



**MULTI-MODAL STUDY
A453 NOTTINGHAM TO M1 JUNCTION 24**

WORKING PAPER No 25

SCHEMES TO BE SUSPENDED, AMALGAMATED, OR REJECTED

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Introduction

The first report on suspension of schemes from consideration was issued in June 2001 at the first stage of sifting of schemes from the Long List (the main reference list of all schemes brought into the Study).

At that time, early in the appraisal process, it was difficult to reject schemes outright. Only a few were clearly not applicable to the Study. It was decided to adopt a category of 'schemes to be suspended'. Suspended schemes could be taken out of the main stream of the Study using current knowledge and information, for separate consideration or re-consideration with the mainstream at a later stage.

An underlying principle in the appraisal process has been to retain schemes unless and until there are sound reasons to reject them. The stage when most of the sifting occurs is when the Options are being developed into contenders for the final Study recommendations – the current stage.

More schemes can now be sifted out by being either fully rejected, amalgamated with others, or suspended and carried forward separate assessment and report.

The following sections of this report list the sifted out schemes, their status, and the supporting reasons. The schemes in the 1st suspensions report presented previously to the PMG are included and re-assessed.

The result of this sift is:	Long List Total:	149
	Do minimum schemes	6
	Suspended/rejected/amalgamated schemes	52
	Total remaining	91

B16 Upgrade to Castle Donington Line (to allow passenger services to Birmingham)

The scheme would create a new more direct Nottingham – Birmingham route not via Derby. Derby is a popular destination from both Birmingham and Nottingham, so any diversion of the existing level of services would be counter-productive. The new route would have to be additional to services via Derby. At 59mins. the journey would be approx. 10 mins. shorter than the existing quickest. It lends itself to a half-hour peak time express limited stop service competing with the journey by road, stopping at Beeston and a new P & R and general station at Castle Donington. The service via Derby would in any case be more attractive if it were running properly with modern rolling stock.

To facilitate the service a flyover is needed at Trent junction on the Nottingham – Donington axis over the London-Derby tracks. The prospect for this scheme estimated to cost £10-15m is not good, given the calls on railway funds.

The limited number of trains in the service + the expense of the flyover and the fairly small time advantage over the existing rail route mean that the scheme would not be viable unless it could increase its potential for modal transfer, a situation likely to occur only in extreme conditions of highway saturation. This in turn would occur only if the favoured Options could not provide the desired improvements. A more strategic assessment could alter this view. The role in the M1 corridor strategy is to be reviewed when the information is available. (See also B25 below).

Recommendation: Suspend.

B18 New Nottingham to Melton Mowbray Service via Test Track

The scheme creates an alternative route to the Midland Mainline, by joining the Leicester-Peterborough Line at Melton Mowbray, enabling a link to the East Coast electrified route. The advantages of the alternative for the A453 transport corridor are limited, provided that the current capacity limitations of the MML at Trent junction and the approach to Nottingham are cured by scheme B3. The latter scheme is a high priority for the Rail Authority.

The track between Melton and Stanton on the Wolds is privately owned by Alstom, the Test facility company, which has made a substantial investment in the track over the past two years, electrifying and upgrading for the testing of high speed trains. The scheme could not realistically proceed unless Alstom wish to sell or would agree to a re-location.

Between Stanton and the former colliery line north of Cotgrave the scheme involves the construction of a new rail route across open countryside. The Wolds landscape is currently unspoilt with a rolling farmland topography and a prominent scarp onto the Trent washland south-west of Cotgrave. The new link would have a high environmental impact.

Its role in the M1 corridor Study is to be taken into account when the information is available, but the current indicators against the scheme are strong.

Recommendation: Reject

B21 Electrification of Midland Mainline

This scheme aims to improve the performance, convenience, and service level for this main rail route. Midland Main Line are well advanced in their plan to introduce a new fleet of high speed diesel powered trains which are expected to match the performance of the current East

and West coast main line routes at less cost. Electrification is not necessary to achieve the improvements sought, and this aspect can be rejected. The performance aspect of this scheme is covered by scheme B2 and various infrastructure upgrades.

