LOCAL AUTHORITY MAJOR SCHEMES
BEST AND FINAL FUNDING BID
SEPTEMBER 2011

Scheme Name	Nottingham Ring Road
Local Authority	Nottingham City Council

SCHEME COST SUMMARY (£m)		
	Scheme As Previously Configured (from section 1.4)	**Revised Scheme** (from section 4.4)
LA contribution	**£5.557**	**£3.200**
Third Party Contribution	**£0.175**	**£0.175**
DfT Funding Contribution	**£26.356**	**£12.800**
Total	**£32.088**	**£16.175**

CONTACT DETAILS FOR FURTHER ENQUIRIES	
Lead Contact: **Position:** **Tel:** **E-mail:**	Dave Jones Principal Transport Planner 0115 876 3941 david.jones@nottinghamcity.gov.uk
Alternative Contact: **Position:** **Tel:** **E-mail:**	Chris Carter Transport Strategy Manager 0115 876 3940 chris.carter@nottinghamcity.gov.uk

NOTE: Bids should be received by the Department by Noon on 9th September 2011.

SENIOR RESPONSIBLE OWNER DECLARATION	
As Senior Responsible Owner for the Nottingham Ring Road Scheme I hereby submit this Best and Final Funding Bid to DfT on behalf of Nottingham City Council and confirm that I have the necessary authority to do so.	
Name: **David Bishop**	Signed: 
Position: **Corporate Director for Development**	

SECTION 151 OFFICER DECLARATION	
As Section 151 Officer for Nottingham City Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that Nottingham City Council has the intention and the means to deliver this scheme on the basis of its proposed funding contribution at section 4.3 (a) below, as well as meeting any ongoing revenue requirements on the understanding that no further increase in DfT funding will be considered beyond the maximum contribution requested at 4.3 (c) (including if third party contributions should no longer be available).	
Name: **Carole Mills-Evans**	Signed: 

Please Note: The promoting authority should ensure that a copy of this BAFB form and all supporting information is available on its website by 5pm on12 September 2011.

Please detail the appropriate location where these documents can be located. The Department may provide a link to these pages from its own website.

www.mynottingham.gov.uk/ringroad

SECTION 1: THE SCHEME AS PREVIOUSLY CONFIGURED
i.e. BEFORE 10 JUNE 2010
This section should EITHER describe the scheme as approved at Programme Entry OR as submitted in a business case bid for Programme Entry OR on the latest design on which the last QMR submitted to the Department was based.

Note: this information should be consistent with what was included in previous EoI with any differences explained.

Date of Programme Entry or PE Bid or last QMR Submission (*where applicable*)	**30 March 2010**
Estimated total scheme cost *(inclusive of eligible preparatory costs)*	**£32.088m**
DfT contribution	**£26.356m**
Local Authority Contribution *(excluding the costs of any Part 1 Claims that you may have included at this time)*	**£5.557m**
Third party contribution	**£0.175m**

1.1 Brief description of the scheme as previously configured *This should clearly state the scope of the scheme and describe all of its key components.*

Context

The Nottingham Ring Road is an urban two-lane dual carriageway standard former Trunk Road with sub-standard at grade junctions. South of QMC the road is at a consistently higher standard. The road provides connections to strategic destinations linking with 3 junctions of the M1 to the west of the City and the A46/A1 to the east.

Scheme Description

The principles of the scheme were conceived in parallel with, and to complement, the Turning Point Major Scheme in the City Centre which was completed in 2006 and funded by the DfT as a Major Transport Scheme through the LTP. The City Centre Scheme's principle objectives were to reduce through-traffic on the Inner Ring Road and to provide improved public realm and priority for buses. The Ring Road scheme was intended to provide an attractive route for cross-city traffic movements which have been displaced from the City Centre following the Turning Point. The scheme is aligned with land development plans and allows for limited capacity increases to accommodate planned housing growth and the recently designated Boots Local Enterprise Zone

There were four key elements to the overall scheme which would have contributed to the meeting of these objectives:

- junction remodelling and capacity improvements;
- link capacity improvements;
- improved passenger waiting facilities and "Virtual Interchanges"; and
- improved facilities for pedestrians and cyclists.

Junction Remodelling

There are ten junctions with main radial routes situated along the Ring Road. Seven of these were to be subject to significant improvements. The following is a description of the proposals for each junction.

Wollaton Road

This junction currently operates as a partially signalised elongated dumbbell island and is one of the key congestion hotspots along the Ring Road route.

The proposed improvement at this location was to provide additional circulating lanes, which would have improved lane usage and, combined with additional lanes on the Ring Road, increased the throughput of orbital traffic, eliminating existing blocking that occurs where queuing radial traffic blocks the progression of Ring Road traffic.

Beechdale Road

This junction was to remain unchanged with exception that the existing localised widening to three clockwise (northbound) lanes was to be extended to form part of the larger scale widening of the clockwise carriageway between Crown Island (A609) and A610 Nuthall Road.

Aspley Lane

This is currently a four-arm roundabout with pedestrian crossing facilities only across one arm, offset from the desire line. It was proposed to replace the roundabout with a traffic signal controlled junction incorporating pedestrian crossing facilities. This would have provided significant throughput benefits and greatly enhance the ability for pedestrians and cyclists to cross all four arms. This is particularly important given the close proximity of Bluecoat School which has undergone major redevelopment and expansion.

Nuthall Road

One of the key traffic movements is clock-wise around the Ring Road, then turning left at the A610, Nuthall Road, which leads to the M1 at Junction 26. It was proposed that this movement would be significantly improved through minor lane reallocation, providing left turn availability from the two nearside lanes; the second lane would have changed from “ahead only” to “ahead and left.”

Wilkinson Street

This junction provides access to the 900 space Park and Ride site located adjacent to the NET Line 1 tram stop on Wilkinson Street, and is also the route for the MediLink bus service which interchanges with NET.

The current arrangement has positive signal control for the right turn into Wilkinson Street and the anti-clockwise Ring Road movement. Egress from Wilkinson Street (left out only) is at a priority junction (Wilkinson Street is the minor arm) and the clock-wise movement is uncontrolled as it is effectively segregated from the other movements. There are no pedestrian facilities at present.

A major redesign was proposed to include a dedicated stage for buses turning right into Wilkinson Street.

Western Boulevard / Western Boulevard Spur

The existing signalled junction provides simple two-stage control between clockwise Ring Road traffic and traffic joining the Ring Road from Western Boulevard Spur (side road). The anti-clockwise carriageway does not form part of the junction and there are currently no formal pedestrian facilities.

The junction was to be redesigned to accommodate an additional right-turn lane on the anti-clockwise carriageway (see below) that would have provided access into Western Boulevard Spur. Fully signalled pedestrian facilities would have been incorporated in the junction.

Vernon Road/Radford Road and Nottingham Road

This pair of signal controlled junctions is in close proximity to one another and their operation is closely linked under SCOOT control. Insufficient capacity at these junctions causes severe queuing and delays on the Ring Road, particularly in the clockwise direction. In order to improve orbital capacity, it was proposed to close Church Street (a minor arm at the Radford Road Junction) allowing the removal of a lengthy traffic stage and providing an opportunity to introduce a right turn filter for traffic turning right out of Radford Road into the Ring Road to assist Medilink bus service movements. The traffic currently using Church Street would have been accommodated by a new right turn facility from the Ring Road into Western Boulevard Spur Road. It was also proposed to provide an additional ahead lane on the anti-clockwise carriageway between Nottingham Road and Western Boulevard Spur.

Hucknall Road

This is currently a four-arm roundabout which does not provide adequate pedestrian crossing facilities and would not accommodate the additional traffic flows from downstream junctions resulting from improved capacities introduced within the scheme.

It was proposed to introduce additional capacity at this junction, by increasing the number of Ring Road entry lanes and the number of circulating lanes principally to improve Ring Road throughput, and to provide a high standard of pedestrian crossing facilities across all four arms. This is particularly important given the close proximity of the City Hospital which is located close to this junction.

Edwards Lane

The existing five-arm roundabout at the junction with Edwards Lane has a lozenge-shaped island with varying width on the circulating carriageway, which results in ineffective lane usage and reduced capacity. It was proposed to redesign the geometry of the island to provide two full circulating lanes, and also to provide signalled pedestrian crossings across the four main arms of the junction.

