Executive Summary

For many years now, large areas of East Birmingham and North Solihull have been suffering the consequences of the decline in traditional engineering and manufacturing jobs on which the prosperity of the area depended. Changes in both the national and local economy have resulted in a structural change in the employment market away from manufacturing to service based industries, and the migration of these new jobs to other areas of the conurbation. Public transport facilities for those residents without access to a car have not kept pace with these changes and as a consequence, a growing proportion of the residents of the area are suffering from increasing levels of social exclusion through not being able to access the new work opportunities. To assist in reversing this trend, Advantage West Midlands created the East Birmingham North Solihull Regeneration Zone (EBNSRZ) in 1999 with the aim of increasing employment levels, business activity and the quality of life in the area.

Birmingham City Council and Solihull Metropolitan Borough Council, in partnership with the West Midlands Passenger Transport Executive, Centro, and in response to the latest Department for Transport accessibility guidelines, have commissioned a study to investigate the potential for delivering public transport accessibility improvements within the East Birmingham and North Solihull area under the designation of a Mobility and Access project. The study has drawn on a successful major scheme bid by Coventry City Council to provide a Quality Bus Network which has attracted substantial financial support from Central Government.

Figure 1. East Birmingham and North Solihull Mobility and Access Project Area

The scoping study examines the current problems facing residents within the EBNS-MAP area in the context of the existing transport infrastructure, and concludes that the area is not well served by its road network – particularly in respect of its connectivity to the motorway system. Although there are large numbers of bus services within the area, many of the most deprived communities, particularly those in the east of the EBNS-MAP area, are not well
connected to the major centres of employment such as Birmingham City Centre, Solihull, Birmingham International Airport and the National Exhibition Centre. Rail services are not heavily used by commuters, partly as a reflection of the relatively low numbers of park-and-ride spaces at stations along the line.

The Department for Transport has set out the criteria on the role of accessibility planning within the Local Transport Plan process and the pilot study considers the results of previous research carried out within the area. It concludes that the areas within the east of the study area suffer from relatively low levels of accessibility to key opportunities, particularly by public transport. This is particularly significant as these areas contain some of the most deprived wards within the West Midlands characterised by high unemployment, low income and low car ownership, highlighted by the demographic analysis conducted within the study. The study looked in great detail at the population characteristics of the area to focus on those areas in need of greatest support from the transport system. Overall, unemployment in the area stands at around 6.1%, which is marginally higher than for Birmingham as a whole (5.7%) but significantly higher than Solihull (3.0%) and for the West Midlands as a whole (4.9%). The area also has a higher proportion of children and young adults than adjacent authorities, and a large and thriving ethnic community. Together, these factors present a significant challenge in transport terms as all these groups are dependant on public transport for access to education, work, health, shopping and leisure trips.

The key purpose of the study was to identify a network of public transport services which would provide enhanced opportunities for the residents of the EBNS-MAP area – particularly those in the most socially excluded areas. The accessibility studies, and supporting demographic analyses, were combined within a Gap Analysis framework to generate patterns of demand for travel, both internally and externally, which were then translated into broad ‘corridors’ for subsequent development into potential bus routes. Figure 2 shows these demand corridors combined for both internal and external destinations. The corridors were superimposed over existing bus routes and specific routes identified which could be designed to ‘Showcase’ standards to provide a high quality bus network, integrated with rail services, to deliver a greatly enhanced level of service to those areas most in need of it. Figure 3 shows the extent of the proposed network in relation to the main employment areas.
Figure 2  Proposed EBNS-MAP Corridors – External and Internal Destinations

Figure 3 – Suggested Quality Bus Network in Relation to Main Employment Areas
The Government guidelines emphasise the importance of consultation as part of the delivery process. The study includes a comprehensive review of current best practice and puts forward a framework within which a Quality Bus Network should be developed, giving due consideration to the transport needs of all types of users, the location of current and future critical destinations and the travel alternatives to each socially excluded group. The framework recommends a five-stage process for carrying out, and reporting on, a detailed consultation programme with a wide range of stakeholders including local councillors, ward officers, religious leaders, transport providers, members of the local communities and voluntary groups. The output from the consultation exercise has been designed to maximise the case for central government funding through the LTP process.

