Department for Transport

# Structures Fund template

This template is for local authorities proposing schemes for investment from the Structures Fund. Before completing the template, local authorities should read the Structures Fund guidance and associated documents. Alongside the template, local authorities must also complete the economic toolkit for the proposed scheme.

## Part 1 – Details of the Structure Being Promoted

### 1.1 Scheme Information

This section captures the key information on the scheme that is being proposed to the Structures Fund.

a) Local highway authority (LHA) name: Leeds City Council

b) Scheme / structure name and LHA bridges number: L119 Calverley River Bridge

c) Location (OS Grid Reference) of the scheme/structure (to identify location on map):

Easting: 422357.256971

Northing: 436899.664002

d) Name of Project Manager: Robert Ingall

e) Email address: Robert.ingall@leeds.gov.uk

f) Phone number: 0113 3787535

g) What type of eligible structure would your scheme address? (select all that apply)

| | | | |
|---|---|---|---|
| ☒ | Bridges | ☐ | Cutting/embankment |
| ☐ | Fly-overs | ☐ | Tunnels |
| ☐ | Retaining walls | ☐ | Local highway repairs due to landslip |
| ☐ | Culverts | ☐ | Local highway repairs due to collapse |
| ☐ | Other structure type (please specify): Click or tap here to enter text. | | |

h) Provide an overview of the structure proposed for intervention and the nature of the problem. (Maximum 250 words)

*This could include, for example, the age, construction type, feature carried and feature crossed of the relevant structure and if the structure has listed heritage status.*

Calverley River Bridge is in northwest Leeds, carrying the A6120 Leeds Outer Ring Road (36,000+ vehicles / day with consistent flow over evenings and weekends) over the River Aire. It is one of the few crossing points over the river within the Leeds boundary. Constructed in 1929 with an unusual construction form - a skewed three-span, RC arch structure with RC columns, supporting a

continuous RC deck. Due to the deterioration of the structure the load carrying capacity has declined to such an extent that abnormal loads are now banned from using the structure.

Without intervention the worsening condition will put normal traffic at risk.

Recent inspections identified over 1300 concrete defects that require repair to avoid further deterioration, leading to further restrictions beyond those now in place.

If the works are delayed, the A6120 will most likely have to be closed to allow the works to be undertaken for 18 months (both directions / 24/7).

Given the importance of this critical route, the impact would be unacceptable for the City. The road network is not able to handle the diversion, causing huge delays and disruption as well as severing West Leeds communities.

As condition worsens, the ability to undertake the works recedes. Firstly, the ability to accommodate traffic loading during the works, then the capacity to sustain the temporary scaffolding. Ultimately the bridge would need to be permanently closed to traffic entirely. At this point the only viable option is a full (costly and time consuming) replacement of the structure.

i) Provide an overview of the proposed intervention and how the works will address the problem.

*This should set out the method of resolving the issue that is to be addressed.*

The works involve a series of concrete repairs, addressing cracking, spalling, delamination and underlying corrosion to the reinforcement. Anodes will be installed to enhance the cathodic protection measures on the structure.

As the structure is located above the River Aire, and is subject to stringent EA flood zone constraints, access to carry out the repairs will be provided by a bespoke innovative scaffold decking system suspended from the bridge structure.

The concrete repairs will reinstate the designed structural strength of the structure and the introduction of replacement / additional anodes within the reinforcement will assist in extending the design life of the structure by minimising the risk of future reinforcement corrosion causing delamination from the concrete surrounds.

Drainage will also be refurbished to ensure there is no risk of deterioration from surface water run off down the structure.

j) Is any part of the relevant structure owned by a third-party (e.g. the Canal and River Trust or Network Rail)?

No, the structure is owned by Leeds City Council

k) If the structure is on a diversion route for the SRN provide a clear description/commentary.

The structure is not on SRN diversion route.

### 1.2 Understanding the Condition of the Structure

Please set out the current condition of the structure in this section.

a) Provide evidence that the relevant structure is in need of repair either now or by the end of the 2029/30 financial year. (Maximum 250 words)

*Provide details of the process used for determining whether this structure is in need of repair and the timescale in which the repair is needed..*

The most recent inspection report identified > 1300 concrete defects that require repair to avoid further traffic restrictions beyond the abnormal loads restrictions now in place. The repairs have been assessed, repair stages and temporary works evaluated and a design sequence allowing the work to be undertaken without further traffic restrictions has been developed.

The component enabling works to be undertaken without traffic disruption, meeting EA requirements is the use of a bespoke suspended scaffold. With the deteriorating structure there is a limited period that it can accommodate the scaffolding, repair works and normal traffic on the bridge. As the condition worsens, the ability to undertake the works in this manner recedes. Firstly, the ability to accommodate traffic loading during the works, then the capacity to sustain the scaffolding even with the bridge closed to traffic and ultimately the bridge will need to be permanently closed to traffic entirely. At the point the bridge can no longer accommodate the scaffolding, even with the bridge closed to traffic, the only viable option is a full replacement.

Should works be delayed until the condition worsens and the A6120 has to be closed to allow the works to be undertaken for 18 months (in both directions, 24/7), the impact would be unacceptable for the city. The network is not able to handle the diverted traffic, causing huge delays.

Analysis suggests further restrictions on traffic on this key route would be required to undertake the works within 3 to 5 years (18-month construction period).

b) Please indicate if the relevant structure is **currently** subject to traffic restriction as a result of its condition.

*Reference should be made to closures, weight limits, width restriction, limits on use.*

The structure is currently subject to a restriction on abnormal loads (>40t)

c) Please indicate if the relevant structure is **not currently** but **by the end of the 2029/2030 Financial Year is expected** to be subject to traffic restriction as a result of its condition.

*Reference should be made to closures, weight limits, width restriction, limits on use that are anticipated.*

Click or tap here to enter text.

