

Local Highways Maintenance Challenge Fund



Department
for Transport

Application Form: bids for funding in 2019/20

The level of information provided on this form should be proportionate to the size and complexity of the works proposed. An Excel data proforma should also be completed.

Note that DfT funding is a maximum of £5 million per project for bids in 2019-20. An individual local highway authority may apply to bid for only one scheme. Funding will be provided in 2019/20, but it is recognised that construction may go into 2020/21 as well. The closing date for bids is 31 October 2019.

For schemes submitted by a Combined Authority for component authorities a separate application form should be completed for each scheme, then the CA should rank them in order of preference.

Applicant Information

Local authority name: Warwickshire County Council

Bid Manager Name and position: Mr Steven Young, Bridge Maintenance Manager

Name and position of officer with day to day responsibility for delivering the proposed scheme.

Contact telephone number: 01926 412937

Email address: steveyoung@warwickshire.gov.uk

Postal address: Warwickshire County Council
Shire Hall
Market Place
Warwick CV34 4RL Postcode

Combined Authorities

If the bid is from a local highway authority within a Combined Authority, please specify the contact and ensure that the Combined Authority has submitted a Combined Authority Application Ranking Form.

Name and position of Combined Authority Bid Co-ordinator: N/A

Contact telephone number:

Email address:

Postal address:

When authorities submit a bid for funding to the Department, 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, the local highway authority 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.

Please specify the weblink where this bid will be published:

<https://www.warwickshire.gov.uk/majorconstructionprojects/challengefundbid/>

SECTION A – Description of works

A1. Project name: Historic Bridge Maintenance Programme 2020

A2. Headline description:

Proposed start date 1st April 2020

Estimated Completion date 31st March 2023 (subject to completion of construction works)

Brief description

This bid for funding will deliver Warwickshire County Council's proposed Historic Bridge Maintenance Programme (HBMP) over the period 2020 to 2023. The HBMP comprises of eight major bridge maintenance schemes on scheduled ancient monuments and/or listed building structures that support Warwickshire's Transport Network. Significant funding is required separate from the annual capital maintenance budget allocated to WCC Bridge Maintenance to undertake this programme of major repairs.

The sum required for the HBMP is £6.3 million. This is sought from two sources;

- 1) £1.32 million local contribution by Warwickshire County Council
- 2) £4.98 million application to the Department for Transport's (DfT) Local Highways Maintenance Challenge Fund

Warwickshire County Council (WCC) has a large number of historic highway structures, which because of their construction are disproportionately expensive to maintain. Over the past decade, the condition of Warwickshire's historic bridge structures, supporting both the resilient network, local network and adjoining roads have steadily declined due to competing financial demands on maintenance for all highway infrastructure.

With this funding WCC Bridge Maintenance will deliver extensive essential repairs to eight historic highway structures (both scheduled ancient monuments and listed buildings). Works to these structures will focus on the significantly deteriorated and damaged stonework of these predominantly multi-span arch structures. Works will also include elements of strengthening, repairs and resurfacing of carriageways and footways on the bridges and their approaches.

A3. Geographic area:

Please provide a short description of the location referred to in the bid (in no more than 50 words)

The eight proposed historic bridges designated for repair under the HBMP2020 are located across Warwickshire and are listed in the table below. A map showing the scheme locations is provided in Appendix 1.

OS Grid Reference: **See table below**

Postcode: **See table below**

You might wish to append a map showing the location (and route) of the proposed project, existing transport infrastructure and other points of particular interest to the bid.

