

Item no

Wards affected: Abbey, Bridge, Clifton East and West, Wilford.

EXECUTIVE BOARD
24 April 2002

NET DEVELOPMENT BOARD
17 April 2002

REPORT OF THE EXECUTIVE DIRECTOR – NET

NOTTINGHAM EXPRESS TRANSIT – NETWORK DEVELOPMENT

1. SUMMARY

- 1.1 NET is an essential part of the transport strategy for the Greater Nottingham Area to help meet the growing demand for travel in a sustainable way, consistent with the needs of the local economy. Faced with growing traffic congestion, the conurbation's developing employment, commercial, leisure and environmental scene must be complemented by a transport system that is more attractive, reliable, non-polluting, accessible, compatible with pedestrian areas, high capacity and space efficient than that presently available. As part of the wider, integrated land use and transport strategy, NET is compatible with these criteria.
- 1.2 Investigations into route options have been undertaken in the three corridors of Beeston & Chilwell, Clifton and West Bridgford and a widespread consultation exercise has been undertaken, the results of which have been independently analysed.
- 1.3 The investigations show a substantial economic benefit to Greater Nottingham from pursuing routes to Clifton via Wilford and to Beeston and Chilwell via QMC. Alternative route options would not pass Government funding tests. A number of local options have been looked at in Beeston and Wilford but they would have no obvious advantages and have received little public support. The investigation and public consultation identified clear areas of concern and these are dealt with in the report with suggestions of where mitigation measures would ease the problems.
- 1.4 The West Bridgford routes do not currently pass Government funding tests, and it is considered that neither should be taken forward at this stage, but should be revisited following further reporting on development proposals in Rushcliffe and the Government commissioned A453 and A52 multi-modal studies.
- 1.5 The report is lengthy because of the complex and important subject matter. It is split into the following sections
 - Strategic context
 - Public consultation
 - Route comparison and selection of preferred routes
 - Beeston & Chilwell route comparison

- Clifton route comparison
- West Bridgford route comparison
- Concluding comments and the next steps

2. RECOMMENDATIONS

IT IS RECOMMENDED that: -

2.1 Members of the NET Development Board

Note the conclusions of the report and give their support to the recommendations below.

2.2 Members of the Executive Board

- (i) The Beeston via QMC & Chilwell extension and Clifton via Wilford routes as identified on **Plan 1** be taken forward through the Government economic appraisal process and work continue on these routes in preparation for a Transport and Works Act Order application and that;
 - (a) all relevant environmental issues, in particular the proximity of the Clifton via Wilford route to the Wilwell Cutting Site of Special Scientific Importance, and mitigation measures, be investigated in detail as part of the Environmental Impact Assessment;
 - (b) discussions continue to be held with the public and other interested parties affected by the proposals;
 - (c) the Director of Design and Property Services be authorised to negotiate the advance purchase of required land at Coventry Road, Beeston and Farnborough Road, Clifton in consultation with the County Council;
 - (d) discussions be undertaken with Broxtowe Borough Council to identify a preferred route through Beeston Town Centre;
 - (e) the County Council's offer to consider a financial assistance package to support the most vulnerable businesses on Chilwell Road/High Road, Chilwell during the construction phase be welcomed;
 - (f) investigations into the scope for the integration of bus and tram services in the proposed routes be undertaken with operators; and
- (ii) In the light of current uncertainties concerning development in Rushcliffe and the emerging work of the multi-modal studies, and the outcome of the economic assessment, a decision on the West Bridgford routes be deferred but that the information obtained be used to help inform the Local Plan process and multi-modal studies.

3. BACKGROUND

- 3.1 A number of reports have been presented to Members culminating in the current work to investigate alternative routes to Beeston & Chilwell, Clifton and West Bridgford. Eight firms of specialist consultants had been appointed to undertake the necessary studies to identify and appraise the best performing