Link Capacity Improvements

To complement the junction capacity improvements and to provide additional storage capacity, minimising the effects of queuing traffic blocking back up-stream junctions, it was proposed to introduce additional traffic lanes on links at a number of locations. The additional lanes will generally be provided by strip widening within the wide sections of central reservation. Where the central reservation width was insufficient, minor local widening would have been required. A brief description of the lengths to be treated follows:

- Anti-clockwise between Crown Island and QMC (A52T) roundabout would be widened from 2 to 3 lanes – with the nearside lane feeding directly into the southbound slip-road of the roundabout, and the remaining two lanes continuing towards the Trunk Road section of the Ring Road (A52 Clifton Boulevard).

- Clockwise between Crown Island and A610 Nuthall Road would be widened from 2 to 3 lanes, including through the junctions with Beechdale Road and Aspley Lane.

- Anti-clockwise between Nottingham Road and Radford Road would be widened from 2 to 3 lanes to improve a local traffic congestion problem as described above.

- Anti-clockwise between Radford Road and Western Boulevard Spur Road would have been widened from 2 to 3 lanes requiring widening of a bridge which spans a heavy rail line (Robin Hood Line), light rail (NET Line 1) and the River Leen. The additional lane would be utilised by right turning vehicles into Western Boulevard Spur, displaced as a result of the closure of Church Street at the Ring Road/Radford Road junction.

Public Transport Measures

Improved Passenger Waiting Facilities and Virtual Interchanges

The pedestrian routes between orbital and radial bus services are generally very poor along the Ring Road. The routes are not clearly identified or obvious and the walking distances are often lengthy and include junctions which are difficult to negotiate and do not, therefore, make interchange between services attractive or simple to achieve.

The principle of the small scale "virtual interchanges" is to provide:

- high quality, secure, well lit and comfortable bus passenger waiting facilities with real time service information;
- raised kerbs to improve level accessibility;
- clearly defined, and improved routes between orbital and radial bus service stops and provision of in-shelter information about orbital/radial services and connection times; and
- minimised walking distances between orbital and radial services by moving stops as close to junctions as is practicable within capacity and safety constraints where appropriate.

It was proposed to upgrade each of the bus stop locations and provide high quality passenger waiting facilities on the Ring Road and connecting major radial roads

Medilink Upgrade

There has been a much higher than expected increase in demand for the service since the frequency was increased to 10 minutes in 2007, with the service now taking over 1million passengers per year. It is used by hospital staff, visitors and patients with a steadily increasing annual demand. Most users are interchanging from other buses on the Ring Road or from the P&R sites and the tram. The demand increased sharply following the closure of a 700 space multi-story car park on the QMC site, demolished for safety reasons.

The outcome has been that demand for the service far exceeds capacity and queues of 30+ passengers can be observed at stops waiting for a 20 seat capacity bus which is already half full.

In order to realise the full potential of the improvements proposed for Nottingham's Ring Road via this major scheme the Medilink service needs to be enhanced to cope with current and future demand. It was proposed to purchase 10 larger vehicles to upgrade the Medilink fleet to Optare Solo standard which would increase capacity, removing the current over subscription and building in some capacity for future growth

Improved facilities for Pedestrians and Cyclists

An integrated transport system requires good quality provision for pedestrians and cyclists. This is particularly important for the section of the Ring Road which links the two University of Nottingham campuses at A52(T) and Crown Island where demand is high. The following

describes the proposed elements of the scheme which are aimed directly at pedestrians and cyclists to both encourage these modes and to maximise amenity and safety for these vulnerable road users.

Formalised Inset Parking

A common problem along the Ring Road is indiscriminately parked vehicles in the footway and cycle track causing obstructions to pedestrians and cyclists and making the facility unattractive. The problem lies with the relative low proportion of off road parking spaces and the inability to park on the main carriageway itself – this is controlled through double yellow lines throughout its length.

A simple solution was to provide formalised inset parking within the existing grass verge; this happens informally at sections along the Ring Road and causes churning-up of the grass verges which become severely rutted and deformed. The additional parking spaces would greatly assist in reducing the current obstruction problem, complemented by a more rigorous approach to enforcement of parking restrictions.

Pedestrian Crossings

It was proposed to upgrade the pedestrian and cycle crossings along the Ring Road to improve amenity and safety and to reduce community severance. This was to be achieved in three ways as follows:

- at remodelled/redesigned junction locations, the crossing facilities would be significantly improved overall, and at some locations new facilities would be provided where there are none at present;
- new facilities would be provided to meet local demand at key locations;
- upgraded facilities would be provided where crossings exist at locations between junctions where it is proposed to increase link capacity through widening in the central reservation.

All other facilities would have been upgraded incrementally over a number of years funded through a combination of detrunking capital provision and LTP ITM block allocation.

SPECS Cameras and Telematics

Traffic speeds on the Ring Road are enforced, partly, through a number of SPECS digital cameras, provided and operated in partnership between the City Council, the County Council the Police and the Highways Agency. The system has proved extremely effective in reducing speeds and speed-related accidents and it was intended to roll this out to the remaining sections of the Ring Road.

The efficient operation of a number of junctions within the scheme proposals will rely upon the prohibition of some traffic movements. The City Council is proactively seeking to take up powers to enable the enforcement of moving traffic offences. It was proposed that enforcement under this regime would be provided through the use of digital cameras and a system employing Automatic Number Plate Recognition.

Additional CCTV cameras were also proposed to link in with the City Council's Traffic Control Centre to enable optimising signal operation and effective incident detection and management.

1.2 What are/were the primary objectives of the scheme?

Please limit this to the primary objectives (ideally no more than 3) the problems to which this scheme is the solution. If the primary objectives have changed please explain why. Do not include secondary

objectives i.e. things to which the scheme will contribute.

Key Primary Objectives

The top three key objectives were:

- improve orbital bus journey times, reliability and interchange and, where possible, assist radial bus services that cross the Ring Road;
- optimise and improve the network for other road users to increase its attraction as a cross-city route;
- improve pedestrian and cyclist amenity and safety.

The Ring Road Major Scheme has been developed to address the following identified problems:

- congestion which reduces the attractiveness of the route as an alternative to the city centre, and makes bus services unreliable;
- inadequate orbital-to-radial bus interchange opportunities;
- intimidating conditions for cyclists and pedestrians;
- community severance;
- future planned housing and employment growth;
- pressure on parking supply at key employment sites; and
- local air quality and noise.

1.3 Please describe the process by which this scheme came to be the preferred option for meeting those objectives including reasons why alternatives were not progressed.

This may simply be an extract from what has already been described in previous Major Scheme Business Cases. However please take the opportunity to expand on that previous material as necessary.

Alternatives

Outline of Alternative Options

A wide range of alternative measures were considered to address the problems set out above. This section describes the alternatives that were considered and why they were discounted.

Options considered in the initial screening processes included:

- various bus lane options including guided bus;
- tram or light rail; and
- grade separation of certain junctions.

Bus Lane Options

A number of options involving bus lanes were assessed including:

- a conventional busway located in the central reservation;
- conventional near side bus lanes;
- bus lanes which could also be used by High Occupancy Vehicles;
- bus lanes which could also be used by Heavy Goods Vehicles; and
- continuous 2-way kerb-guided bus (KGB) from Dunkirk or Crown Island to Nottingham Road;

- sections of 1-way KGB to bypass queues on the approaches to selected junctions.

The non-continuous 1-way kerb-guided bus alternative was chosen as the optimal bus lane scheme and taken forward for more detailed assessment for the reasons described below:

- *Conventional Central Reservation Busway* – whilst a conventional busway can be used by all buses without modifications to vehicles, this option was rejected for the following reasons:
    - the bus lanes would be wider than KGB option leading to greater costs and environmental impacts;
    - conventional bus lanes are not self-enforcing whereas the design of KGB prevents use by other vehicles;
    - conventional bus lanes would offer no greater time savings to users and misuse may reduce reliability; and
    - the option would increase severance.

- *Conventional Near Side Bus Lanes* - impacts are similar to the central reservation busway. In addition it would be impractical to reduce capacity for cars and goods vehicles by 50% and so it may be necessary to re-allocate road space and reduce the width of the central reservation.

- *Bus/High Occupancy Vehicle (HOV) Lanes* – this option was compared with the conventional bus lane option using TRANSYT software. The TRANSYT analysis indicated no additional benefits of allowing HOVs to use bus lanes. There would also be added costs associated with the measures.

- *Bus/Heavy Goods Vehicle Only Lanes* – due to a relatively low proportion of goods vehicle traffic this option offered no additional benefits. Conflicts between goods vehicles and cyclists would give rise to safety problems. There would also be added costs associated with the measures.

