

APPENDIX 9.1

SCHEMES IN THE TRANSPORT PLAN - DESCRIPTION AND DISCUSSION

INTRODUCTION

The Commissioners and Consultants for the Study do not have powers to directly execute any of the Transport Plan. Recommendations for how schemes can be funded and who should be taking action are in Section 11.

A principle of the Multi Modal Study approach is to investigate schemes in sufficient depth to enable a Preferred Option for the Plan to be derived and justified.

This Appendix therefore sets out the schemes in more detail, and discusses the issues and options for further scheme development where appropriate.

DESCRIPTION AND DISCUSSION

Rail schemes

The Rail schemes in the Transport Plan collectively aim to provide a service that is reliable, available, and attractive. The emphasis is on improvements to enhance existing services as a means of helping to meet the travel demand in the A453 corridor. The Recommended Transport Plan would increase the seating capacity from the present level of 1300, to 2100 per hour. The Transport Model indicates a high level of demand.

A number of the schemes were previously identified. This Study supports provides an additional perspective which reinforces the case for these schemes, and adds several new ones.

B2 Replacement Rolling Stock (Central Trains)

The fleet is currently a mix of 1, 2, and 3 car units. The scheme consists of modernisation by removal of the oldest and some of the smallest stock and creating a 10% increase in capacity. One Option is to alter this balance by securing the use of larger Class 170 trains being replaced by Midland Mainline.

B3 Trent PSB signalling and track improvements (Parkway Station to Nottingham).

The complex of three junctions near Trent Lock creates a severe limit on capacity, resulting in delays. The signalling system between the complex and Nottingham is old and in need of early replacement. Further delays occur approaching Nottingham Station. Improvements to the track consist of a length of:

- extra parallel track in the central section of the complex
- a number of extra crossovers between Ratcliffe on Soar and Nottingham Midland Station to enable trains to be switched between tracks
- ultimately a flyover for the Nottingham – Derby route over the Erewash Valley route.

This scheme package would greatly improve capacity and reliability.

B5 Car parking at local stations

This assists choice and flexibility where needed for travel arrangements. For journeys in the A453 corridor parking of 50 to 100 cars if desired is possible at Beeston. About 20 could be created on rail land east of the station, and further spaces by agreement on the existing private car park to the south, on a pre-paid or pay and display basis.

B6 Nottingham – Parkway train service.

A service created by introducing E M Parkway station as a stop in the existing and enhanced services on Midland Mainline, together with some of the Derby – Nottingham trains extended on a shuttle from the Trent junction, to achieve a 15 minute frequency. This would be the basis of an attractive Park and Ride arrangement for commuter and other journeys to Nottingham, offering a journey time of about 30 minutes from the A453 to Nottingham City centre at a competitive or lower cost than by car.

B7 Local Park and Ride facility at Parkway Station

This scheme envisages use of some of the parking spaces in the Parkway Station as proposed, with construction of up to 200 extra spaces if necessary. The need for extra spaces would be clarified once the Station and scheme B6 are in operation. A workable mechanism for charging for parking and fares would have to be found, for example a tear-off strip from the pay and display ticket to present at ticket purchase or checks.

B8 Nottingham – Derby improved train service

The transport Model indicates an excess of demand over supply on this route. Improved and modernised service with a regular 15 minute frequency is recommended. Achieving this level of improvement depends partly on schemes B2 and B3. There is some existing competition from bus services, reinforcing the need for a cooperative transport integration body.

B9,11 Station Upgrades to modern standards

The existing state of rail stations acts as a deterrent to rail travel to varying degrees. Local stations suffer from a range of problems that could be overcome, in some cases for relatively little investment. A toolkit approach is recommended, with guidelines on standards. An upgraded station should have a high standard sheltered waiting facility, a high standard of personal security by careful design assisted by CCTV and emergency telephone, disabled access, co-ordinated service information, real time train information, strict maintenance regimes. For the recommended Transport Plan the upgrading is recommended for the stations between Nottingham and Derby.