routes. **The main route alignments under consideration are shown on Plan 2.**

4. STRATEGIC CONTEXT

- 4.1 Nottingham has the ninth largest travel to work area in the Country, comprising around 740,000 people. The core catchment area for the City Centre's retail and leisure sectors has a population of around 1 million and more than 3 million people live within 1 hour's drive of the city. Experian estimate that over 2 million people (800,000 households) regularly shop in Nottingham City Centre. According to a number of recent retail surveys Nottingham ranks in the top four in the UK, outperforming many larger cities. It is estimated that over 25% of the City Centre retail turnover is drawn from outside Greater Nottingham.
- 4.2 The Nottinghamshire Structure Plan Review (1996) predicts that the total population of the Greater Nottingham Local Transport Plan area will rise by only around 2% by 2011. However, the reduction in household size and other demographic factors means there will be a substantial increase in the number of households; for the whole of Nottinghamshire this is estimated at 16% 1991 - 2011. Much of this growth will be at the edge of or beyond the Greater Nottingham urban area, despite unprecedented demand for 'urban living' developments in the City Centre.
- 4.3 Nottingham has already experienced the highest percentage rise in employment of any major UK city in recent years and there has been particularly marked development activity focused in the 'Southside' locations, including Capital One and the Inland Revenue, near the hub of any expanded NET network. Demand for office accommodation is outstripping supply with the number of office planning applications received by the City Council having trebled in the last year alone. Forecast employment growth for the area is for a further 40,000 jobs in the next decade, a large proportion of which will be in the City Centre.
- 4.4 The continued buoyancy of the local economy and expected demographic and employment changes suggest that there will be a significant increase in the demand for travel within the area. This will be particularly apparent along the main radial routes into the City Centre but to a lesser extent, also to other retail and employment areas such as the District centres.
- 4.5 The conurbation is already suffering from increasing levels of traffic and congestion with a 21% increase into the inner traffic area recorded between 1987 and 2000. The patterns of peak spreading indicate that the main radial roads are saturated in the busiest periods. An analysis of the most recently recorded annual traffic flows (2000) shows that the largest annual average daily traffic flows on the main radial routes are on the A453 (51,000) and the A52 (W) (47,400) both of which are higher than levels over Trent Bridge. Forecasts from the multi-modal traffic model for the city suggest that without any additional major infrastructure (apart from NET Line One), the demand for road travel within Nottingham will increase by around 20% to 2021.
- 4.6 In parallel with local concerns regarding traffic growth, the Government has commissioned major studies to investigate the ability of the motorway and Trunk Road network to cope into the future. These 'multi-modal' studies have

been undertaken for the M1 corridor (between Junctions 21 and 30) and for the A453 Nottingham to M1 Junction 24. They have reported that without significant change in travel behaviour traffic volumes will increase by 23% in the next 20 years. The emerging recommendations of the studies propose significant increases in highway capacity on the M1 and A453. The studies also see light rail (tram) schemes as an essential element in the strategy and a significant network is suggested, including the current proposals for NET. A larger NET network base would improve the economic case for further extensions. Furthermore, by reducing congestion on main roads on the NET corridors it would give a greater confidence that the proposed highway improvements on the strategic road network (M1 and A453) could be implemented without overloading the local network.

- 4.7 Set against this growth in demand for travel the Local Transport Plan has set targets for limiting traffic growth across the conurbation and for increasing the public transport modal share by 5% to 2006 and 10% by 2011.
- 4.8 Maintenance and enhancement of Nottingham's buoyant position in retail activity and employment while addressing the expected growth in traffic demand is only possible through a number of transport measures. The Local Transport Plan sets out the transport strategy for the area. This includes objectives to increase sustainable accessibility to the City and District centres to reduce traffic growth and proposes four integrated strands for action: sustainable land use policies, travel demand policies, travel awareness measures and improving public transport provision.
- 4.9 The growth in travel demand will place a heavy burden on the local transport network. Further improvements to the road network are extremely limited. Bus expansion is constrained by highway and central area stopping capacity but improvements across the conurbation could achieve increases in bus use. Initial indications from ongoing work on bus based alternatives to NET within the Beeston and Clifton corridors however indicate little opportunity for substantial benefits. The capacity of the heavy rail system is also constrained but again improvements including the possible development of the South Notts Rail Network (SNRN) will accommodate a relatively small but worthwhile benefit to passenger trips into the City Centre.
- 4.10 Among a range of new infrastructure proposals for Greater Nottingham are the NET network, heavy rail developments, bus priority measures, park and ride and other transport interchanges and cycle and pedestrian routes. Each proposal will contribute to achieving the objectives but the NET network is considered to be the most essential scheme because of the step change in public transport use it is expected to achieve (see Appendix 2).
- 4.11 Journey times by tram are generally quicker than most alternatives and are more reliable. This advantage will increase if congestion worsens in the future. In addition, modern trams can act as a catalyst for regeneration by attracting developers to a new or improved transport link and inspiring confidence. Within the City, NET will build on recent traffic management improvements such as the 'Clearzone', improving the environment in the centre. It will help facilitate further expansion in the 'Southside', including the redevelopment of the Broadmarsh centre and provide an improved economic case for implementation of the Emeraldina Nottingham Railway Station Masterplan.

bringing major improvements to the area's main transport interchange. A tram interchange stop would be provided over the station as part of the Masterplan. Tram movements would include cross-city services between Line One and the southern extensions.