- *Continuous 2-Way Guided Bus* - priority measures are only required on approaches to congested junctions, and so the additional cost of guideways along the full length of the scheme is not warranted. This option would require removal of more trees and planting along the central reservation than the 1-way KGB option and may lead to increased severance, unless additional pedestrian crossing facilities were provided.

The non-continuous 1-way KGB option was judged to be the optimal bus-lane option because it would:

- make best use of existing infrastructure by utilising the wide central reservation;
- ensure that the operational capacity of the junctions (in terms of queuing capacity)
- was not significantly affected;
- provide a reliable and high quality public transport service; and
- overcome enforcement problems associated with traditional on-street bus priority as the physical design of the KGB prevents use by vehicles without special adaptations.

Assessment of Alternatives

Selected Bus Lane Option - 1 Way KGB

A design for the non-continuous 1-way KGB scheme was worked up which included the following measures:

- 1-way sections of KGB on the approaches to selected junctions;
- associated junction re-modelling to offset the allocation of road space to buses;

- improved orbital/radial bus interchange provision; and
- improvements to provision for cyclists and pedestrians including lighting, re-surfacing, formalised inset parking, new road crossing and side road entry treatment.

This option was assessed using the NATA framework. It was not taken forward as it did not address some of the key problems and objectives, in particular relieving congestion and attracting cross-city trips from the city centre. This option also requires the closure of a number of gaps in the central reservation resulting in lengthy diversions for some traffic, and which is known to be unpopular with local residents.

Tram / Light Rail

At present levels of public transport demand along the Ring Road are insufficient to justify a costly tram or light rail option. Capital cost estimates for NET Phase 2 indicate a capital cost in the order of £20million/km; light rail vehicles alone are costed at over £1.5m each.

A tram option would also have the following disbenefits:

- removal of trees and planting from the central reservation;
- the system is unlikely to be financially sustainable without substantial ongoing subsidy; and
- severance would be increased unless additional pedestrian crossing facilities were provided.

Grade Separation of Certain Junctions

This option would involve physically separating conflicting traffic flows at selected junctions by grade separation. Whilst grade separation has the potential to offer journey time benefits to all road users this option was rejected on the following grounds:

- high capital costs;
- significant negative visual impact of the grade separated structures on townscape;
- possible impact on the Crown Island Area of Archaeological Constraint;
- inconsistency with efforts to reduce dependency on the car.
- inconsistency with neighbouring sections of road and character of corridor; and

1.4 What was the last total estimated cost of the scheme as previously configured including where changed since the award of Programme Entry?

Please provide the latest cost of the scheme with a summary and where, appropriate, an explanation of the key changes from the previous cost breakdown. Please use this section to identify any cost savings that you have already made since the award of Programme Entry. Figures should be outturn costs. Please adjust to exclude the costs of any Part 1 Claims that you may have included at this time.

(Note: includes ARL which is why LA %age contribution appears high. Excludes Part 1 Claims)

£m	Pre 2011/ 12	2011/ 12	2012/ 13	2013/ 14	2014/ 15	2015/ 16	20 16/ 17	2017/ 18	2018/ 19	Total	%
LA contribution			0.293	1.697	1.883	1.397				5.27	17.3
Third Party contribution			0.025	0.150						0.175	0.6
DfT funding requested			0.318	8.883	9.055	6.787				25.043	82.1
TOTAL			0.637	10.73	10.937	8.184				30.488	

1.5 Please describe any developments (such as housing) linked with the scheme as described above and explain any changes impacting on these developments (eg policy changes such as housing allocations, changes to redevelopment plans)?

This should explain any links that the planned scheme had to major developments and provide details of changes to these plans such as through changes in policy relating to housing, changes to developer plans etc

Although there are no development sites directly dependent on the delivery of the scheme, there are a significant number of sites identified in the local plan which will benefit from the proposed improvements. The scheme will provide enhanced network capacity which will accommodate and enable growth and benefit major future development within the corridor and wider conurbation. This will include, potentially, up to 50,000 new homes and 10,000 new jobs over the next 15 years, major bio/science park development at both hospitals, designation of a new Local Enterprise Zone on the Boots campus and expansion of the University Jubilee Campus.

SECTION 2: REVISED SCHEME PROPOSAL

This section should describe the changes you are proposing to make for the purposes of your Best and Final Funding Bid.

2.1 Are you proposing any changes of scope from the scheme as described in Section 1? *If yes, please describe in detail the changes you are proposing. Please also attach explanatory maps, diagrams etc. as appropriate.*

Yes – major scheme scope reductions are proposed.

Revised Scheme Description

The principles of the scheme were conceived in parallel with, and to complement, the Turning Point Major Scheme in the City Centre (which was completed in 2006 and funded by the DfT as a Major Transport Scheme through the LTP) and the expansion of the NET tram system. The City Centre Scheme's principle objectives were to reduce through-traffic from the Inner Ring Road and to provide improved public realm and priority for buses.

The reduced-scope Ring Road scheme is still intended to provide an attractive route for cross-city traffic movements which have been displaced from the City Centre following the Turning Point and NET development.

There were four key themed elements in the original scheme (described in detail in Section 1.1 above):

- junction remodelling and capacity improvements;
- link capacity improvements;
- improved passenger waiting facilities and "Virtual Interchanges"; and
- improved facilities for pedestrians and cyclists.

However, it is still intended to use these same principle elements to address the problems on the Ring Road but on a reduced scale. The following outlines how the scheme has been changed and which measures have been deleted:

Element	Proposal
Anti-Clockwise local widening (including new bridge over NET, Robin Hood Line and River Leen) between Radford Road and Western Boulevard Spur	Deleted from scheme. This was the most costly single element of the scheme (IRO £4.5million including supporting improvements below) and was considered to present the most risk to the project. The bridge crosses the NET Line 1 tramline, Robin Hood Line (heavy rail) and the River Leen.
Western Boulevard Western Spur Junction Improvement	Deleted from scheme (see above)
Valley Road/Vernon Road/Radford Road and Valley Road/Nottingham Road Junction Improvements	Deleted from scheme (see above) but pedestrian crossing facilities at Nottingham Road/Valley Road retained, funded via a S106 agreement
Anti-Clockwise local widening between Nottingham Road and Radford Road	Deleted from scheme (see above)
Wilkinson Street Junction Improvement	Downgraded to a signal controlled pedestrian crossing
Edwards Lane Junction Improvement	Deleted from scheme for cost-reduction purposes
SPECS cameras	Extended SPECS scheme deleted but retains upgraded equipment at sites where existing equipment is to be relocated
Medilink bus upgrade	Deleted from scheme. Since the time of the MSBC submission in 2009 the fleet has been upgraded to Optare Solo standard either from authority capital funding or through S106 agreements.

A full description of the remaining elements follows. The scheme is indicated on the attached plans ADJ0012-01 (Rev.D), ADJ0012-02 (Rev.F) and ADJ0012-03 (Rev.D).

Junction Remodelling

Three of the ten Ring Road junctions with main radial routes will now be subject to significant improvements; three with minor changes. The following is a description of the proposals for each junction.

Wollaton Road (Crown Island)

The junction currently operates as a partially signalised elongated dumb-bell island. This junction is one of the key congestion hotspots along the Ring Road route.

The proposed improvement at this location is to provide additional circulating lanes, which combined with additional lanes on the Ring Road increases the throughput of orbital traffic and eliminates existing blocking that occurs where queuing radial traffic blocks the progression of Ring Road traffic.

Beechdale Road

This junction will remain largely unchanged with exception that the existing localised widening to three clockwise (northbound) lanes will be extended to form part of the larger scale widening of the clockwise carriageway between Crown Island and A610 Nuthall Road.

Aspley Lane

This is currently a four-arm roundabout with very poor pedestrian crossing facilities. It is proposed to replace the roundabout with a traffic signal controlled junction incorporating pedestrian phases. This will provide significant benefits and greatly enhance the ability for pedestrians and cyclists to cross all four arms. This is particularly important given the close proximity of Bluecoat School which has undergone major recent redevelopment and expansion.

Nuthall Road

One of the key traffic movements is clockwise around the Ring Road and then turning left at the A610, Nuthall Road, which leads to the M1 at Junction 26. It is proposed that this movement could be significantly improved through minor lane reallocation, providing left turn availability from the two nearside lanes; the second lane would change from “ahead only” to “ahead and left.”

Wilkinson Street

This junction provides access to the 900 space Park and Ride site located adjacent to the NET Line 1 tram stop on Wilkinson Street, and is on the route of the MediLink bus service which interchanges with NET.