Analysis of the condition data from the 2 x inspection reports indicates that additional restrictions will be required within the next 3-5 years.

d) If the answer to c) above is yes, then please estimate the likelihood of this occurring: (select box that applies):

☐ Low confidence in restriction occurring
☐ Medium confidence in restriction occurring
☒ High confidence in restriction occurring

e) Please indicate if the relevant structure is **currently** subject to other temporary measures to manage risk.

*Reference should be made to measures such as propping, etc.*

There are no current additional restrictions, however as part of the detailed analysis of the structure carried out the assess the repair strategy it has been confirmed that a 30mph speed limit is required during the works (reduced from 50mph).

f) Please indicate if the relevant structure is **not currently** but **expected by the end of the 2029/2030 Financial Year** to be subject to temporary measures to manage risk.

*Reference should be made to measures such as propping, etc. that is anticipated.*

The structure is likely to require temporary measures such as additional strapping of critical elements, additional inspections to assess condition status.

g) If the answer to f) above is yes, then estimate the likelihood of this occurring:

☐ Low confidence in temporary measures being required
☐ Medium confidence in temporary measures being required
☒ High confidence in temporary measures being required

h) If available and applicable, what is the current Bridge Condition Indicator score (average and critical) of the relevant structure?

*BCI Crit: 55.48*

*BCI Ave:* 69.26

i) Which elements of the structure are negatively contributing to the BCI scores and how has this changed in the last 5 years.

*Reference should be made to recent inspections and highlight the type and extent of the defects.*

| **Element** | **Name** | **Severity + Extent** | | | | | |
|---|---|---|---|---|---|---|---|
| | | **2018** | **2019** | **2020** | **2022** | **2025** | **2026** |
| 1 | Primary Deck Element | 2B | 2B | 2B | 3B | 3B | 3C |
| 2 | Transverse Beams | 3B | 3B | 3B | 3B | 3B | 3B |
| 3 | Slab | 2B | 2B | 3B | 2B | 3B | 3B |
| 6 | Parapet Beam or Cantilever | 2B | 2B | 2B | 2B | 2B | 3B |
| 7 | Deck Bracing | 2B | 2B | 2B | 2B | 2B | 3B |
| 11 | Pier / Column | 2B | 2B | 3B | 2B | 2B | 3B |
| **SCI Crit** | | **58.0** | **58.0** | **58.0** | **58.0** | **58.0** | **55.48** |

As can be seen from the table above the critical elements of the structure have continued to deteriorate over an extended period; all elements are constructed from reinforced concrete and exhibiting similar defects. Over 1300 defects were identified on the latest inspection for assessment and are spread across the entire structure.

In April 2024 abnormal load movements were prohibited across the structure in response to a mobile crane movement request when the most up to date condition was factored into the movement assessment.

j) Submit, alongside this submission template, the most recent, dated copy of the structural inspection proforma or a report summarising this.

## Part 2 – Understanding the Case for Investment

### 2.1 Strategic Case

This section of the template captures the wider need for the scheme and how it aligns to the objectives of the Structures Fund.

a) Provide a summary of how this scheme contributes to the Government's economic growth mission (Maximum 250 words)

*Describe how the proposal will support economic growth (e.g. by creating jobs, attracting investment, improving productivity, or enabling new business activity) and set out the mechanisms through which these benefits will be delivered.*

Maintaining the A6120 Leeds Outer Ring Road (LORR) retains a key element of infrastructure underpinning the economic growth of the Leeds City Region. The LORR is critical for movement around the City of Leeds and restrictions on capacity will impact future regional strategic economic goals and ability for the City Region to access new and existing employment sites.

The LORR is a clear example where smooth, reliable transit speeds up commutes which historically allows workers to access higher-skilled, better paying jobs further from home and in within urban centres. This directly boosts productivity, increases tax revenues and helps deliver growth. The LORR in this area provides a critical route for commuters between the economically critical Leeds and Bradford areas, and more importantly a key corridor for access to the motorway network from the key Northwest area of Leeds.

Leeds Northwest Employment hub is 36 hectares directly adjacent to Leeds-Bradford Airport, identified in the local plan for Employment and Mixed Use allocation. The primary access route to this site will be via the Outer Ring Road on which Calverley Road Bridge is a key structure. A failure of this structure and the ORR would impact on access to this key growth area.

b) Explain how the scheme supports other Government policy objectives. (Maximum 250 words)

*Provide a summary of the scheme's alignment to UK Government policy objectives as represented by the remaining missions.*

<u>Health and Wellbeing</u>

The LORR allows movement of traffic around Leeds, without this vital link traffic disruption would be untenable, causing significant negative impacts to environmental, economic and transportation metrics with major knock on impacts for the health and wellbeing of the population and future investment and economic outlook.

Providing a key corridor to less urban areas for potential leisure and welfare opportunities for residents of Leeds and surrounding areas. Loss of this structure would impact negatively the opportunity to access potential locations and activities that actively contribute to health and wellbeing levels.

The impact of the increased traffic on the diversion routes will dramatically impact on residents of Rodley, Calverley, Farsley, Apperley Bridge, Rawdon etc. Facing elevated risks of respiratory disease, chronic stress, sleep disruption as a result. Gridlocked traffic networks are hostile to active travel, discouraging cycling and walking as a result of safety concerns and the reluctance to breathe traffic fumes.

<u>Net Zero Carbon Commitment</u>

Works to the LORR will future proof network capacity and resilience, maintaining the key route. Lack of future works will result in future loss of capacity and restrictions on this key network route causing additional congestion.