B14 Multi mode Smartcard ticketing

Although listed under rail schemes this applies to all public transport. Smartcards are one of many possible ticketing improvements for public transport to replace the existing outdated arrangements. The recommendation of this Study is to find and introduce the ticketing system that works best for the Study area and its connections. Smartcards that can be shown to a detector unit and record the debit each time a journey is made are one possibility. Through ticketing i.e. one for the whole of a

multi stage journey, is an important aim. There are many factors affecting the performance and choice of system. The Study has not quantified or evaluated the benefits in detail, but the consultations indicated strong interest and support, which would translate into increased transfer to public transport. Developing a widely used system requires extensive co-operation between the transport providers, a further point in favour of a suitable transport integration body. The costs vary considerably from one system to another and definitive estimates are beyond the scope of this Study.

It will be important for the chosen system to retain flexibility so that casual users and others unfamiliar to public transport are not caught out.

B13,15 Nottingham Station Masterplan redevelopment with extra platform

The Masterplan is being pursued by Nottingham City Council and other parties as a major redevelopment. The recommendations of this Study are concerned with the future capacity and operational performance of the transport aspects. The Station has a variety of access problems, affecting pedestrians, taxis, and drop-off/pick-up facilities for cars. It also needs more platforms and platform availability. The Study recommendation supports the scheme identified by Railtrack for an additional 2 platforms on the east side of the station, together with crossovers to enable trains to switch tracks and make best use of the platform space available.

B17 Gedling Station and Park and Ride service.

The full extent of this scheme is marginal to transport in the A453 corridor. It is mainly connected with considerations of the South Notts. Rail Network (SNRN) and public transport issues for the Greater Nottingham conurbation broadly on an east – west axis and its inclusion is partly conditional on the SNRN. The recommendation of this Study is for a facility to enable trains to avoid lengthy platform standing times in Nottingham Midland station, which currently affects the Midland Mainline inter city services and reduces station capacity. Extending the service to Gedling would be one way of achieving this. An adapted siding east of Nottingham Midland Station would be another.

A new service to Gedling with a 15 to 30 minute frequency would use the former mineral line from Netherfield, and a 500 space Park and Ride site and station constructed on the former colliery site with access from Arnold Lane.

Light Rail schemes

The A453 MMS has assessed the contribution of NET to achieving the Study objectives. The Transport Model indicates strong uptake of the extension to Clifton with consequent benefits including relief of traffic on the road network and greater accessibility. Together with Clifton South Park and Ride it forms an important component of the Recommended Transport Plan.

C2 NET extension to Clifton

The Study envisages a service with 10 or 15 minute frequency. Any of the routes shown in the Public Consultation by Nottingham City council in early 2002 would be consistent with the multi modal assessment, ensuring accessibility to the main population of Clifton and terminating at the Park and Ride site in scheme C13.

C4 NET extension to Beeston

Equivalent comments on the route and service level as for C2 apply to this scheme.

C13 Clifton South Park and Ride

The Transport Model indicates that this facility would be well used and that both it and the Rail based site at E M Parkway station should be provided. Initially 500 spaces are recommended, with the possibility of a further 500 in the longer term. The exact location and layout requires detailed investigation and should involve a comprehensive landscaping plan. This Study recommends a site adjacent to and with initial road access from the C4 Gotham – Clifton road. A direct road link to the A453 with a compact grade separated connection would be added possibly as part of the A453 M1 – Clifton dualling. We suggest that a planning brief for integrated development of the area of land around the site and the link road should be considered.

C17 NET extension from Beeston to A52 Bramcote

The scheme is based on an extension identified by the County and City Council team. It envisages a terminal with a Park and Ride site at the A52 at Bardill's roundabout. As an individual scheme it has a minor but not insignificant contribution for the A453 Study. It would strengthen the wider position and role of NET. Besides the main commuter service this arrangement would attract some journeys from the south and west to Beeston to the west side of the City of Nottingham. The preferred route is a matter for further work by the NET project staff.