The current arrangement has signal control for the right turn into Wilkinson Street and the anti-clockwise Ring Road movement. Egress from Wilkinson Street (left out only) is at a priority junction (Wilkinson Street is the minor arm) and the clock-wise movement is uncontrolled as it is effectively segregated from the other movements. There are no pedestrian facilities at present.

It is proposed that the existing signalled junction be redesigned, incorporating a pedestrian crossing over the Ring Road.

Hucknall Road

This is currently a four-arm roundabout which, would not accommodate the additional traffic flows resulting from improved capacities introduced elsewhere within the scheme. The junction abuts the City Hospital which attracts over 300,000 patients and visitors annually but does not provide adequate pedestrian crossing facilities.

It is proposed to introduce additional capacity at this junction, by increasing the number of Ring Road entry lanes and the number of circulating lanes on the roundabout principally to improve Ring Road throughput, and to provide a high standard of pedestrian crossing facilities across all four arms. The upgraded pedestrian facilities are important given the proximity of the City Hospital to this junction.

Link Capacity Improvements

To complement the junction capacity improvements and to provide additional storage capacity, minimising the effects of queuing traffic blocking back up-stream junctions, it is proposed to introduce additional traffic lanes on links at a limited number of key locations. The additional lanes will generally be provided by strip widening within the wide sections of central reservation. Where the central reservation width is insufficient, minor local widening will be required. A brief description of the lengths to be treated follows:

Anti-clockwise

Between Crown Island and QMC (A52T) roundabout will be widened from 2 to 3 lanes – with the nearside lane feeding directly into the southbound slip-road of the roundabout which provides access to the A52T Westbound and A6200 towards the City Centre, and the remaining two lanes continuing towards the Trunk Road section of the Ring Road to the south and east of the conurbation (A52T Clifton Boulevard). This will assist in lane usage for southbound traffic movements exiting Crown Island.

Clockwise

Between Crown Island and A610 Nuthall Road will be widened from 2 to 3 lanes, including through the junctions with Beechdale Road and Aspley Lane. As described above, this is a key route for traffic movements towards J26 of the M1 via the A610 from the south and east of the conurbation.

Public Transport Measures

Improved Passenger Waiting Facilities and Virtual Interchanges

The pedestrian routes between orbital and radial bus services are generally very poor along the Ring Road. The routes are not clearly identified or obvious and the walking distances are often lengthy and include junctions which are difficult to negotiate and do not, therefore, make interchange between services attractive or simple to achieve.

The principle of the small scale “virtual interchanges” is to provide:

- high quality, secure, well lit and comfortable bus passenger waiting facilities with real time service information;
- raised kerbs to improve level accessibility;
- clearly defined, and improved routes between orbital and radial bus service stops and provision of in-shelter information about orbital/radial services and connection

times; and
- minimised walking distances between orbital and radial services by moving stops as close to junctions as is practicable within capacity and safety constraints where appropriate.

The “virtual interchange” upgrades will complement the main orbital improvements.

Improved facilities for Pedestrians and Cyclists

An integrated transport system requires good quality provision for pedestrians and cyclists. This is particularly important for the section of the Ring Road which links the two University of Nottingham campuses at A52(T) and Crown Island where demand is high. The following describes the proposed elements of the scheme which are aimed directly at pedestrians and cyclists to both encourage these modes and to maximise amenity and safety for these vulnerable road users.

Side Road Entry Treatments

Off road cycle tracks exist along the majority of the Ring Road Route. In order to improve conditions for cyclists it is proposed to introduce side-road entry treatments. Where the cycle route crosses a side-road, the carriageway will be raised onto a platform to provide a level running surface. Opportunities will be explored to introduce priority at these locations in favour of pedestrians and cyclists.

Formalised Inset Parking

A common problem along the Ring Road is indiscriminately parked vehicles in the footway and cycle track causing obstructions to pedestrians and cyclists and making the facility unattractive. The problem lies with the relatively low proportion of off road parking spaces and parking restrictions on the main carriageway. A simple solution is to provide formalised inset parking, where possible, and where locally popular/desirable within the existing grass verge. The additional parking spaces, combined with rigorous enforcement, should greatly reduce the current obstruction problem.

Pedestrian Crossings

It is proposed to upgrade the pedestrian and cycle crossings along the Ring Road to improve amenity and safety and to reduce community severance. This will be achieved in two ways as follows:

- at remodelled/redesigned junction locations, the crossing facilities will be significantly improved overall, and at some locations facilities will be provided where there are none at present;
- upgraded facilities will be provided where crossings exist at locations between junctions where it is proposed to increase link capacity through widening in the central reservation

SPECS Cameras

Traffic speeds on the Ring Road are enforced through a number of SPECS digital cameras, provided and operated in partnership between the City Council, the County Council the Police and the Highways Agency. The system has proved extremely effective in reducing speeds and speed-related collisions.

Where it is proposed to undertake carriageway widening to provide additional lanes, it will be necessary to relocate the SPECS camera poles and provide additional cameras for extra coverage. The opportunity will be taken to upgrade to a wireless system to remove

requirement for fibre optic cable relocation.

2.2 What, if any, additional changes of scope have you ruled out for the purposes of your Best and Final Funding Bid? Please give reasons.

The two single largest elements of the scheme which comprised the most cost and hence the greatest opportunity to reduce scheme costs were:

Crown Island Junction Improvement	£3.2million*
Western Boulevard Bridge and Approach Roads	£4.45million*

(*works cost only excluding fess, inflation, risk etc)

Of these, the Western Boulevard Bridge was considered to present the most potential risk to the project; the bridge crosses the NET Line 1 tramline, Robin Hood Line (heavy rail) and the River Leen.

The Crown Island Junction Improvement is more traditional civil engineering with much less associated risk. This junction is one of the key congestion hotspots in the City and is located on the important Ring Road to M1 J26 route.

For this reason the Western Boulevard bridge widening element was dropped from the scheme.

In the Major Scheme Business Case submitted in 2009 a Low Cost Alternative (which also excluded the bridge widening and approach roads) was appraised and demonstrated high Value for Money with a BCR exceeding the preferred scheme, albeit with a lower Net Present Value.

Removing the Crown Island improvements would severely affect scheme benefits and the achievement of the key congestion reduction objective so this has been ruled out.

2.3 Whether or not you are proposing a change of scope, please identify any savings that have been made to the total cost of the scheme, for example through value engineering.

Please provide details with a summary and explanation of the further savings beyond those already identified at 2.1 above or, if no scope changes are proposed, with reference to the cost breakdown provided in the latest cost estimate at 1.4 above.

Reducing the scope of the scheme has resulted in corresponding reductions in other elements of scheme delivery such as traffic management during construction. The scheme was value engineered down at the Programme Entry submission stage. Some further work has been undertaken but with only marginal reductions possible as the scheme is very much a “utility” scheme using basic construction materials and techniques.

Overall, through re-scoping, the total scheme costs have been reduced by almost £16.0million from the EOI costs submitted in January. This represents a saving in the order of 50%.

2.4 Please provide separate details of any further changes you are proposing to the scheme from that submitted in January 2011.

All scheme changes are described fully in Section 2.1 above.

2.5 What is your latest assessment of the cost, feasibility and value for money of any alternatives to the proposed scheme?

This should include any previous options subsequently discarded and / or those proposed by third parties. Please explain why this / these options have not been progressed. Please detail any elements that have been included in your proposed scheme. Please make reference to any material differences with the preferred scheme in costs or benefits such as carbon impacts.

Assessment of Alternatives

A range of alternative measures were assessed leading to the identification of the preferred scheme as configured in the 2009 Programme Entry Business Case. These assessments (described in response to Q1.3) have been reviewed and the conclusions remain valid; ie that a targeted package of junction and link improvements, improved public transport interchanges, improved cycling and walking facilities, and SPECS cameras best meet the scheme objectives set out in response to Q1.2.

Preferred and Low Cost Schemes as Configured in the 2009 Business Case

The 2009 Business Case included appraisals of the then preferred scheme (described in response to Q2.1) and a Low Cost Alternative which omitted:
- Edwards Lane / Valley Road junction improvement;
- Hucknall Road junction improvement;
- Western Boulevard Bridge widening; and
- Nottingham Road junction improvement.

A summary of the appraisal of the Preferred and Low Cost Schemes as at 2009 is presented in the following two tables. Sub-objectives for which the impact of both the Preferred and Low Schemes were assessed as neutral are omitted from the second table. Note that the appraisal results presented here are based on assumptions (land use scenarios, etc) that have been subsequently updated for this BAFFB submission, and so are not directly comparable with the information presented in section 3 of this form.