Recommendation: Reject

B22 Four tracking of Midland Mainline

The aim of this proposal is taken to be to raise the performance of the Midland Mainline route. The route extends from St Pancras to Nottingham, Derby, and points further north, and is the foremost rail route in the study area.

Creating four tracks would

- Improve reliability by providing an alternative during maintenance work
- Reduce competition for track possession with other services on the route
- Potentially reduce journey time by reserving track for express services

Its benefits are not disputed, but to realise them fully would require all the 'pinch' points from London northwards to be improved. These are not all stretches of two track, but include a variety of signalling/capacity problems like the one at Trent Junction north of Ratcliffe on Soar power station where the triangular Derby/Nottingham/London junction involves services crossing over each other's tracks and is served by obsolescent signalling.

The Rail Authorities' view is that there would be adequate capacity on MML if Trent Junction major scheme were implemented. Anything further is beyond the scope of this Study, but it could be considered locally if required.

Recommendation: Reject

B23 Increase loading gauge on Midland routes

The need for this scheme would be to serve and promote railfreight. There have been plans in recent years for schemes to create a long distance railfreight facility running along or broadly parallel to the Midland Main line. However, freight in the A453 corridor is much more influenced by issues of access, transfer of goods, security, journey time and reliability. Increasing the gauge would have little effect in the current situation, but could more appropriately be considered in a proper context i.e. conditional on measures to deal with these issues. It is an appropriate subject for strategic Study going well beyond the limits of the A453 corridor.

Recommendation: Reject

B24 Rail link between Parkway station and East Midlands Airport

The engineering feasibility of this scheme has been investigated.

Two route corridors appear to be available

- a) a northerly route using the Castle Donington line from north of Parkway, including the existing bridge under the M1

- b) a route south of the A453 carried on a new bridge over the M1. They have not been identified as separate schemes as neither is realistically feasible on engineering grounds.

A northerly route would face the steep slopes between the airport and the M1 rail bridge, leading to track gradients in the order of 5% or a rail tunnel. The route would either have to be in tunnel under the runway and taxiway, ending in an underground stop at the Air Terminal, or skirt around the west side of the runway at a safe distance, passing the south side of the freight buildings at ground level to reach the Terminal. Neither is a realistic proposition and can be recommended for rejection without having to take into account their other impacts. A southerly route would branch off the Midland main line south of A453 and cross the A6 on a new bridge, and M1 on a new structure north of the existing Kegworth Road bridge. It would then pass through the Pegasus business park to approach the Terminal. In principle this route is feasible, but is inferior from every aspect to light rail alternatives between the Airport and Parkway, except for its theoretical possibility of a through service to the Airport. It might however have a role in the national and longer term context, which could be revealed in the concurrent M1 sister Study.

(N.B. A rail link between MML and the airport not directly from Parkway is a separate scheme B27 similar to one in the M1 sister Study)

Recommendation: Rejection

B25 P&R off A50 Cavendish Roundabout

If scheme B16, the Castle Donington Line, were re-opened and used for passenger services this Park and Ride scheme could siphon off road some road trips in the A453 corridor. It is however wholly dependent on B16, which is recommended for rejection subject to review in the light of the M1 corridor Study conclusions.

Recommendation: Reject subject to review.

C2b: NET extension to Clifton: Queens Drive Route

C4b: Queens Drive Route

Or C4c: NET extension to Beeston combined with Clifton Line

These schemes are amongst the options being investigated by the NET consortium as part of their longer term transport Strategy. They are direct alternatives to the Wilford and University routes respectively and the choice is mainly of concern to the scheme promoters, in particular Nottingham City Council with their broader responsibilities. For this Study the competing routes are fairly similar in their overall effect. Analysing one representative route is therefore sufficient for the purpose of the A453 Multi modal Study.

Recommendation: Suspend.

C3 Creation of NET/bus/rail interchanges

The main opportunity for these is at nodes between non-competing public transport routes. On consideration, the possible sites are on Nottingham Ring road and at Local Rail Stations. They are therefore addressed by schemes D7 and B15.