- 4.12 The benefits of a NET network will also be widespread throughout the Greater Nottingham Area and include improved accessibility to jobs, shops, leisure and other facilities in the city and district centres on all the NET network corridors.
- 4.13 Investment in a NET network in the southern sector of Greater Nottingham will not preclude transport investment elsewhere. In the eastern sector of the conurbation, the County Council was successful last December in its Local Transport Plan bid for the Gedling A612 major integrated transport scheme. The SNRN proposal will also increase transport choice in this corridor and on routes from Nottingham to Trowell/Ilkeston and Radcliffe/Bingham. Investment in the NET network will also not prejudice future levels of Government local transport funding in North Nottinghamshire because it is a separate Local Transport Plan area.

5. PUBLIC CONSULTATION

- 5.1 A major public consultation exercise for the route options was undertaken between December 2001 and March 2002. This included;
 - Preparing brochures for each of the three corridors, which were distributed on a door to door basis to over 70,000 households and businesses. The brochures included a pre-paid return card requesting views on the options.
 - Over 200 stakeholders contacted by letter, including 55 environment groups/organisations.
 - Consultation events at seven locations close to the routes, offering the opportunity for local people to discuss the proposals with Officers from the City and County Councils. The events were mostly well attended.
 - Press advertising and information on the website.
- 5.2 An independent company with experience of public consultation work, Keydata, was appointed to undertake a detailed analysis of the consultation returns, including letters and e-mails. The purpose of the consultation was to seek the public's perception of the project and Keydata consider that the consultation has proved to be very successful in highlighting the main concerns held by the public. However, they also indicate that the overall response rate to the consultation was low, and the respondents are unlikely to represent the population or demographics of the area covered by the consultation, and that the findings should not be viewed in an overly statistical manner. **Keydata have produced a report for each of the three corridors and an executive summary is provided in Appendix 9. Stakeholder responses are summarised in Appendix 10.**
- 5.3 A substantial number of people had positive views on the tram and proposed routes. However, the proposals have raised very strong opposition in certain locations. Some of the public's concerns reflect an unfamiliarity/lack of personal experience of how modern trams operate in urban areas, but more significantly, others reflect genuine concerns about the immediate local impact

of a new development in their locality on individual properties and community life. A number of petitions have been received expressing opposition to some of the proposals (see **Appendix 11**).

- 5.4 All the concerns expressed are taken very seriously and any proposals will take account of the views of people in affected areas and where possible will deal constructively with the issues. In most cases it will be possible to provide mitigation. However, in some cases this will not be possible and adverse local impacts will need to be balanced against the overall benefit of the proposed scheme. There will also be a further opportunity for the public to comment on preferred routes taken forward into Transport and Works Act procedures and which may well involve a public inquiry.
- 5.5 **Detailed 'Consultation News' leaflets have been prepared** which address the public concerns identified by Keydata, including a range of issues such as safety, noise and impact on property prices. Leaflets have been circulated to Council Members, and everyone who has replied to the public consultation in Beeston and Clifton corridors (where addresses are identified). A leaflet for West Bridgford will be produced shortly.
- 5.6 In some areas, local groups have been set up to campaign against the proposals. These groups have prepared literature, which has been circulated locally and on the internet and held meetings. This has helped inform public interest in the proposals but unfortunately in some cases inaccurate information has been disseminated. The Keydata reports confirm that a number of comments from respondents appear to be very similar in many areas to literature, which has been circulated by these groups, and that this provides further concerns about the validity of a statistical analysis of the findings.

6. ROUTE COMPARISONS AND SELECTION OF PREFERRED ROUTES

- 6.1 The consultants' studies have assessed the route options against appraisal criteria which reflect national and local transport objectives to improve the environment, safety, the economy, accessibility and to ensure integration with other forms of transport and new development.
- 6.2 Recent work undertaken by consultants MVA has in particular focused on developing a set of economic forecasts, which are now considered to be sufficiently robust for decision making purposes. **A table of key statistics for each route is provided in Appendix 1 and a summary of MVA's findings is provided in Appendix 3. To be considered eligible for Government funding, projects will normally be expected to have a benefit–cost ratio of greater than one (benefits must be equal to or greater than costs) and not require an operating subsidy (revenue must exceed operating costs). These tests are critical in considering the route options.** The economic benefits derived for the routes are mainly time savings to public transport and highway users, accidents savings and vehicle operating cost savings.
- 6.3 **It is important to stress that the route options taken forward need to be as strong as possible to demonstrate to Government that they represent value for money and should receive funding. Route development is at an early stage and experience from Line One suggests that there is a need**

for some margin to absorb changes, which may occur in response to detailed analysis by Government.