Bus schemes

D2 Bus lanes A453 between Farnborough Road and Silverdale Roundabout.

At present congestion on this section of dual 2 lane A453 is caused by tailbacks from the adjacent lengths, mainly the Farnborough Road junction and beyond. It also carries some 30 buses in the peak hour. The Transport Model indicates that extra capacity created by the recommended A453 Clifton improvements would eliminate the delays to buses for most if not all of the Study period. This scheme, for an additional bus only lane in each direction, is therefore recommended as a longer-term item, to be kept under review. However, the roundabout at Silverdale, together with the entry slip roads from A453 south and A52 south east will need improvement with partial traffic signal control earlier (Ref. Table 10.1).

D4 M1 junction 24 bus priority

This is intended to ensure the viability of bus services to East Midlands Airport. It would be needed only if the improvements to the junction are delayed. It consists of the addition of 400m long bus lanes on each A453 approach.

D5 Clifton Local Bus service improvements (including D10c Bus service to Clifton Village)

This scheme includes the rural bus services to the villages in the A453 corridor and forms a major part of the recommendations for buses. A more detailed analysis is

contained in Working Paper 33: An overview of Public transport. It is recommended that the local services to Nottingham serving East Midlands Airport, Castle Donington, Long Eaton, Kegworth, Sutton Bonnington, Kingston on Soar, Ratcliffe on Soar, Gotham, Thrumpton, Barton in Fabis, and Ruddington be maintained initially as they were in 2001. Opportunities for improvement should be kept under review as the Transport Plan progresses.

For services between Clifton and Nottingham a 50% increase in passengers over the next 20 years is forecast. The present bus services can accommodate more passengers, but some additional capacity will be needed, and can be achieved by:

- Increasing the size of vehicles
- Increasing service frequency
- Adding new service routes

Within the Clifton area, access to bus services is generally good. All the principal distributor roads carry bus routes with frequencies between 6 and 12 per hour to and from Nottingham City centre, a total capacity of about 1200 seats in the peak hours and 1100 off peak in each direction.

One extra route, serving Clifton village at 2 buses per hour is recommended using small vehicles for the narrow carriageways. Generally the 33 seat buses could be replaced with 49 seat vehicles, and the larger buses replaced by either the long wheelbase type, articulated (bendy) buses, or double deck buses. Quality should be improved throughout. This is considered in more detail in the following paragraphs.

D8 Bus Real Time Information

This is the continuously updated electronic display of the next bus arrival time at bus stops, It has already been installed on some routes around Nottingham and helps to raise the quality and image of bus transport. Similarly up to date information on services can be made available by mobile or landline phone. Next stop and other information can be shown inside the buses. Real time information is recommended for wider use on a prioritised basis.

D12 Bus marketing

Information from the Study consultations indicated that aside from the people making regular trips members of the public know very little about bus services. This is despite the timetime and journey planner leaflets produced for the bus companies. Some bus operators have employed a more commercial approach and advertised services in various ways, reporting a positive response. It is recommended that this approach be given much more attention. It should be allocated funds and monitored for effectiveness. It should also be co-ordinated with service improvements and changes to maximise opportunities and ensure integrity of information.

D 15,16,17 A453 express bus service between Kegworth and Nottingham

The scheme recommends replacement of the existing hourly no. 5 service between East Midlands Airport and Nottingham with a half hourly limited stop service between Kegworth and Nottingham. The stops on this service should be integrated with coverage by the rural services referred to above under scheme D5. Nottingham – Airport trips would be catered for by rail to Parkway and the airport shuttle bus. The performance of these 3 different facilities covering the length of the A453 corridor would need to be monitored and adjusted if necessary over time to achieve best level of service and maintain viability. The long distance Airport Link bus services also

have a contribution in this context, bus as they operate on a much larger and closely defined network, no recommendations for change are made.