Recommendation: Amalgamate with D7 and B15

C5 Stand-alone Light Rail Shuttle between Parkway Station and EMA

This scheme has a valuable characteristic in that it would create a transport channel independent of the heavily loaded road network around J24 of the M1 and so offer high reliability and attraction. However, it would be a high investment highly dependent on gaining a minimum patronage to make it worthwhile. For the Study period this is highly unlikely, but should there be any review of the major expand plans for East Midlands Airport, this scheme should be re assessed.

Recommendation: Suspend.

C6 NET extension from Clifton to Parkway

This involves 7Km of route through open countryside with negligible potential for extra patronage. It therefore would operate as an express service between Clifton or Nottingham and Parkway (or in conjunction with C6, East Midlands Airport). It is uncommon for a light rail service to be introduced for these conditions. It needs to pass through dense urban development to achieve the short-trip service that is suited to LRT, in order to stand a chance of economic viability. The journey times for the longer trips would be uncompetitive. The cars are designed for short trips with a large ratio of standing room to seating. This line would need specially designed cars with extra seats not suitable for the rest of the NET system.

There are alternatives for the same trips, by express bus with route priority, or by rail with shuttle bus from Parkway to EMA also with priority at M1 junction 24, at much lower cost. The cost for the whole route would be in the order of £0.5m to £5m instead of £120m to £140m for NET.

It has one advantage over the alternatives for trips between Nottingham and Parkway or EMA in that it uses a separate transport channel free from congestion between the main centres (i.e. no transfers required). However, unless there is significant development along the route, which can at present be regarded as only a very slight possibility, this would not outweigh the disadvantages. The prospect could change with any greater expansion of East Midlands Airport, and in that case it would be appropriate to the review the scheme.

Recommendation: Suspend

C7 P&R at Parkway for NET users

Depends on C6 above

Recommendation: Suspend

C8 NET extension from Parkway to EMA

By itself this fulfils the same role as C5 above, but depends on having the NET extension from Clifton to Parkway in place. Again, it should be included in any review of major expansion of East Midlands Airport.

Recommendation: Reject

C11 NET extension to Trowell Motorway Service Area, and C12 NET based Park and Ride at Trowell MSA

The scope for routes for light rail north of the A52 at Bardill's roundabout is extremely limited. The line should go through Stapleford on the existing B6003 and the High Street, but these roads are so narrow that an LRT line could not be accommodated without removal of general traffic. Between the A52 and the southern end of the High Street the road is mainly residential suburban, and traffic restrictions of the level needed would not be practical or acceptable. For the High Street itself, an alternative diversion route for general traffic would have to be found, and no such route is apparent. Stapleford therefore effectively presents a major obstacle.

Routes avoiding Stapleford would have to go either west at least as far as Toton sidings or east to Bramcote. Neither seems likely to make a viable scheme.

The motorway service area at Trowell could be a key public transport commuter connection. The service area is quite close to the Trowell rail loop and to the A609 Nottingham- Ilkeston road. Bus or rail based systems appear more practical alternatives. As this is marginal to the A453 and has a larger strategic element, it is not proposed to investigate further, but to review it in the light of information from the M1 Study strategy when the information is available.

Recommendation: Suspend

C16 Conversion of Robin Hood Line to NET

The Robin Hood line between Mansfield and Nottingham serves a north-south travel movement with negligible bearing on the A453. The short section of NET route thus created west of Nottingham Midland station could be used by scheme C4 the NET extension to Beeston, but there is no value in assessing the scheme in this Study.

Recommendation: reject

D9 Guided bus technology at

- a) **Clifton Lane east bound approach to Crusader Roundabout and Clifton Lane east bound approach to Farnborough Road signals**
- b) **Ring Road Locations**

These schemes do not offer any significant advantages over conventional bus priority measures in their particular locations, but do sterilise potential and existing highway space and result in complications at bus stops. Bus lanes would provide additional carriageway useful in emergency or during road maintenance. Guided bus tracks need relatively long distance between stops. Stops need to avoid passengers crossing dense or high-speed traffic, and some contingency is required to cater for breakdowns. Junction priority can provided on the existing highway without the need for and considerable expense of guided bus technology, which make it relatively a very expensive Option.