The scoping study also considered the wider economic benefits which would flow from the scheme, and possible sources of funding to support it. In parallel with the consultation stream, a review of evidence from schemes already implemented elsewhere in England was considered in the context of the impact those schemes have had on a basket of economic outputs, and any lessons which can be learned which would strengthen the case for the EBNS-MAP proposals. A number of potential funding sources have been investigated which could be approached once the scheme has been identified in detail and fully developed.

Finally, an appraisal framework in which the benefits of the scheme would be considered has been suggested. The framework has been designed to fully meet central government’s objectives for transport investment within the standards required for an Appraisal Summary Table (AST) and focuses on the likely impacts on the environment, safety, the economy, accessibility and integration.
East Birmingham – North Solihull Mobility Access Project

Scheme Definition – Steering Group Paper

November 2006

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1. Introduction

1.1 The aim of this paper is to summarise the findings from the Scheme Definition Element of Phase 3 of the study and bring the issues to the steering group for discussion and agreement. This paper together with the subsequent discussion will then be combined into an options paper that will be discussed with the Department for Transport (DfT).

STRUCTURE

1.2 This paper follows the following structure:
   ♦ Restating the Scheme Objectives;
   ♦ A review of the Problems and Opportunities;
   ♦ Discussion around the themes; and
   ♦ An outline of what happens next.

2. Scheme Aims and Objectives

2.1 The following aims are drawn from the Local Transport Plan (LTP):
   ♦ Reducing Congestion – through increased bus patronage
   ♦ Environmental Improvements including air quality – through increased bus patronage and newer vehicles
   ♦ Improving Accessibility – through a more reliable bus network and low floor vehicles
   ♦ Improving Road Safety – through increased bus patronage
   ♦ Underpinning Economic Regeneration – through a more reliable bus network orientated towards linking jobs and people

2.2 The above centre very much on increasing patronage and network access and the Phase 2 of this project identified the following core sub objectives the details of which are held in the Issues and Opportunities Technical Note.
   ♦ To enhance employment opportunities in the EBNS area through improvement in the local transport network links to serve existing and future major employment sites, both within and around the project area,
   ♦ To identify and infill gaps in public transport services by improving coverage to offer sustainable access to key sites of education, healthcare, leisure and retail;
   ♦ To enhance the integration of bus services through the provision of high quality interchange facilities and coordination of time tables;
   ♦ To improve bus journey times and bus reliability through improvement and efficient management of key bus corridors, including the junctions en-route, in the project area;
   ♦ Improve the quality and safety of bus services both on the vehicles and at waiting facilities,
2. Improve the dissemination and diversity of transport information available;
3. Ensure that transport improvements support the regeneration of East Birmingham and North Solihull by ensuring that the transport initiatives support the overall planning objectives;
4. To encourage travel opportunities in the area through innovative ticketing initiatives to encourage bus patronage; and
5. Enhance environment and safety for cyclists and pedestrians to facilitate local trips and connection to the public transport network.

2.3 Most of the above objectives require both capital and revenue elements of funding in order to achieve them. This paper, concentrates on the capital elements as these are key issues to determine the scope of the bid to the Department for Transport (DfT). The revenue funded elements will form an essential part of the final bid and will be fully integrated at part of the proposals but they do not feature highly in this paper.

3. Problems and Opportunities

3.1 Whilst the objectives set out what we want to achieve, there is still the need to clarify where the problems and opportunities are and what we want to do to either overcome or make best use of them. The aim of this section is to act as a reminder of some of the key issue relating to how the network operates in the study area.

NETWORK AND CONGESTION

3.2 The western side of the study area comprising areas around Washwood Heath, Alum Rock Road and Bordesley Green are predominately Victorian terraced housing with a constrained road network.

3.3 Data from Phase 2 of this study together with on site observations indicates that the worst of the peak hour traffic congestion is within this western side of the study area, primarily associated with traffic attempting to access Birmingham city centre.

3.4 Adding capacity to the road network in this area will move the congestion closer to Birmingham city centre and the ring road. As traffic grows in the future this will exacerbate the problem and erode any short term benefits.

3.5 The centre of the study area is predominantly mid 20th Century housing with much wider roads with far more scope to incorporate possible improvements.

3.6 As one moves further east the housing tends to get newer culminating with the major housing estates such as Chelmsley Wood and Smiths Wood. Any traffic congestion occurring in these areas tends to be localised.