7. BEESTON & CHILWELL ROUTES

- **The Beeston via QMC (BQ)** option serves the major destinations of the Queens Medical Centre (QMC) and the University of Nottingham and operates through the Royal Ordnance Factory (ROF) development site, which is expected to achieve employment levels of up to 4,000 by 2005.
- **The Beeston via Boots (BB)** route would operate through the Crossgate Drive / Riverside and Boots industrial areas, and serves the Rylands residential area to the south of Beeston and the Queens Drive park and ride site.
- **The Chilwell extension (CE)** serves the Chilwell Road/High Road commercial area and residential areas in Chilwell and a new park and ride site at Stapleford.
- All options serve Beeston Town Centre and would help to limit traffic growth, congestion and pollution on the busy A52 and A6005.

Route comparison

- 7.1 A detailed summary of the route options against the appraisal criteria is provided in Appendix 4a. The benefit-cost ratios (which should exceed 1 to meet funding criteria requirements) are as follows;

	Benefit-cost ratio	Economic benefits (£m)
Beeston via QMC & Chilwell(BQ & CE)	1.14	147
Beeston via Boots & Chilwell (BB & CE)	0.73	104
Beeston via QMC(BQ)	0.61	60
Beeston via Boots (BB)	0.49	55

- The BQ route with the Chilwell extension (BQ & CE) will bring positive economic benefits to the area and the key economic criteria indicate that the route is viable when tested against Government criteria.
- The options of terminating at Beeston or operating to Chilwell via Boots fall substantially below the required levels.
- The route via QMC is 18% faster, £13million less expensive and would attract 25% more patronage than the route via Boots.
- The Chilwell extension performs particularly well due to the residential catchment population and proposed park and ride site.

- 7.2 The routes are feasible in engineering terms and environmentally BB is considered by consultants to have slightly less impact than BQ. The BQ & CE route has significant ecological impacts, including passing a Site of Importance for Nature Conservation (SINC) and a wildlife corridor. Appropriate mitigation should however minimise these impacts.

Public consultation and local issues.

- 7.3 Public consultation returns were low in percentage terms but indicated a clear preference for the BQ route compared to the BB, due to being accessible to more people, more direct and serving the QMC and University. There were high levels of adverse comment relating to the Chilwell extension, which focused on key local issues (see Appendix 9).
- 7.4 The public consultation identified strongly expressed concerns held by Beeston and Chilwell residents. The promoters take these concerns very seriously and the Consultation News provides detailed responses to the points raised. **Locations of particular concern to local residents are discussed in more detail in Appendix 5.** The main points include;
- At **Lower Road/Fletcher Road** in Beeston, there has been considerable public concern about the need to acquire a block of flats at **Neville Sadler Court**. Discussions have been held with the owners of the flats, which led to a proposal to rehome the residents affected to a new modern building on adjacent land at Coventry Road, and it is proposed that the land is purchased now to safeguard it for the new building. Of general concern to residents along the streets the introduction of noise impacts to a very low noise environment is likely to be more disturbing than a similar impact in a location with higher ambient noise levels and careful design can minimise any impact. Three alternative route options (plus the core route) were presented in the Beeston consultation brochure and these are shown on Plan 3 and summarised in Appendix 6. There are significant reliability concerns about all the alternative routes and they do not meet the Government economic criteria. In view of the relocation proposal, it is recommended that the core alignment, which operates along Lower Road and Fletcher Road, should be pursued.
 - Concerns were expressed about operating through the Square in **Beeston Town Centre**, but the choice of alignment through the town can await further discussion with Broxtowe Borough Council in relation to the possibility of other development proposals.
 - Concern has been expressed about the viability of **Chilwell Road/High Road, Chilwell** following the introduction of the tram. With suitable off-street parking, servicing provision and improved hard and soft landscaping, the route could be designed in such a way as to enhance the future prospects of the local businesses. Land acquisition would be necessary to achieve this. To address the short term difficulties, the County Council will consider a financial assistance package to support the most vulnerable businesses during the construction phase on the basis of the model used at Hyson Green.
 - An alternative alignment adjacent to **Broxtowe College** is proposed instead of using Cator Lane. Although some property would need to be acquired, this option would avoid the very difficult servicing problems raised by residents on Cator Lane. Discussions have been held with Broxtowe College, who are keen for a tram stop to be provided at this location.
 - There were concerns about operating through **Sandby Court**, but full and safe access can be maintained at the residential complex and adjacent Doctors' surgery, although some parking would need to be located nearby.