Reducing the delays caused by the loss of this structure will significantly reduce carbon emissions caused by both the additional vehicle travel miles, reduce inefficient stop-and-go acceleration spikes which lower efficiency by 10-40% historically. Retaining the key link along the LORR will enable existing public transport to retain its potential attractiveness, encouraging necessary modal shift.

c) Explain why this scheme is a local priority. (Maximum 250 words)

*Provide a summary of the scheme's alignment to local priorities and policies.*

The LORR is regionally important critical infrastructure asset of fundamental importance to the Leeds City Region financial and economic status. It plays a core part of the LCC inclusive growth and transport strategies to improve walking and cycling in the City Centre,
removing unnecessary vehicle movements out of the City Centre onto the strategic road network. The inclusive growth strategy aligns with the wider ambitions of improving access to all, to employment and services for people that don't have own a car. Without a functioning LORR these strategies cannot be maintained.

Funding is required to undertake these works before the condition of the structure worsens to the extent that a road closure is required during the repairs. With the funding being made available, the repairs can be undertaken with the road open to traffic.

In the absence of this level of funding, the bridge condition will continue to worsen, within 3 to 5 years the LORR would have to be closed to allow the works to be undertaken (18 months, in both directions around the clock).

Not undertaking the works will result in the bridge being closed and potentially replaced with a new river crossing. By not undertaking the works in the present window, the structure will need to be closed during repairs or replaced if the repairs are delayed further; these delays would result in an unprecedented impact on the City's network and significant cost associated with replacing the bridge compared to the proposed essential maintenance.

d) Summarise engagement with local stakeholders, any joint-owners, levels of support for the scheme and explain any controversial elements. (Maximum 250 words).

*Summarise support from relevant stakeholders such as the Local MP, Elected Members relevant combined authorities, National Highways, Network Rail, neighbouring LHAs, or important utility providers.*

There are no joint asset owners for the structure, it is entirely owned by Leeds City Council.

The structure forms part of a transport corridor under the banner "Connecting West Leeds" which has recently completed numerous upgrades and enhancements to this corridor to improve bus journey times, provide an active travel corridor through this area. The level of support for these works was very high and involved engagement with local councillors and residents.

As the works can currently be carried out with minimal impact on the road network other than a temporary speed restriction the extent of additional engagement has been limited to stakeholders specifically those potentially affected by the works such as local resident and environmental interest groups and the Environment Agency.

There is no impact of the works on Utility providers, adjacent landowners.

e) Provide a summary of the local approach to prioritisation of structural maintenance work. (Maximum 250 words)

*Set out any weighting, scoring or other methodology which explains why this scheme has not been subject to work prior to this point.*

The council's highway structures are continually monitored for condition and maintenance needs. Prioritised planned maintenance and strengthening programmes are developed to maintain the assets in a safe and serviceable condition appropriate for their use together with a view to minimising whole life costs and negative environmental impacts where appropriate. The programme targets structures that pose the greatest immediate risks to the network with the remaining structures being managed either through dedicated monitoring inspections or as a part of the regular inspection regime to check their condition. Through the management of the structures stock the service endeavours to reduce the percentage of structures in need of essential repair. However, this measure of stock health has seen a rising trend since 2009 and is currently at 39.5% (36.5% 2025/26). This is expected to continue increasing year on year, reflecting the level of funding forcing a managed decline stock strategy. There are several factors contributing to this rise including an ageing structure stock, major schemes (with substantial risks) absorbing large percentages of the available budget, short term fixes (as opposed to complete solutions) and a short fall in and historic uncertainty around long term funding. Further details of infrastructure management are available in the LCC Highway Infrastructure Asset Management Strategy - https://www.leeds.gov.uk/plans-and-strategies/highways-infrastructure-asset-management-strategy and the Highway Structures annual report - https://democracy.leeds.gov.uk/ieDecisionDetails.aspx?ID=58700

f) Provide a summary of why this scheme has been selected for this application to the Structures Fund. (Maximum 250 words)

*Provide a brief summary of the specific need for this structure is advanced to the Structures Fund.*

Calverley River Bridge aligns perfectly with the stated intentions of the Structures fund.

It is an existing asset in urgent need of intervention. The impact of closure are diversions that add considerable journey time, CO2 emissions, delays, disruption, noise, accident risk onto the surrounding roads.

The scheme is unaffordable as no facility is available within existing LCC capital funding, the scheme has been developed to date with additional LCC borrowing facility due to the highly critical nature of the structure and its condition. The borrowing provision needs to be considered within the wider context LCC debt reduction approach. LCC's aspiration remains to limit the increase in the level of debt to the level of annual budgeted Minimum Revenue Provision. The council has sought to manage this through its Capital Programme Review process, reviewing priorities, identifying pressures and capital requirements for future years, and ensuring that affordability remains within the Medium-Term Financial Strategy. The Council is currently developing a debt reduction strategy which will be incorporated into the Capital Investment Strategy due to be received at Full Council in February 2027

The development works to date ensure the delivery of this scheme prior to 2030 can be guaranteed with a high degree of certainty as can the financial case for investment as the capital costs have a high degree of cost certainty.

The scheme can be 100% delivered within the programme dates and within cost limits and will prevent a significant negative impact as a result of closure of the structure.

g) Summarise the impacts of not delivering this scheme (Maximum 250 words).

*The response should consider the impact of not delivering the scheme, such as community severance, lengthy diversion routes or impacts on other infrastructure.*

If the scheme is not delivered there will be further restrictions on the structure for traffic (reduced speed limit, single lane running under traffic lights. This would lead to a full closure of the structure to all traffic as the deterioration in the strength of the structure continued. The diversion is approximately 6 miles long and transfers traffic through numerous small villages, causing considerable disruption, congestion, impact noise and air quality issues in these areas. There would be considerable community severance as there are few crossings of the River Aire and the important connection between the communities of Rodley, Farsley and Calverley would be severed from Horsforth.

