# 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)*:**

**Barnsley Metropolitan Borough Council (BMBC)**

**Bid Manager Name and position:**

[redacted]

**Contact telephone number:** [redacted]

**Email address:** [redacted]

**Postal address:**

Barnsley Metropolitan Borough Council,
Westgate Plaza One,
Westgate
Barnsley,
S70 9FA

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

http://www.barnsley.gov.uk

## SECTION A - Scheme description and funding profile

**A1. Scheme name:**
**Barnsley MBC Safer Roads Fund Scheme A628 (between the A629 and A616)**

**A2. Headline description:**

Safety Improvements along the A628 in Barnsley have been identified based on iRAP and VIDA assessments carried out as part of worst 50 roads in England and the 2nd round bids to the Road Safety Fund for Highway Authorities.

The proposed scheme incorporates countermeasures suggested by the VIDA software and also includes alternative measures where these are felt to be more appropriate or practicable.

The intention of the scheme is to reduce risk to road users over an extended future lifespan of 20 years.

**A3. Geographical area:**

The A628 falls within the area that Barnsley Metropolitan Borough Council (BMBC) acts as Highway Authority, and passes through the conurbations of Penistone, Thurlstone and Millhouse Green. As shown in Annex A

The map indicates proposed housing development sites included in the draft Local Plan, local schools, bus interchange, train station and Trans Pennine Trail.

Length of eligible road section: **7.1km**

OS Grid Reference:

425792 404274 – Hoylandswaine Roundabout

419871 401434 – Flouch Roundabout

Postcode: **S36 8AF**

**A4. Equality Analysis**

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

**Yes**

# SECTION B – The Business Case

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

The scheme is intended to reduce risk to road users over an extended future lifespan, thus reducing the number of people likely to be killed or seriously injured on the road over the next 20 years.

The Safer Roads Fund focusses on the risk of potential collisions, rather than specifically addressing reported historic injury collisions sites, and this principle has been followed in this submission.

The proposed scheme consists of predominantly conventional road safety engineering interventions. These reference a suggested programme of countermeasures produced by the VIDA software, following an assessment of the road by iRAP engineers. The improvements in the proposed scheme reflect the principles of the VIDA countermeasures and address the specific collision risks identified by the iRAP assessment. The proposed scheme includes alternative measures where these are felt to be more appropriate or practicable, based on local knowledge and assessment by experienced Road Safety Engineers employed by the Highway Authority.

The proposed improvements; include installing additional street lighting, creating a combined cycle/footway, carriageway skid resistance upgrades, shoulder rumble strips, removal of roadside hazards, installation of uncontrolled pedestrian crossings and the use of passively safe traffic signage, central hatching, speed limit gateway features and upgraded vehicle activated signs.

**B2. The Strategic Case** (Maximum 350 words)

This length of the A628 was ranked in the High Risk category of the nation's roads. This was based on reported Killed or Seriously Injured (KSI) collision records, potential road risk rating and traffic volumes during 2012 – 2014. As expected, the collisions are typical for a single carriageway road and include single vehicle loss of control, head on collisions and misjudged overtaking. These were distributed along the route with some small concentrations. The bend at Fulshaw Cross had a cluster of four reported injury collisions in the period. There were also urban types of collisions within the conurbations of Thurlstone and Penistone. The locations of the 2012-14 injury collisions are shown in Annex B with an updated data set for 2015 – Aug 2017 showing the current trend and collision numbers attached in Annex C.

An iRAP assessment was carried out and suggested a series of improvements along the route. These are intended to reduce the risk of future collisions that could occur on the highway infrastructure. These suggestions have been assessed, and form the basis of the current bid proposals. Alternative measures have been included in some areas where these are felt to be more appropriate or practicable, based on local knowledge and assessment by experienced road safety engineers employed by BMBC.

The measures proposed to reduce the future likelihood of collisions include installing additional street lighting, creating a combined cycle/footway, carriageway skid resistance upgrades, shoulder rumble strips, removal of roadside hazards, installation of uncontrolled pedestrian crossings and the use of passively safe traffic signage, central hatching, speed limit gateway features and upgraded vehicle activated signs.