3.7 The River Cole acts as a very effective screen line limiting the potential for movements particularly for traffic attempting to avoid congestion.
3.8 The Borough of Solihull tends to be split along the line of the A45 and the connectivity between the wards in the north and the town centre is not good either in terms of network definition or public transport network

PUBLIC TRANSPORT

3.9 Bus reliability is poor and journey times from the east to west side of the study area and into Birmingham discourage use of this mode for access to employment

3.10 On initial inspection the bus network lacks definition. It is not clear where the frequent routes are or what opportunities there are for interchange. Figure 3.1 highlights those bus routes within the study area with a frequency of 15 min or better.

4. Themes

4.1 When considering the various proposals that could meet the aims and objectives identified above, one tends to end up with an approach that lacks structure and cohesiveness. In order to aid the understanding of the various elements and the rationale behind each, the proposals have been split into a series of “Themes”. There are alternative elements between the themes but many of the features may be combined to form a complimentary single proposal. The three main themes are:

♦ Queue Relocation,
♦ East – West Corridor Enhancements,
♦ Connecting to Improve IMD,

4.2 We will need to determine exactly which elements of the above form the preferred option to take to the DfT as a major scheme bid, but as a minimum we will also need to include a low cost option.

THEME 1 – QUEUE RELOCATION

4.3 In transportation terms the key barrier is the traffic congestion in the west of the Study Area as trips tend to converge on Birmingham City Centre. This zone forms a barrier for all forms of transportation preventing key access routes to facilities and employment for the whole of the study area. For Buses this results in longer peak period journey times and a significant loss of reliability.

4.4 The following issues have been identified from work undertaken in Phase 2 of this study and through on site observation. Whilst we believe that this is a realistic assessment, it will need supporting through the traffic modelling which will be undertaken for the study.

♦ Current low levels of capacity in an east / west direction;
♦ Current low levels of capacity through the area in a north / south direction;
♦ Poor and unreliable journey times through the area for public transport;
♦ Interaction between retail and traffic along key transport corridors through the area;
High density of development throughout the area reducing opportunity for improvements; and

The limited capacity to the west of the study area and within Birmingham City Centre.

4.5 This creates a unique set of problems with the interaction between this densely populated and in many ways vibrant area and the demands of the transport system.

4.6 The overall aim of this approach is therefore to reengineer the traffic conditions within the western study area to address as many of the above issues as possible without just adding capacity for all vehicles in this area and thereby just moving the problem closer to the City Centre.

4.7 The principle behind the proposals is to move the existing zone of congestion from an area where any possible solution would involve wholesale reengineering of the area, to a zone where the level of development is less dense and more opportunity exists within the existing land to engineer an appropriate solution. This is generally termed queue relocation.

4.8 In this case there is a clear and obvious boundary where this can be applied. The River Cole runs north / south part way through the zone creating an ideal boundary with very limited crossing points. At the points where this line crosses the east / west access routes it would be intended to implement the following principles:

- Reduce capacity as specific locations for the traffic travelling from the east to the west (Birmingham inbound) through the use of traffic signal control and intelligent transport systems;
- Increase general capacity for traffic travelling west to east (Birmingham outbound);
- Provide a bus bypass lane on east to the west bound movement at key bus crossing points, for the bus to get past all queues developed by the reduction in capacity;
- Reengineer junction as appropriate to match the alteration in traffic conditions within the congestion management zones.

4.9 The reason for the increasing east bound capacity for all vehicles is because queue relocation will only operate in one direction. For traffic travelling into the city centre in the AM peak there is space to hold the queues, however outbound in the PM peak a similar strategy would require traffic to be held within the city centre and other than holding vehicles in car parks there is no realistic road space available.

4.10 The overall strategy is summarised diagrammatically in Figure 4.1 Queue Management System

4.11 The key features of this strategy are:

- By reducing the delays in the existing key congestion hot spots but increasing delays elsewhere to have the existing journey times remain reasonably constant;
- By provision of locations where buses can bypass some of the congestion this would enable improved bus journey times and bus reliability; and
Work undertaken to date indicates that this can be implemented without any substantial land take outside the existing highway boundary.

4.12 The strategy has the following problems and risks:

- We are aiming to manage a sensitive network with multiple route choices over a wide area, there will be locations where the approach will not work as envisaged at the first attempt;
- There is potential for traffic to attempt to avoid the relocated queues by “rat running” using routes that are less appropriate; and
- The strategy would be politically sensitive as it will relocate queues into areas that currently suffer less congestion.