Recommendation: Reject

D10 Bus route modifications

- a) **more cross city routes**
- b) **city centre circuit for Park and Ride buses**

Nottingham City Transport has introduced a proposal in the 2001/2 – 2005/6 Local Transport Plan to reorganise bus routes in the city centre. Radial services effectively terminate at the edge of a central core, with certain services from the north and east continuing in a loop around the core before commencing the return journey. This is not compatible with 10a, The choice of which of the services should run round the loop and which should terminate is a matter for detailed separate consideration by the bus operators and Local authorities outside the Study.

The performance of the new system cannot be judged at present because of operational problems, in particular a shortage of drivers. However, the issue of bus journeys from one side of Nottingham to the other remains relevant to the Study, and the new network in association with scheme D7 provides an alternative. Whilst 10b has some appeal, P&R buses could become entangled in City Centre congestion, which would introduce the very damaging consequence of unreliability in the service schedules.

Recommendation: This scheme is recommended for rejection, but 10c: a route serving Clifton village should be retained, and the issue of cross-city bus journeys considered and reported in the Study.

E1 M1 to Clifton dual carriageway with at grade junctions

The choice between at-grade and grade separation is largely dependent on the economics, traffic operation, and safety performance for the individual circumstances of each junction. The overall Route strategy and status is also taken into account, with consistency of standards as an important factor.

The standards for the A453 in the Study area are influenced by junction 24 of the M1 at one end and the urban constraints of greater Nottingham, either through Clifton, or at the A52 Ring Road at the other. There is a case against raising standards in between to a higher level as a route strategy. Grade separation already exists at one junction. Where junctions involve left-off or left –on turning movements only grade separation is not involved.

Overall therefore, scheme E1 need not be considered as such. The choice of at-grade or grade separation should be assessed taking account of these considerations as part of the similar dualling scheme E2.

Recommendation: Reject

E3 M1 to Clifton Single Carriageway with grade separated junctions

The objective of this scheme is to improve safety and enable traffic to flow smoothly by removing delays caused by turning traffic. Significant contributions to these problems are made by the steep inclines at Wright's hill and Brands hill, exacerbated by slow moving traffic joining and starting uphill from the left. Grade separation alone would not fully solve this problem. Scheme E4 would deal with the safety issue whilst the larger single c'way scheme E25 tackles the flow problems with climbing lanes.

Recommendation: Amalgamate with E4 and E25

E5.5 Clifton dualling on-line in cutting with extended bridges and simpler junctions

Scheme E5, the on line dualling that was the Highways Agency's proposed scheme in 1993, is to be amended in the light of current Government Policy and the resulting updating of guidance and standards. E5 and E5.5 have tended to merge into one scheme as their investigation has proceeded.

Recommendation: Amalgamate with E5

E6 Clifton dual carriageway in cut and cover tunnel

A review of the previous 'Red route' for the A453, scheme E5, shows that there would be problems with buildability. A453 traffic was to be diverted at times along roads within the Clifton housing area during construction. A cut and cover tunnel on the line of the existing A453 would cause high disruption and would not avoid environmental impact even when completed because of the open cut approaches at each end and the associated junctions, which would occupy the same space as the respective sections of scheme E5.

The advantage of a tunnel is in enabling easier cross movements and removing noise and visual impact. The disadvantages, apart from those already noted, are the high construction and maintenance costs. If a tunnel scheme were adopted in principle, each metre of the length of tunnel would have to be justified and would probably result in a design with gaps where the route was in open cutting.

During the formative stages a tunnel scheme would be interchangeable with a scheme in cutting. There is therefore no need to separately pursue a tunnel scheme as long as E5 is designed retaining the possibility of roofing over any parts of the main section in Clifton. Detailing of any on line dualling scheme would be subject to further study by the promoting agency.

Recommendation: Amalgamate with E5.

E8, E10 and E11 A453 Clifton Green route, Purple route and Grey route

These 3 routes were produced as a result of the 1986 public consultation into the Highways Agency's A453 Clifton proposals.