The proposed measures are shown in Annex D. This shows the locations of each specific measure along the route. It shows how these compare to the original suggestions from the VIDA software.

Based on an analysis of the proposed measures using the VIDA software, it is anticipated that a total of 10.2 Fatal and Serious Injuries would be saved over the 20 year analysis period following implementation.

**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)**

| ***£000s*** | ***2017-18*** | ***2018-19*** | ***2019-20*** | ***2020-21*** | ***Total*** |
|---|---|---|---|---|---|
| *DfT Funding Sought* | | *692* | *708* | | *1400* |
| *LA Contribution* | | | | | |
| *Other Third Party Funding* | | | | | |

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

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

BMBC will take on the liability for all future maintenance of the proposed improvements and will be funded from BMBC's future maintenance allocations.

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

The proposed works are predominately a series of conventional road safety engineering measures which BMBC has long experience in delivering. The estimated costs are based on initial assessments and site observations carried out in 2017. Contingency allowances (Optimism Bias) have been made where precise quantity estimates can only be determined following detailed design or commencement of work on site at 15% in accordance with DfT guidance which has been included in the total project cost. The proposed works are all contained within what is legally defined as the highway, with the exception of one small element of the improvement at Fulshaw Cross; in its current form, it is anticipated that securing the land will be straight forward, if not, the scheme will be re-designed to fit within the highway.

A breakdown of costings by individual countermeasure is contained in Annex E and it's supporting Road Safety Impact Tools Excel spreadsheets.

A risk register of the main risks to the overall project is shown in Annex F but the financial implications of these risks are summarized below:

1. Delay in announcement of funding allocation – no direct impact on cost, although any delays could result in the scheme being re-profiled, in terms of time and cost, over the duration of the programme lifespan.

2 Procurement processes (unforeseen shortage of materials or proprietary products) – the majority of elements are standard engineering products obtained from known suppliers, this is unlikely.

3. Lack of capacity to deliver construction or design – delivery will be through experienced in-house staff. If necessary BMBC has existing framework contracts with proven contractors, should additional resources be required to ensure delivery on time.

4. Public, political, or statutory body opposition to elements – no direct impact on cost. It is not anticipated that there will be any political opposition to this scheme. BMBC, as the Highway Authority, has a statutory responsibility to provide safe passage to highway users.

**B6. The Economic Case – Value for Money**

An original assessment of the road by Engineers was followed by VIDA software analysis. This produced a programme of suggested countermeasures, with estimates of the value of prevented collisions and a Benefit Cost Ratio (BCR) over a 20 year analysis period. This has been used by the Local Highways Authority Engineers as a basis for the current bid. The values of savings calculated by VIDA have been used to predict the savings and BCR of each proposed countermeasure in the bid.

We have allowed 18% for detailed design costs and included 15% optimism bias as instructed in DfT guidance.

There are no programmed maintenance works on the route; therefore the project will provide additional benefit over work funded from existing funding streams.

The overall BCR for the proposed scheme is 2.93, a detail of the individual measures is contained in the summary of the economic case spreadsheet contained in Annex E, but key details are below:

| | |
|---|---|
| Scheme Cost | £1,380,953 |
| Scheme Monitoring | £ 19,000 |
| Present value (PV) of cost | £1,405,599 |
| PV of Road Safety Benefit | £4,118,572 |
| | |
| Benefit cost ration (BCR) | 2.93 |

BMBC is aware Highways England is currently investigating highway improvement proposals along the A628 Trunk Road over Woodhead and through the villages of Tintwistle, Hollingworth and Mottram. It has been agreed with the Road Safety Foundation that the impact of these proposals, if implemented, to traffic flows along the scheme length can be modelled using the VIDA software.

**B7. The Commercial Case** (Maximum 300 words)

BMBC's section 151 Officer confirms that a delivery strategy is in place for this scheme that is legally compliant and achieves best value for money outcomes.

The proposed works will be designed, delivered and project managed through established, existing in-house delivery mechanisms. BMBC have extensive experience of delivering funded infrastructure schemes and a centralised procurement function overseeing compliance with public procurement requirements. The scheme will be constructed by BMBC's construction division of the Highways, Engineering and Transportation service. Contract management support provided by the respective Highway Design, Traffic and Street Lighting teams.

