

Funding for Local Transport: Safer Roads Fund



Department
for Transport

Application Form

The level of information provided should be proportionate to the size and complexity of the scheme proposed. As a guide, we would suggest around 10 to 15 pages including annexes would be appropriate.

A separate application form should be completed for each scheme.

Applicant Information

Local authority name(s): Durham County Council

Bid Manager Name and position: Dave Wafer, Strategic Traffic Manager

Contact telephone number: 03000 263 577

Email address:

Postal address: Strategic Traffic, 4th Floor, County Hall, Dryburn Road, Framwellgate Moor, Durham, DH1 5UL

When authorities submit a bid for funding to the Department for Transport, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department for Transport. The Department for Transport reserves the right to deem the business case as non-compliant if this is not adhered to.

Please specify the web link where this bid will be published:

www.durham.gov.uk/roadfundingbids

SECTION A - Scheme description and funding profile

A1. Scheme name: A67 (A66 Bowes – Barnard Castle) Road Safety Improvements

A2. Headline description:

Please enter a brief description of the proposed scheme (in no more than 100 words)

The following bid has been formulated for the A67 between Bowes and Barnard Castle, which has been identified by the Road Safety Foundation as being a high risk road.

Following a rigorous risk based analysis the following measures are proposed to reduce the likelihood of further accidents occurring;

- Speed management measures – gateway features on the approaches to Barnard Castle and a 20 mph zone on the A67 within the town centre.
- Pedestrian movements – new and improved pedestrian crossing points in Barnard Castle.
- Carriageway delineation

The range of road safety improvements are proposed to be delivered from October 2017 with completion in June 2018. With an estimate of £528,000 the following proposal will demonstrate how this represents a worthwhile investment in road safety.

A3. Geographical area:

Please provide a short description of area covered by the bid (in no more than 50 words)

The western limit is at a grade-separated junction with the A66 (Bowes bypass), and follows a northern fork to Barnard Castle, with the eastern limits being the A688 junction. The A67 link is rural in nature up to Barnard Castle and has primary status.

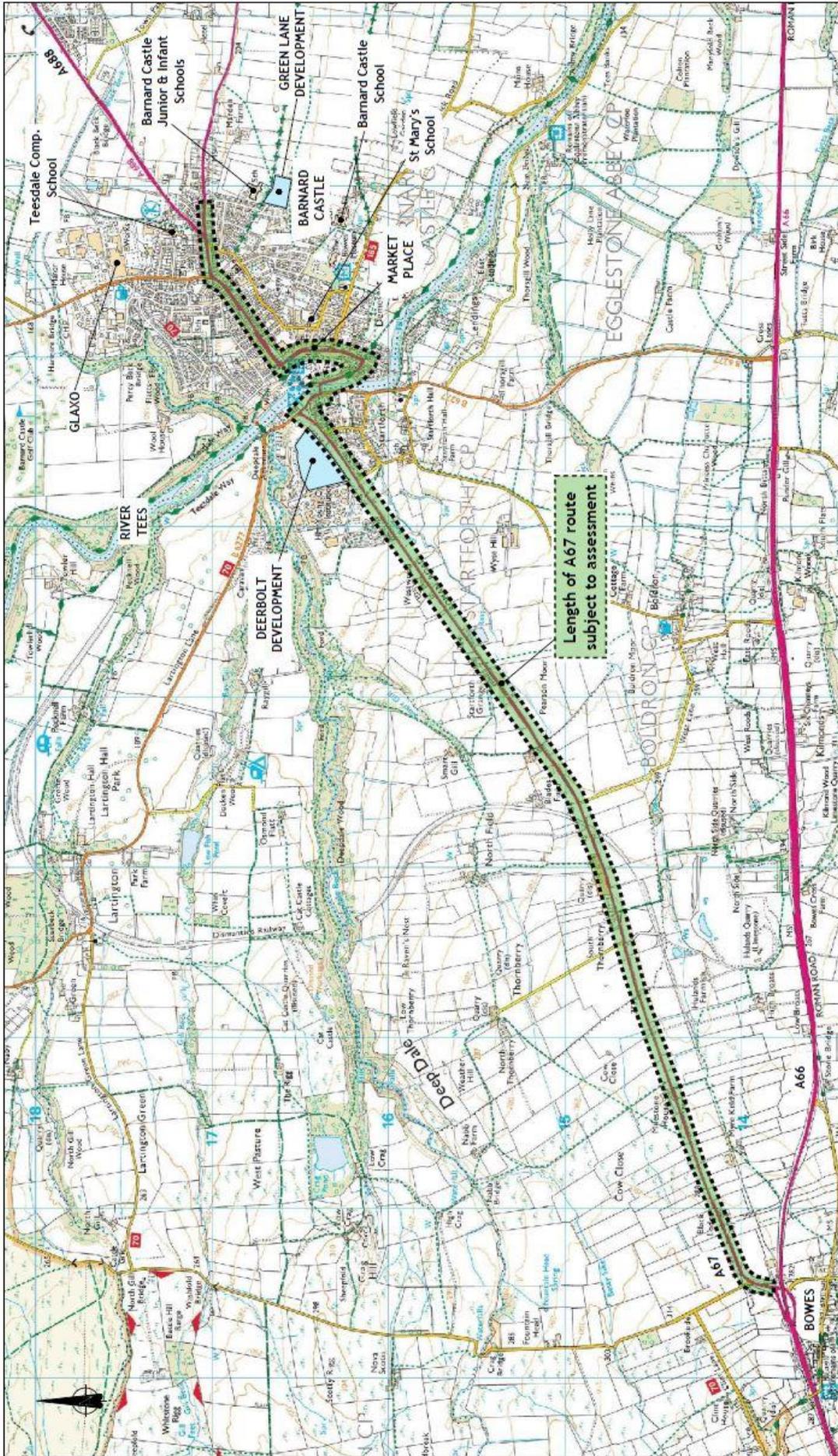
Length of eligible road section: 7.9km

OS Grid Reference: NZ 03142 15464

Postcode: DL12 9RB

The geographical location, including local features, is shown in **Figure 1**. Deerbolt and Green Lane are committed housing developments of 160 and 75 dwellings respectively.