D11,18 Bus/NET/Rail integration of services

The aims of this scheme are self explanatory. Integration should be capable of improvement through the Quality Partnerships with the involvement of the City and County Councils. However, there are likely to be circumstances where an overall improvement for the traveller will involve one or more of the transport providers a loss or extra costs. To achieve integration to this degree it is recommended that a cooperative transport body which includes the service franchisers should pursue the scheme.

D21 Local parking at major bus stops

For many residents in rural areas it is impractical to walk to the nearest bus stop because of the distances involved and the dangers of walking along roads with no footways. This scheme seeks to improve accessibility and choice by facilitating use of cars or cycles for the remote end of a journey. It would consist of nominally 10 – 12 pay and display spaces discountable against the bus fare. It would also incorporate a safe drop off and pick point, which has benefits for personal security for the more vulnerable bus users. An initial site is recommended in the vicinity of the Police Station at Kegworth, to be monitored in preparation for further sites in and beyond the A453 corridor.

D23 New generation bus stops

This is a minor scheme to meet a requirement for a greater standard of facility at certain bus stops, lying between the proposed transport interchanges identified by Nottingham City Council (scheme C3), and the normal range of stops. There are a number of bus stops especially in the urban areas where queues currently build up to a dozen or more people. With demand increasing by up to 40% in the Recommended Transport Plan the busier stops should aim to provide enough shelter for all regular queueing. Shelters would have facilities including minimal seating, Real Time information, service timetables, and incorporate adequate circulating space, high intervisibility, and be able to cope with more than one bus at a time. Full identification of sites needs detailed Study, but Kegworth and Clifton would be initial candidates.

Bus Quality

During the course of the Study the team have collected comments and information about buses from a variety of sources including members of the public during consultations. Many of these can be considered as parts of the schemes listed above, but may also be aspects of the more general heading of bus quality, and have been recorded below.

1. Information and promotion

Information on services, timetables, and routes/stops is poor, outdated, and unco-ordinated. There is much scope for improvement.

There is little advertising bus services and their advantages except on vehicles themselves.

Existing traditional timetables are essential but only one part of the information needed by the user.

Timetables are posted on most bus stops but are often illegible because they are printed too small, badly lit, or placed wrongly so that they are obscured by other people in the queue. All timetables at bus stops should be accompanied by an diagrammatic route map.

The 'branding' of buses by service is a positive forward-looking move. We do not have information on its value to bus promotion.

The choice of routes especially in Nottingham City centre is deceptive. Most routes circulate round city centre streets before starting their return journey. This is very disorientating to all but the every-day user as the buses can be travelling in a completely different direction to what would be expected by common sense.

With the current 'plenary' terminals in Nottingham City centre, finding the correct service and making connections between services is obscure and there is no information system to deal with the complications of the new situation. City guide boards are few and far between. A co-ordinated and comprehensive set of guide boards is needed.

Failure of rural, longer distance, or infrequent services have higher risks for the user. A Real time Mobile phone texting or voice information system should be trialled for possible introduction. i.e. Telephone the number shown on the timetable display for the bus service no. required and receive up to the minute information on the next bus, with call options for other information..

2. Vehicles and access

Low floor easy access buses are a very big improvement and introduction should be pursued strongly.

Even the latest buses leave something to be desired on quality. Some of them rattle loudly and ride poorly over uneven road surfaces. Some vibrate uncomfortably when idling or have quite noisy engines when revved.

Grab handles and seats required very detailed design as modern buses accelerate, brake, and corner much more strongly than before. Grab handles should be within reach continuously along the full length of the aisle. Passenger accidents from falls inside buses are not uncommon, and are naturally an overwhelming deterrent for vulnerable passengers.