They were variations of routes to the west of Clifton close to the River Trent, crossing it near the Boots site to terminate at the Queens Drive junction.

The purple route diverges from the existing A453 some 2km nearer to Clifton than the Green route but is common for most of its length, whilst the Grey route moves some 200m closer than the Green route to Clifton.

All three routes were rejected at the 1993 Public Inquiry. Whilst this Study aims to independently re-assess any suggested schemes the only reason these three are on the long list is because they were identified during the Public Inquiry. This is not sufficient reason alone for rejection, but as all the routes west of Clifton will have similar traffic attraction a single representative variation can be selected for the purpose of this Study, and can be re-assessed under the latest guidance.

Recommendation: the Purple, Grey, and Green routes should be replaced by a single western bypass route E8.

E18 Construct a flyover at M1 to relieve congestion problems

The aim of this scheme is to enable the junction to cope with forecast levels of traffic. Scheme E13: M1 J24 major improvement fulfils this requirement for the forecasts produced within this Study. It should however be reviewed in the light of the M1 Study strategy when the information is available.

Recommendation: **Reject**

E19 Strategic Route from A50 to A46 north of Widmerpool.

Such a scheme would remove some longer distance trips from the A453 corridor. The traffic surveys for the Study indicated that a third of traffic in the A453 corridor was on through trips to and from the sector east and north of Greater Nottingham. Choices for these longer journeys will naturally encompass the available highway network over a wider area, but a proportion, especially the nearest origins or destinations would choose to remain on the A453. More would use the A453 if the route were improved. On the same basis this strategic route would attract a wide range of other long trips from and to points outside the Study area.

From the tests so far on the transport mode; the flow on the existing A453 would be reduced by about a quarter. On this basis 2 way peak hour traffic flows on the new route in 2011 would be in the range 2500 to 3500 vehicles per hour, which would not support the construction of a major highway on a new cross-country route. Much of this scheme therefore concerns issues beyond the A453 or even the M1 Study, although the latter should provide some additional information that can be used to review the scheme when available.

Recommendation: Suspend

E20 Provide access from M1 southbound to A46 at M1 J21a

This is located a considerable distance, some 20 miles from the Study area. And cannot be properly assessed within the limits of the Study information. If it has merit it would be better dealt with by the concurrent M1 Study.

Recommendation: Reject.

E21 Provide access from A50 to M1 southbound at J24a

The particular proposal for scheme E21 is not feasible under current highway design standards because of the proximity of junction 24.

The aim of this scheme is to contribute to the efficient operation of junction 24a in the context of the whole of the J23a/J24/J24a complex. Whilst this is also a matter for the M1 Study, the A453 Study has to identify a representative scheme considering all the traffic flows and movements to resolve the traffic problems in the J24 area and enable the A453 highway improvement strategies to achieve their objectives. Scheme E13: M1 J24 Major Improvement meets this requirement, and is the sensible limit of investigation for this Study.

Recommendation: Reject

E22 New link from A453 to M1 northbound at Donington Park J23a

The principles of the comments for E21 above apply equally to this scheme, including the problem with feasibility.

Recommendation: Reject

F1 Electronic vehicle guidance systems

This scheme is the use of detectors buried in the road surface to control the movement of vehicles and promote a smoother flow of traffic and higher capacity.

It is a 'high tech' innovation that has to be regarded as part of a long term vision for transport. However, implementation would require certainly national and probably international intervention, with considerable obstacles to overcome. It cannot therefore be relied upon to happen by the latest Study forecast date of 2021.

Recommendation: Reject

F2 Reallocate capacity, car sharing (high occupancy lanes)

This scheme can be amalgamated with F12 (prioritisation of road space) and K4 (encouragement of car sharing in travel behaviour).

F3 Dedicated lanes

Dedicated lanes is taken to mean traffic lanes on the highway reserved for use by particular classes of traffic, without specifying which.

The principle is already widely used as a means managing the highway network, mainly applied as bus lanes, but it could be extended for HGVs, high occupancy cars, cycles, even shared use taxis, and therefore should be included in the Study.