Should additional design resources be required, these will be procured through existing framework contracts. BMBC is a member of the Midlands Highways Alliance, which appointed partners through a full procurement exercise, following EU directives, in which tenders were evaluated using both quality and price criteria. This has the advantage of achieving significant savings in tendering and contract supervision costs, maximises the advantages of partnership working and is fully in accord with the principles of best value. Additionally BMBC has a centrally procured labour-only contract to support the in-house delivery teams.

**B8. Management Case – Delivery (Maximum 300 words)**

The proposed works are all contained within what is legally defined as the highway, with the exception of one small element of the improvement at Fulshaw Cross, in its current form it is anticipated that securing the land will be straight forward, if not the scheme will be re-designed to fit within the highway.

BMBC has a strong track record of delivering capital projects on time/within budget, including the part ERDF funded Barnsley Town Centre Urban Centre Infrastructure Scheme and DfT funded Cudworth Bypass, Dodworth Bypass, Shafton Bypass.

The bid aims to deliver a targeted package of engineering measures, focussed on addressing casualty risk ratings along the route. Annex G contains the Gantt chart setting out the critical path for delivering these packages and planned delivery timetables.

In summary, our approach is to deliver the scheme as a discrete series of interlinking work packages (initiation, implementation, monitoring); with implementation delivered as individual but co-ordinated elements which allows for phased design and delivery of the programme to ensure effective/timely delivery. Our delivery approach is based on well-established implementation techniques, which have already proved successful in reducing road casualties in Barnsley.

Key project milestones are outlined in the table below, which also identifies critical dependences/implications that may impact on our proposed work programme. Based on our experience of delivering similar projects the key project dependencies are:

1. Timely commissioning of delivery teams to carry out specific project tasks.

2. Timely completion of detailed design of the different scheme elements to ensure scheduled delivery dates are met.

Effective project management/co-ordination of work will ensure the scheme is delivered on time/budget – and essentially outputs, outcomes annual targets are achieved.

The bid is supported by a BMBC Executive Director for Place and a letter of support is attached Annex H

| Delivery Period | Key Milestone | Key Dependencies/Implications | Date |
|---|---|---|---|
| Q1 | 2018/19 Highways Capital Programme | Timely confirmation of funding from DfT<br>Formal acceptance of Funding | April 2018 |
| Q1 | Pre-intervention (baseline) monitoring | Monitoring requirements agreed with DfT<br>KPIs for monitoring defined | April 2018 |
| Q1 | Commissioning of works | Dependent on timely confirmation of funding from DfT and Programme Board formal acceptance of funding | May 2018 |
| Q1 | Co-ordination of works | Dependent on timely confirmation of funding from DfT and Programme Board formal acceptance of funding | May 2018 |
| Q1-Q2 | Detailed design completion | Construction of elements cannot start/complete until detailed design finalised (design has been broken down into phases to coincide with co-ordination of construction elements) | May/Aug 2019 |
| Q2 2018/19 | Start of construction work | Dependent on completion of first phases of detailed design and co-ordination of works | Aug 2018 |
| Q4 | Completion of construction work | Reduced infrastructure improvements will impact on programme success | January 2020 |
| Q1 2019/20 | End of year progress report | Collate outputs for reporting to Programme Board (and DfT as required) | March 2018<br>March 2019<br>March 2020 |
| Quarterly 2020/21 to 2021/22 and annually thereafter | Post-intervention scheme monitoring | Collate outcomes for reporting to Programme Board and DfT | April 2020 onwards |

**B9. Management Case – Governance (maximum 300 words)**

Learning from our involvement in the delivery of major schemes, we propose to utilise the following established governance mechanisms for the proposed A628 scheme (illustrated in the organogram below).

