport Plan (LTP) 2 and emerging LTP3, Worcestershire Sustainable Community Strategy (WSCS) and the Worcestershire Economic Development Strategy (WEDS);*
 - *West Midlands Region policies and strategies, notably West Midlands Economic Strategy (WMES);*
 - *South Worcestershire Joint Core Strategy (SWJCS);*
 - *The Department for Transport's latest policy document - Delivering a Sustainable Transport System (DaSTS);*
- *An assessment of current transport problems and issues and their longer term impacts;*
- *Baseline research completed on current and forecast travel patterns and support for change in the City of Worcester and surrounding area;*
- *The outcomes and findings of previous transport studies that have assessed detailed options for inclusion in the transport package for the Worcester area;*
- *The results and achievements recorded in delivering new sustainable transport schemes implemented in Worcestershire and elsewhere;*
- *Public desire (identified through a number of surveys and consultations) to improve the quality of public transport in the city (and the county as a whole), such that it offers a realistic alternative to the car;*
- *The findings of the public and stakeholder consultation process completed on WTS, with a particular focus on Phase 1;*
- *Best practice from planned and implemented projects in Worcestershire and elsewhere, incorporating evidence from comparable cities to Worcester, including the composition of schemes within the package and the phasing of the overall packages; and*
- *The requirements of Major Scheme Business Case submission guidance defined by the Department for Transport in WebTAG (DfT's Transport Appraisal Guidance) and including the demonstration of a deliverable and value for money package of measures which maximises the performance of the existing network and which shows a strong package effect.*

Future Problems and Issues

Worcester is a city that is seeking to achieve future economic growth in order to improve the quality of life that it can provide to residents, workers and visitors alike. Key to achieving this goal is the need to have a transport network in place that will be able to accommodate the future level of growth. Housing and employment in the city are forecast to have increased by 12% and 9%, respectively, by of 2026 from current levels. If the Regional Spatial Strategy (RSS) targets for the West Midlands are met, there would be a further increase in the forecasts, resulting in significant transport implications. The RSS predicts housing growth of 25% and employment growth of 17% by 2026.

In developing the WTS, particular attention has been paid to considering how the strategy supports these growth requirements. It is quite apparent that without increased transport network performance (particularly in the short term) and multi-modal capacity, Worcester's ability to grow and remain a key centre in the region will be significantly constrained. This is the case both with and without the proposed RSS higher growth forecasts. Traffic congestion will increase, access to key services will reduce and air quality will deteriorate, resulting in a decline in the quality of life for residents and a reduction in the overall attractiveness of the City for businesses and visitors.

This, in turn, indicates the importance of the WTS package of transport improvements in order to deliver key outcomes and, hence, socio-economic benefits (economic growth, accessibility, reduced congestion and sustainable travel), matched to the requirements of the five goals of DaSTS, as follows:

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

The table below highlights the detailed objectives of the WTS and demonstrates the importance of the WTS package of transport improvements in order to deliver key outcomes and hence socio-economic benefits (economic growth, accessibility, reduced congestion and sustainable travel), matched to the requirements of the five goals of DaSTS.

Worcester Transport Strategy Desired Outcome	DaSTS Goals				
	Reduce Transport Emissions	Economic Competitiveness and Growth	Promote Equality	Quality of Life	Better Safety and Security
Deliver an integrated and balanced network of transport infrastructure and services which supports the delivery of National, Regional and Local Government policies on climate change, sustainable economic growth and sustainable transport.	✓	✓	✓	✓	✓
Support the local economy through long term job creation and retention and support successive growth of the central technology belt.		✓		✓	
Consolidate and expand the City's role as one of the nation's premier cathedral cities, providing a focus for tourism and investment.		✓		✓	
Create balanced and sustainable communities in which people can live and work.	✓		✓	✓	✓
Deliver a better quality of life for the City's residents and visitors through significantly improved and sustainable accessibility to services, facilities and opportunities in a manner which enhances the health of the individual and vitality of the area.	✓		✓	✓	✓
Complement the RSS for the West Midlands and form the basis for achieving the levels of sustainable housing in 'self contained communities' and employment growth identified for Worcester.		✓		✓	
Provide transport improvements which make a positive contribution to local air quality, road safety, accessibility and traffic congestion.	✓	✓		✓	✓