Structure Reference	Structure Name	Historic Status	Eastings Reference	Northing Reference	Postcode
A425/004	Castle Bridge	Ancient Monument & Grade II Listed	428778	264692	CV34 6PB
A428/002	Bretford Bridge	Grade II Listed	442964	276976	CV23 0NB
A3400/37	Clopton Bridge	Ancient Monument & Grade I Listed	420604	254835	CV37 6YY
B4085/006	Bidford on Avon River Bridge	Ancient Monument & Grade I Listed	409906	251757	B50 4BG
B4117/001	Cole End River Bridge	Ancient Monument & Grade II* Listed	419925	289514	B46 1EE
C33/001	Baginton Mill Bridge	Grade II Listed	433819	275307	CV8 3AH
C46/005	Binton Bridge South	Grade II Listed	414496	253033	CV37 8PW
C53/017	Honington Bridge	Ancient Monument & Grade II Listed	426267	242190	CV36 5AA

A4. Type of works (please tick relevant box):

DfT funding of **up to £5 million in 2019/20**

The HBMP's proposed extent of maintenance work to the historic bridge structures covers three of the four following categories of work;

Structural maintenance, strengthening or renewal of bridges, viaducts, retaining walls or other key structures, footbridge or cycle bridge renewal



Major maintenance, full depth reconstruction of carriageways, structural maintenance of tunnels



Resurfacing of carriageways including improvements to footways or cycleways that are within the highway boundary



Renewal of gullies and replacement of drainage assets



WCC Bridge Maintenance aims to maintain and improve the service life of their key historic bridges through a scope of essential maintenance works that will include, but not limited to;

- The repair and replacement of stone and brickwork above and below the water level as required, to prevent loads being transferred to weaker elements of the structure.
- Significant repointing and stabilising of stone and brick work elevations.
- Significant crack stitching and repair.
- The strengthening of weak former packhorse bridge extensions through the installation of saddling and waterproofing systems.
- The introduction of protective measures on approach, to minimise the risk of future incident(s) e.g. the use of appropriate bollards.
- Improved signage and lighting on approaches where possible.
- Parapet renovation, replacement and repair.
- New paint systems to protect structural steel and cast-iron elements.
- Addressing watercourse/river bed profiles that are susceptible to scour defects.
- Carriageway re-surfacing, bridge deck waterproofing, footpath reconstruction, embankment stabilisation.
- Highway and bridge related drainage clearance and reinstatement

The proposed works at each site location are briefly summarised in **Appendix 2**.

SECTION B – The Business Case

B1. The Financial Case – Project Costs and Profile

Before preparing a proposal for submission, bid promoters should ensure they understand the financial implications of developing the project (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's maximum contribution.

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

Funding profile (Nominal terms)

£000s	2019-20	2020-21
<i>DfT Funding Sought</i>	4,978	<i>DfT funding not available in 2020-21</i>
<i>LA Contribution</i>	1,322 (21%)	
<i>Other Third Party Funding</i>	0	

Notes:

- 1) Department for Transport funding will be granted in the 2019-20 financial year but local highway authorities may carry that funding over to following financial years if necessary.*
- 2) There is no specific amount for a local contribution by the local authority and/or a third party but if this is proposed please state what this is expected to be.*

B2. Local Contribution / Third Party Funding

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

- The non-DfT contribution may include funding from the local authority or a third party. This should include evidence to show how any third-party contributions are being secured, the level of commitment and when they will become available.
All non DFT contributions will be provided by Warwickshire County Council. No third party contributions are considered at this time
- Please list any other funding applications you have made for this project or variants of it and the outcome of these applications, including any reasons for rejection (e.g. applications made through any similar competition).
None

B3. Strategic Case (sections (a) to (g) below)

This section should **briefly** set out the rationale for making the investment and evidence of the existing situation, set out the history of the asset and why it is needs to be repaired or renewed. It should also include how it fits into the overall asset management strategy for the authority **and why it cannot be funded through the annual Highways Maintenance Block Funding grant.**

a) What are the current problems to be addressed by the proposed works? (Describe economic, environmental, social problems or opportunities which will be addressed by the scheme).

WCC has sixty historic highway structures dating back to the 14th Century (this represents 5.2% of their bridge stock). This infrastructure varies between bridges and arches, all contributing to the history of the County, and being key to maintain a resilient network.