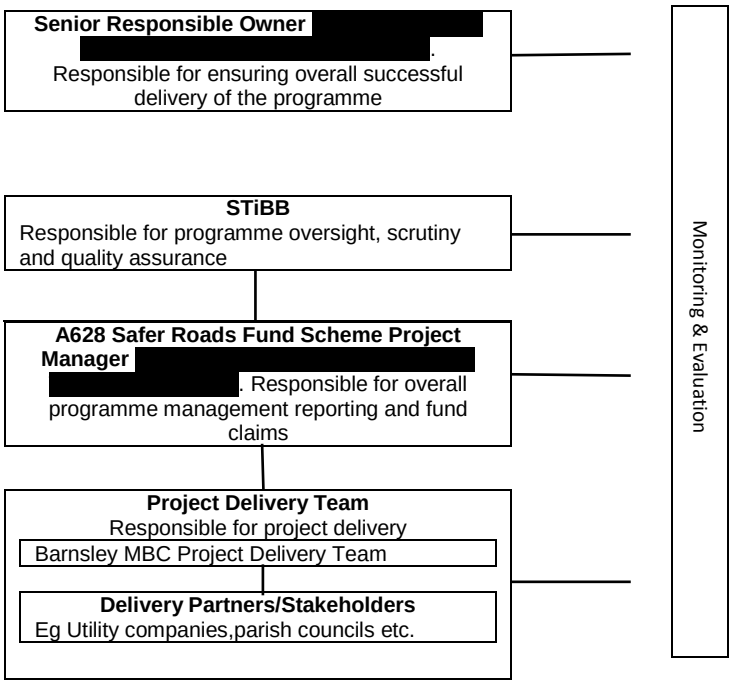
At a strategic level, [redacted] will have overall responsibility for ensuring the scheme's successful delivery. [redacted] has extensive experience and the authority to ensure delivery of the programmes.

The Strategic Transportation in Barnsley Board (STiBB) will oversee the delivery of the scheme. Their remit will be to review and advise on programme delivery through the established mechanisms.

The [redacted], will report progress on the scheme delivery on a quarterly basis to BMBC's STiBB. This governance mechanism is used by BMBC to take forward transportation related schemes**.** The Programme Manager will also ensure that programme stakeholders are kept informed and engaged with respect to the progress and achievements of the scheme.

The core delivery team will comprise of the Programme Manager supported by specialist staff from Barnsley MBC's design/delivery teams, plus specialists from elsewhere when necessary. As Programme Manager, [redacted] will take responsibility for the day to day delivery of the programme. He will co-ordinate and manage the delivery leads/delivery teams for each of the programme elements. [redacted] is well-versed in the requirements of delivering road safety schemes, commissioning works and liaising with a range of external/internal partners.

The Strategic Transportation in Barnsley Board (STiBB) consisting of senior officers, will oversee the delivery of the scheme. Their remit will be to review and advise on programme delivery through the established joint working mechanisms.




The [redacted] will report progress on the scheme delivery on a quarterly basis to STiBB. This governance mechanism is utilised to deliver its Integrated Transport Block allocation. The Project Manager will also ensure that programme stakeholders are kept informed and engaged with respect to the progress and achievements of the scheme.
The core delivery team will compromise of the Project Manager supported by specialist staff from BMBC, design/delivery teams, plus specialists from elsewhere as necessary. As Programme Manager, [redacted] will take responsibility for the day to day delivery of the programme. He will coordinate and manage the delivery leads/delivery teams (both internal and external) for each of the programme elements. [redacted] is well versed in the requirements of delivering road safety schemed, commissioning works and liaising with a range of internal/external partners.

## B10. Management Case – Risk Management

It is confirmed that the risk register is based on P50 values and does not include risk associated with ongoing operational costs.

A risk register showing the main risk and their risk likelihood is shown in Annex F**.** In summary the main risks are:

1. Change in Local Authority administration no longer supporting the scheme – low likelihood/low impact
2. Cost exceeding allocated budget – low likelihood/low impact
3. Delay in delivering projects – low likelihood/low impact
4. Lack of capacity to deliver elements of the programme – low likelihood/low impact
5. Procurement processes causing delay – low likelihood/low impact

## SECTION C – Monitoring, Evaluation and Benefits Realisation

**C1. Benefits Realisation** (maximum 250 words)

An iRAP assessment has been carried out that suggested a programme of improvements to the road. These measures address not only reported collisions, but also the risk of future collisions that maybe caused by highway alignment, infrastructure and condition.