	Preferred RRM	LCA	Increment
Present Value Benefits	303,995	246,423	57,572
Present Value Costs	45,672	34,445	11,228
Net Present Value	258,323	211,978	46,345
Benefit Cost Ratio	6.7	7.2	5.1

Objective	Preferred Option	Low Cost Alternative
Greenhouse Gases	Change in tonnes $C0_2$ pa: 2006: +360,000 2021: +730,000	Change in tonnes $C0_2$ pa: 2006: +20,000 2021: +910,000
Townscape	Slight adverse	Slight adverse
Biodiversity	Slight adverse	Slight adverse

Physical Fitness	Slight beneficial	Slight beneficial
Journey Ambience	Slight beneficial	Slight beneficial
Security	Slight beneficial	Slight beneficial
Severance	Slight beneficial	Slight beneficial
Transport Interchange	Slight beneficial	Slight beneficial
Land-Use Policy	Strong beneficial	Strong beneficial
Other Government Policies	Strong beneficial	Strong beneficial

The 2009 Business Case concluded that the Preferred Option offered a greater Net Present Value of Benefits than the Low Cost Alternative, and that the incremental Benefit Cost Ratio of completing the Preferred Scheme (over and above the LCA) demonstrated excellent Value for Money.

In late 2009 and early 2010 further work was undertaken to refine the appraisal of the Preferred Option including re-validation of the highway assignment model. As part of the Spending Review process DfT made amendments to the 2010 appraisal to include estimates of Wider Impacts and reliability, and to modify the treatment of indirect tax and carbon to reflect changes in guidance. The resulting Benefit Cost Ratio determined by DfT for the Preferred Option was 3.51.

Changes to the Proposed Scheme Since 2009

As described in response to Questions 2.1, 2,2 and 2,3 Nottingham City Council has reviewed the scope of the Preferred Scheme in order to reduce costs whilst still meeting the scheme objectives as far as possible. A number of junction and link capacity improvements were removed from the scheme and some additional cost reductions achieved by value engineering. The single most significant reduction in cost is due to the removal of the widening of the Western Boulevard Bridge and approach roads (£4.45m excluding fees, inflation, risk, etc). This bridge widening also posed the greatest risk to delivery of the project as it crosses a tram line, heavy rail line and river.

The appraisal of the reduced scope scheme is summarised in response to Question 3.2. This appraisal is not directly comparable to that reported by DfT as part of the spending review as assumptions have been updated, but indicates an improved BCR of 6.1. There are no material differences in the appraisal of non-monetised impacts of schemes as proposed in 2009 and now.

SECTION 3: IMPACT OF CHANGES PROPOSED AND DELIVERY OF THE SCHEME

This section should describe the impact of the changes you are proposing in Section 2 above compared to the previously configured scheme as described in Section 1

3.1 What impact, if any, would the proposed changes have upon achievement of your primary objectives? *This should refer to the scheme as identified in section 2.1*

Objective 1: improve orbital bus journey times, reliability and interchange and, where possible, assist radial bus services that cross the Ring Road.

The latest modelling results indicate that journey times on the principal orbital bus route (number 53) would reduce by up to 76 seconds clockwise in the evening peak period, with little impact in the off peak in 2016. These benefits will be reduced by the removal of scheme elements north of Hucknall Road.

Journey times for radial bus routes which cross the ring road change by at most 70 seconds with some small improvements and other small disbenefts.

Proposals for Virtual Interchanges are unchanged. Benefits relating to these elements of the proposals have not been quantified.

Reliability benefits for all road users have been assessed using DfT's specified approach (TAG Unit 3.5.7). Substantial car driver reliability benefits (£34m over the 60 year appraisal period) have been calculated which indicates that journey times would be more reliable for both car drivers and bus passengers.

Objective 2: optimise and improve the network for other road users to increase its attraction as a cross-city route.

TUBA results indicate transport user benefits of £75m and reliability benefits of £44m over the 60 year appraisal period which demonstrates that the proposals improve the network for road users. Benefits have been reduced by the removal of improvements north of Hucknall Road.

Transport modelling outputs (illustrated in the Forecasting Report) demonstrate that traffic on the ring road would increase whilst flows on competing routes within the ring road reduce.

Objective 3: improve pedestrian and cyclist amenity and safety.

There are no changes to proposals to improve pedestrian and cyclist amenity and safety. The impacts of these elements of the schemes remain as:

- **slight beneficial** impact on physical activity as improved amenity should encourage walking and cycling
- **slight beneficial** impact on severance due to provision of new crossing facilities at the Aspley Lane, Wilkinson Street and Hucknall Road junctions.

The revised scheme omits new pedestrian crossings at the Edwards Lane junction.

The Virtual Interchange proposals are unchanged. They include clearly defined walking routes between orbital and radial bus routes, minimised walking distances between services by moving the stops as close to junctions as is practicable within capacity and safety constraints, and minimised impedance between services by improving pedestrian crossing facilities as appropriate.

3.2 Please provide a short description of your assessment of the value for money of the revised scheme including your estimate of the Benefit Cost Ratio. *This should cover both monetised and non-monetised costs and benefits and should briefly explain the reasons for significant changes since your most recent Business Case submitted to the Department. The full assessment, as set out in the Value For Money guidance should be provided as an Appendix. Valuation of any dependent development should be reported here, separately from the central value for money evidence and supporting evidence, and a full description of the approach taken should be included in the Appendix.*

A review of the modelling and appraisal of the scheme was undertaken in line with the DfT's comments on the Business Case submitted to DfT in June 2009. DfT indicated that the modelling and appraisal was considered robust with the exception of public transport model validation, but required a review of the land use assumptions and updating of the economic parameters. Previously there were small public transport user benefits which were halved to reflect uncertainties in the PT modelling. In the revised appraisal reported here benefits to public transport users are significantly reduced and so we have not adjusted them. (Note that benefits to public transport users resulting from the improved Virtual Interchanges are not quantified). The modelling approach has therefore remained the essentially the same, with an updated forecasting process and review of developments and potential schemes complying with new Transport Analysis Guidance.

The table below sets out the costs and benefits for which a monetised value was calculated or for which the qualitative score was judged to be other than neutral. The appraisal was carried out over a 60 year period 2016-2075, and all monetised values are in 2002 prices discounted to 2002.

Impact	**Valuation/Score**
Business Users and Transport Provider Impacts	£33.7m
Business Reliability Impacts	£23.9m
Wider Impacts	£7.5m
Noise	£-1.9m
Local Air Quality	£-0.1m
Greenhouse Gases	£-1.5m
Biodiversity	Slight adverse
Consumer User Impacts (commuting)	£24.4m
Consumer User impacts (other)	£10.8m
Consumer Reliability Impacts	£20.5m
Physical activity	Slight beneficial
Journey quality	Slight beneficial
Accidents	£-10.4m
Severance	Slight beneficial
Wider Public Finances	£3.5m
Present Value of (Monetised) Benefits	**£66.1m**
Costs to Local Government	£3.4m
Costs to Central Government	£7.5m
Cost to Broad Transport Budget	£10.9m
Net Present Value	£55.2m
Benefit to Cost Ratio	6.1

The main changes from the Business Case submitted in April 2009 are:
- reduction in scheme scope and hence costs by around 46%;

- reduction in user benefits due to the reduction in scope; and
- inclusion of Wider Impact and reliability benefits.

Overall, these changes have the effect of reducing both benefits and costs. The Net Present Value and Benefit to Cost Ratio were previously £97m and 3.5 respectively.

The scheme represents high value for money in the core scenario with a BCR as reported of 6.1. The low and high growth scenarios carried out as specified by DfT also indicate that the BCR remains robust at a level of 1.6 for the low growth and 7.9 for the high growth.

3.3 What impact, if any, would the proposed changes have on the statutory orders or permissions required or the timetable for obtaining these?
For example would fresh planning consent need to be sought?

The reductions in scheme scope would reduce the scale of Statutory Procedures to be Completed associated with the removal of scheme elements as follows.

The Edwards Lane junction improvement proposals involved the acquisition of a strip of land from Nottingham City Hospital. It is anticipated that all land acquisition would be through negotiation but as a back-up, it is proposed to pursue CPO in parallel; the potential for a CPO Inquiry is built into the programme. The trigger for initiating CPO procedures would be a re-activated Programme Entry.

The Radford Road/Valley Road junction improvement included the closure of Church Street for which a Road Closure Order would have been required. This element of the scheme has been deleted so the order is no longer necessary.