Seats should always be shaped to individual occupants, both to provide support during cornering and to provide a minimum amount of important feeling of personal separation between adjacent passengers.

Taped music has been used on some newer buses and can serve a purpose in relaxing the atmosphere at certain points on a bus journey. Tensions often arise between

passengers due to unwanted overheard conversations, mobile phone calls, coughs and sneezes, and though most passengers put up with it, overall it contributes to the poor image of service bus travel. Ventilation is mostly fairly rudimentary and could also be improved.

3. Stops and shelters

There is much scope for improvement of bus stops. A strategy is required aiming for a hierarchy of shelter provision matching site characteristics, location, and amount of patronage.

For stops where larger numbers of movements are expected the 'new generation' standards (scheme D23) should be considered.

Stops do not need to be a uniform design and standard. Variety should inevitably follow from the many different situations that exist, from busy central stops to remote rural locations. Again fairly elementary mistakes are being made for example:

- Plate glass is being used in locations susceptible to vandalism.
- Shelters are not tailored to suit the environmental characteristics of the individual sites.
- Shelters are often much too small to accommodate queues.

The following basic points should be taken into consideration:

- A basic aim should be a minimum standard of shelter at all stops.
- Shelters need not always have 'solid' sides whether glass or other materials. They can be virtually roof-only if not in exposed locations.
- In exposed locations shelters should have walls to protect against the wind.
- Shelters should have a high degree of visibility, but not necessarily total all-round, for personal security.
- Set-back from the road edge greatly improves the waiting environment.
- Road side drainage should be checked for ponding in wet weather. Protection against spray from vehicles should be incorporated by whatever means are necessary.
- The aim should be to match Kerb height to the floor level of the new low-floor buses where practicable. It is impractical to adopt this criterion for all stops. The geometry of bus laybys make it difficult for buses to get close enough to the kerb. High kerbs can be a hindrance in rural locations.
- Traditional and older shelters in brick, stone, or timber in rural areas can be perfectly satisfactory in the right circumstances.

4. Drivers

Drivers can help a great deal in improving the quality of bus journeys. They can also help in reducing missed connections. Although the opportunity may be limited on city centre services, many drivers build a good relationship with regular passengers, which has a knock-on effect on attitudes of the passengers themselves and generally improves the quality of the journey.

Professional standards are important. Drivers could be equipped with a microphone for announcements. Passengers should be more forcefully encouraged not to stand unnecessarily blocking the aisle at the front of the bus.

Highway schemes

E2 - A453 Clifton – M1 dual carriageway scheme.

This is very similar to the Highways Agency's former scheme published in 1992. A second carriageway would be added on the south side of the existing, retaining the same basic alignment, to form a dual 2 lane rural standard route between junction 24 and Crusader roundabout.

It is a major intervention, important for relief of current levels of accidents, congestion, and rat running. It would help provide a reliable access between the M1 and Nottingham for all classes of traffic, including bus services.

All the junctions would be grade separated including conversion of the junction currently proposed as a roundabout for access to Parkway Station. At Thrumpton north a left-off, left-on arrangement is suggested. Local road links would be added connecting Thrumpton and Barton in Fabis, and Ratcliffe on Soar to Thrumpton South. The basic form suggested for each of the junctions is shown on Figures 9.4, 9.5, and 9.6.

The choice between a dual carriageway or an improved single carriageway has been carefully considered bearing in mind the Strategy to encourage transfer to public transport. One of the problems to be faced is that the choice is limited and dualling is a very large step up in standard, risking encouraging the spiral of more traffic and leading ultimately to more congestion. The choice is examined in Appendix 7.2 and concludes that dualling is absolutely necessary.

The revised lower traffic forecasts have been taken into account, and it is considered that there is no need for major changes to the basic design published in 1993 by the Highways Agency.

The only significant review needed was in regard to the junctions and associated facilities for local and walk/cycle movements. Indicative layouts are shown on figure A9.1.