Loss of the LORR across the Bridge also severs pedestrian and cycling routes (recently been improved as part of the DfT funded £20m Connecting West Leeds improvements; improving cycling and walking links along this key corridor)

A number of bus routes in the area including the 9/9C route cross the Bridge. This bus route was explicitly created to connect suburban communities (Horsforth, Pudsey, Seacroft, and Rothwell) directly to leisure sites and employment hubs, specifically the White Rose Shopping Centre, without forcing passengers to change buses in Leeds city centre. As a result, it carries a high proportion of shoppers, concessionary pass holders, and off-peak leisure travellers. This route would be severed by loss of the Bridge. Congestion transferred onto the diversion route would adversely affect a number of bus routes that run along the river / canal basin which would impact passenger usage.

h) If applicable, explain how the scheme helps prevent the likelihood of community severance for all transport modes and the impact that this severance would have or already has. (Maximum 250 words)

*Answers should explain the impact on connecting local people to facilities, services, employment, education and local communities. The response should also summarise the extent of diversions for communities, which modes are impacted and how. Applicants may wish to use the guidance in TAG A4-4 Social Impact Appraisal.*

The scheme will prevent the closure of the LORR in this area. The route also carries pedestrian and cyclists as well as road vehicles and these modes would also be severed.

The LORR was recently improved for walking and cycling as part of the £20m DfT funded Connecting West Leeds project. The crossing is the only walking cycling route between the communities of Horsforth on one side and Rodley, Farsley, Calverley, Pudsey and onto Bradford thereafter utilsing the Cycle superhighway connectivity network.

There are numerous significant employers located nearby including prominent institutions in higher education, healthcare software, construction consultancy and financial services who’s employees and customers would be significantly affected by the severance of this route.

Either side of the Bridge there are large retail destinations that would be impacted severely by severance of the route and many people would be adversely affected by loss of access to these destinations.

i) Summarise the volumes of traffic by mode that are impacted as a result of any community severance (Maximum 250 words).

*Explain the impacts on non-motorised and motorised traffic flow. Describe how diversions may differ by mode.*

Closure or restriction of the crossing would create significant severance for non-motorised users, given the limited number of River Aire crossings and the loss of the key link between Rodley, Farsley, Calverley and Horsforth. Diverting motorised traffic would also have a substantial adverse effect on journey times, road safety and air quality, which would be unacceptable for the city.

As described above the bridge crossing is part of the £20m DfT funded recently improved Connecting West Leeds programme which provided substantially improved cycling and walking connections along the vital corridor from Fink Hill in Horsforth through to Dawsons corner at Pudsey. Loss of this link would undo the improvements provided by that investment.

The additional congestion created along the diversion routes in these areas would create a hostile environment for cyclists and pedestrians potentially reducing the number of active travel journeys in these areas.

### 2.2 Economic Case

This section sets out the assessment for Value for Money of the project. Applications must use the provided economic toolkit, but if alternative methods have also been used to support the economic case, this section provides the opportunity for the results to be reported.

a) Set out the key sources for the economic benefits (e.g. journey-time savings, carbon, etc.) of the scheme. (Maximum 250 words)

*Describe the main benefits the scheme is expected to deliver.*

The key sources of assessed benefit will be journey time savings, as appraised in the attached toolkit and via a secondary SATURN / TUBA appraisal using the Leeds Transport Model.

Carbon benefits have not been appraised, other than those within the TUBA process.

Non-monetised benefits are discussed in section e) but have not been otherwise appraised. Under a Do-Something scenario there will be no change, and in the Do-Nothing scenario the highway disbenefits are significant enough that assessment of additional benefits was deemed unnecessary.

No other appraisal has been undertaken.

b) Summarise the estimate of the present value of costs and benefits (in 2023 present values, market prices) and the benefit cost ratio of the scheme from the economic toolkit.

| | |
|---|---|
| Present Value Costs (PVC) | 4,236,121 |
| Present Value Benefits (PVB) | 5,375,202,809 |
| Benefit to Cost Ratio (BCR) | 1,268.9 |

c) Explain assumptions used in the economic toolkit to estimate the present value scheme costs. (Maximum 250 words)

*Describe the basis of the costs input to the economic toolkit and provide justification for the risk and optimism bias values that have been used.*

Anticipating a number of structures works over the next decade LCC have already procured a Design and Build contractor on a framework and they have been generating cost estimates. As the

structure is pre-existing and this is maintenance, there is more certainty on the scope of works required.

Estimates for the capital expenditure value in 2026-2028 is £12m.

Using guidance in TAG Unit A1-2, Optimism Bias is set at 28% as per table 7 for a scheme at Stage 3 and Risk has been set at 20%.

For Operating costs, LCC undertake annual structural surveys, recently costing £30,000 in 2025. Maintenance and Renewal costs are expected every 20 years over the appraisal period, and are of a similar nature to this proposal. This uses a nominal value of £12m .

Using inflation figures in TAG Data Book 2.02 Table A1.2.1, the future year costs were calculated over the 60 year appraisal by inflating these values up.

d) Explain the sources of data and assumptions used to complete the Scheme Details section of the economic toolkit. (Maximum 250 words)

*Provide details of the source of all data and associated assumptions (e.g. provenance, data checks, etc).*

Traffic counts have been obtained from a permanent count sites in the area. One is on the A6120 just 200m to the south of the structure. In 2025 this was active with 33% coverage.
A site on the diversion route at the A65 was active in 2025 with 91% coverage.

The diversion route used in the event of a structure closure has been used during prior works to and utilises alternate A-Roads in the vicinity to access an upstream river crossing.

Journey time for diversion, has used speeds generated from a Saturn strategic highway model. This was prepared for a major junction 3km further west along the Outer Ring Road. The model was validated against the counters mentioned above and is deemed valid for the study area.

Operational Costs are based on recent structural surveys undertaken in the past 2 years. Scheme costs and Future Maintenance costs are based on estimates supplied by an appointed delivery contractor. All costs are inflated using the index available in Table A1.2.1 in the TAG Data Book.