To be evaluated it has to be identified as specific applications. Such applications derive from other listed schemes D1,D2,D4,D9,F2,F12,J9, and these cover all the possibilities under dedicated lanes.

Recommendation: Amalgamate with above listed schemes

F4 Variable speed limits

The technique of variable speed limits is most commonly used on motorways as part of a variable message signing system (see F6 below). Future extension to lesser roads for this purpose is conceivable. It could be incorporated in an extension of an Urban Traffic Control system, where the remote control and monitoring of traffic conditions would be essential enabling elements of such a scheme.

There are potential benefits in variable speed limits both for road safety in the case of incidents or adverse highway conditions, and for smoothing traffic flow and improving the

roadside environment. However, scheme E5 for extension of the Nottingham UTC should share these objectives, and this scheme can be amalgamated with it.

Recommendation: Amalgamate with scheme F5.

F6 Real Time Information (VMS, in-vehicle guidance)

There are two distinct parts to this scheme:

Variable message signing is used mainly on motorways to control traffic speeds and warn of incidents, lane closures or complete road closures. It can have a variety of further uses on lesser roads and in urban areas, for example to indicate parking availability. The system requires a communications network to a control office to enable remote operation. Whilst predominantly gantry signs are used for motorways, verge mounted signs would be appropriate for A453. A remote office controlling traffic management is a prime function of Urban Traffic Control. VMS for the A453 would be more appropriate as part of a UTC than a full motorway style system.

Recommendation: Amalgamate with F5

In-vehicle guidance technology is dictated by vehicle design. Radios are virtually universal and many can be set up to automatically receive traffic messages. The potential benefits for the future lie in refining the information collection and broadcast side of the system – a subject outside the scope of the Study. Screen-based navigation systems are likely to remain a fairly uncommon item of equipment for years yet. They are also independent of official traffic control. They cannot be relied upon as a basis for inclusion in a Study Option.

Recommendation: Reject

F7 Traffic Orders

This is taken as being Statutory Orders for on-street parking restrictions, speed limits, restriction of turning movements, or restriction of use by classes of road user. All of these are ingredients of other schemes in this Study, and there is no need to treat this separately.

Recommendation: Amalgamate with various other schemes.

F8 Improvements to bottlenecks such as Crusader roundabout

The number of bottleneck sites i.e. particular locations limiting highway capacity, is small. Many more have the potential to become bottlenecks if the surrounding network is improved. All of them are either do-minimum schemes (A46 and A52 junction improvements), are other schemes in the Study (A606 improvements F11), or are dealt with as part of other larger highway schemes. Crusader Roundabout improvement and other junctions on the A453 are included in all the listed highway schemes.

Recommendation: Amalgamate with other schemes

F9 Tidal flow scheme on section of A453 through Clifton (with construction of third lane)

For a tidal flow lane on a single carriageway road to be worthwhile the flow of traffic in one direction has to be much greater than the other in one peak period, with the flows reversed in the other. They also are most suited to substantial lengths of road with no junctions or crossings. The section of A453 where it could be applied is between Green Lane and Farnborough Road junctions. On the A453 there is currently a difference of approximately 15% am. and 5% pm. between these peak flows, so that 85% and 5% respectively would remain on the 2 conventional lanes. Tidal flow lanes require extensive signing and remote control, including overhead gantry signs and secondary traffic signal heads at the existing pedestrian crossings. In these circumstances a tidal flow lane would not significantly improve traffic flow and would have relatively large local impacts.

Recommendation: Reject

F10 HGV bans (either forced to use A52 or A46, or banned during day time)

Although this scheme would remove heavy traffic from the A453 at least during the daytime, it would cause increases elsewhere on the highway network. The only justification would be if alternative routes available were of a better standard or more able to accommodate HGVs. Of the alternative routes, the A60 and A606 are of similar or lower standard. Although there is some scope for improvement of some sections of the A606 it has sections of frontage development and access on both sides and is heavily trafficked already. The A52 west of Nottingham cannot realistically be improved within the conurbation sufficiently to meet this demand.

For the HGVs affected, the diversions would involve extra mileage and time or scheduling. The imposition of a ban would be significant penalty for the freight sector alone, which would require considerable justification.