- There were concerns about the loss of **open space in Chilwell** but the route would involve only a small part of the whole area. Walkways and main play areas would be maintained and new landscaping/tree planting would minimise impacts.
 - The **park and ride site** can be compatible with recent Government planning guidance concerning greenbelt land.
- 7.5 These local issues are clearly extremely sensitive. There would be some inconvenience for local people, although with the mitigation measures proposed, this can be minimised and the number of people directly affected is relatively small. It will be very important to maintain a regular dialogue with those affected to ensure that every effort is made to address their concerns. However, as indicated above, with careful management and the emphasis on mitigation, a safe route alignment can be built through the corridor providing a high quality public transport system, and bringing significant benefits to a large number of local people and to the conurbation as a whole.
- 7.6 The responses of stakeholders are summarised in Appendix 10. Serving the **Queens Medical Centre** is particularly important, as it is probably the largest generator of trips in the conurbation outside the City Centre, with over one million patient related journeys per year. The site is already congested and the Hospital has offered its unequivocal support for the BQ route, which would operate through the centre of the site. The Hospital are planning a major extension with a new Diagnostic & Treatment Centre, which would be linked into the tram route (see Plan 5).
- 7.7 **Broxtowe Borough Council** have confirmed support for the NET extensions in principle but the Council is concerned about “the nature and extent of the practical issues raised during public consultation and requires NET to prepare detailed proposals to overcome or minimise these legitimate concerns”.

Beeston & Chilwell Routes Conclusion

- 7.8 **In view of the clear economic performance advantage and the possible mitigation measures at local ‘hotspots’ identified above, it is recommended that the Beeston & Chilwell via QMC route is taken forward to the next stage, and that the preferred alignment as shown on Plan 1 is pursued. This alignment includes Lower Road, Chilwell Road/High Road, Chilwell and the route option via Broxtowe College.**
- 7.9 In parallel it will be important to develop opportunities enabling linkages with bus services serving the Ring Road, Lenton Lane and Riverside commercial area, Beeston Rylands and towns to the west of Chilwell.

8. CLIFTON ROUTES

- **The Clifton via Wilford (CW)** route would be convenient for residential areas in Compton Acres, Wilford and the Meadows.
- **The Clifton via Queens Drive (CQD)** route would serve the Crossgate Drive/Electric Avenue (Riverside) commercial area and the Queens Drive park and ride site.
- Both routes serve Clifton centre and residential areas, and a new park and ride site, which would help to relieve congestion on the A453.

- Serving Clifton by tram has been identified in the emerging consultation report on the A453 multi-modal study as a key element in a package to tackle the strategic transport problems in the area.

8.1 A detailed summary of the route options against the appraisal criteria is provided in Appendix 4b. The benefit-cost ratios (which should exceed 1 to meet funding criteria requirements) are as follows;

	Benefit-Cost ratio	Economic benefits (£m)
Clifton via Wilford (CW)	1.41	136
Clifton via Queens Drive	0.61	72

- The CW route will attract substantial patronage and have a positive economic benefit on the conurbation and the key economic criteria indicate that it is viable when tested against Government criteria.
 - The CQD route is 13% slower, would attract 15% less patronage, is £26million more expensive and falls substantially below the required economic levels. The data indicates low levels of travel to the Riverside commercial area due to the low density development and wide dispersal of people travelling to the area.
- 8.2 The routes are feasible in engineering terms although the CW route requires the acquisition of two properties on Farnborough Road, Clifton and it is proposed that this is pursued now and the houses are for the time being included in the Council's tenanted stock. There are significant environmental constraints, particularly on CW, and these were identified in the consultation as key local concerns (see paragraph 8.5 below).
- 8.3 As requested at the City's Executive Board meeting of 29 October 2001, a route to Clifton via Trent Bridge has been investigated. Although the route provides links between Clifton and the employment area around Trent Bridge, it is significantly slower than the other routes, has lower patronage and falls substantially below the required economic levels. It is not proposed to pursue this option. Further information is provided in Appendix 12.

Public consultation and local issues

8.4 Public consultation returns were again low in percentage terms but indicated a clear preference for the CQD route compared to CW. This preference reflected the dissatisfaction with the CW route from the Wilford and Compton Acres area (see Appendix 9). Important concerns were raised by residents in the route corridor during the public consultation and the Consultation News provides responses to the points raised.

The former railway line at Wilford

8.5 The potential use of the former railway line has been of concern to local residents due to the loss of habitat and impact on wildlife, proximity to some houses, visual intrusion and the reduction in the amenity of the footpath. The route passes close to the Wilwell Cutting Site of Special Scientific Importance (SSSI), and there are concerns about possible indirect impacts.