Figure 1: A67 (A66 Bowes – Barnard Castle) Road Safety Improvements



SRF 2017	
Drawing	
A67 BARNARD CASTLE TO BOWES	
SRF 2017	Project/Drawing No.
1:5000 @ A4	SRF-01
	
Corporate Director Regeneration and Local Services Strategic Traffic Management County Hall, Durham DH1 5UQ	

A4. Equality Analysis

Has any Equality Analysis been undertaken in line with the Equality Duty?

Equality Impact Assessment attached (**Appendix G**).

SECTION B – The Business Case

B1. The Scheme – Summary/History (Maximum 200 words)

Please outline what the scheme is trying to achieve

The A67 (Bowes to Barnard Castle) has been identified as a high risk A-road, following analysis of injury collisions by the Road Safety Foundation, with three serious casualties identified between 2012-14. This is consistent with the accident record over the past twenty years, with eighteen serious injury accidents recorded. A fatality occurred in 2015, with another recorded in the past twenty years. Whilst remedial measures were implemented following the fatalities, it again highlights the link as being high risk, with safety intervention measures required.

The measures proposed are low cost measures, which offer safety benefits as standalone elements, but work in combination to deliver high benefits. Proposed improvements fall under the three broad headings of speed management, vulnerable road user and carriageway delineation improvements.

The impacts (benefits) which the proposals will deliver include:

- Reduced number of vehicular accidents and casualties occurring;
- Reduced severity of casualty types;
- Reduced number of accidents involving vulnerable road users such as pedestrians and cyclists;
- Strong economic return over the life of the investment;
- Improved fuel consumption, lower greenhouse gas emissions and less traffic noise.

B2. The Strategic Case (Maximum 350 words)

This section should set out the rationale for making the investment and evidence of the existing safety problems.

Supporting evidence may be provided in annexes – if clearly referenced in the strategic case.

This may be used to assist in judging the strategic case arguments but is unlikely to be reviewed in detail or assessed in its own right. So you should not rely on material included only in annexes being assessed.

What and where are the current road safety problems to be addressed by your scheme?

What road safety options have been considered and why do the proposed ones provide the best solution, particularly in terms of meeting the objective of reducing fatal and serious injury collisions? What is the impact and the expected road safety benefits / outcomes of the scheme? If possible, provide information on the likely KSI reductions as a result of the scheme.

Accident reports are attached, which highlight the location and causation factors of the accidents between 2011 and 2016.

- June 2012 (serious) – A67 Bowes Road, Barnard Castle – collision of vehicles travelling in opposite directions. A vehicle witnessed over taking several vehicles, possibly impaired by alcohol.
- February 2013 (serious) – A67 Galgate – a child pedestrian has been serious injured by running between parked cars into the A67 carriageway into the path of an oncoming vehicle.
- April 2014 (serious) - A66 Galgate/John Street junction, Barnard Castle – a vehicle has exited John Street and collided with a cyclist.
- May 2015 (fatality) - A67 Northfield House, Bowes Road, Barnard Castle – a motorcyclist left the carriageway and collided with a wall. *A surface treatment was carried out following the accident.*

Analysis of accident patterns for a full 20 year period has identified consistency related to accidents numbers, casualty types and highway users affected. The measures proposed include speed management, non-motorized road user and carriageway delineation improvements. The engineering proposals will provide additionality along the corridor to achieve the scheme benefits, outside of normal maintenance measures. Funding for a corridor treatment is not available from local funding sources, and has not been previously. Without the DfT funding being secured, only localised improvements at accident sites may be available, considered in priority order along with other accident sites in County Durham. The attached plan (**Appendix L**) identifies the location of the proposals.

On the rural section, a series of side road give-way lines and signs, edge of carriageway markings and advisory markings and signs (on approach to the railway bridge) are proposed. Benefits of the proposals include:

- Delineation improvements proven to reduce head-on and run-off road crashes;
- Help drivers to maintain a safe and consistent lateral vehicle position within lanes;
- Reduction in nighttime and low-visibility crashes on a rural section;
- Reduce side road accidents, with greater warning of movements onto the derestricted A67.

On the approach to Barnard Castle adjacent to new housing developments, gateway treatments are proposed indicating the transition from the derestricted rural section to the 40mph limit and then the 30mph limit. The gateway treatments to include large speed limit signs, carriageway markings, traffic islands and landscaping to indicate that a threshold is being crossed. Benefits of the proposals include:

- Reduced speeds reducing the likelihood of accidents occurring;
- Lower speeds reducing the severity of accidents and casualties;
- Improves safety for vulnerable road users such as pedestrians and cyclists, with new housing developments built on the edge of the town;
- Lower greenhouse gas emissions and less traffic noise associated with reduced speeds.