The points for future reference are:

The whole length:

- To form a continuous route off the A453 for cyclists, pedestrians, and local traffic.
- Access for farmers to fields alongside the dual carriageway without having to use the A453.
- Measures to effectively prevent rat running in the event of incidents on the A453 will be essential.
- Rights of way crossings re-assessed against current Walking Strategy. No at-grade crossings of the dual carriageway.

Ratcliffe on Soar/Parkway/Power Station junction

- Adaptation of the access layout proposed with the Planning Application for E.M. Parkway Station, by replacing surface level roundabout with grade separation.
- Connections between Parkway Station, the Power Station, and the local roads to Ratcliffe on Soar and West Leake/Gotham, avoiding the A453.

- Cycletrack/footways through the non-trunk road parts of the junction, segregated from the main carriageways.

Thrumpton/Power Station/West Leake junction

- Use of existing bridge under A453, with slip roads modified for the dual carriageway layout.
- Cycletrack/footway segregated as above.

Thrumpton/Barton in Fabis junction

- A453 slip roads with left turns only.
- A local road link to Manor Lane

Barton Lodge junction

- A453 minor deviation to the south as in former scheme to improve local conditions and maintain access.

E13 – M1 Junction 24 Major scheme

A major capacity improvement scheme removing the heavy traffic movement between A50 and M1 south from the existing roundabout by construction of a flyover from J24a and grade separation of the A453 roundabout at junction 23a during the second half of the Study period. It would effectively be a second phase improvement following on from Scheme E14 with minimal abortive work. The main features are:

- Southbound flyover from junction 24a roundabout (A50) to M1 with new bridge over M1
- Cycle underpass under the flyover at junction 24a.
- Re-aligned slip road to Junction 24 from the M1 north.
- Additional through lane (no give-way) at junction 24 roundabout for A50-bound traffic.
- Acquisition of land required adjoining the M1
- Underpass for A42 to A453 north movement at junction 23a at a later stage.

E14 - M1 Junction 24 traffic signals scheme with safety improvements

This is a smaller scheme capable of early implementation, that would help reduce the delays for traffic entering the junction from the two A453 approaches. It involves construction of an extra through lane from A453 south to A50 north bypassing the traffic signals:

- Addition of signal control to the remaining give-way entry arms of the roundabout.
- Rationalisation of lane markings to three lanes throughout the circulating carriageway.
- Lengthening of the third lane on the A453 approach from Nottingham.
- Widening and easing of radius on exit from roundabout towards Nottingham, with extended central reserve.
- Capable of implementation within 2 years.

- Can be constructed as an interim scheme in advance without prejudicing scheme E13.
- Orders under the Highways Act should not be needed provided the access bridge east of Junction 24 is retained. The bridge would have to be widened for the dual carriageway scheme in any case, but it might be necessary to widen it for this advance scheme.

E24 - A453 Clifton single four lane scheme

This scheme is vital to the success of the Preferred Option, as it would release the bottleneck of the existing road with the minimum of adverse effects. It involves a range of important issues, and for this reason is examined in more detail in a separate appendix – [Appendix 9.4.] It widens the A453 through Clifton on its existing alignment to form an urban standard four lane carriageway with central refuges and islands at junctions and crossings. Crusader roundabout, Green Lane, and Farnborough Road/Fabis Drive junctions would be roundabouts (Green Lane a circulatory based on the existing layout) controlled by traffic signals. Minor junctions and accesses would be restricted to left turns, bus lay byes provided. Pelican crossings would be retained at locations similar to the existing, but replaced by footbridges if they can be well integrated into the local infrastructure, at the crossings south of Green Lane and at Nottingham Trent University access. They would benefit by locally lowering the A453.

E28 - A453 Barton Lodge junction safety Improvement

The junction at Barton Lodge has a very poor safety record. As part of the Preferred Option the scheme could be designed to form part of a later dual carriageway with minimum abortive work. Barton Lane/New Lane would cross under the A453 via a bridge, and new links with the local roads, making left turns only at the A453.