Stonework to the identified eight structures has reached the point of rapid decline. The majority of the stonework is between 200 and 500 years old. Although never originally designed to carry the volumes and types of traffic that currently use the highway network, they still have a critical role in how the highway network functions.

The introduction of new weight restrictions would restrict the movement of freight traffic and would potentially have detrimental impact on the local economy. Through structural inspections and analysis of the results, these have identified the structures to be in a fair condition overall, however their critical load bearing elements are in a poor or very poor condition.

Appendix 3 displays the current existing Bridge Condition Indicator scores for each structure and the targeted scores for improvement through the delivery of the proposed repair programme.

The most common structural defects that are to be addressed by the HBMP are;

- Severely weathered and eroded stonework above and below water level
- Heavily eroded stone parapets
- Damage caused by scour
- Loss of pointing between stonework and brickwork
- Arch ring separation
- Cracks in arch rings
- Weak verge extensions
- Corrosion of pattress plates and tie bars
- Settlement at bridge approaches
- Poor surfacing on both carriageways and footways leading to water penetration to structural elements

Example photographs showing some of the defects at each bridge can be found in **Appendix 4.**

b) Why the asset(s) is/are in need of urgent funding?

Historic under investment in highway structures has led to significant deterioration of the components of the structures, which without immediate intervention could result in total closure or the implementation of weigh and width restrictions. Causing significant disruption to the communities reliant on these structures, through severe congestion, lengthy diversions and limited access for HGVs and buses.

Without urgent prevention through repairs, these structures will continue to deteriorate further and will need either weight restriction or closures. The economy of the county and its towns would suffer and would become less attractive to businesses and tourists. The current annual capital maintenance budget is insufficient to carry out the proposed scale of projects.

c) What options have been considered and why have alternatives have been rejected?

A continuation of the present reactive maintenance regime to the highway structures has been considered and rejected as this will lead to further structural deterioration and will not reduce or mitigate the root causes of the structural problems. Replacement of these nationally important historic bridges is not an option and works are most typically complex due to the number of stakeholders and are both costly and time demanding. This very much limits the options available, that are typically summarised as;

Option 1 – Continue To Monitor Stock Condition (The ‘Do Nothing’ Scenario)

One option available to County is to undertake no repairs and continue its day-to-day role in routinely inspecting and monitoring the condition of each highway retaining structure. Should their condition scores decline further, there are several possibilities;

- 1) deem the structure to be unsafe, and the roads above and/or below subsequently closed to prevent incident. Reactive works would then be undertaken to make the structure safe.
- 2) impose weight limits and/or width restrictions.

Annual inspection costs per structure are likely to increase due to the increased frequency and level of monitoring deemed necessary.

Option 2 - Structural Management Analysis, Scheme Identification and local Repairs (The ‘Do Something’ Scenario)

As proposed in the answer to question ‘B3a’. Eight structures have been identified as requiring critical intervention through a planned programme of bridge repair and renovation works, following assessment of their current stock condition indicators, noted in **Appendix 3**. Prioritisation of local repairs to the eight identified structures would be dependent on existing funding. Closures and/or weight restrictions would still be possible.

Option 3 – Implement a series of ‘Major Works’ (under the banner HBMP 2020).

Option 3 considers implementing an extensive programme of major Capital repair works over a three-year period. The scale of the works necessary put them beyond annual Capital maintenance funding levels.

Recommended Option

It is strongly recommended that the preferred option available is Option 3 (having undertaken Option 2), to 'Implement a series of 'Major Works'' and address the significant and widespread defects at these critical historic bridge locations. The sheer scope of works, logistics to design, procure and manage eight major repair and renovation schemes warrants the provision of funds in order to bring these nationally important historic bridges to a fit state of repair which form part of the highway network.

d) What are the expected benefits / outcomes?