Barnard Castle is the district centre for the local area and Teesdale, offering a number of services for both the local population and tourists. Therefore there is a combination of highway users in the town centre, including the A67 through route, movements to and

from parking bays/ side roads and a high number of pedestrians. The measures proposed are designed to create a safer highway environment considering the mix of users:

- A new 20mph speed limit through the town centre;
- New and upgraded pedestrian refuges at desire lines;
- Carriageway delineation in the form of lining and signing;
- Anti skid treatment on the approach on signalised crossing points;
- Detection at the County Bridge signals for cyclists and equestrians.

Benefits of the proposals include:

- Reduced speeds reducing the likelihood of accidents occurring;
- Lower speeds reducing the severity of accidents and casualties;
- Improves safety for vulnerable road users such as pedestrians, cyclists and equestrians;
- Help drivers to maintain a safe and consistent lateral vehicle position within lanes.
- Anti skid to prevent both rear-end and run-off road crashes, especially in wet weather.
- Lower greenhouse gas emissions and traffic noise associated with reduced speeds.

The IRAP road safety toolkit has been reviewed related to the effectiveness of the proposals and it is estimated that a combination of measures will reduce accidents by a minimum of 40%, meaning eight serious casualties are avoided in a twenty year period.

Both a long list and short list of measures were considered presuming a bid would be successful, before the proposals were favoured. The following were discounted for the following reasons:

- Traffic calming – likely negative feedback from stakeholders including bus operators, emergency services and cycle groups. Such proposals also would have a high cost, with longer design and construction periods.
- Safety barriers (edge and centre of carriageway) – geometric constraints such as trees and building lines mean they are impractical. They may also pose a hazard to motorcyclists along the route. Implementation and maintenance costs would also be high.
- Lane widening to reduce head on collisions and off carriageway crashes – geometric constraints again would mean likely to be impractical. Widening would also be costly, with private land required. Increasing lane widths may also lead to the scenario of them being used as two lanes. Widening may also lead to increased speeds.
- Road surface improvements – improvements such as increasing the polished stone value has previously been undertaken on localised sections. Opportunities to improve the condition further would be reviewed as part of scheduled maintenance works.

The delivery of the engineering measures would be supported by publicity. A communications strategy would be developed, with messages delivered via the local Area Action Partnership, local Members and a designated website. This would be in addition to normal road safety education including speed, drink/drug driving, seat belts and distraction.

B3. The Financial Case – Project Costs

Before preparing a scheme proposal for submission, bid promoters should ensure they understand the financial implications of developing the scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Department for Transport's maximum contribution.

Please complete the following tables. **Figures should be entered in £000s** (i.e. £10,000 = 10).

Table A: Funding profile (Nominal terms) – reference Appendix A

£000s	2017-18	2018-19	2019-20	2020-21	Total
DfT Funding Sought	331	197			528
LA Contribution					
Other Third Party Funding					

Table B: Spend Profile – reference Appendix A

£000s	17/18 Q2	17/18 Q3	17/18 Q4	18/19 Q1	18/19 Q2	Total
Spend Profile	9	144	178	166	31	528

A full itemised cost breakdown of the measures is shown in **Appendix A**. However a summary of costs per intervention type is shown below.

20mph zone - £30k
Non-motorised user improvements - £60k
Engineering related to parking management - £20k
Road markings - £69k
Signing - £34k
Speed Limit Gateway - £64k
Street Lighting - £6k
Traffic Signals - £45k
Preliminaries – 10%
Inflation Factor – 2%
Fees – 10%
Quantified Risk Appraisal - £55k
Optimism Bias – 15%

Notes:

(1) Department for Transport funding will not be provided beyond 2020/21 financial year.

B4. The Financial Case – Local Contribution / Third Party Funding

Please provide information on the following points (where applicable):

- a) *The non-DfT contribution may include funding from organisations other than the scheme promoter. Please provide details of all non-DfT funding contributions to the scheme costs. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available.*

No match funding. However Durham County Council (DCC) plans to review opportunities to roll out 20mph zones at housing estates and schools, adjacent to the A67. This will provide geographical consistency with the 20mph zone to be implemented on the A67, proposed to be funded with Safer Roads Funding. This is still to be confirmed and would be fully funded by DCC, and is not part of the economic appraisal for accident/casualty savings on the A67.

B5. The Financial Case – Affordability and Financial Risk (maximum 300 words)

This section should provide a narrative setting out how you will mitigate any financial risks associated with the scheme.

Please provide evidence on the following points (where applicable):

- a) *What risk allowance has been applied to the project cost? - reference **Appendix B***

Consistent with the current development stage of detailed design, a Quantified Risk Appraisal (QRA) has been undertaken with a monetary value of £55,125, producing an adjusted cost estimate considering identified risks. The QRA is attached and follows a four stage approach:

1) Risk Identification; 2) Analysis of the Impacts of Risk; 3) Analysis of the Likelihood of the Impacts of Risk; and 4) Deriving the overall distribution and expected value of Risk for the scheme.

Also consistent with TAG Unit A1.2, an optimism bias level of 15% has been applied, taking into account the risk of any overly optimistic assumptions about design and construction parameters. This equates to a value of £68,871. Three steps have been followed to adjust the investment costs.