No carbon assessment has been undertaken. This is a maintenance scheme conducting concrete repairs rather than structural element replacements. The main carriageway in use for the duration of the works with only a temporary speed restriction expected and no lane closures. will remain with no resurfacing undertaken. Construction will be undertaken via scaffolding around the underside of the structure, and drilling for the placement of catalytic anodes. The tCO2e cost is expected to be extremely low.

e) Describe significant non-monetised impacts of the scheme. (Maximum 250 words)

*Consider any economic, environmental and social impacts that have not been monetised to fully describe the impacts of delivering the scheme.*

Non-monetised impacts usually assessed include Noise, AQ, Landscape, Townscape, Historic, Biodiversity and Water.

As a maintenance scheme of a pre-existing structure with no anticipated change in AADT, there should be no impact to these conditions in the Do-Something proposal.

In the Do-Nothing scenario where without repairs the bridge would close in 2033, there would be significant highway disruption and re-routing. This would lead to congestion on the adjacent river crossings up and downstream over a combined 18km of primary alternate network, and significant

secondary impacts on the adjacent network from rerouting to access alternate river crossings. This would impact negatively on Noise and AQ for residents along these routes, and affect Biodiversity along the alternate network due to an increase in traffic and likely peak spreading. There would be a slight positive impact in the immediate vicinity of the closed structure due to the removal of traffic and demolition of the bridge.

f) Where an alternative economic assessment has been undertaken to support a case for investment, please summarise the data used, the assumptions made and the results obtained (in 2023 present values, market prices). (Maximum 250 words)

*Some schemes may have been subject to economic assessment to support previous cases for investment. Summarise the key details of these here, including details of the data, assumptions and results (e.g. present value of costs and benefits and benefit cost ratio).*

This scheme has not been subject to prior economic assessment.

Previously submitted to the DfT for MRN Funding is the Dawsons Corner Junction Improvement scheme, 2km south west of the Calverley Bridge structure in this submission.

This was subject to full economic appraisal using the Leeds Transport Model (a modal choice modal coupled with SATURN), with an opening year of 2026 and future year 2040. As this is the next major junction along from the diversion route for Calverley Bridge, the validation included the local network in the vicinity including Calverley Bridge and adjacent highway junctions.

Using the Dawsons Corner model, LCC have tested two scenarios with the results through TUBA (v1.10) to obtain a BCR. The Do-Nothing scenario closed Calverley Bridge from 2026 in the model (expected 2033 with no intervention), with other committed LCC highway schemes in place. The Do-Something scenario retained Calverley Bridge in the highway network.

The .OUT file attached as an appendix to this submission.

| | |
|---|---|
| Present Value Costs (PVC) | 33,208 |
| Present Value Benefits (PVB) | 1,893,943 |
| Benefit to Cost Ratio (BCR) | 57.0 |

To enable the assessment of the economic case, please submit the supporting information listed below to StructuresFundTAB@dft.gov.uk

- Economic Toolkit
- Any supplementary reports which support the economic case

### 2.3 Commercial Case

This section captures information on the commercial viability and procurement strategy for the planning and delivery of the scheme being promoted.

a) Explain the LHA capacity and experience delivering comparable schemes. (Maximum 250 words)

*Where capacity is challenging for local authorities, explain how any capacity gaps may be addressed to ensure delivery of the scheme.*

The scheme will be delivered by Leeds City Council's established Highways and Transportation (H&T) dedicated Structures Team supported by a number of external Framework appointed consultants.

LCC Structures team comprises 46 dedicated experienced highways structures staff as part of a wider (H&T) team with 350 technical staff. The structures team has successfully delivered numerous new and replacement bridge repair projects including the substantial repair & replacement of £30m Regents St Bridge, £10m replacement of 3 nr bridges as part of Armley Gyratory works, installation of 7 Nr new bridges as part of £40m ELOR new road scheme.

The LCC team is supported by a (H&T) framework cost and risk management consultancy who also supported on all the above projects; the team is led by Senior Consultant with over 30 years delivery experience. Permanent works design support is provided by an external international infrastructure design consultancy, with a particular strength and proven expertise in assessing and modelling the capacity and strength of complex existing structures before, during and after repair works.

The Project delivery team is led by an Experienced Project Engineer who successfully delivered a number of the schemes above supported by the wider team and consultants.

The project is currently at an advanced stage of development, with detailed structural assessment and design completed. Key construction methodologies, including the innovative suspended access scaffold system required to meet Environment Agency constraints, have been developed and verified through collaborative input from the permanent works designer, temporary works specialists and contractor.

b) Explain the delivery plans and procurement strategy for the scheme. (Maximum 250 words).

*This section should include explanation of the various stages of the scheme that are required for completion. This may include design, consents and construction processes.*

Procurement - the project is planned to be delivered under an ECC Option F (work package) contract under the LCC Highways and Transportation Framework.

This enables the flexibility to appoint work package providers for the scheme as the scheme develops, as and when they are required within the development process. It has fostered a fully collaborative approach between all parties necessary to address the complex challenges presented by the development of a deliverable solution for the River Bridge.

The delivery plan is as follows

1. Procure delivery partner
2. Develop scope, work package structure and work package procurement strategy
3. Agree work package cost plan
4. Inspect and assessment the bridge
5. Procure Key Supply Chain – Permanent Works Designer, Concrete Repair Contractor & Specialist Access Designer / Contractor
6. Iterative ECI stage to assess and model bridge capacity, develop temporary works design and inform concrete repairs strategy
7. Agree programme based on bridge capacity constraints, access availability and repair productivity
8. Obtain consents – TAA and EA
9. Procure all other work packages concurrent with 5-8 including site establishment /prelims

The project is currently at the end of the detailed design stage, with a detailed loading assessment completed by the permanent works designer with inputs from the specialist temporary works (scaffold) design and concrete repairs subcontractors. We have designed an innovative access scaffold which meets the stringent EA requirements for avoiding installing large sections of scaffolding within the flood levels and is capable of being supported by the bridge structure.

c) Describe the delivery risks associated to the project delivery. This should include risks which may challenge the end date for the Structures Fund.

