Levelling up Fund Round 2 bid – M20 Junction 7 Capacity Improvements

Contents

Section 1: Introduction questions

What is the legal name of the lead applicant organisation?

Kent County Council

Where is your bid being delivered?

England

Select your local authority

Kent County Council

Enter the name of your bid

M20 Junction 7 Capacity Improvements

Does your bid contain any projects previously submitted in round 1?

Yes

Bid manager contact details

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Position

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Full name

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Local Authority Leader contact details

Full name

Roger Gough

Position

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Enter the name of any consultancy companies involved in the preparation of the bid

WSP supported the preparation of the bid.

Additional information was provided by:

Jacobs

Enter the total grant requested from the Levelling Up Fund

£7,275,698.00

Investment themes

Regeneration and town centre	0%
Cultural	0%
Transport	100%

Section 2: Eligibility and gateway criteria

Which bid allowance are you using?

Full constituency allowance

How many component projects are there in your bid?

1

Do you have the support of all the authorities with the relevant statutory responsibility before proceeding?

Yes

File upload 1

Upload pro forma 1

20220801 LUF Round 2 Pro formas V6.1 Proforma 1 - NH MBv.pdf

Are you submitting a joint bid?

Yes

Other local authorities you are bidding jointly with

Maidstone

Which bid allowance is this local authority using to support the bid?

Constituency

Confirm that you have the support of the other local authorities you are working with and have a signed pro forma to this effect from each of them

Tick to confirm ✓

Upload pro forma 2

LUF Round 2 Pro formas V6.1 Proforma 2. CI signeddocx.docx

How many other organisations are you submitting your bid with?

1

Grant value declaration

I am submitting a joint bid that contains only one component project with one other applicant organisation and can confirm that the bid overall does not exceed £40 million grant value

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Tick to confirm ✓

Gateway criteria: costings, planning and defrayment

I confirm that some LUF grant funding will be defrayed in the 2022/23 financial year

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Tick to confirm ✓

Costings and Planning Workbook

LUF_Single_Project_Costings_and_Planning_Wkbook_v2.00_Submission - final.xlsx

Section 3: Bid Summary

Provide bid name

M20 Junction 7 Capacity Improvements

Provide a short description of your bid

M20 J7 at Maidstone experiences significant congestion which without intervention will be exacerbated by the development of the Kent Medical Campus and housing developments in the area. The scheme will implement traffic signals at the roundabout and improve the active travel infrastructure through the junction, mitigating the current barrier from north-south between Maidstone and Swale Districts.

The benefits from improved capacity will be shorter, more reliable journey times and reduced queues for all road users. It will enable the full development of the Kent Medical Campus and nearby housing developments, supporting future economic growth and development. Reduction in queuing will also reduce the production of carbon emissions. Health and well-being benefits will be provided by increasing active travel.

Provide a more detailed overview of your bid proposal

The proposal is to improve the capacity of the M20 Junction 7 at Maidstone, Kent. This is the intersection between the M20 and the A249 and is wholly on the Major Road Network (MRN). Appendix A Figure 1 shows the scheme strategic context in the Maidstone/Swale area.

To the north of the junction, the A249 provides a strategic link to the M2 at Junction 5 and then into Swale. To the south, it provides access to Maidstone and the A20. Immediately south of the junction, the A249 connects to Bearsted Road, providing access to the Newnham Court Shopping Village, the developing Kent Medical Campus, and the Eclipse Park office, retail and hotel business park. This local context is illustrated in Appendix A Figure 2 .

The scheme proposal, illustrated in Appendix A Figure 3, involves reconfiguring the roundabout carrying the A249 over the M20, introducing signal control and new pedestrian/cycle facilities.

The proposed M20 J7 improvements will:

• Increase capacity at the junction

• Reduce congestion on the A249

• Improve pedestrian and cycle infrastructure

• Improve access to existing development for all modes, including buses

• Support new development and local economic growth

• Reduce carbon emissions

The proposed M20 J7 improvements will complement and enhance the benefits of the £14.657m A249 Bearsted Road improvement scheme, for which £9.4m funding has been secured from the National Productivity Investment Fund (NPIF) together with contributions from land owners and Maidstone Borough Council (MBC).

The Bearsted Road scheme, illustrated in Appendix A Figure 4, comprises:

• Signalising the A249 / Bearsted Road roundabout

• Enlarging and signalising the Bearsted Road / New Cut Road roundabout

• Widening Bearsted Road between these junctions

• Introducing the capacity to install smart technology to improve traffic flow

• New access to the Newnham Court Shopping Village

• Significant improvements for pedestrians, cyclists and bus users

Together, the proposed M20 J7 improvement and the A249 Bearsted Road improvement form an integrated package of measures to reduce congestion and support new high-quality development. Both parts of the package were identified in the Kent Local Transport Plan (2016-2031) and will unlock the development of 100,000m2 of specialist medical facilities and related uses, including 25,000m2 of offices and research and development facilities and 3,000 highly skilled jobs at the Kent Medical Campus (KMC).

Following successful applications to the NPIF for funding towards the Bearsted Road improvement, an application was made to National Highways (NH) (formerly Highways England (HE)) for £4.7m from its Growth and Housing Fund to deliver the proposed M20 J7 improvement. Unfortunately, this fund was subsequently withdrawn, leaving that part of the package unfunded, although NH remains strongly supportive of the scheme.

Unless alternative funding for the M20 J7 improvement can be found, only part of the originally intended package of improvements will be delivered, without addressing the capacity issues at M20 J7. Significant development will nevertheless take place, and this will exacerbate these problems. This bid seeks to bridge the funding gap before this happens, enabling delivery of a much more effective improvement that will address existing problems at J7 and enable full delivery of economic growth and planned development.