Step 1: Determine the nature of the project – Fixed Link

Step 2: Identify the stage of scheme development – Conditional Approval

Step 3: Apply the recommended uplift factors to the risk adjusted transport cost estimate – 15% (Roads)

As a project develops, the cost estimate will be refined based on better quality data, as specific risks become better understood, quantified and valued. The QRA and Optimism Bias levels will be reviewed throughout the lifetime of the project.

b) *How will cost overruns be dealt with?*

Any cost overruns will be fully met by Durham County Council.

c) *What are the main risks to project delivery timescales and what impact this will have on cost? - reference **Appendix B***

A QRA workshop was held, with risks to delivery timescales identified

The risk of utility companies not mobilizing to programme has been considered, with an amount included within the QRA related to extra construction inflation. Appropriate time allowance has been built in the programme for standard mobilization.

Unexpected utilities being encountered has been considered, although again an inflation amount has been included within the QRA. GPR surveys and trial holes have also been undertaken as part of the design process.

Barnard Castle town centre is also a conservation area, with the construction programme needing to consider this. An appropriate construction phase plan will be developed consider any specific requirements, such as extra deliveries, to minimize materials being stored on site. An appropriate amount has been included within the QRA.

The majority works are considered standard engineering measures within a rural area, so delays in terms of design and construction or network clashes are considered unlikely.

The only statutory processes required related to the elements of the project are Traffic Regulation Orders (TROs). The risk of TRO objections delaying the project is considered unlikely. Road safety improvements are supported by the Police, Members and the Public. The supporting letter from Durham Constabulary is attached.

B6. The Economic Case – Value for Money

*If available, promoters should provide an estimate of the **Benefit Cost Ratio (BCR)** of the scheme (particularly for schemes costing more than £100,000)*

The methodology proposed has been discussed with members from the Road Safety Foundation, to produce a relevant BCR. The figures are highlighted within the attached appendices.

Present Values of Costs (PVC) – Reference Appendix C

- Investment costs discounted back to 2010 (3.5% discounted p.a.), including whole project costs, including fees, QRA and optimism bias.
- Maintenance costs (up to 2037) using 3.5% p.a. increase from 2010. The life spans of each individual measure have been referenced, consistent with maintenance periods typical for such measures in this geographical area.

Present Value of Benefits (PVB) – Reference Appendix D

- Accident casualty statistics have been collated for the period 2012-2014, with 3 serious casualties recorded. In a twenty year period, twenty serious accident casualties are projected, considering the accident rate is consistent.
- The IRAP road safety toolkit has been reviewed, including the effectiveness percentages of the proposed measures. A value of 40% is considered representative given the type of measures and that a combination will be applied.
- An effectiveness value of 40% has then been applied; with eight serious casualties prevented. Monetary values (discounted back to 2010) are then applied to the number of casualties prevented. This reflects WebTag's average value of the prevention of a serious casualty.

PVC

Investment costs - (discounted back to 2010) - **£398,648.62**

Maintenance costs – (discounted back to 2010) - **£247,773.31**

PVB

8 serious casualties prevented - **£1,398,784**

Net Present Value (NPV) – £752,326.10

Benefit Cost Ratio (BCR) – 2.16

Consistent with Webtag appraisal guidance, this equates to a High value for money scheme.

The economic case would be further improved if the following quantitative impacts were included within the appraisal:

- prevention of slight casualties;
- air quality improvements and noise reduction associated with lessened speeds.

Improvements on the A67, including a safer environment for pedestrians within the town centre, will help support the local economy.

B7. The Commercial Case (Maximum 300 words)

This section should set out the procurement strategy that will be used to select a contractor and set out the timescales involved in the procurement process to show that delivery can proceed quickly.

What is the preferred procurement route for the scheme? For example, if it is proposed to use existing framework agreements or contracts, the contract must be appropriate in terms of scale and scope.

**It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department for Transport with confirmation of this, if required.*

An assurance that a strategy is in place that is legally compliant is likely to achieve the best value for money outcomes is required from your Section 151 Officer below.

The delivery of project will follow Durham County Council's highways procurement strategy. This is based on a number of strategic outcomes:

- Deliver the scheme within the available funding
- Deliver the scheme to programme
- Ensure stakeholders' acceptance and support
- Ensure best value is delivered
- Ensure that appropriate quality is delivered

The delivery of the outcomes will be achieved by engaging the works contractor at an early-stage in the planning and delivery of the scheme and mobilising appropriate strengths by:

- Using the contractor's experience and input in reviewing the construction estimates, which has been undertaken.
- Obtaining the contractor's experience and input to the design and construction programme to ensure the programme is robust and achievable, which has been undertaken.
- Using and building upon the partners' in-house knowledge and experience from engaging through consultation with all stakeholders.
- Engaging the contractor in the final detailed design process to improve buildability and ensure value for money

Durham County Council has delivered approximately £50million of Highway and Street Lighting projects. DCC employ 200 operational and 40 design employees and utilise a mixed economy employing contractors via procured frameworks to obtain best value for the authority. When required, external resources can be utilised to ensure delivery timescales are met.

Durham County Council has single supplier contracts for the next three years for traffic management. Specialist surfacing contracts and road marking contracts are in place for the next two years. Additionally, there are three highway civils framework contracts ranging in value from <£50k, £50k-£250k and £250k+ with 5 contractors in each lot, and a street lighting framework with 3 contractors. Contracts are also in place for the purchase of materials with local quarries, builder's merchants and street lighting columns. The authority has an internal resource of Highway and Street Lighting Designers and has the ability to obtain further assistance from surrounding local authorities or procure via BLOOM Consultancy. Traffic signal control equipment will be procured through the County Council's existing contract with the Regional Traffic Signals Group.