- 8.6 It is accepted that there will be a local environmental impact by using the former railway alignment. Whilst the line has no statutory wildlife designation and no protected species have so far been identified, the numbers of characteristic species identified on the site is sufficient for it to be designated as a Site of Importance for Nature Conservation (SINC). Mitigation measures can however minimise any indirect impact on the SSSI and reduce impacts arising from loss of amenity and intrusion. **These important issues, and concerns held in particular by English Nature and the Wildlife Trust, are discussed in further detail in Appendix 7.** The amenity of the houses close by will be affected, but this can be mitigated through landscaping/screening and other measures.
- 8.7 The Nottinghamshire Structure Plan Review has a Policy (5/3) to protect land for the development of new rail facilities. Under section (F) of the Policy it refers to 'protection against the development of land that would prejudice the retention or appropriate development of the rail network.' This is further expanded in paragraph 5.36, which states that former rail lines (such as the Wilford route) are considered to be an important resource and should be protected against development, which could prejudice their retention as part of the rail network. This policy would need to be balanced against protection provided in the interests of nature conservation.
- 8.8 Two alternative local route options to the former railway line (plus the core option) were presented in the Clifton routes consultation brochure and these are shown on Plan 4 and summarised in Appendix 8. The alternative routes are significantly slower and costlier than the core route and have lower economic benefits. They would be subject to increased reliability risks due to the higher proportion of on-street running and would require residential land acquisition. The combination of the embankment to the north of Wilford Lane with Ruddington Lane to the south is the best performing alternative in economic terms, meeting the Government economic criteria, albeit marginally.
- 8.9 In strategic terms the development of a tram network is considered to bring long term environmental benefits to the Greater Nottingham area by encouraging modal change from car to public transport. Utilising the former railway line provides important benefits to the CW route. The 2.5km section (33% of the total route) would allow a fast and direct operation on a segregated section, significantly enhancing the journey time and reliability of the whole route. This will in itself encourage greater modal shift and increased environmental benefits through reduced congestion, providing a benefit to the majority of people in the route corridor.
- 8.10 Given the very significant benefits to the CW route as a whole, it is recommended that the route via the former railway line should be pursued. However, in recognition of the former railway line's designation as a SINC and the proximity of the Wilwell Cutting SSSI, work will continue with English Nature and the Wildlife Trust to ensure that the impact on habitat and wildlife will be kept to a minimum by effective mitigation measures.
- 8.11 **Rushcliffe Borough Council** have indicated support in principle for extending the tram system into the Borough and in relation to the CW route, have sought "assurances that the impact on local residents will be minimised and that there

will be opportunity provided to comment on the proposed methods of mitigation.”

Clifton Routes Conclusion

- 8.12 In economic and commercial terms, the CW route performs significantly better than CQD, which is not viable when tested against Government funding criteria. CW has extremely competitive journey times, offering high levels of segregation from road traffic (63% of the route) and offering the prospect of a very reliable operation. Nonetheless it will be important to demonstrate to all concerned parties that the environmental impact will be kept to a minimum by effective mitigation measures. **It is therefore proposed that the CW route via the former railway line is taken forward, and that the preferred alignment as shown on Plan 1 is pursued.**
- 8.13 In parallel, it will be important to continue to promote bus services linking the Clifton area with the Riverside commercial area. Enhanced infrastructure will be implemented through the Bus Quality Partnership (BQP) programme and the multi-modal study places a high priority on retaining bus services from Clifton along the A453 in addition to endorsing tram services in the corridor.

9. WEST BRIDGFORD ROUTES

- 9.1 The West Bridgford routes are compared below;
- Both the **Gamston (GT)** and **Sharphill Wood (SH)** routes serve the east Meadows, the major sports grounds and offices around Trent Bridge, and West Bridgford Town Centre.
 - The GT route also serves residential areas in the east of West Bridgford and a park and ride site at Gamston, which would help to relieve congestion on the A52 and the A6011 Radcliffe Road.
 - The SH route would serve residential areas in the south of West Bridgford, including the proposed Sharphill Wood development site and a park and ride site near the Melton Road/A52 junction. It would help to relieve congestion on the A606 Melton Road and A60 Loughborough Road.

Route comparisons

- 9.2 A detailed summary of the route options against the appraisal criteria is provided in Appendix 4c. The benefit-cost ratios (which should exceed 1 to meet funding criteria requirement) are as follows;

	Benefit-cost ratio	Economic benefits (£m)
West Bridgford via Gamston (GT)	0.35	22
West Bridgford via Sharphill (SH)	0.35	26

- **The key economic criteria indicate that performance levels for GT and SH are similar but substantially below the levels required to pass Government funding tests due to high capital costs, relatively low levels of patronage and small journey time benefits.**

- There may however be opportunities to boost the case in the future due to other transport initiatives in the area (see below) and potential population changes suggesting greater growth in demand for West Bridgford compared to other routes.
- 9.3 Both routes are feasible in engineering terms and have only modest environmental impacts (assuming development has taken place at Sharphill Wood.)