4.13 In addition to the above, consideration is also given within this theme to the potential to expand the park and ride service using the local railway stations on the west coast main line. Park and ride facilities currently exist at both Marston Green and Lea Hall stations, but are claimed to be over utilised and requiring additional parking space and service changes. Issues such as to the availability of space has been considered as part of the Interchanges assessment.

THEME 2 – MAJOR PUBLIC TRANSPORT ENHANCEMENTS

4.14 The study area is served by quite a comprehensive network of bus routes, but because of the nature of the area with a series of different potential destinations, the network lacks clarity. Without good knowledge of the bus services, it is very difficult to pick out the logical structure that underlies the network.

4.15 In terms of journey time it also takes a long time to get from the east of the study area to the west and Birmingham City Centre. The following six existing key corridors have been identified for further improvement in the area:

- The northern east / west route (route 94 corridor) – this is a high frequency route, it currently is not showcase;
- The central east / west route (route 97 corridor) - this is a high frequency route that has received showcase treatments to improve the service;
- The southern east / west route (A45 corridor) – this is a high frequency route currently receiving showcase treatments with the implementation of a red route also planned. There are longer term proposals to convert the corridor to a Metro;
- The westerly positioned north / south route (route 8 corridor) – this is a high frequency route and studies have been undertaken into the feasibility of upgrading the route. It has been established that although various options are available, an upgrade to the service could have a conflicting affect on the alternative routes surrounding it;
- The central north / south route (route 11 corridor) - this is a high frequency route that has also received showcase treatments;
- The eastern north / south route (route 71 corridor) - this is currently a reasonably high frequency route, but not as high as the others, nor has it received showcase treatments.
4.16 There are a number of high frequency services that do not appear in the above list, the 14, 17, 28 and 55 in particular. It should be stressed that we are not proposing to down grade any services and that the choice between the 94 and the 55 is not absolutely clear cut.

4.17 The strategy is therefore to almost build a top level grid based upon the key success in the routes above to reduce east west journey times by introducing an express service, potentially as a Bus Rapid Transit (BRT). Whilst the A45 corridor is included in the above list and forms part of the theme, it is already the subject of extensive study and does not feature further in the discussion. The scheme is presented diagrammatically in Figure 4.2 attached.

4.18 The principle is that the Route 97 corridor would form the backbone of the strategy. This route would be upgraded beyond the current showcase level, potentially to BRT route and would run limited stop services again potentially between Birmingham International and the city centre with some route changes to the existing 97 route in the vicinity of Chelmsley Wood.

4.19 Past reviews of this route have identified Bordesley Green as the main barrier to achieving this proposal and significant effort has gone into working out how to resolve the congestion issues in this area. Clearly the queue relocation identified in the first theme could go some way solving this; however, there is also the potential of a gyratory system which is still under investigation. This could operate as an alternative to the queue relocation or as a complementary feature.

4.20 The aim would then be to upgrade the remaining services in the list to showcase standards, where they are not already at this standard and to promote the interchange opportunities on this top level network. Key junctions would be upgraded to obtain as much priority as possible within logical constraints.

4.21 The 71 route is slightly at odds with the rest of those in the list as it currently runs at a lower frequency and north of Chelmsley Wood takes a very convoluted route round Smiths Wood and Castle Bromwich. Within this strategy it is suggested that the effort should be concentrated on the section of the route that links Chelmsley Wood with Solihull.

4.22 Phase 2 of the study highlighted an issue of the lack of north south routes in the study area, particularly in the eastern half. It is felt that the improvements to the 94 and 71 services already discussed will meet this demand by linking a north south route via Chelmsley Wood and Marston Green Station. It is suggested that any further north south routes in this area should be investigated as a lower frequency commercial service and should be taken up with the bus operators.

4.23 The aims of the strategy are to:
- Provide a key spine of a route through the study area to reduce east west journey times and promote a significant change in the perception of public transport throughout the area;
- Provide a top level network structure that is simpler to understand and market;
- Provide good quality interchange facilities increasing overall options for travel.

4.24 This strategy has the following problems and risks:
The 97 has in the past stalled due to the problems of promoting the route through Bordesley Green. Whilst we have solutions to this, they currently lack a degree of elegance that is needed to really make this work;

♦ There will be political issue over those routes that are not included in this top level structure, particularly the 14 and the 55;

♦ There will be a need to mix express services and local services on the 97 route and careful planning will be necessary to ensure that the one does not delay the other; and

♦ The outcome of any station review is likely to be very sensitive.