Having established framework providers will minimise any risk in delivery of the project. The established frameworks allow tenders to be run and appointments made within 3-4 weeks, offering shorter timescales than if 'one off' tenders were arranged.

The established framework contractors were selected originally considering both pricing and quality aspects. Individual tender winners are determined from the frameworks based on pricing, ensuring best value for money is established.

A State Aid statement is attached (**Appendix E**).

B8. Management Case – Delivery (Maximum 300 words)

Deliverability is one of the essential criteria and, as such, any bid should set out if any statutory procedures are needed before it can be delivered.

- a) *An outline project plan (typically in Gantt chart form) with milestones should be included as an annex, covering the period from submission of the bid to scheme completion. The definition of the key milestones should be clear and explained. The critical path should be identifiable and any contingency periods, key dependencies (internal or external) should be explained. Successful schemes will be subject to quarterly monitoring to assess progress against milestones and to track spend.*

Has a project plan been appended to your bid?

A gantt chart (**Appendix F**) is attached detailing the delivery of the project, from bid submission through to scheme completion. The construction works are proposed to commence in October 2017 and be complete by May 2018.

The measures are broken down into discrete package types, which would allow consistent design and construction resources.

The only statutory processes required are TROs, with appropriate timescales built in.

Utility apparatus diversions are required for the gateway treatments, with appropriate mobilisation timescales built in.

Please note the gantt chart assumes a decision is made by the DfT by the end of June 2017. Any delays would impact relatively on the delivery programme and spend profile.

- b) *A statement of intent to deliver the scheme within this programme from a senior political representative and/or senior local authority official.*

A statement of intent to deliver is attached from the Director of Regeneration and Local Services (**Appendix H**) and Portfolio for Economic Regeneration (**Appendix I**).

B9. Management Case – Governance (maximum 300 words)

Please name who is responsible for delivering the scheme, the roles (Project Manager, SRO etc.) and set out the responsibilities of those involved and how key decisions are/will be made. An organogram may be useful here. This may be attached as an Annex.

Delivery of the scheme will follow the Council's approval process for managing capital portfolio, programmes and projects which ensures quality delivery and transparency. This is shown in the organogram (**Figure 2**).

Member Officer Working Group – consists of elected Members and Senior Officers and is responsible for approving the Durham County Council capital projects programme.

Capital Portfolio Board – This Portfolio Board is made up 7 Programmes, (1 being Transport) and has overall direction and management of the capital portfolio. It is chaired by the Director of REAL and supported by Officers who are responsible for undertaking assurance reviews in line with the former Office of Government Commerce (OGC) Gateway Reviews. Where appropriate, high level issues will be raised here from the REAL Management Team.

Regeneration and Local Services (REAL) Management Team - This consists of four Heads of Service, including the SRO (Head of Transport) and the Director of REAL. REAL MT is responsible for the strategic management of the REAL's priority projects, sets tolerances for the Project Board and makes final decisions before Cabinet. Management Team meets fortnightly and receives reports from the Project Board.

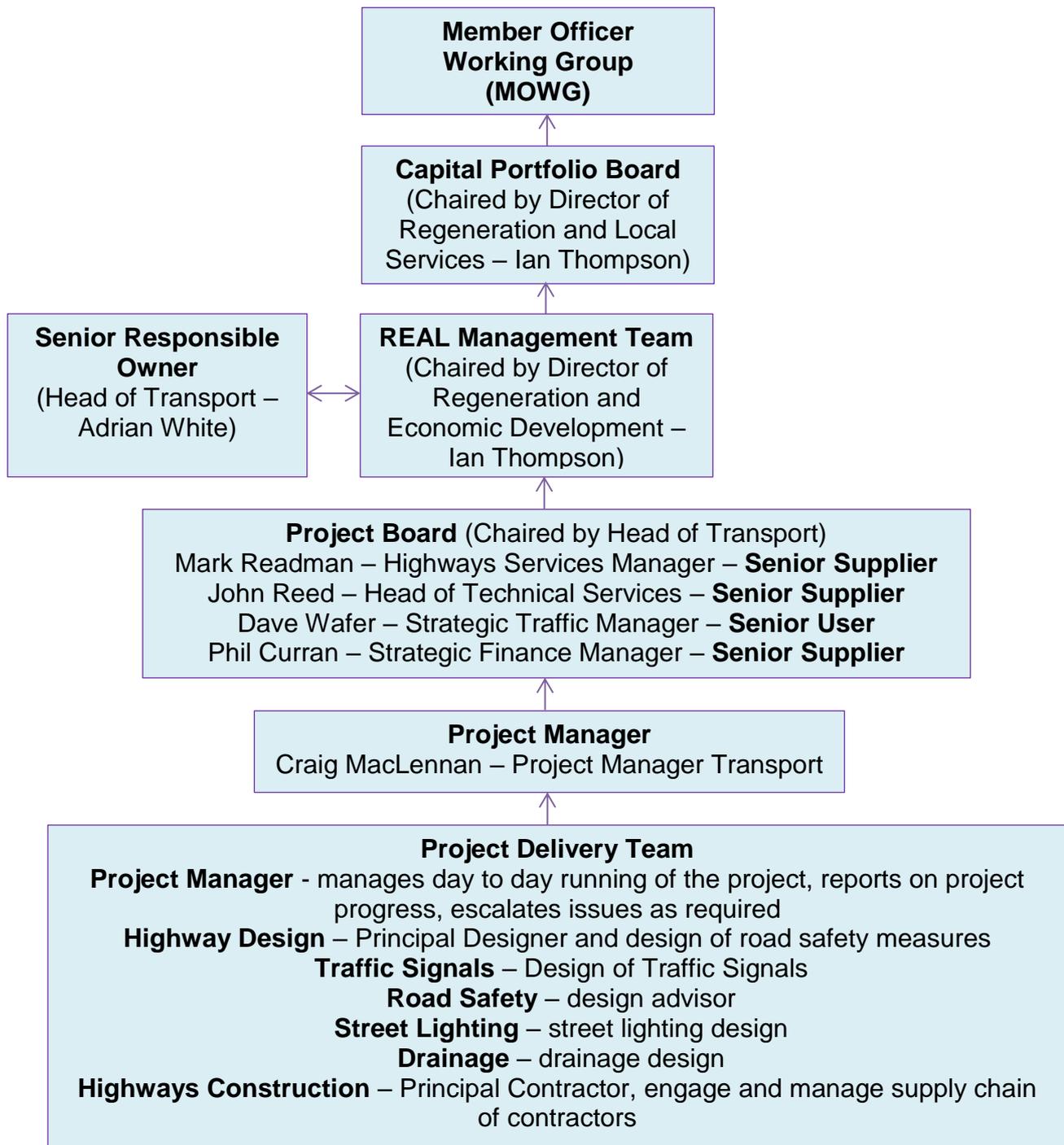
Senior Responsible Owner (Adrian White) - The SRO is the Head of Transport. He will have overall responsibility for the projects objectives and benefits. The SRO was appointed by the Director of Regeneration of Local Services (Ian Thompson). The SRO has appointed the Project Manager. The SRO as the client will be responsible for the appointment of a Principal Designer and Principal Contractor.