Contents of the Worcester Transport Strategy

Bringing together the problems, desired outcomes and growth requirements, it has been recognised that a wide-ranging package of multi-modal transport measures is required to address these issues. It is estimated from survey data that 48% of trips to the Worcester City Centre are from within the City, 40% from the rest of the County and 12% from the wider region outside of the County, hence the need for a package of measures that will provide benefits to the maximum number of people. The benefits to different for the different trips by each proposed package mode is shown in the table below:

Strategy Component	Trips Benefitting		
	City and Local	County	Regional
Development of a high quality public transport (rail and bus) network, including systematic priority measures, real time information and facility upgrades to increase travel choice and encourage greater use of bus and rail modes, including new interchanges allowing for coaches.	✓ ✓ ✓	✓ ✓	✓
Measures aimed at reducing traffic demand, including the reallocation of road space and provision of improved alternatives to the private car, in order to increase transport choice. It is also recognised that it is important to make better use of existing road space, through the adoption of an intelligent transport system (building on the existing strategy for City of Worcester) including schemes such as real time passenger information for bus passengers and variable message signing for car drivers	✓ ✓	✓	✓
Highway infrastructure improvement schemes to increase transport capacity for local and strategic movements, supporting proposed new land-use developments	✓ ✓	✓ ✓	✓ ✓
Smarter Choices measures to encourage sustainable travel, building on the achievements of the Sustainable Travel Demonstration Towns Programme	✓ ✓	✓	-
New walk and cycle schemes, including improvements to the public realm in the City Centre.	✓ ✓	✓	-
Introduction of new Park and Ride services and facilities, integrated with the public transport (rail and bus) network and with supporting infrastructure improvement measures on access routes to the City Centre	✓	✓ ✓	✓

Experience from Comparable Cities and Funding Bids

A number of comparable cities (Oxford, Cambridge, York and Lincoln) have similar underlying issues as those that are faced by Worcester (and environs) relating to congestion, accessibility and a desire to foster continued economic growth. Each city is proposing a phased package of measures, involving sustainable modes and local highway schemes, and making better use of existing measures. This model is seen as best practice and is being followed in the WTS due to its ability to offer widespread and integrated benefits through a multi-modal approach.

1.1.1

The WTS also includes a range of smarter choices measures, which will seek to maximise the benefits associated with the WTS by ensuring that sustainable travel behavior is adopted in the long term. This builds on the success of Worcester as a Sustainable Travel Demonstration Town.

WTS Phase 1 Package

The full package of schemes within the WTS has been split into phases, to ensure that an appropriate MSBC can be prepared, which is compatible in terms of types of schemes, timescales for delivery and funding requirements with the previously announced West Midlands Regional Funding Allocation (RFA) for Worcestershire. The Phase 1 package is closely aligned with supporting the delivery of agreed policy led outcomes. In particular it seeks to:

- *Maximise the efficiency of the existing transport network and services, so making best use of existing assets;*
- *Improve connectivity, accessibility, travel choice and journey reliability to key employment, health, retail, leisure and education facilities in support of agreed City of Worcester, Worcestershire, West Midlands Region and national policy objectives;*
- *Enhance the performance and attractiveness of the more sustainable transport modes (walk, cycle and public transport), resulting in health and environmental benefits.*

The phasing approach also follows the example set by other cities in successfully making more efficient use of the existing network and securing funding for new transport packages, and is strongly supported by stakeholders and the general public. This approach makes WTS Phase 1 highly deliverable within funding and timescale constraints.

Phase 1 provides an integrated package which maximises benefits (i.e. whole is greater than sum of parts), notably on the benefits to users, through larger time savings, increased accessibility and reliability, provision of more transport choice and a better travel experience.