*Explain what risks have been identified and how might these be mitigated.*

The Primary delivery risk for the project related to the temporary works / access scaffold falls under two main headings;

1. Ability of the existing structure to support loadings
2. Restrictions on placing scaffolding within the flood zone (EA)

The current access design addresses both of these as the scaffold is suspended from the bridge and the load analysis has been completed and this risk closed out. We have assessed that the proposed access solution for the works can be supported by the structure in its current condition.

Remaining risks are

The Primary delivery risk for the project related to the temporary works / access scaffold falls under two main headings;

3. Ability of the existing structure to support loadings
4. Restrictions on placing scaffolding within the flood zone (EA)

The current access design addresses both of these as the scaffold is suspended from the bridge and the load analysis has been completed and this risk closed out. We have assessed that the proposed access solution for the works can be supported by the structure in its current condition.

Remaining risks are

5. Quantum of repairs : the full extent of the repairs generally exceeds the quantified volume of defects. We have addressed this by incorporating an industry benchmark for the extent of overbreak associated with these repairs within the assessed quantities and programme expectations
6. Repairs differing from design – we have established a “workflow” for agreeing the repair strategy for each repair based on the specification / design. It is anticipated that there will be some repairs that will need additional design input to agree the approach. To ensure that this does not delay works we have allowed for full time presence on site from the permanent works designer to respond to these queries immediately
7. Repairs not bonding – a detailed QA process has been established utilising latest BIM field / digital processes to track and record the completion of every individual repair to completion and log it within the detailed 3d BIM model for the structure. This enables the team to review, test and assure the satisfactory completion of every individual repair
8. Flooding – the vast majority of the works are accessed from the scaffold which sits above the EA freeboard level and is therefore not susceptible to flooding of the river. The repairs below this are to be accessed from a small removable section of scaffolding which will be carried out the summer periods to make the most of the likely drier months to avoid need for removal / refixing.

d) Explain whether liaison with any applicable third-party organisations present a particular risk to delivery and whether those organisations have agreed to support the scheme's delivery. (Maximum 250 words)

*In this section set out if the scheme requires support from other organisations, and the nature of any engagement undertaken to date.*

The Primary 3rd party related to the works is the Environment Agency. As a project team we have consulted with them extensively given the strict constraints presented by the River Aire flood zone beneath the structure. The majority of team members have recently successfully completed a challenging bridge renovation project nearby that also had detailed and more challenging EA constraints and the lessons learnt and relationships from this successful project have been brought into Calverley River Bridge successfully. The EA have been engaged regarding the nature and extents of the work from an early stage. The Approval has now been received from the EA.

As a result of the location of the existing services they are not affected by the works as they are routed within the bridge deck. Our engagement with Utilities providers has been limited to obtaining the necessary existing services drawings to confirm their locations and also progress connections required for the site establishment. No further engagement is required with Utilities providers going forward.

Our team have consulted with a local religious forum who carry out Funeral activities in the River Aire nearby, we have assessed that they will not be affected by the works but we will continue to consult and engage with them during site activities.

Immediately adjacent the proposed site establishment area is an existing community orchard. We have consulted with local counsellors and assured them that community access will be maintained during the works to the orchard during the works.

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## 2.4 Financial Case

a) Provide estimated outturn costs (£million) for the scheme in the table below. The table should be completed with total costs, requested DfT investment, LHA contribution and third-party contributions. Only capital funding costs should be included in the table.

To note, the prospectus sets out that:

- schemes should be delivered by end-2029/30.
- schemes with early delivery (i.e. in 2026/27) may be prioritised.
- schemes should not be affordable from existing LA budgets.
- local contributions are required for proposed schemes.
- preference will be given to schemes with higher local contributions and/or those where there is a high percentage of local contribution.
- preference will also be given where the local contribution is:
    - not from other central government funding sources.
    - partially funded from other third-party sources.

| | 2026/27 | 2027/28 | 2028/29 | 2029/30 | Total |
|---|---|---|---|---|---|
| Requested DfT investment | 3m | 3m | 3.6m | 0m | 9.6m |

| | | | | | |
|---|---|---|---|---|---|
| LA contribution | 0m | 2m | 0.4m | 0m | 2.4m |
| Other contribution | 0m | 0m | 0m | 0m | 0m |
| Total costs | 3m | 5m | 4m | 0m | 12m |

b) Outline how the LHA has sought to manage this scheme from existing budgets and why that has been unsuccessful.

*Explain the local approach to managing the existing DfT contribution across its highway assets and what specific challenges have meant that this structure was not repaired earlier.*

The council's highway structures are continually monitored for condition and maintenance needs. Prioritised planned maintenance and strengthening programmes are developed to maintain the assets in a safe and serviceable condition appropriate for their use together with a view to minimising whole life costs and negative environmental impacts where appropriate. The programme targets structures that pose the greatest immediate risks to the network with the remaining structures being managed either through dedicated monitoring inspections or as a part of the regular inspection regime to check their condition.

Through the management of the structures stock the service endeavours to reduce the percentage of structures in need of essential repair. However, this measure of stock health has seen a rising trend since 2009 and is currently at 39.5% (36.5% 2025/26) (https://democracy.leeds.gov.uk/ieDecisionDetails.aspx?ID=58700). This is expected to continue increasing year on year, reflecting the level of funding forcing a managed decline stock strategy. There are several factors contributing to this rise including an ageing structure stock, major schemes (with substantial risks) absorbing large percentages of the available budget, short term fixes (as opposed to complete solutions) and a short fall in and historic uncertainty around long term funding.