Project Board – This board manages the development and delivery of the scheme. It makes decisions (within tolerance) and makes recommendations for the REAL Management Team. The Board meets monthly and receives highlight and exception reports from the Project Manager. The membership is made up from Officers across REAL. The Senior Suppliers represent the interests of those designing, procuring and constructing the programme's products. The Senior User is responsible for specifying the needs of those who will use the programme's products, for user liaison with the programme management team, and for monitoring that the solution will meet those needs within the constraints of the Business Case in terms of functionality and ease of use.

Project Manager (Craig MacLennan – Project Manager Transport) – Has day to day responsibility for the project and responsible for delivering the project and achieving the objectives and benefits on behalf of the Project Sponsor. The Project Manager will escalate issues/approvals as required. The Project Manager works closely with Project Team, ensuring design assurance requirements are followed. The Project Manager will also be responsible for the monitoring and evaluation aspects.

Project Team – The project team will consist of Officers across Regeneration and Local Services (Traffic, Road Safety, Traffic Signals, Highway Design and Construction) and are responsible for carrying out the tasks as delegated by the Project Manager. The project team will meet weekly and produce monthly highlight reports for the Transport Board in the first instance, and exception reports where required.

Figure 2: Project Organogram



B10. Management Case – Risk Management

Risk management is an important control for all projects but this should be commensurate with cost. For projects where the costs exceed £100,000, a risk register covering the top 5 (maximum) specific risks to this scheme should be attached as an annex.

Please ensure that in the risk register cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.



The risk management approach shown in the cycle diagram will be used to identify, cost and manage project risks for the scheme and wider project. The methodology follows a recurring process to be implemented across the project lifecycle. It aligns with OGC 'Management of Risk' (MoR) best practice guidance to benefit reliable and resilient cost estimation that delivers real Value for Money savings.

The following describes DCC's risk management methodology, which will identify and manage project risks for the project.

Identification - as part of preparing this submission, risks associated with the proposals have been identified. These risks are summarised in the attached Quantified Risk Appraisal (**Appendix B**). This register contains scheme specific risks to delivery. The register will be a 'live' document and maintained proactively and owned by the Project Manager.

Analysis - the register will enable the effective management and communication of potential conflicts, ensuring appropriate mitigation is incorporated into the subsequent design process. The register identifies the impact of the risk if it was to occur, and also the likelihood.

Costing – The cost estimation for each risk considers minimum, medium and maximum values, which outputs a P50 value for each risk.

Management - Actions to mitigate risk will be managed and monitored by the Project Manager at Interim Reviews. Team members best placed to manage the identified risks will be assigned ownership of specific actions, with progress reported on a regular basis to the Project Manager. Risk workshops will be held to support the development of mitigation measures designed to lower the overall scheme risk.

Review – The risk register will be reviewed and updated on a regular basis. Where the severity of a particular risk impact changes, the cost and programme implications will be revisited and future actions agreed in accordance with appropriate change management procedures. Mitigation performance and residual risk would be also subject to review at the end of the project and inform the Lesson Learned process.

SECTION C – Monitoring, Evaluation and Benefits Realisation

C1. Benefits Realisation (maximum 250 words)

Please provide details on the profile of benefits, and of baseline benefits and benefit ownership and explain how your scheme design will lead to the outputs/outcomes. This could be achieved by logic maps, text descriptions, etc. Information should focus on road safety benefits.

This should be proportionate to the cost of the proposed scheme.

The Benefits Realisation Process for the project will consist of four steps: Plan; Measure; Realise; Analyse and Report. Each of these is described below.