**THEME 3 – CONNECTING TO IMPROVE INDICES OF MULTIPLE DEPREVATION**

4.25 This third theme is in part a recognition that the first two themes are in part aligned to providing a structure that is simple to understand for the DfT and has a better chance of obtaining funding rather than a natural progression from Phase 2 of the study. That is not to say that the first two themes do not meet many of the original objectives, but they are not directly aligned to the access to employment, health and education objectives originally set out.

4.26 To start this thought process we have stepped back to some basic data picked up in Phase 2 of the study and undertaken a short review to determine the implications and potential actions.

4.27 The indices of multiple deprivation (IMD) provides for a measure of the relative levels of prosperity and opportunity throughout the country. It also provides a valuable tool in assessing the needs of the local population. Attached as Figure 4.3 is a plot of the relative levels of IMD broken down into bands. The darker the colour the lower the levels of IMD, hence the poorer social conditions that exist within the area. The plot clearly demonstrates the areas problems.

4.28 Of the 14 wards that are part or wholly contained within the study area eight fall within the bottom 10% of the country, with a further three falling within the bottom 20%. Figure 4.3 demonstrates that the IMD’s fall into clusters. The low IMD scores are at each of the extremities East and West of the study area, with an additional middle band being in the 20% lowest.

4.29 In general the areas in the west of the study area are already well connected to Birmingham as a major source of employment. It is likely that the conditions that result in high IMD scores are not primarily transport related. In contrast the areas in the east of the study area are not well connected and by providing good transport links between key locations it is possible to improve the opportunities available to residents of these areas.

4.30 The following approach for overcoming these issues has been developed based upon the potential accessibility between six key locations within / on the borders of the study area. These are:

♦ Birmingham City Centre (CC) and surrounding retail, commercial, industrial, social, education and health facilities;
Solihull Town Centre (SHTC) including surrounding retail, commercial, industrial, education, social and health facilities. In addition to this it incorporates the Land Rover Plant along Lode Lane and the Solihull Hospital which are in the same key corridor to the south of the study area;

Heartlands Hospital (HH) as the key centre for both employment and health within the study area;

Chelmsley Wood (CW) town centre including surrounding retail, commercial, industrial, social, education and health facilities;

Birmingham International Airport and NEC (BIA); and

Castle Bromwich, (CB) together with the Fort Retail Park and major employment region surrounding the Jaguar car plant.

4.31 This is a very simplified approach and it is recognised that travel patterns may well be far more complex. This however does provide a rough backbone for the strategy.

4.32 Taking these six key locations a matrix can be developed of the quality of transport provision. This has been undertaken using a simple system:

- Car = private transport provision only
- Poor = private transport plus infrequent, unreliable or non showcase public transport provision
- Adequate = private transport plus frequent public transport provision
- Good = private transport plus reliable and frequent public transport provision

4.33 Table 4.1 gives the basic provision of transport between key transport nodes based on the above system.

**Table 4.1 Basic provision of transport between key transport nodes**

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4.34 Taking the above matrix it is possible to develop a strategy to address some or all of the issues.

4.35 The above matrix demonstrates the following:

- Poor access to from Heartlands Hospital
- Poor access the industrial / new retail areas of Castle Bromwich from the study area; and
- Poor access from the study area to areas of Solihull.
4.36 It should also be recognised that within the consideration above, access to Birmingham City Centre from all the areas is marred by the poor level of accessibility through the congestion belt Washwood Heath / Nechells and Small Heath, which limits the transportation provision through this area.

4.37 The strategy therefore developed out of these observations and analysis would incorporate the following elements:

- The creation of a reliable public transport service connecting Castle Bromwich/Castle Vale area with Heartlands Hospital;
- The upgrading of the public transport service connecting Castle Bromwich industrial / retail areas with Castle Bromwich residential on down through North Solihull then linking onto Solihull itself;
- The creation of a firm access route linking North Solihull with the rest of Solihull creating a focus for travel between the two areas;
- The implementation of various parking management options along the key radials into Birmingham improving journey reliability, particularly for public transport; and
- A review of key study junctions aimed at improving general traffic flow conditions throughout the study area.

4.38 This strategy has the following problems and risks:

- To develop this approach fully a more detailed analysis is required through the traffic model and will be undertaken once the modelling data is available.
- The additional services suggested are based on missing links rather than passenger demand and will need to be reviewed against potential demand information.