The MSBC package presented in this bid comprises the following:

Scheme Type	Description of Proposals
Multi-Modal Improvement Corridors	5 corridors that will improve connectivity, safety, accessibility, journey times, reliability and the public realm in general.
Intelligent Transport Systems Measures	Measures that will reduce public transport passenger uncertainty with use of Real Time Passenger Information and minimise congestion with Variable Message Signing.
Rail Station Improvements	2 rail stations within the region to be enhanced with improved facilities and access modes.
Southern Link Road Junction Upgrades	2 schemes identified that will reduce congestion on this key route for local and strategic traffic.
Smarter Choices Measures	Various schemes to reduce the need to travel by car through better education and awareness of the benefits offered by sustainable modes.
Walk and Cycle Schemes	3 routes linking suburban areas with the City Centre.

The MSBC package has been appraised against Lower Cost Alternative (LCA) and Next Best Option (NBO) packages to demonstrate that they offer best value for money.

Stakeholders

Extensive consultation has been completed on Worcester Transport Strategy and the preferred package with stakeholders, statutory bodies and the general public. Key stakeholders include Worcester City Council, neighbouring district councils, regional bodies, the Highways Agency and public transport operators. Responses from stakeholders have shown strong support for the WTS Phase 1, the subject of this Major Scheme Bid. Letters of support from stakeholders are provided in this bid.

Public support for the Preferred Package is also very strong with approximately 80% of responses to the consultation process indicating positive support (83% in the case of City of Worcester residents). Measures with the highest level of support were rail, highway improvements, cycle and walk schemes, smarter choices and public transport improvements. All schemes have over 70% support.

Package Costs and Funding

The cost of the preferred package is £61.9m (2009 prices). This total includes capital costs, including land and supervision, of £32.1m, preparation of £3.7m, quantified risk of £6.2m and optimism bias (based on DfT guidance) of £19.8m. The net operating cost of the package is estimated to be £0.62m, with average annual renewals and maintenance expenditure estimated to be £0.56m.

The out-turn cost (costs inflated to the year of expected spend, excluding optimism bias) of the package is £51.1m. The split of funding between central and local government is assumed to be 90%:10%, based on MSBC guidance, which amounts to £46.0m and £5.1m, respectively. The funding

level provided for Central Government matches with the RFA2 allocation published in February 2009. Worcestershire County Council will be able to fund the local contribution, plus the annual operating, maintenance and renewal costs, although the authority is, and will continue to, actively seeking private sector contributions toward transport infrastructure and services as part of the planning process.

Appraisal of the Preferred Package

The appraisal of the preferred package has been completed in accordance with the latest WebTAG guidance and, therefore, matches to the DaSTS goals and challenges. The package will result in very high value for money, with a Benefit to Cost Ratio (BCR) of 4.3, and net benefits of over £225m. Decremental and sensitivity testing has been completed on this package, with economic results demonstrating all schemes offer at least high value for money (BCR>2.0). The worst case package BCR is 2.8, if taking a series of highly pessimistic assumptions. This highlights the robustness of the business case.

The package shows strong benefits for air quality, noise and emissions (linked to Air Quality Management Areas - AQMAs), plus increased accessibility, reliability and connectivity, resulting in wider economic benefits to the city and the region. The package will also provide health benefits to new walkers and cyclists, increased journey reliability notably to bus passengers, reduced severance and increased security for all travellers. There are slight adverse environmental impacts, however many will be mitigated as schemes are progressed to the detailed design stage.

The appraisal of alternative packages show lower value for money, with BCR values of 3.9 and 3.8 respectively, compared to 4.3 for the preferred package. Further, for most other challenges, neither package is able to deliver the same scale of benefits as the preferred package.

Decremental testing of the preferred package shows that it generates approximately £18m of benefits greater than the sum of the individual schemes within it. It shows a package effect of approximately 8%. This highlights the clear synergy of schemes and the importance of delivering the improvements as an integrated package over a shorter period of time than as separate measures over a longer period.

Overall, the preferred package contributes towards the achievement of the five DaSTS goals and also the achievement of the desired outcomes for the WTS. The fit with national, regional and local policies is also very strong. The financial case for the package shows increased public transport revenues that exceed additional costs, so will be highly attractive to service operators. Increased rail revenue will help reduce the subsidy paid by central government to the train operators.