These suggestions form the basis of the current bid proposals. Alternative measure have been included in some areas where these are felt to be more appropriate or practicable, based on local knowledge and assessment by experienced Road Safety Engineers employed by BMBC.

The measures comprise conventional and proven collision remedial treatments. The measures include installing additional street lighting, creating a combined cycle/footway, carriageway skid resistance upgrades, shoulder rumble strips, removal of roadside hazards, installation of uncontrolled pedestrian crossings and the use of passively safe traffic signage, central hatching, speed limit gateway features and upgraded vehicle activated signs

Based on an analysis of these proposed measures using the VIDA software, it is anticipated that a total of 10.2 Fatal and Serious Injuries would be saved over the 20 year analysis period following implementation.

A logic matrix describing the benefits and effects of individual proposed countermeasures is shown below; whist more detail of individual countermeasures and results is shown in the summary of the economic case spreadsheet, contained in Annex E.

| COUNTERMEASURES | RISKS ADDRESSED | EFFECT OF COUNTER-MEASURE | WHO WILL BENEFIT |
|---|---|---|---|
| Bicycle Lane (Off Road) | Cyclists at risk from travelling amongst traffic with no designated space. Priority is given to motor traffic. | Segregated lane to ensure cyclists are not mixing with motor vehicles. If shared with pedestrians will encourages cyclists to give way to pedestrians and encourage pedestrians to keep to one side of the path. | Cyclist safety is increased |
| Delineation and signing (Intersection) | Poor comprehension of junction layout and presence. Drivers or riders approaching too quickly, or failing to slow in time. Junction accidents leading to injuries to a variety of road user types. | Ensuring that road users understand the presence, layout and priority of junctions. This will lead to more appropriate driver behaviour, and reduced potential for junction accidents. | Drivers, riders and occupants of vehicles. Cyclists, motorcycles, pedestrians and other road users. |
| Roundabout | Impractical alignment of existing junction through severe change in topography could cause road users to fail to negotiate the junction safely | A roundabout may prove to be impractical through land take and visibility. It is likely that a new junction arrangement is the preferred solution | All road users. |

| | | | |
|---|---|---|---|
| Central Hatching | Head-on and overtaking collisions. Resultant injuries are frequently high severity. Excessive speed leading to a variety of accident types. | Separation of opposing traffic flows, reduction in overtaking. Improved delineation, road narrowing may reduce speed. | Drivers, riders and occupants of vehicles. |
| Upgrade Pedestrian Facility Quality | Existing facilities do not provide adequate safety measures for pedestrians crossing the A628. | Upgrade will ensure pedestrians can use the pedestrian facility to its full potential | Pedestrians |
| Refuge Island | Pedestrians have limited facilities to assist them crossing the A628. | Island will help pedestrians cross the road safely, where there is the demand for pedestrians to cross. | Pedestrians will be able to cross the road in two stages and deal with one direction of traffic flow at a time. |
| Signalised Crossing | Pedestrians have no facility to assist them crossing the A628. | Island will help pedestrians cross the road safely, where there is the demand for pedestrians to cross. | Pedestrians will be able to cross the road in two stages and deal with one direction of traffic flow at a time |
| Roadside Barriers | Vehicles leaving the road hazardous objects such as trees, non-passive signs. Vehicles leaving road overturning on steep embankments. Resultant injuries are frequently high severity. | Vehicles prevented form striking hazardous objects. Reduction in accident severity following run-off accidents. It will be impractical install barriers on many of the lengths identified. Alternative measures such as the use of passively safe street furniture, tree removal/protection will be used. | Drivers, riders and occupants of vehicles. May reduce maintenance costs compared to barriers, and also can be more aesthetically pleasing. |
| Shoulder Sealing (Passenger Side) | Vehicles leaving the road may not regain control of their vehicle as the tyres have nothing to grip. This can increase the risk of injury and loss of control crashes. | Sealed shoulders reduce loss-of-control crashes by providing additional sealed surface for a driver to recover control of their vehicle if they drift out of their traffic lane. | Drivers, riders and occupants of vehicles. Cyclists are provided with a safe cycling space. Alternatively, the use of ribbed edge lining will be used to provide an audible warning. |
| Traffic Calming | Motorists exceeding the posted speed limit causing road safety hazards for motorists, pedestrians and cyclists. | Encourage safer, more responsible driving and potentially reduce traffic flow. | All road users, particularly pedestrians and cyclists |
| Skid Resistance (Paved Road) | Compromising safety of motorists. Poor skid resistance can increase the risk of accidents. | Improve safety, particularly in wet weather. Can prevent rear-end and run-off road crashes | Drivers, riders and occupants of vehicles |