**INTERCHANGES AND SUPPORT MEASURES**

4.39 In the discussion on themes very little has been said about the potential interchange improvements or the support issues, primarily because most of these features are common to all the themes.

4.40 The Interchange strategy is very dependent upon the approach adopted by the Steering Group to the themes presented and will be finalised once the preferred option is agreed. To facilitate this a complete review of all the main interchange points has been undertaken, looking at:

- What already exists at each point?
- What is the potential for improvement?
- How each integrates with each theme? and
- What the current level of use is?

4.41 This last element is very important to the review but is also data that is commercially sensitive data for the operators. For this reason this work has been reported separately and will be reviewed by TWM prior to an agreement being reached on which elements can be released.
4.42 As previously discussed in the Steering Group the Supporting Measures are being developed in parallel to the main bid process. A series of papers are currently under preparation and will be presented to the steering group.

4.43 A number of accessibility issues have been raised as part of the work done during phases 1 and 2 on the EBNS MAP. These have been summarised into the following interlinking themes:

- Access to key services;
- Action Against Crime;
- Land-Use Planning;
- Cycling;
- Walking;
- Marketing and Information; and
- Other initiatives and funding resources.

4.44 A detailed technical note will be produced for each of the themes concluding with proposals for a number of smarter choice initiatives and measures that will improve accessibility in the area and support the proposed themes for the major scheme bid. Furthermore the series of technical notes will also seek to monetise where appropriate, benefits gained from the proposed ‘smarter choice’ measures. These monetary values will then be considered as part of the major scheme appraisal.

4.45 The first two papers will be looking at funding sources and cycling initiatives as these are likely to be the most important issues in the future discussions with the DfT.

**MERGING THE THREE THEMES INTO A SINGLE STRATEGY**

4.46 It is important within the Major Scheme Bid processes to prove that various options have been considered when developing the overall strategy. Logical reasoning and evidence need to be provided as to why this is the preferred strategy. It is equally as important that the outcome of the investigation should be a single well devised and clear strategy. This strategy should have clear targets and goals.

4.47 The draft guidance to local authorities seeking DfT funding for local transport schemes states the following:

4.48 “Any major scheme for which the appraisal of an alternative option is considered inadequate or where the Department considered alternative options to be preferable, will not be accepted for funding.”

4.49 The three strategies presented above each have well developed and sensible rationales. They are however not mutually exclusive, indeed many elements may be considered to be complimentary. For example some measures that are presented within the east of the study area may well fit well with the first theme, which concentrates primarily on the western side of the study area.

4.50 Table 4.2 below attempts to score the features of each option to the objectives, using 1 as minor impact and 3 as major impact. With the present level of information
available this is to an extent a subjective task. It is assumed that the interchange improvements appropriate to each option are included.

**Table 4.2, Themes against Objectives**

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<td>Environmental Improvements including air quality – through increased bus</td>
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<tr>
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<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Environmental Improvements including air quality – through increased bus</td>
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<td>2</td>
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<tr>
<td>To enhance employment opportunities in the EBNS area through improvement in</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>To identify and infill gaps in public transport services by improving</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Enhance the integration of bus services through the provision of High</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>To improve bus journey times and bus reliability through improvement and</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
route, in the project area

| Improve the quality and safety of bus services both on the vehicles and at waiting facilities | 2 | 2 | 2 | 3 |
| Improve the dissemination and diversity of transport information available | 2 | 2 | 2 | 3 |
| Ensure that transport improvements support the regeneration of East Birmingham and North Solihull by ensuring that the transport initiatives support the overall planning objectives | 2 | 2 | 2 | 2 |
| To encourage travel opportunities in the area through innovative ticketing initiatives to encourage bus patronage | 1 | 2 |
| Enhance environment and safety for cyclists and pedestrians to facilitate local trips and connection to the public transport network | 2 | 2 | 2 | 3 |

4.51 The development of the strategy from here on will be a mixture of inputs from an outline technical assessment of each of the themes and input from the Steering Group. A decision could be made around the following:

- Theme 1 as is;
- Theme 2 as is;
- Theme 3 as is; and
- One of the themes above supported by some of the complimentary measures from the other themes.