Delivery

A delivery plan and programme has been developed based on the experience of the County Council in successfully delivering similar schemes. The plan includes the project management and governance arrangements for the package, plus the stages to be completed to gain final funding from the DfT. Construction of the package is forecast to commence in April 2012 and the full package will be completed by 2016. Overall the package is highly deliverable with minimum risks from external factors such as statutory works, planning processes, scheme complexity and other potential high risk factors often associated with transport schemes.

Procurement

Worcestershire County Council has an integrated team comprising of officers, consultants and contractors for the delivery of transport projects. The Council has extensive in house procurement

expertise, with a depth of knowledge and experience in various contract types. Design and construction for this project will be procured through a number of parallel frameworks, comparable with the current framework structure. Most frameworks follow the conventional procurement route (design, tender, build).

The works frameworks to be used for the proposed package are as follows:

- *Medium Schemes Framework – Scheme Cost £0 – £12m;*
- *Small Schemes Framework – Scheme Cost <£12m;*
- *Intelligent Transport Systems and Electrical Contract;*
- *Road Lighting; and*
- *Highways Maintenance.*

Next Stages of the Bid

This bid is to gain Programme Entry (PE) stage approval from the DfT. If successful in this process, then in autumn/winter of 2010/11 the bid will move to conditional approval and then final approval. The indicative timescale for gaining full approval for all or part of the package is spring 2012. It is recognised that given the nature of the package, conditional and full approvals may be required in stages. This will be discussed and agreed with DfT prior to PE approval.

Conclusions

- *The Worcester area is actively seeking to expand and ensure future economic growth takes place. If this overarching goal is to be achieved then doing nothing is not an option. A transport strategy to effectively and efficiently manage the increased demand for travel is required.*
- *The proposed strategy is designed to deliver the outcomes of reduced congestion, improved accessibility, increased economic activity and greater levels of travel by sustainable modes, in order to ensure that the latest policy targets at the national, regional and local levels are successfully achieved (e.g. DaSTS, RSS, WMES, WES, WSCS and LTP2 and 3).*
- *The strategy, based on previous City of Worcester schemes and best practice from comparable cities, includes a package of integrated sustainable travel mode schemes and local highway improvements, focussing on making better use of existing assets where possible. It also needs to be phased to maximise the likelihood of funding approval so making schemes more deliverable within the preferred timescales.*
- *The package of measures fits the needs of City, County and regional travel markets, so offering benefit to the maximum number of people forecast to travel to and within the Worcester area.*
- *Support for the Preferred Package is very high, with approximately 80% of responses to the consultation process indicating positive support (higher within the city itself). There is also a very high level of support from key stakeholders.*
- *The cost of the preferred package is £51.1 (outturn costs excluding optimism bias), with 90% DfT funding of £46.0m. The funding level shown for Central Government matches with the RFA2 allocation from February 2009. Worcestershire is able to cover the local funding.*
- *The preferred package shows very high value for money, with a Benefit to Cost Ratio (BCR) of 4.3:1. Alternative packages show lower BCR values at between 3.9 and 3.8.*
- *Decremental testing of the preferred package shows that it generates approximately £18m of benefits greater than the sum of the individual schemes within it. It shows a package effect of approximately 8%. This highlights the clear synergy of schemes and the importance of delivering the improvements as an integrated package over a shorter period of time than as separate measures over a longer period.*
- *Overall, the preferred package meets the five DaSTS goals and shows that the desired outcomes of the package would be achieved. The fit to national, regional and local policies is very strong. The package delivers strong benefits for connectivity, travel choice and accessibility, reliability, severance and security, plus noise and air quality.*
- *The package is highly deliverable, with low risk levels of factors such as planning processes, statutory works and complexity, often associated with transport schemes.*
- *Construction of the package is forecast to commence in April 2012, with the full package expected to be completed by 2016.*

The case for progressing with the preferred package is very strong. It will provide excellent value for money, has perfect fit to national, regional and local objectives, is very strongly supported by stakeholders and the public and is deliverable within the proposed timescales. Any and all associated risks can be managed by the County Council, with schemes procured through existing frameworks.