| | | | |
|---|---|---|---|
| Street Lighting | Pedestrians feel unsafe, and also the safety of motorists may be compromised. | Improve visibility which in turn can help reduce night time crashes. Reduce pedestrian crashes. Makes pedestrians feel safer and can help reduce crime. | Pedestrians, cyclists, drivers, riders and occupants of vehicles. |
| Shoulder Rumble Strips | Vehicles drifting off carriageway due to road alignment, driver fatigue or excessive speed. On single carriageway, rebound head-on accidents with severe collisions injuries. | Provides audible warning that vehicle is approaching the road edge, reducing likelihood of run-off or head-on accidents following verge strike. Improved visibility of edge line resulting in enhanced delineation. | Drivers, riders and occupants of vehicles. |
| Slight Distance (Obstruction Removal) | Obstructions present road safety hazards to all type of road users | Removal of non-passively safe sign posts, trees and other obstructions will reduce the hazards that are currently present. | All road users. |
| Pedestrian Crossing | Pedestrians have limited facilities to assist them crossing the A628. | Island will help pedestrians cross the road safely, where there is the demand for pedestrians to cross. | Pedestrians. |

**C2. Monitoring and Evaluation** (maximum 250 words)

Causalities recorded after the scheme is implemented will be compared to the iRAP baseline data for 2012-2014 period, as used in the initial scheme identification. As well as the absolute number of collisions, the annual rate may be compared if the **AADT** changes significant only during the monitoring period. Statistical analysis may be used to identify the significance of reductions, or increases, although the sample sizes will be small and definitive results may not reveal themselves fully for several years.

After completion, road collisions and casualties will be monitored on a quarterly basis. This will utilise police reports. This will allow any problems or unexpected results to be identified, reported and addressed as necessary.

After 3 years, this will be reduced to an annual review. In addition to an assessment of the overall collision figures, any localised hot-spots will be investigated.

Baseline speed surveys will be undertaken at strategic points before work commences to allow the effectiveness of the relevant measures to be monitored. It is intended that permanent traffic counter/speed monitoring sites be installed on the A628 to provide a record of trends in traffic flow levels and speeds, in order to evaluate the wider impacts that the interventions have had.

We will of course supply data and any other information to the DfT or other appropriate parties on request, or to accord with schedules deemed necessary.

We will be pleased to participate in, and contribute to, relevant platforms and forms aimed at sharing experience, knowledge and results of the project as requested.

# SECTION D: Declarations

| D1. Senior Responsible Owner Declaration | |
|---|---|
| As Senior Responsible Owner for Safer Roads Fund Scheme A628 (between the A629 and A616) hereby submit this request for approval to DfT on behalf of Barnsley MBC and confirm that I have the necessary authority to do so.<br><br>I confirm that [*name of authority*] will have all the necessary powers in place to ensure the planned timescales in the application can be realised. | |
| Name: [redacted] | Signed: |
| Position: [redacted] | |

| D2. Section 151 Officer Declaration | |
|---|---|
| As Section 151 Officer for [*name of authority*] I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that [*name of authority*]<br><br>- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution<br>- will allocate sufficient staff and other necessary resources to deliver this scheme on time and on budget<br>- 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<br>- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme<br>- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested<br>- has the necessary governance / assurance arrangements in place<br>- has identified a procurement strategy that is legally compliant and is likely to achieve the best value for money outcome<br>- will ensure that a robust and effective stakeholder and communications plan is put in place. | |
| Name:<br><br>[redacted] | Signed: |

## Submission of bids:

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

saferroadsfund@dft.gsi.gov.uk

# ANNEXES