Plan the benefits

This stage in the process involves the identification, description and definition of the expected benefits. For the A67 road safety improvements scheme, a logic mapping process has been used to identify and describe the expected benefits, as below. The logic map (**Figure 3**) shows the outputs and outcomes expected from the scheme and then identifies the impacts those outputs and outcomes are expected to cause. It is those impacts that constitute the planned benefits for the scheme. Based on the logic mapping, the benefits (impacts) of the scheme are as follows:

- Reduced number of vehicular accidents and casualties occurring;
- Reduced severity of casualty types;
- Reduced number of accidents involving vulnerable road users such as pedestrians and cyclists;
- strong economic return of over the economic life of the investment;
- improved fuel consumption, lower greenhouse gas emissions and less traffic noise.

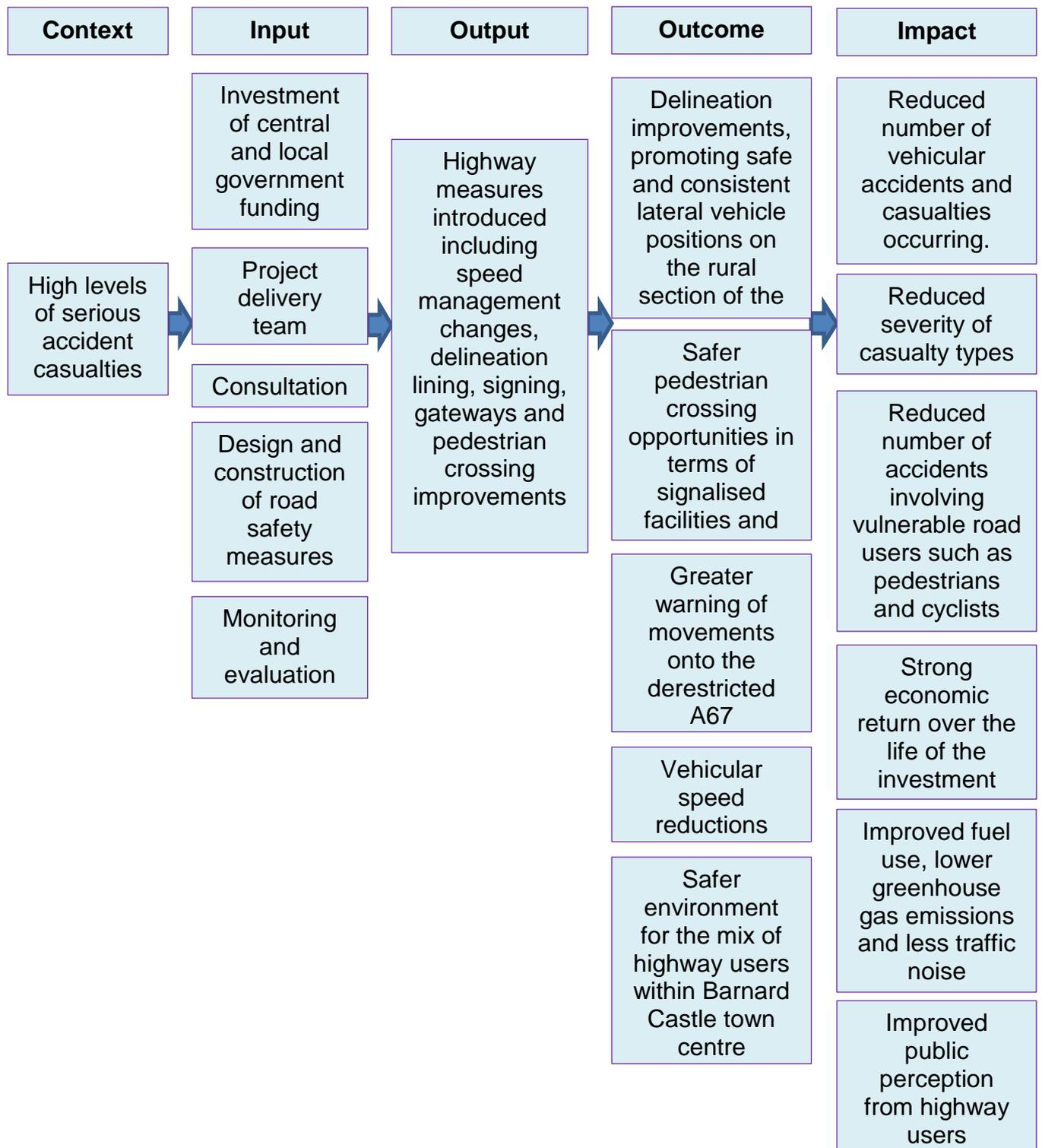
Measure the benefits

The means of measuring the benefits is in the Monitoring and Evaluation section below. Metrics for measuring the outcomes of the scheme and the extent to which the objectives are achieved are described. The information proposed to be collected for the Monitoring and Evaluation Plan relating to the delivered scheme and the achievement of objectives will also enable an assessment of the extent to which the benefits are being realised.

Realise the benefits

Due to the nature of the proposed improvements, it is inevitable that the realisation of the benefits will take place over a long period of time. The benefits will start to be realised on completion of the scheme, but the full realisation will take place over the lifetime of the scheme. The scheme is intended to achieve a set of objectives and as those objectives are achieved through the operation of the completed scheme, the expected benefits will be realised. The Monitoring and Evaluation reports will be used to demonstrate how the benefits are being realised. The Final Report from the monitoring and evaluation is based on the first five years' of operation. This will give a valuable indication of the impact of the scheme and whether benefits are being realised.