The proposed structural repairs will minimise the risk and likelihood of needing to introduce protective measures that limit the transport network, such as the introduction of structural weight limits, lane and / or road closures. Half of the historic bridge locations strategically sit on the County's Resilient Network. Bidford on Avon Bridge supports the 'Vale of Evesham' traffic route. The eight structures vary from A to C road in classification and serve key locations on Warwickshire's Transport Network.

A summary of the HBMP's expected benefits are as follows;

- Reduce future maintenance and whole life costs for the eight bridges identified.
- Keep the bridges open to the levels and types of traffic that currently use them.
- Preserve these historic highway structures for future generations, which are of unmeasurable cultural value.
- Having addressed the condition of these structures this will enable us to address the condition of other structures on the other parts of the County's highway network.
- The HBMP will support planned economic and social growth throughout the region. Varying vehicle types and transport modes, including HGV's, cycling and walking will be encouraged to continue using the existing routes.

e) What will happen if funding for this scheme is not secured? Would an alternative (lower cost) solution be implemented (if yes, please describe this alternative and how it differs from the proposed scheme)?

Should WCC be unsuccessful in securing the necessary funding, the proposal for a HBMP would subsequently be put on hold until future funding sources are identified and secured. Weight restrictions and possible road closures would in due course be implemented in order to safe-guard commuters and members of the public.

f) What are the economic, environmental and social impacts of completing this project?

The economic impact of the proposed HBMP is evident in the 'Do Nothing' and the 'Do Something' Scenario along with the assumptions made in **Appendix 5**. The subsequent 'Results of an Economic Analysis' are listed in **Appendix 6** makes a quantitative assessment on the Benefit Cost Ratios and Net Present Values for each proposed site. This was undertaken by Atkins Ltd in conjunction with WCC Bridge Maintenance.

The figures represent 'very good value for money', at all scheme locations. Each figure utilises traffic counts for both type and number of vehicles crossing, at each bridge location, and determines the financial impact of letting the structure fall into disarray and the consequential effect on the surrounding area, and commuters redirected on the designated diversion routes.

In order to devise a successful HBMP in the making, WCC have undertaken early consultation with numerous stakeholders effected by the long-term status of the bridges designated for repair. There is significant support from local stakeholders keen to preserve both the heritage, tourism and attraction

these landmarks represent, along with safe-guarding the transport network to ensure business continuity and everyday commuting. These stakeholders include, but are not limited to; Historic England, parish, district and county councillors, elected members, Members of Parliament and business owners. **Appendix 7** represents numerous letters of support received to date. **Appendix 8** is an example of the proposed Communication Plan that will be used to ensure local communities are well briefed before, during and after the works programme, and the Local Authority looks forward to working closely with stakeholders on the HBMP structures going forward.

In summary, these eight-key bridge locations serve a significant population on a daily basis, and the consequence of these structures forcing unexpected traffic restrictions on highway users would have detrimental effects on the local economy.

Environmental Implications

As part of the Historic Bridge Maintenance Programme an initial Environmental Impact Assessment has been undertaken. This is attached for your consideration under **Appendix 10**.

In summary, each of the eight historic bridge locations will be subject to their own independent site assessments to ensure all factors effected from the proposed structural repairs are considered. The number of variables at each site are significant, and these range from the various water courses crossed, whether the channel is navigable, flora and fauna considerations, whether the locations falls within a SSSI, the control of noise and dust, the use of historically compatible lime mortars and measures to protect all forms of species from hazardous substances.

Key stakeholders identified in answer to question seven, involved Historic England, the Environment Agency, and various third parties such as the Avon Navigation Trust, and WCC Flood Risk Management. It is WCC Bridge Maintenance's intention to work very closely with these stakeholders, and local planning authorities to ensure each bridge location adheres to the County's application of Environmental Management policies and ensuring ISO140001 compliance of its Construction Sites. Our pending applications for consents ensure works specifications are both considerate and designed to minimise disruption and waste.

Finally, it is proposed that Environmental Implications & Measures to Protect will be considered at the Strategic HBMP Board level and play key part in the programme from start to finish.