Strategic issues

- 9.4 There are further important issues to consider regarding park and ride and location of new development. **The park and ride site at Gamston** is seen as a key element in the Greater Nottingham Local Transport Plan. This site is proposed initially as a bus based operation, although its design would take account of a possible upgrade to tram operation at a later date. This park and ride site is likely to serve much of the existing demand, and although subject to planning permission, the site is included in the County Council's LTP capital programme for this year.
- 9.5 In the last consultation on the draft **Rushcliffe Local Plan**, the Highways Agency objected to several major residential sites on the grounds that they would overload the trunk road network (A453 and A52), which is already near capacity. Work on the Local Plan has therefore been suspended until the publication of the first draft of the Joint Nottinghamshire Structure Plan Review, expected in late 2002. This will give guidance on the scale of new housing development required in the Borough up to 2021. The Local Plan process will be further informed by the outcome of the A52 Nottingham to Bingham multi-modal study, which will commence in July 2002, and report in late 2003. This will give advice on the most appropriate location for development in transport terms up to 2021. The scale and location of future development proposals clearly could have a significant impact on the usage of both proposed tram routes.
- 9.6 **Rushcliffe Borough Council** has noted that the NET options do not currently meet Government criteria but indicate that they could be reassessed in the future, providing "an opportunity to consider an integrated approach to resolving the transportation problems in the Borough and link any NET proposals to the outcomes of the various multi-modal studies." In the meantime, Rushcliffe "urge the County Council to take steps to improve public transport in the Borough".

Local issues

- 9.7 The public consultation returns indicated a very similar level of support for the Gamston and Sharphill routes. Overall responses were however again very low (see Appendix 9). Important concerns were raised by residents in the route corridor and these included street running along Davies Road and Musters Road, further disruption on Central Avenue, concerns about development associated with the deferred Local Plan and the economic justification for the West Bridgford routes.

West Bridgford Routes Conclusion

- 9.8 Overall there is little difference between the route options, but neither route appears to be economically viable at the current time. The routes perform strongly at the strategic level, providing an important link between the south of the conurbation and the City Centre, and enhancing the integration of land use planning with public transport provision. **However, in view of the current uncertainty on development proposals and the trunk road network, it is recommended that neither West Bridgford option is taken forward at this time.** Instead there should be further discussions with the Borough Council, Highways Agency and GOEM over future transport provision in the south of the conurbation and the West Bridgford options should be revisited following further reporting on the Local Plan and multi-modal studies. In the meantime, further improvement to the bus network will be considered as part of the Bus Quality Partnership programme along with other elements of the Greater Nottingham LTP programme in Rushcliffe.

10. CONCLUDING COMMENTS AND THE NEXT STEPS

- 10.1 Expansion of the NET system is an essential element of the transport strategy for Greater Nottingham and there are very clear economic reasons for the choice of the preferred routes to Beeston & Chilwell via QMC and to Clifton via Wilford. These choices, however, are a precursor to further work and no irreversible decisions are being recommended at this stage. There is a necessity to undertake detailed work to assess the performance of the preferred routes in relation to Government objectives, their commercial viability, and to undertake detailed engineering and environmental impact assessment.
- 10.2 Approval from the DTLR for the economic case is required before any routes meeting the necessary criteria can be considered by the Authorities for a Transport and Works Act Order application (TWAo). If the City and County Councils determine to submit a TWAo, which would provide the powers to build and operate the lines incorporating appropriate mitigation measures, there is likely to be a public inquiry giving the public a further opportunity to make representations. The final decision will rest with the Secretary of State for Transport, Local Government and the Regions (DTLR).
- 10.3 DTLR approval of the economic case could be forthcoming later this year, prior to submission of the TWAo application. At the same time, discussions will be held with Government and potential private sector concessionaires and funders to secure a funding package for the scheme.