It is not anticipated that the scheme scope changes would affect orders or the timetable for delivery adversely.

Planning consent is not required as all improvements are to be carried out on highway land or land adjacent to the highway and are deemed, therefore, permitted development under the Town and Country Planning Act 1990.

3.4 What are the procurement arrangements for the revised scheme and what, if any, changes have been made from the arrangements or timetable proposed for the original scheme? *For example would any retendering be required? Have you supplied details of your procurement strategy and arrangements to the Department?*

Outline Procurement Strategy

Nottingham City Council has a proven track record in the delivery of major transport projects including, notably, the Turning Point and NET Line 1 and also the delivery of a five year programme of Integrated Transport Measures through the Local Transport Plan. This success has been recognised by the Department for Transport and the authority has been awarded Centre of Excellence status for Local Transport Delivery.

A number of procurement models for the design and construction of the scheme were considered for the MSBC dated July 2006 and a preferred procurement route identified.

Design

All preliminary design to date has been carried out by the City Council's in house design team and it is the City Council's intention that the same design team carry out detailed design and supervise construction. This design resource will, if necessary, be supplemented by external consultants to work alongside the Council.

This follows the same format used for the successful implementation of the Council's Turning Point project and the annual LTP highways programme.

The Ring Road Major Transport scheme, like the Turning Point project, will, in all its aspects, involve major alterations to the existing highway infrastructure. Detailed knowledge of the local highway and public transport network will help to minimise risks associated with disruption to this infrastructure during construction and consequential risks to timely delivery of the scheme.

Construction

All construction of the Ring Road scheme is on, or adjacent to, the alignment of the existing Ring Road. Given the need to minimise the risks associated with the degree of traffic and public transport disruption a construction period of 2 ½ years (130 weeks) is considered most appropriate.

A number of options have been considered for procuring the construction:

- **Option 1 -** one conventional construction contract tendered for a period of 2 ½ years following completion of detailed design for the whole scheme;
- **Option 2** - a number of separately tendered conventional construction contracts following completion of detailed design for the whole scheme;
- **Option 3** - early contractor involvement (ECI) immediately following *Programme Entry*; or
- **Option 4** – Hybrid Procurement Approach using principles of ECI.

Option 1 is the City Council's least favoured option. Unlike simpler 'green field' sites construction of the Ring Road Scheme Major would have significant inherent risks associated with major construction on a live highway network. Traffic management will be a significant cost and at high risk of cost escalation unless thorough planning and flexibility can be maintained throughout the design and construction phases. A conventional ICE 7th Edition tendered project would not offer this flexibility and the tendered sum would almost certainly increase as a result of the inevitable programme disruption.

Option 2 could potentially provide greater flexibility and reduce the risk of cost escalation but still suffers from the consequences of late contractor involvement in traffic dominated construction schemes.

Option 3 is a complex process with no guarantee of value for money or that costs are not necessarily constrained to target costs.

The favoured option of the Council is **Option 4** which has been developed from the Council's successful procurement strategy which delivered the Turning Point project to programme and budget. This option utilises the principles of ECI but would use the Council's own workforce, resources and Private Sector Partners through the Council's Highway Framework agreement. The Council is considering the potential use of the Midland Highway Alliance Framework Agreement to deliver the structural element of the scheme. In comparison with Option 1, it will benefit from reduced contract risk, greater certainty of outturn price, and also have the benefits of utilising the design and build approach, ensuring that buildability issues are considered at all stages of the design and development of the scheme. Through extensive working knowledge and experience of the highway network within the City and Greater Nottingham, this approach will permit minimisation of traffic congestion through proactive coordination of the construction programme. The overall rationale for this procurement approach is to effectively and flexibly manage resources and funding profiles to deliver the scheme within time and cost.

This approach should reduce the negative impact of constructing this major piece of infrastructure on the economic life of the area.

3.5 Please describe the internal / external expertise & skills that will be assigned to the project to allow for its effective delivery. *This should detail who / what roles will have overall responsibility for the project and what other skills will be available.*

An in-house experienced project manager will continue to employ Prince 2 principles to ensuring that the scheme can be delivered successfully. Additional in-house project management skills are likely to be engaged in this project once funding is confirmed.

Internal resources will also be used to carry out the design of the scheme supported by external consultants where appropriate. The design team will be lead by a chartered engineer and involve up to 4 senior engineers experienced in the design of roads and structures within an urban area. This design team will be assisted by other in-house staff to ensure the effective delivery of the scheme. The team works as part of the local authority highway service with an integrated approach importing specialist in-house expertise as required in road safety, traffic management, highway network management, and communications. By working closely with the Traffic Control Centre it will be possible to clearly assess the effect of the temporary traffic management associated with the works on the wider highway network, and take mitigating measures where appropriate.

As discussed in answer to question 3.4 in-house resources will be important in the construction of the scheme on site. These in-house resources include experienced site agents and up to five gangs. Private sector contractors will be engaged to assist the in-house resources with the delivery of the scheme, thus ensuring that throughout the construction process adequate resources are available. This approach has been successfully used for the delivery of schemes in traffic sensitive areas of Nottingham in the past.

In the commissioning of private contractors, opportunities will be taken to create jobs and training opportunities for local people wherever possible.

3.6 Please supply a note setting out the governance arrangements for the scheme. *This should also link roles and responsibilities with accountability and arrangements for Reviews as appropriate.*

The Project Executive Group for the Local Transport Plan has provided governance for the project in terms of development and submission of the Business Case. The composition of this forum includes the Senior Responsible Owner, Senior Supplier and Senior Users for the Ring Road project.

Following the governance arrangement model for other successfully delivered major highway schemes including Turning Point and the redevelopment of the Old Market Square; a Project Board will be created, independent of the LTP Project Group. Members will be officially and formally assigned to the Project Board as directed by the Project Executive. The Project Executive is the Senior Responsible Owner and will have overall responsibility for ensuring the project meets its objectives and delivers the projected benefits as identified in the Business Case. The primary responsibilities of the Project Board will be overall direction, management and assurances including Quality, Business, User and Supplier.

A Project Steering Group to represent the interests of the users of the Ring Road is proposed with an appointed Chairperson who will represent the interests of the Steering Group on the Project Board.

These proposed governance arrangements have been approved through the Portfolio Holder for Planning and Transport and by the Department for Transport through confirmation of Programme Entry received on 31st March 2010.

3.7 What is the estimated start and completion date of the scheme as now proposed, taking into account any of the impacts described above?

For the purposes of this question assume that decisions on BAFB will be made in December 2011 and that no DfT funding will be available before 2012/13. Please complete the list of milestones below adding any additional ones where appropriate and setting out separate start and completion dates where there are separate elements in the schemes. Please enter "n/a" if not applicable rather than deleting lines.

Milestone	Expected Completion Date
Approval of BAFB from DfT	December 2011
Statutory Orders published	January 2012
Public Inquiry Starts	April 2012
Confirmation of Orders	September 2012
Complete Procurement *(include separate elements if appropriate)*	December 2012
Submit Full Approval application to DfT	December 2012
Work Starts on Site	April 2013
Any significant intermediate milestones (please specify)	
Work Completed	September 2015
Opening / commencement of operations *(including phases of opening as appropriate)*	Detailed programme to be confirmed

3.8 What are the key risks to the delivery to this timetable, aside from the availability or otherwise of DfT funding?

Please list the biggest risks (ideally no more than three) that have a potentially significant impact on the timing of the scheme. For each risk please describe its likelihood, quantify the potential time delay, and explain how you are mitigating the risk including how risks are transferred as part of your procurement strategy?

The most significant risk to the overall project timescales would be the failure to secure the required land. The likelihood of this, however, is considered to be low as positive negotiations for friendly land acquisition with landowners had already commenced prior to submission of the Business Case. If there was an issue with land acquisition there could be a time delay of 6 months to enable re-design, re-modelling and re-appraisal to ensure value for money is still acceptable plus possible re-tendering. It is intended to pursue CPO powers in parallel with acquisition negotiations so delays are not anticipated as the time for this is built into the programme.

The second key risk is major disruption to traffic and public transport movements during the construction period. The Ring Road is a sensitive, high traffic volume which will require the inputs from an in-house team to ensure construction impacts are minimised and through comprehensive scheme publicity and communications.

3.9 Please indicate the level of allowance you have made within your own budgets to cover the cost of scheme evaluation including your initial estimates of the costs of:

a) full scheme impact evaluation

b) pre and post scheme opening monitoring reports

Please note that funding for scheme evaluation and monitoring will <u>not</u> be available from DfT.