4.52 It is our opinion that the preferred option is very likely to be a combination of the themes so an alternative approach to the decision making could be based on the following questions. Will the Steering Group support:

- Junctional Reviews along the B4145 at Alum Rock Road, Bordesley Green East, Church Road, Ash Road, Green Lane and Coventry Road
- Parking Reviews at Alum Rock Road, Bordesley Green East and Green Lane
- Inbound Restrain/Outbound Capacity Enhancements at Yardley Green Road, Pelham Road, and Margarets Morris Road
- Inbound Capacity Constraints/Outbound Capacity Enhancement/Bus Bypass at Heath Road/St Josephs Road, Alum Rock/Burnley Lane, Bordesley Green East/Eastfields Road, Hob Moor Road/Newbridge Road
- Additional Park and Ride requirements at Stechford, Lea Hall and Marston Green Train Stations
- Showcasing of Routes used by services 94, 11 and 71
Bus Rapid Transit on route used by service 97 along Bordesley Green East
Route upgrades to route used by service 8, the inner ring
Increased Bus Priority or Associated Junction Enhancements along Church Road, Stoney Lane, Station Road and Stechford Lane (Service 11)
Railway Station Review at Adderley Park, Stechford, Lea Hall and Marston Green
The extension of the B425 to go through Fordbridge, Tile Cross, Garrett’s Green and Sheldon. This approach would create better sign posted links into the South, mainly Solihull, and also create reviews of the major junctions upon its path.
The junction reviews upon the B425 would consider capacity and how it can be increased through the re-timing of traffic lights or re-engineering of the highways. This would help to address one of the issues of poor access into the south from the northern parts of the study area
A new Chelmsley Wood to Heartlands Hospital bus route utilising Kingshurst, Castle Bromwich, Jaguar Factory, Ward End and Alum Rock.

LOW COST OPTION

4.53 The draft guidance to local authorities seeking DfT funding for local transport schemes states the following in paragraph 3.3:

4.54 “Any submission must carry at least two options – the preferred option and a lower cost alternative. Each should be appraised against the do minimum option. Larger schemes (>£20m) may also need to carry a ‘next best’ option through the appraisal process.”

4.55 Depending on the final scheme it is likely that the scheme developed may well be in excess of £20million. It is therefore important to liaise with the DfT at an early stage to discuss the overall appraisal requirements. There is a need to develop at least a low cost option, with the possible need to develop a next best alternative.

4.56 It is however not considered to be appropriate at this point to develop either a low cost alternative or a next best option. It is important to develop the key major scheme. The low cost / next best alternative can then be developed from this single scheme with the aim of addressing the same key issues as the major scheme.

5. The Next Step

STEERING GROUP AGREEMENT

5.1 This paper has outlined a range of measures that could be taken forward and the Steering Group will need to come to an agreement on which should be included in the final package presented to the DfT. The exact approach and time scale for a decision will be agreed in the November Steering Group Meeting. However it is likely that a decision will be necessary by the end of November.
5.2 A meeting with the DfT is yet to be confirmed, but it is anticipated that it will take place either in Mid December or early January. This meeting will consider three papers, one based on the proposed themes and support measures, one on the traffic modelling methodology and one on the economic analysis of the options.

5.3 During the period that the DfT are considering this proposal for a Major Scheme Bid it is anticipated that Atkins will continue work developing the design for the preferred options, but will minimise all other activities until we have confirmation that the DfT are willing to seriously consider the bid if submitted next summer.
Figure 3.1  Bus Routes with a Frequency of 15 min or less
Figure 4.1  Theme 1 - Queue Management
Figure 4.2  Theme 2 - Public Transport Enhancements
Figure 4.3  Deprivation Index
Figure 4.4  Theme 3 – Connecting to improve IMD
EBNS Access and Mobility Study

Project: EBNS Access and Mobility Study

Drawing Title: Theme 1, Queue Management

Drawing No: Fig 4.1 (not to scale)

Legend:
- EBNS Study Area Boundary
- Congestion Management Buffer
- Review Area
- Inbound Capacity Constraints/
  Outbound Capacity Enhancement/
  Bus Bypass
- Additional Showcase Route (94)
- Additional Park and Ride Requirements
- Junctional Review (Inside buffer)
- Inbound Restraint/
  Outbound Capacity Enhancement

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Indices of Multiple Deprivation within Study Area

IMD Scores (%)
Scored as a % of National Rankings
- 0.01 to 10  (9)
- 10.01 to 20  (4)
- 20.01 to 30  (1)
- 30.01 to 40  (1)
- 60.01 to 70  (2)
- 70.01 to 80  (1)
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