11. OBSERVATIONS OF THE DIRECTOR OF FINANCE

- 11.1 In February 2001 the Executive Board approved studies on further possible tram routes to Clifton, Beeston and West Bridgford. The estimated cost of these studies was £3,490,000, to be met jointly by the City and County Councils, from their Local Transport Plans. The City Council's funding included SCAs issued as part of the Workplace Parking Levy advance payments.
- 11.2 As a result of the extended public consultation over the routes, the total costs of the studies have increased. The latest forecast of costs to further

progress the two identified routes, to investigate procurement and funding methods and to submit a Transport and Works Act Order, is estimated at £4,088,000, as follows: -

	£'000
2000/2001	33
2001/2002	790
2002/2003	1,606
2003/2004	1,348
2004/2005	311

	4,088

- 11.3 The costs incurred in 2000/01 and 2001/02 have been split between the City and County Councils on a 65:35 basis, calculated on the estimated length of the three routes being investigated. Negotiations are currently underway to agree a revised split between the two authorities, based on the two routes now proposed.
- 11.4 The City Council's share of the costs will continue to be met from its Local Transport Plan, including further SCAs from the Workplace Parking Levy advance payments.
- 11.5 Appendix 1 provides some initial estimates of the likely capital costs of the routes examined. Although this enables a useful comparison between the various options, further work is required before the final costs can be assessed, along with the methods for procurement and funding.

12. EQUAL OPPORTUNITIES IMPLICATION

- 12.1 NET Line One is being designed to be Disability Discrimination Act compliant, with low floor vehicles and level access to facilitate ease of use for people with mobility difficulties. The network extensions will bring these advantages to a wider and larger population, and provide greater accessibility for those without cars.

13. CORPORATE OBJECTIVES

- 13.1 Regeneration / creating local employment opportunities. The report refers to development sites and regeneration potential within the corridors to be served by the system.
- 13.2 Sustainability. By providing a clean, pollution free (at point of use) travel alternative, the NET network will help to protect and enhance the environment and will promote and sustain the quality of the city and the urban area.

14. BEST VALUE

- 14.1 Extending the NET system will add value to the public investment already made in Line One. The DTLR criteria for financing future investment include

the requirement for Best Value, which will be sought through a combination of public and private funding.

Plans

1. Recommended routes (Beeston Via QMC and Clifton Via Wilford)
2. Main Routes
3. Beeston via QMC Sub-options
4. Clifton via Wilford Sub-options
5. Queen's Medical Centre (Integrated transport and development proposal)

Appendices

1. Network Extensions – Summary of key statistics
2. Impact of Local Transport Plan proposals on traffic reduction. Road Traffic Reduction Act
3. Progress Note on route options economic appraisal (MVA – April 2002)
4. Route comparisons: Beeston & Chilwell (4a), Clifton (4b) and West Bridgford (4c)
5. Beeston and Chilwell: Key issues arising out of public consultation
6. Beeston via QMC - Comparison of route options between University Boulevard to Beeston Town Centre
7. Clifton via Wilford: Key issues arising out of public consultation
8. Clifton via Wilford – Comparison of route options between Wilford Toll Bridge and where the former railway line crosses under the A52 Clifton Boulevard
9. Executive Summary of NET route options consultation report produced by Keydata (April 2002)
10. Public Consultation – Summary of Stakeholder responses
11. Public Consultation – Summary of Petitions received
12. Clifton via Trent Bridge - Assessment of route option

Published documents referred to in compiling this report.

Local Transport Plan for Greater Nottingham. (2001/02 – 2005/06)

The Joint Nottinghamshire Structure Plan. November 1996.

Background papers other than published works or those disclosing confidential or exempt information.

Public Transport Mode Choice –The Options for Nottingham, 2001.

Appraisal criteria for route selection.

NET network extensions engineering reports for Beeston, Chilwell, Clifton, West Bridgford, and route combinations. Mott MacDonald, October 2001.

Nottingham Express Transit Line One extensions: Environmental Appraisal of Options. ERM, October 2001.

Updated summary of route extensions (cost and journey time information) Mott MacDonald, April 2002.

Beeston via QMC route: University to Beeston Options. Reports by Mott MacDonald and ERM, April 2002.

Beeston via QMC route: University to Beeston Options – Traffic Overview for Route Alternatives. MacDonald, March 2002.

Additional Chilwell (Cator Lane) options. Reports by Mott MacDonald and ERM, March 2002.

Clifton via Wilford route: Local options. Reports by Mott MacDonald and ERM, April 2002.

Clifton via Wilford route: Iremonger Pond/Coronation Avenue options. Reports by Mott MacDonald and ERM, April 2002.

Review of Clifton option adjacent to former railway corridor. Reports by Mott MacDonald and ERM, March 2002

Have Your Say consultation brochures for Beeston & Chilwell, Clifton, West Bridgford and the Meadows.

Consultation analysis reports for Beeston & Chilwell, Clifton and West Bridgford. Keydata, April 2002.

Consultation News – Your questions answered for Beeston & Chilwell and Clifton, April 2002.

Stakeholder letters

Clifton via Trent Bridge route. Reports by Mott MacDonald and MVA, April 2002.

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