Given the nature of the proposed package of improvements it is not intended to undertake a full scheme impact evaluation (unless this is ultimately required by DfT as a condition of

funding approval). It is proposed to undertake a conventional before and after study to monitor the impacts of the scheme and assess its performance against the stated objectives. The proposed methodology is outlined below. All scheme monitoring and evaluation data collection, analysis and reporting will be funded locally through Local Transport Plan and other City Council budgets; funding will not be sought from the Department.

Impact Monitoring Overview

As part of scheme development, appropriate arrangements are to be established to monitor and evaluate the impact of the scheme. Such monitoring and evaluation will focus on what the expected outcomes of the scheme but will include an assessment of the wider impacts.

Existing Monitoring and Evaluation Arrangements

The LTP sets out the current comprehensive approach to monitoring, covering the following areas of relevance to the Ring Road Major Scheme:

- orbital and radial traffic flow and congestion (journey times), based on a comprehensive programme of long term and ad-hoc surveys;
- modal share, based on an annual cordon survey around the city centre;
- road safety statistics;
- air quality surveys, with a mobile station and a total of 11 roadside pollution monitors and;
- inventory of facilities aiding the mobility of disabled people; and
- noise modelling.

Additional Scheme Specific Monitoring and Evaluation

It is intended that the above will provide most, if not all, of the data required for monitoring and evaluation of the Ring Road Major Scheme. As the scheme is developed, consideration will be given to the overall programme for monitoring and evaluation and the attendant need for additional surveys to be undertaken.

This will include:

- Bus usage/satisfaction surveys;
- Intra-hospital site trip information;
- User surveys (pedestrians and cyclists);
- Bus journey time, punctuality and reliability surveys;
- Major employers' travel plans surveys; and
- City Centre/other residential area traffic flows.

In addition to collecting and analysing the data outlined above, the scope for the use of market research and consultation to understand changes in the perception of issues such as environment and safety will also be investigated. The City Centre Review employs such techniques and future surveys could be expanded to cover the impact of the Ring Road Major Scheme.

Indicators for each of the key objectives and suitable methodologies for their management will be identified to enable performance of the scheme to be evaluated.

SECTION 4: FUNDING FOR REVISED SCHEME PROPOSAL *This section is to detail the cost, revenues and funding requirements for your revised proposal as described in Section 2 above. Please quote all amounts in £m to three decimal points (i.e. to the nearest £1000)*	
4.1 What is your estimate of the total outturn cost of the revised scheme? *After taking into account all the proposed changes described in Section 2 above. Do not include any pre-Programme Entry costs. Please provide a breakdown of the total cost, split between different elements of the scheme and separately identify preliminaries, project management, risk and inflation. Please also provide your full cost breakdown as an annex.* Please see Annex – *RRM Costs.xls*. **Worksheet 1** associates costs to each element of the scheme; **Worksheet 2** breaks these costs down further. Please note: there is no detailed Bill of Quantities as the scheme is at an early stage in the design.	**£16.175**
4.2 Please state what inflation assumptions you are using. *Inflation rates for different categories (e.g. general inflation, construction cost, operating cost) should be separately identified.* 2.7% is consistent with current WebTAG 3.5.9 Guidance for Construction Industry and RPI inflation rates	**2.7%**
4.3 Please provide a breakdown of the proposed funding sources for the scheme	
(a) Local Authority contribution *This needs to cover the difference between the total cost of the scheme as stated above and the total of the requested DfT and agreed third party contributions. It should include the LA costs incurred or expected to be incurred after Programme Entry excluding ineligible preparatory costs as defined by previous guidance. Where a local authority is promoting more that one scheme, please detail the level of contribution required if **all** schemes are successful as part of this funding process. Please do not include the cost of any Part 1 Claims.*	**£3.200**
(b) Agreed third party contributions *Please name each contributor on a separate line and provide evidence of agreement (e.g. a letter from the funder outlining the degree of commitment, timing for release of funds and any other conditions etc). Note: you will be required to underwrite all third party contributions should these not materialise.*	**£0.175** (Sainsbury's Perry Road S106)
(c) DfT funding requested *You are reminded that, as set out In the document "Investment in Local Major Transport Schemes" the risk layer cost sharing mechanism is being discontinued and the figure you enter here will, if accepted, be the maximum funding that DfT will provide for the scheme. If you wish eligible preparatory costs (as defined by previous guidance) to be paid these will need to be consolidated within this funding request.*	**£12.800**

4.4 What is the estimated funding profile.

Assume that no DfT funding will be available before 2012/13. Please specify the third party contributor(s) and list each one (if more than one) on a separate line. Please assume that the DfT and LA contributions will be in the same proportion in each year from 2012/13 and provide an explanation if this is not the case. Although the total level of DfT funding will be fixed, profiles across years may be subject to further discussion and agreement. Please do not include the cost of any Part 1 Claims.

The funding split between DfT and LA is proposed to vary over the construction period. This is to enable the LA contribution to be spread evenly over 3 financial years to minimise the impact on LTP programme delivery. The relatively low DfT contribution in the final year is because construction will only be undertaken for the first six months of that financial year with completion programmed for September 2015. However, the detailed implementation programme has not been fixed and is flexible so there will be opportunities to discuss alternative profiles at a later date.

£m	Pre 2011/ 12	2011/ 12	2012/ 13	2013/ 14	2014/ 15	2015/ 16	2016/ 17	2017/ 18	2018/ 19	Total	%
LA contribution		**0.063**	**0.437**	**0.800**	**0.950**	**0.950**				**3.200**	**19.8**
Third Party contribution		**0.025**		**0.150**						**0.175**	**1.1**
DfT funding requested				**5.120**	**5.120**	**2.560**				**12.800**	**79.1**
TOTAL		**0.088**	**0.437**	**6.070**	**6.070**	**3.510**				**16.175**	**100**

4.5 If any DfT funding were available in 2011/12 would you be in a position to reach Full Approval and begin claiming such funding and if so how would your funding profile change?

(If appropriate please set out a funding profile similar to that in section 4.4)

It is anticipated that we would need 12 months from the date of the re-activated Programme Entry to undertake necessary detail design, undertake full detailed scheme consultation and prepare Tender Documents in order to be at the stage of procurement required for Full Approval. In addition the Authority needs to acquire a number of small areas of third party land. Whilst the intention is to acquire land through negotiation, there is a possibility that a CPO will be necessary. It would not be possible, therefore, to be in a position to take advantage of early funding in terms of reaching a satisfactory level of procurement or delivering elements of the scheme dependent upon land acquisition unless an arrangement could be identified to deliver more minor elements of the scheme earlier through the Framework Agreement. These opportunities can be discussed.

4.6 Please indicate the level of flexibility with regard to the phasing of the local contribution of the bid (including the third party contribution), should the DfT have a need to vary the phasing of its own contribution for budgetary reasons.

Please detail the level of change in DfT support per funding year you could accommodate within the project and from which sources any change would be made up.

The proposed phasing of the local contribution, i.e. spread over three financial years has been adopted to minimise the impact upon the LTP programme from which the local contribution is being funded.

4.7 Please set out the efforts you have undertaken to obtain (additional) third party funding and, where appropriate, why it is not available.

Third party funding in the form of S106 Agreement contributions have been secured from the

Perry Road Sainsbury's development planning application. Inter alia, this included funding of £150k to provide full pedestrian crossing facilities at the Valley Road/Nottingham Road junction and a contribution of £25k towards scheme design costs.

The funding for 2 additional Medilink buses are written into the S106 Agreements for the Chalfont Drive and Wilkinson Street residential developments. These, however, are not likely to be commencing in the immediate future and finance for the Medilink upgrade has, in any case, now been deleted from the major scheme. (See 2.1 above)

4.8 Please supply details of likely revenue generated, any ongoing revenue liability associated with the operation of the scheme (other than routine maintenance) and how you intend to fund it. If revenues fall short of those forecast (especially in the early years after implementation) how will these be funded? *(This is of particular relevance to public transport schemes but could apply to package schemes.)*

The scheme neither generates, nor relies upon ongoing revenue support other than very marginal increase in highway area to be maintained.

4.9 Please detail any other funding information you think to be of relevance to the bid

(For example other costs or revenue risks etc being taken by the local authority or other parties but not included within the funding table above.)

Compensation Act Part 1 claims which are now to be borne by the local authority promoting the scheme. Following financial advice from an independent Property Consultant, given the current environment of properties along the Ring Road and the nature of the scheme proposals, this is estimated to be a maximum of £250k.