- Urgently needed scheme to overcome poor accident record
- Grade separation designed as advance phase of A453 dualling
- New bridge under A453
- Requires Highway Orders and acquisition of land for slip roads
- An at-grade alternative utilising just the slip roads is possible if the grade separation encounters problems.

E29 - A453 Crusader Roundabout addition of traffic signals

A scheme capable of early implementation to reduce the delays on A453 in that area. It would form an advance part of E24. The existing roundabout would be slightly modified to create two lane running width throughout with the possibility of a three lane approach on A453.

- Existing roundabout retained
- Entry and exit carriageways enlarged
- Traffic signals introduced for all movements
- Green man signals for pedestrian crossings incorporated into the junction

F5 - Extension of Urban Traffic control system to A453 Crusader Roundabout

This would be a useful measure to increase the ability to monitor and react to changes in traffic conditions on the A453 through Clifton with the on line route. It would connect control of the traffic signals to the City Control centre, and provide CCTV monitoring.

- Including CCTV monitoring of pedestrian crossings
- Including Speed cameras

Walking and cycling schemes

A package of measures to assist walking and cycling, as described in Appendix 9.3. Missing links in the cycle network would be provided and systematic attention given to details on existing routes used for cycling. Both this and the pedestrian schemes are important contributions to the Preferred Option and the underlying strategy.

Freight schemes

J5 Rail heads and sidings for road/rail transfer

This scheme identifies possible sites and assesses the site feasibility, acknowledging the current state of road/rail transfer. It is not a key part of the Option, but is an important issue for the future, and is put forward in support of the Strategy behind the Preferred Option. Further details are given in Appendix 9.5.

Demand Management and Travel Behaviour schemes

I2 Workplace Parking Levy or road charges.
(This intervention is described in section 9 and elsewhere in the Report)

I3 HGV bans on unsuitable roads

A scheme to improve monitoring and review practice on control of HGV use on unsuitable roads, with the possibility of restrictions in sensitive locations. This is concerned with environmental impact, and balancing the needs and level of provision for all road users.

Whilst likely to have only a marginal effect on transport it is significant in a strategy for future transport.

I4 Further Parking Controls and I5 Further Parking charges

Further extension of the schemes introduced by Nottingham City Council in 2000 to 2002 involving a gradual and structured reduction of parking space and increase in charges in concert with improvements in public transport. This is a key part of the Preferred Option, being one of the measures to contain road traffic in the greater Nottingham conurbation.

I9 Planning controls to encourage public transport and walking/cycling.

This scheme is intended to assist the integration of land use and transport planning, by commending a system of tests for development applications against transport objectives and local transport schemes, in line with the Preferred Option.

K2 Travel Education

This measure is a recommendation for a collection of interventions by a variety of bodies with transport interests or responsibilities. It represents a wide ranging effort to raise public understanding of the direction and nature of travel, and their relationship to it, and as such forms an important part of the Preferred Option. It is considered in depth in Section .

K4 Green commuter Plans

An expansion of the approach that has been established in the last 10 –15 years, of an initiative by transport authorities to encourage employers and institutions that generate or attract large amounts of commuting by road to research and introduce plans to reduce road traffic within their sphere of influence. It should look at a range of possibilities from improvements to for example routes to bus stops, or rationalisation of operations.

K6 Information

This measure aims to improve the efficiency of travel in the widest sense by enabling journeys to be planned and monitored. It ranges from integrating and raising the profile of information about public transport services, to further development of in-vehicle traffic reports or route advice.

K8 Reduced public transport fares

Lower costs of public transport form an important part of the balanced measures to encourage public transport in the Preferred Option. The scheme would involve some regulatory intervention to ensure that the increased income from greater use of public transport is translated into lower fares whilst maintaining a balance of public services.