Figure 3: Benefits Realisation Logic Map



Analysing and reporting the benefits

The scheme benefits will be analysed and reported as part of the Monitoring and Evaluation process. The Monitoring and Evaluation Final reports will include an assessment of the extent to which the scheme is achieving its objectives. Recognising the long term nature of the scheme benefits, this assessment will also be used to provide an indication of how benefits are realised over the first five years’ of operation of the scheme.

C2. Monitoring and Evaluation (maximum 250 words)

Evaluation is an essential part of scheme development and should be considered and built into the planning of a scheme from the earliest stages. Periodic monitoring and evaluating the outcomes and impacts of schemes, in addition to evaluation findings towards the end, is also important to show if a scheme has been successful.

Where possible, bidders should describe any baseline info (or other counterfactual) they will use for the evaluation.

Please set out how you plan to measure and report on the road safety benefits identified in Section C1, alongside any other outcomes and impacts of the scheme. Scheme promoters are expected to contribute to platforms for sharing and disseminating the lessons learned, as directed by the Department for Transport.

Scheme delivery, including impacts, construction and budget management, are to be evaluated, consistent with the requirements for the DfT's 'Standard Monitoring' tier of evaluation.

Reporting

Both the benefit realisation and monitoring and evaluation will be an ongoing process throughout the implementation of the scheme and will continue once the measures have been successfully delivered. The below forms a reporting schedule:

Monitoring and Evaluation baseline (2017) – the collection of pre-opening baseline data associated with the scheme to support a post opening evaluation.

One year after study (Post Implementation Review 2019) – the production of a one year after report that sets out a comparison of the forecast and outturn impacts of the scheme against each of the key benefits.

Five years after study (Final Review 2024) – expands of the findings of the one year report and sets out a comparison of the forecast and outturn impacts of the scheme against each key benefit.

The reports will be made available online on Durham County Council's website and made available to appropriate audiences.

Data Requirements

The data requirements within the Benefits Realisation and Monitoring and Evaluation Plans are summarised in the table below.

Element	Monitoring Data	Timescale	Responsibility
Speed Reduction	<ul style="list-style-type: none"> - Before and after speed surveys - T-distribution to compare whether any changes in the measured mean speeds in two periods of measurement are statistically significant 	Annually for 5 years after implementation	Durham County Council
Improved public perception	<ul style="list-style-type: none"> - Before and after surveys with residences, local businesses and other stakeholders 	One and five years after scheme completion	Durham County Council
Reduced level accidents	<ul style="list-style-type: none"> - Before and after records of the number and type of vehicular accidents. - Before and after records of the number and type of casualties - Before and after records of non-motorized user accident types. - Statistical test of accident changes related to significance of measures introduced – Chi-Squared Test - Before and after records of adjoining roads to determine that the accidents have not been transferred 	Annually	Durham County Council
Economic evaluation of benefits actually achieved in relation to cost.	<ul style="list-style-type: none"> - Net Present Value - Benefit Cost Ratio 	Annually for 5 years after implementation	Durham County Council
Improved perception from highway users	<ul style="list-style-type: none"> - Surveys with pedestrians in Barnard Castle town centre 	Following completion of the scheme	Durham County Council
Output cost in comparison to estimate	<ul style="list-style-type: none"> - Pre-construction estimate - As built cost 	Following completion of the scheme	Durham County Council
Air Quality	<ul style="list-style-type: none"> - Before and after surveys 	Annually for 5 years after implementation	Durham County Council
Noise	<ul style="list-style-type: none"> - Before and after surveys 	Annually for 5 years after implementation	Durham County Council

Delivery timescales in comparison to programme	- Actual delivery timescales - Original programme	Following completion of the scheme	Durham County Council
Lessons Learned	- Review of risk register and post completion workshop	Following completion of the scheme	Durham County Council

SECTION D: Declarations

D1. Senior Responsible Owner Declaration

As Senior Responsible Owner for [*Adrian White*] I hereby submit this request for approval to DfT on behalf of [*Durham County Council*] and confirm that I have the necessary authority to do so.

I confirm that [*Durham County Council*] will have all the necessary powers in place to ensure the planned timescales in the application can be realised.

Name: Adrian White

Signed:

Position: Head of Transport and Contract Services

D2. Section 151 Officer Declaration

As Section 151 Officer for [*Durham County Council*] I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that [*Durham County Council*]

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- will allocate sufficient staff and other necessary resources to deliver this scheme on time and on budget
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested
- has the necessary governance / assurance arrangements in place
- has identified a procurement strategy that is legally compliant and is likely to achieve the best value for money outcome
- will ensure that a robust and effective stakeholder and communications plan is put in place.

Name: John Hewitt,
Corporate Director of Resources

Signed:

Submission of bids:

An electronic copy only of the bid including any supporting material should be submitted to:

saferroadsfund@dft.gsi.gov.uk

APPENDICES

Appendix A – Cost Estimate and Spend Profile

Appendix B – Quantified Risk Appraisal

Appendix C – Present Value of Costs

Appendix D – Present Value of Benefits

Appendix E – State Aid Assessment

Appendix F – Gantt Chart

Appendix G – Equality Impact Assessment

Appendix H – Intent of Delivery Statement from the Director of REAL

Appendix I - Intent of Delivery Statement from the Portfolio for Economic Regeneration

Appendix J – Supporting Letter from Durham Constabulary

Appendix K – Accident Statistics 2011-2016

Appendix L – Plan of the Project