The current annual structures budget for all LCC structures (1500) is approximately £4.3m. The forecast expenditure requirements exceed the scale of that deliverable through annual maintenance allocations. As such, full delivery cannot be accommodated without displacing a significant multiyear proportion of the wider structures programme, which would create unacceptable risks across the network. Despite this, LCC has used the available funding by committing approximately £3m to undertake inspections, assessment and detailed design, ensuring the scheme is construction ready.

c) Describe the whole life costs anticipated without the proposed scheme. Explain how the proposed scheme mitigates costs from a whole life perspective. (Maximum 250 words)

*Explain maintenance considerations for maintaining the structure and compare these to the scheme cost to demonstrate the financial benefit of delivering this scheme.*

Calverley River Bridge requires planned intervention to avoid further traffic restrictions within 5 years. If this work is not completed then current projections indicate that a full closure would be required to complete any repairs works. This is due to the method needed to access the repair areas. The cost of repair works under a full closure would be considerably higher (2-3 x higher excl inflation) than those currently forecast as no support could be taken from the structure and the amount of repairs permissible at any one time would be severely limited. There is also the risk that the structure could deteriorate to a point where full replacement becomes the only option which would cost circa £50m in current day prices. Overall the investment of

£15m achieves a further 20 year design life for the structure which is considerably less than repairs in 3-5 years or replacement with next 10-15 years.

d) Summarise how the cost estimate for the scheme has been developed.

*Set out the basis for the estimate. For example, is it based on an estimate from similar work, developed by a quantity surveyor or a contractor quotation. Describe the inflation assumptions used and the rationale for these.*

LCC employ the services of a specialist cost management consultancy, highly experienced in working on infrastructure projects. Working with the client and the appointed main contractor the project team developed a work package cost estimate (based on the ECC Option F. Each package was assessed in terms of scope, risk, programme and preferred subcontract delivery option. The project team utilised benchmark rates for specialist items such as concrete repairs and also obtained quotations from the supply chain for elements such as the access solution. The forecast has been constantly updated as each work package has been competitively procured by the team – all the major elements of the packages have been fully procured including concrete repairs, access solution, permanent works designer, temporary works design.

Inflation is based upon the current detailed programme including an allowance of 5% for 26/27 and 3,5% for 27/28.

A risk workshop attended by all main works package subcontractors was held and established the current risk allowance of £1.2m The risk register is reviewed collaboratively on a monthly basis.

e) Explain the financial risks that have been considered and factored into the estimate and what contingency is allowed for.

*Explain the key risks and their impact on the cost and programme, including how these link to the overall contingency allowed for in the estimate.*

The primary project risk is programme. Key programme risks have been identified as those which delay construction activities and those which extend the construction programme. The two main preconstruction risk are

1. Delay to design and assessment process / TAA approval
2. Delay to design of access solution

We procured the permanent works designer and access installation designer early into the project and developed the preconstruction design programme with them, ensuring it is fully reflective of the requirements and timescales needed. The team held a risk workshop where risks to design / approval process was a key section where we identified all potential risks associated with this. We assessed potential delay costs associated with preconstruction run rates. These risks have been included within the overall project QRA.

The construction programme risks relate to the risk of repairs not being completed as expected; specifically the detailed assessment process dictating a more onerous phasing programme than anticipated thus extending programme. The current programme forecast has taken a conservative approach to the number of repairs that will be permitted to be carried out concurrently, thus building into the current programme a risk allowance of circa 6 weeks for non-optimised working. The current forecast allows for this additional time.

A project contingency has been established based upon the collaborative risk workshop and priced risk register which equates to approx. 16% of the work package costs. Additionally, the time related contingency of 6 weeks referred to above has been costed over and above contingency.

f) Provide details of the local and other contributions, including the relevant funding sources and the certainty of whether these contributions are available. (Maximum 250 words)

*Describe the various sources of funding and their availability.*

The local contribution will be sourced from LCC borrowing over and above their capital receipts. Approval for the funding has been granted and the funding is available.

### 2.5 Management Case

Outlines how the project will be delivered and managed effectively.

a) Select the option which best describes the current stage of the project:

- ☐ No design, benchmarked against other schemes only
- ☐ Design concept only, no supplier yet engaged
- ☒ QS estimate / early supplier engagement, stable design

b) What is the anticipated start date for construction for the scheme?

September 2026

c) What is the anticipated end date for construction for the scheme?

April 2028

d) Summarise the approach to the management of the delivery of the scheme. This should be from the current point of development to completion.

*This should include the management of resources, including the supply chain, to ensure delivery and an explanation of any evidence that provides certainty of delivery within the timescale.*

The project is utilising the ECC Option F (work package) contract. LCC appointed a main (management) contractor in a competitive tender for prelims and fee %age. The project is being managed in a collaborative approach between LCC, the management contractor and the key works package contractors (concrete repairs / access / permanent works). LCC have established a collaborative joint workspace within LCC offices where the project is managed from. The project is currently nearing design and assessment completion with mobilisation progressing towards July commencement. The delivery programme is reviewed jointly on a monthly basis reviewing progress to date, critical activities and near critical activities and is shared and agreed with all key subcontractors. The current construction programme is based upon known productivity factors for concrete repairs albeit with a conservative approach to the level of programme optimisation / concurrent working that will be permitted once the final detailed repair assessment has been finalised. The current start date is currently forecast within 1 week of the target date set out in the original target programme issued at the commencement of the project in July 2025.

e) Explain the key delivery risks and challenges and how the local authority intends to address them. Answers should also explain any financial risks and how any cost overruns will be addressed by the local authority. (Maximum 250 words)

*Explain how key financial risks are being managed and mitigated. Explain how other risks are being managed (e.g. are there any points of complexity or requirements regarding planning or land ownership?).*

Planning is not required for the project. Land ownership Is entirely within LCC ownership. It has been established from a series of collaborative workshops that the primary delivery and financial risk to the project relates to programme delay and the cost of delays, both in commencing works and then construction programme. A risk allowance of £1.2m is currently still available which will be used if necessary to cover cost overruns. In the event this is exceeded LCC will fund the extent of any additional costs.