4.10 Please explain how the Local Authority contribution will be funded.

Explain where local contributions are dependent on a particular source of income and contingency plans if that income is not forthcoming. Please also include any contingency plans for meeting third party costs that fail to materialise.

It is intended to fund the local contribution from the Local Transport Plan ITM and Maintenance blocks. These blocks total around £6million per annum rising to £7.5million in 2014/15.

The third party contribution has already been captured in anticipation of delivering the scheme. (See 4.7 above)

SECTION 5: STAKEHOLDER MANAGEMENT

5.1 Consultation

Please provide a brief overview of the consultation you have undertaken to date with

(a) the public,
(b) statutory environmental bodies and
(c) other stakeholders;

This should include dates detailing when consultation was carried out
Please also summarise any further consultation you plan to undertake.

Public Consultation

In September 2003, under the Big Wheel transport marketing initiative, 34,500 leaflets were distributed to residents and businesses located along the Ring Road seeking their views on the objectives and general principles of the City Council's proposals. Whilst the response was relatively low, the scheme was received favourably and given an overall level of support. The key top issues to local residents were congestion, unreliable bus services and inadequate facilities for cyclists and pedestrians all of which will be directly addressed by the proposals.

The scheme's form was changed in response to outcomes of the consultation process to better reflect the concerns and aspirations of local residents and businesses.

Following discussions with DfT it was clear that the consultation undertaken to-date required refreshing. A further consultation exercise was undertaken over the summer 2011 to provide an updated position.

The consultation has included:

- An on-line survey form which sought views on the key issues affecting the Ring Road, the proposed package of measures and suggestions for alternative measures;
- A leaflet giving brief overview of the scheme proposals and directions to the on-line survey form distributed to houses and business along the Ring Road (4,500);
- Distribution of the leaflet to users of the visitor car parks of the QMC and City hospitals located on the Ring Road and to Medilink bus service users at key bus stops (2,000);
- The web-link to the leaflet and on-line survey forwarded to Nottingham University Hospital Trust, Boots, Imperial Tobacco, and the University of Nottingham (which are all based on the Ring Road) for distribution to all employees (25,000);
- Distribution of the link to the on-line survey form to all consultees for the Local Transport Plan (300 total);
- Presentation to the Greater Nottingham Transportation Partnership. This is an action group serving the SSP (Greater Nottingham Partnership) which includes representation from local bus operators, the Nottinghamshire and Derbyshire Chamber of Commerce, the NHS, major local employers (such as Experian and EON), Nottingham Trent University;
- Presentations to local Ward Councillors;
- Presence at a number of Nottingham City Council events.

Preliminary Results of Local Consultation

Based on the 350 responses received to date, the following broad conclusions can be made.

- Congestion remains the key issue affecting the Ring Road and reduction of congestion, queues and delays remain key supported objectives
- 70% of responses are in favour of the proposed package of measures; 30% are not in favour
- Of the 30% not in favour, there is evidence that they support one or more of the key objectives of the scheme and certain elements (if not all) within the package.
- A key criticism of the package of measures by those who did not support the proposals was that the measures did not go far enough either geographically (this is a result of re-scoping the scheme) or physically (e.g. grade separation at Crown Island which was considered at the option generation stage but discounted for environmental and financial reasons.)

Overall it is concluded that there remains strong local support for the scheme and very strong support for the key objectives.

A full consultation response analysis report will be produced shortly and posted on the authority's website at the address below:

www.mynottingham.gov.uk/ringroad

Further consultation is proposed following more detailed design work subject to a re-activated Programme Entry.

Statutory Environmental Bodies

The Statutory Environmental Bodies were consulted on the original scheme in 2006. Their responses, at time are summarised below:

Body	Form of Response	Comments
English Nature	Letter of 23/03/06	No major wildlife sites and no likely protected species – so no comment.
Environment Agency	Letter of 31/03/06	Generally acceptable subject to limitations on impacts to Day Brook at Hucknall Road, Edwards Lane, and the River Leen at the bridge widening.
Countryside Agency	Letter of 10/04/06	No specific comments as RRM scheme is in urban area, but support proposals for cyclist and pedestrian facilities.
English Heritage	Letter of 04/04/06	Satisfied that the RRM proposals will have no impact on registered park and garden of Wollaton Hall.

The Statutory Bodies (Natural England in place of English Nature and the Countryside Agency) were contacted in July 2011 with information regarding the reduced scheme as currently proposed for funding.

Responses have been received by all three bodies, summarised below:

Body	Details of Consultation	Comments
Natural England	Letter of 19/08/11	No major wildlife sites and no likely protected species – so no comment.
Environment Agency	Letter of 16/08/11	Generally acceptable subject to limitations on impacts to Day Brook at Hucknall Road.
English Heritage	Letter of 06/09/11	No objection. Satisfied that the RRM proposals will have only very limited impact on registered park and garden of Wollaton Hall.

Other Stakeholders

Following the inclusion of the Ring Road Major Scheme as a concept in the first Local Transport Plan, a range of stakeholders were consulted at an early stage about the difficulties they face and what they felt could be done about these problems. The consultation was carried out through two group workshop sessions with representatives of key stakeholders, including employers located on the Ring Road, and through face-to-face meetings and telephone discussions with other stakeholders. The group meetings included representatives from Boots, the Highways Agency, Nottingham City Transport, QMC and City Hospitals, the Government Offices and University of Nottingham.

The stakeholders expressed the view that there were significant problems on the Ring Road, the most important of these being problems associated with congestion and with poor alternatives to the car along the route. There was also considerable support for developing orbital public transport services along the Ring Road linked to improved interchange opportunities. The context of such improvements within a wider transport strategy for the area was recognised and supported.

The Highways Agency and the bus operators in particular were supportive of the scheme objectives. The Highways Agency welcomed the introduction of junction capacity improvements to safeguard network operation and the bus operators recognised and supported the concept of providing good quality infrastructure to assist the delivery of a transport system that is reliable, frequent and safe to use.

A number of employers expressed concerns that current levels of congestion, poor public transport provision and pressure on parking were having a negative impact on recruitment and retention.

Discussions with Boots with respect to the recently designated Local Enterprise Zone have identified highway constraints as a key barrier and opportunities to reduce congestion and improve access via the Ring Road are being actively sought.

5.2 Letters of support

Please append any letters of support explaining strategic importance of scheme especially from the Local Enterprise Partnership and business groups.
These should detail, where possible, the particular outcomes they believe the scheme will deliver. Where a LEP includes more than one scheme it will be important that they differentiate between schemes, and prioritise if possible.

A letter of support from the Local Enterprise Partnership (D2N2) has been forwarded to the Right Honourable Phillip Hammond MP, Secretary of State for Transport. This is attached as an annex.

Letter of support has been received from the Nottingham University Hospital Trust (awaited). This is attached as an annex.

An e-mail from Federation of Small Businesses has been received outlining their support for the proposals. This is attached as an annex.

5.3 Opposition

Please describe any significant opposition to the proposed scheme, the reasons for this opposition and how you are dealing with their concerns?

Please describe any mitigation measures you have included in your plans in response to these concerns.

There has been no significant opposition to the scheme in its original form or in the currently proposed reduced scope proposals. From the latest round of consultation the only opposition appeared to be related to the potential provision of parking bays within the verges in some areas along the Ring Road to assist in keeping the footways and cycleways free of parked vehicles. As a result, these would only be implemented where locally supported.

However, these are very minor issues which can be resolved at the detailed consultation stage, and would not have any effect on the modelling of the scheme undertaken for appraisal purposes. They are relatively low cost so have no significant impact on the BCR.

SECTION 6: ADDITIONAL INFORMATION		
6.1 Please add any additional information that is relevant to your Best and Final Funding Bid that is not covered elsewhere in the form.		
6.2 Please provide details of any other information that has been submitted to the Department since January 2011 that forms part of your submission *(This should include name of the document and date of submission.)*		
Document Title	**Date Submitted**	**Location on Promoter Website**

Notes:

BAFB Form and Link to the 5 Case Model

The following section provided to bidders to detail which elements of the form relate to the 5 cases used in decision making.

Case	Elements of the BAFB Form
Strategic Case	1.1, 1.2, 1.3, 1.5, 2.1,2.2, 2.4, 2.5, 3.1, 3.2, 5.1, 5.2, 5.3
Financial Case	1.4, 2.2, 2.3, 2.4, Section 4
Economic Case	3.2 (and Appendices)
Management Case	3.3, 3.5, 3.6, 3.7, 3.8, 5.1, 5.3
Commercial Case	3.4, 3.5,3.7,3.8