B4. Equality Analysis

Has any Equality Analysis been undertaken in line with the Equality Duty? Yes No

An **Equality Impact Assessment / Analysis (EqIA)** has been undertaken as part of this business case and sits firmly at the heart of the HBMP's principles, **Appendix 11**.

The Assessment has identified a potential risk to disabled members of the public and parents with young children; groups which are very much dependent on the safe pedestrian routing around construction zones/sites. Access arrangements for wheelchairs and pushchairs on footpaths, at junctions and changing levels from carriageway to footpath level will be considered as part of any future traffic management arrangements. These factors may influence temporary access arrangements and the design of scaffold systems. The design and implementation of temporary Traffic Management systems will adhere to the national standard S12D. These will naturally benefit pedestrians and cyclists in their transition across the highway retaining structures. 'Routes to schools' will be at the forefront of site logistics, traffic management planning and access/egress arrangements.

Each specific scheme location will be subject to independent assessments as part of their design stages, and this information will in turn help project teams ensure and evidence that the construction works do not unlawfully discriminate and have due regard in line with the general and specific duties under the Public Sector Equality Duty 2011.

B5. The Commercial Case

This section categorizes the procurement strategy that will be used to appoint a contractor and, importantly for this fund, 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.

For the purpose of delivering the eight repair and renovation schemes Warwickshire County Council have identified procurement strategies for both the professional design, management and supervision services AND contractors (covering principal, sub-contractor and specialist). Both a framework contract and competitive tenders are readily available, and the decision to tender works information and appoint a Principal Contractor for each bridge repair scheme will be undertaken on a site by site basis closer to the designated financial year for delivery.

Refer to **Appendix 9** – HBMP Procurement.

Framework contract

Direct labour

Competitive tender

**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 with confirmation of this, if required. An assurance that a strategy is in place that is legally compliant and is likely to achieve the best value for money outcomes is required from your Section 151 Officer below.*

B6. Delivery of project

Are any statutory procedures, such as planning permission, required to deliver the project? If yes please provide details below;

Yes No

Details of statutory procedures before works can commence

The scale and extent of works proposed under the HBMP make each scheme very much dependent on securing the relevant historic consents, where;

- All scheduled ancient monument structures require an application for Scheduled Monument Consent, made to the Secretary of State for Digital, Culture, Media and Sport before any work can be carried out which might affect the monument either above or below ground level. Five of the proposed structures are listed as 'Scheduled Ancient Monuments'. Applications to Historic England will be timed appropriate to the designated financial year for delivery of the works on site, subject to further consultation.
- Listed building structures require an application for Listed Building Consent, made to the relevant local planning department at either District or Borough Council where the bridge is situated.

Construction works of this type involving works on or near water, will be subject to applications to the Environment Agency in order to secure Temporary Works Orders where scaffolding and or working pontoons are used for access purposes. Where works are undertaken to address scour defects, effect foundations or stone in and around the water table, Permanent Works Orders will be applicable.

WCC Network Management will play a significant role in managing road works permits and ensuring traffic management minimises impact on the network during works periods.

SECTION C: Declarations

C1. Senior Responsible Owner Declaration

As Senior Responsible Owner for **Warwickshire County Council's Historic Bridge Maintenance Programme 2020** I hereby submit this request for approval to DfT on behalf of **Warwickshire County Council** and confirm that I have the necessary authority to do so.

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

Name: Mark Ryder

Signed:

Position: Strategic Director for Communities



C2. Section 151 Officer Declaration

As Section 151 Officer for **Warwickshire County Council** I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that **Warwickshire 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:
Lisa Kitto – Deputy Section 151 Officer

Signed:



Submission of bids:

The deadline for bid submission is 5pm on **31 October 2019**

Successful bids for Challenge Fund Tranche 2B are to be funded in 2019/20.

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

roadmaintenance@dft.gov.uk copying in Paul.O'Hara@dft.gov.uk