f) Describe the key project controls that will be employed by the local authority to ensure that schemes are delivered on time and in budget. (Maximum 250 words)

*Provide details of the methods that the authority uses to ensure timely delivery within budget.*

Leeds City Council (LCC) Highways and Transportation has a strong track record in delivering complex highway and structural infrastructure schemes, supported by established governance, project management and assurance frameworks. LCC has successfully delivered and continues to deliver major projects across the city, including strategic highway improvements, bridge refurbishment and replacement schemes, and large-scale transport infrastructure such as the Inner Ring Road and orbital routes. These projects have been delivered to programme and budget, demonstrating the Council's capability to manage complex, high-risk environments involving traffic management, stakeholder constraints and multidisciplinary design challenges. Delivery is underpinned by a structured governance approach incorporating clear accountability through a Project Board, defined roles (including Senior Responsible Owner, Project Manager and supply chain partners), and robust reporting and assurance processes. This ensures effective decision-making, risk management and programme control across all stages of delivery. Collaborative delivery models—such as framework-based contracts and early contractor involvement—are routinely used to integrate contractor expertise into design development, improve buildability and manage risk. Where capacity constraints arise, LCC supplements in-house expertise through established framework partners, ensuring access to specialist design, temporary works and construction capability. This blended delivery model provides resilience and ensures schemes can be delivered safely, efficiently and within required timescales.

g) Set out if the scheme requires permission from other bodies, and how this permission can be obtained to ensure delivery.

*Provide details of the permission required, the likely timescale for obtaining permission and any potential barriers to obtaining that permission.*

There are two approvals required to enable commencement of the works. Technical Approval of the permanent and temporary works whilst this technically falls within LCC it is an independent role. This process is well progressed as it is an iterative process through the AIP / design. This approval is currently on programme for planned start on site. The works require Environment Agency Approval (for the element affecting the River Aire below). We commenced pre application consultation with the EA in August 2025 and submitted the application in March 2026. The application was well received with minimal queries and is expected to be approved by July 26

j) If applicable, explain how the scheme development has included consideration of climate adaptation and ensures the future resilience of the highway network (Maximum 250 words).

*Describe how climate related risks (e.g., flooding, heat, extreme weather) have been assessed and incorporated into design measures to improve the long term resilience of the highway network. This may include evidence of risk assessments, adaptive design features, and how the scheme will maintain network performance under future climate conditions.*

One of the critical elements that has led to the success of the development of the scheme to date has been the incorporation of an innovative access solution that enable the majority of the repairs to be completed above the Environment Agency constrained flood zone. Being able to carry out repairs outside the constrained zone means that when future repairs are required to the structure there is a solution that is

deliverable, therefore improving the long-term resilience of the network. The works scope includes works to the existing drainage scheme to ensure that the structure can drain effectively in future without detriment to the structure.

h) Explain the considerations have been made or will be developed to account for the management of carbon for the development of the scheme.

*This may include development of a carbon management plan dealing with whole life carbon (e.g. using low carbon construction measures to deliver the scheme or reducing emissions though reducing vehicle miles).*

Due to the nature of the works it is difficult to consider low carbon materials within the permanent works, however we have implemented the following measures to address in construction carbon. Permanent electrical supply rather than generators for power requirements, use of local supply chain where possible, e charging points to be installed on site, Use of innovative breakers to omit need for hydro demolition which removes need for bringing in and disposal of wastewater, encouraging public transport to collaborative project hub.

i) What statutory undertakers affect the proposed scheme? Has any engagement been undertaken and how has this been accounted for within the delivery approach?

*Set out the relevant statutory undertakers, the impacts they may have on the programme – including planning – and how this part of the programme will be managed. If applicable, describe how deterioration of the structure has or may impact utilities services and the extent of this disruption.*

*Due to the nature of the works there are no impacts from existing statutory undertakers.*

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## Part 3 – Governance and Declarations

### 3.1 Equality Analysis

a) Has analysis of the equality impacts of the scheme been undertaken by the LHA in line with the Public Sector Equality Duty? Select below:

☒ Yes

☐ No

b) Explain how the equality impacts of the scheme have been considered or will be considered. Identify the relevant affected groups with protected characteristics, and any planned measures to mitigate these impacts. (Maximum 250 words)

Leeds City Council maintains an Equality Impact Appraisal proforma for the assessment of proposed schemes.

The EIA for the proposed scheme did not identify any negatively affected and protected characteristics or affected groups.

### 3.2 Public Sector Transparency

When LHAs submit proposals for funding to DfT, 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 proposal to DfT.

a) Please specify the weblink where this proposal will be published.

Click or tap here to enter text.

### 3.3 Declarations

Senior Responsible Owner declaration

As Senior Responsible Owner for [Calverley River Bridge], I hereby submit this request for approval to DfT on behalf of [Leeds City Council] and confirm that I have the necessary authority to do so.

I confirm that [name of organisation] will have all the necessary statutory powers and other relevant consents in place to ensure the planned timescales in this proposal can be realised.

a) Name: Gary Bartlett

b) Signed: 

c) Date: 03/08/2026

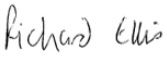
d) Email: gary.bartlett@leeds.gov.uk

Section 151 Officer declaration

As Section 151 Officer for [Leeds City Council], I declare that the scheme cost estimates quoted in this proposal are accurate to the best of my knowledge and that [name of organisation]:

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution.
- 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 and that no DfT funding will be provided after 2029/30.
- confirms that the authority has the necessary governance and assurance arrangements in place and that all legal and other statutory obligations and consents will be adhered to.

e) Name: Richard Ellis

f) Signed: 

g) Date: 3rd August 2026

h) Email: Richard.Ellis@leeds.gov.uk