Recommendation: Reject

I6 Ban certain movements

This scheme is incorporated as a matter of course in the highway or traffic management schemes in the Study as far as necessary to deal with the problems it is intended for. There is no need for it to be pursued separately.

Recommendation: Reject

I7 Legislative enforcement for people to leave their cars

This is a generalised description covering a range of possibilities. There is a body of existing legislation restricting car use directly or indirectly, e.g. Bus only lanes, pedestrian areas, parking restrictions. New legislation might be for example, direct restrictions like road fund licence permitting less than every day use, or extensions of detailed indirect restrictions such as new lower speed limits.

Interventions involving further application of existing legislation are elsewhere on the long list of schemes at E7, F2, F3, F7, F12, I1, I2, I4, I5, I8, K9.

New legislation is a national issue. The range of possibilities, and forecasting of the effects would require a different sort of study looking at peoples perceptions and attitudes at a national level. It cannot be relied upon to significantly contribute to a solution for the A453 corridor transport problems without national application.

Recommendation: Reject

I8 Extend the application of the Clear Zone concept, including time of day access restrictions and strict emission standards

The Nottingham City Clear Zone was developed and extended in late 2001. The concept is to create a city centre street area best suited to the function of the City centre, which had led to a high priority for pedestrians together with tight restrictions including time of day for access by general and service traffic and public transport. With that level of restriction there is very limited scope for further extension, as walking distances would tend to become unattractive, and essential servicing difficult.

There could nevertheless be some minor future extensions of the Clear Zone in Nottingham, and introduction of them in Derby and Leicester, but the influence of these changes on the A453 corridor would be insignificant.

Local applications on the A453 could only be considered if the route were to be downgraded in the road network hierarchy to an extent not currently considered feasible.

Recommendation: Suspend

J2 Transhipment depots

This is taken as being a form of the existing goods distribution system, in which bulk haulage would be from central origin points to distribution depots, where goods would be broken into smaller packages for delivery to outlets. The essential difference from existing practice, which is in any case along these lines, would be to give a high priority to planning and operating the system to minimise road journeys and HGVs on unsuitable roads.

Whilst there may potentially be benefits in such a system, the various parameters that would have to be brought to bear to make it work would be in direct conflict with the principles of commercial competition by which the haulage industry operates. Under existing transport conditions new Government rules at national level would be needed to alter current practice. If conditions deteriorate in the future distribution could conceivably move in that direction naturally, but the subject is complex and a specialised Study would be required to produce useful conclusions.

Recommendation: Reject

J4 Dedicated routes

A highway for commercial vehicles or HGVs only. There should be no reason in principle for not having such a facility if the conditions were suitable. However, in the Study corridor the opportunity is restricted to a bypass of Clifton, most likely a western route connecting directly to the Lenton and Riverside industrial and commercial sites. Any Clifton bypass would have to relieve Clifton of through traffic. The benefits of removing cars as well as large vehicles would too great to ignore.

Recommendation: Reject

J6 Market forces

This scheme is understood to suggest leaving market forces to determine the decisions on transport.

The generalised description is open to interpretation.

In principle it leads to unresolvable conflict with Government policy on transport, which are parameters for the study. However, pragmatic interpretations of market forces lead towards highway, rail, LRT, and bus schemes already identified and placed elsewhere on the long list. There is therefore no need to consider this separately.

Recommendation: Reject

K3 Integration

Integration is an important principle in transport planning and part of Government policy. It covers a range of applications identified in schemes elsewhere in the long list: B1,5,7,10,17, C3,6,7,8, D3,7,10,11,18, G6. No other applications are evident. It therefore need not be considered separately.

Recommendation: Amalgamate with various other schemes

K5 Environmentalists

This is taken to be the influence of environmental campaigns on public awareness and official policies. It is not possible to make an objective assessment of such an influence. Specific scenarios might be considered e.g. if a major component of an option package were abandoned sometime after the end of the study, what would be the effect? It could be expected that the proposals would logically turn towards other one of the study options, unless environmental campaigning resulted in all of them being rejected.

Recommendation: Reject