Provide a short description of the area where the investment will take place

The investment will take place in Maidstone, Kent, and involves reconfiguring the roundabout carrying the A249 over the M20, introducing signal control and new pedestrian/cycle facilities. Appendix A Figure 5 provides a map defining the area.

To the north of the junction, the A249 provides a strategic link to the M2 at Junction 5 and then into Swale. To the south, it provides access to Maidstone and the A20.

Immediately south of the junction, the A249 connects to Bearsted Road, providing access to the Newnham Court Shopping Village, the developing Kent Medical Campus, and the Eclipse Park office, retail and hotel business park. This local context is illustrated in Appendix A Figure 2 .

The Bearsted Road scheme, illustrated in Appendix A, comprises:

• Signalising the A249 / Bearsted Road roundabout

• Enlarging and signalising the Bearsted Road / New Cut Road roundabout

• Widening Bearsted Road between these junctions

• Introducing smart technology to improve traffic flow

• New access to the Newnham Court Shopping Village

• Significant improvements for pedestrians, cyclists and bus users

The smart technology, will in due course provide live road work warnings information to drivers encompassing:

• Displaying in-vehicle signing to the driver, speed limit variations and potential inclement weather conditions.

• Mining data from vehicles, logging journey times and speeds across the route, eventually leading to more technical vehicle data (sudden braking, steering and wiper use)

• Displaying information of downstream traffic signals (GLOSA)

Optional Map Upload

Does your bid include any transport projects?

Yes

Provide a short description of the transport project

The investment will take place in Maidstone, Kent, and involves reconfiguring the roundabout carrying the A249 over the M20, introducing signal control and new pedestrian/cycle facilities. Appendix A Figure 5 provides a map defining the area.

To the north of the junction, the A249 provides a strategic link to the M2 at Junction 5 and then into Swale. To the south, it provides access to Maidstone and the A20. Immediately south of the junction, the A249 connects to Bearsted Road, providing access to the Newnham Court Shopping Village, the developing Kent Medical Campus, and the Eclipse Park office, retail and hotel business park. This local context is illustrated in Appendix A Figure 2.

Provide location information

Location 1

Enter location postcode

ME14 5GW

Enter location grid reference

E-578033, N-157358

Percentage of bid invested at the location

100%

Optional GIS file upload for the location

Select the constituencies covered in the bid

Constituency name

Faversham and Mid Kent

Estimate the percentage of the bid invested in this constituency

100%

Select the local authorities covered in the bid

Local authority name

Maidstone

Estimate the percentage of the bid invested in this local authority

100%

Sub-categories that are relevant to your investment

Select one or more transport sub-categories that are relevant to your investment

Strategic Road
Active Travel
Buses

Provide details of any applications made to other funding schemes for this same bid that are currently pending an outcome

Due to the importance of delivering the M20J7 scheme, a bid has also been submitted to Maidstone Borough Council's Community Infrastructure Levy (CIL) fund for infrastructure. The CIL bid requests £5,559,181 of CIL funding, and the outcome of this bid is expected in Autumn 2022. Should this bid be successful, there would still be a funding gap of £1,716,517 which KCC would seek to bridge with LUF funding.

Provide VAT number if applicable to your organisation

GB 204 2691 91

Section 4: Equalities

Bidders are invited to outline how their bid will promote good community relations, help reduce disparities amongst different groups, or strengthen integration across the local community

KCC commissioned WSP in 2018 to undertake an Equality Impact Assessment (EqIA) for the Kent Medical Campus Scheme. The completed EQIA is attached as Appendix G.

It was recommended that focus groups be held with disability groups, pedestrians, cyclists, students and users of public transport to ensure that all users benefit from the scheme. MBC / KCC and WSP will continue to engage with the education and healthcare providers with whom consultation was previously unsuccessful.

Further recommendations include:

• Ensure input from EqIA to construction design documents and construction environmental management plan to reduce impacts to protected groups during the construction phase.

While low level, reversible negative effects are anticipated in the short-term during construction on three protected groups (age, disability and gender), low level positive effects are anticipated in the long-term due to the added provision of the new Cygnet Healthcare mental health facility.

This EQIA was reviewed in March 2022, and the findings of the 2018 document were upheld. It will be further reviewed to specifically incorporate and consider any additional positive and negative effects on protected characteristics for the M20 Junction 7 Capacity Improvements, once the funding has been confirmed.

In addition, KCC promotes Social Value through the procurement of contracts and services.

Initially opportunities for social value will be considered as part of the design process. Social value will then be identified as a requirement in the contract and measures taken to review and record the benefits being realised through the delivery of the project. Minimum levels of social value are included within the contract documents i.e. expectations for the number of trainees employed by the contractor. On top of the minimum levels requested there will be a quality element in the tender where each of the contractors are able to bring their own ideas and innovation to providing social value.

The 6 key areas that are focused on are:

• Management and control of waste

• Use of local SME’s and third sector organisations

• Training opportunities for employees especially through apprentices’ schemes

• Employment of the long term unemployed

• Opportunities for improving the local environment

• Engagement with local schools and colleges to provide educational initiatives and to promote opportunities within the construction industry

Section 5: Subsidy control and state aid analysis

Is the support provided by a 'public authority' and does the support constitute a financial (or in kind) contribution such as a grant, loan or guarantee?

No

Does the support measure confer an economic advantage on one or more economic actors?

No

Provide further information supporting your answer

The provision by public authorities of 'general' infrastructure, such as the building of roads that are open to the public and which are not to be commercially exploited, has been held by the EU Commission not to constitute State Aid.

In this regard the infrastructure is provided for general use as opposed to a dedicated purpose, benefiting no specific user and not favouring one undertaking in competition with other undertakings, consequently there is no selectivity and the project will not constitute State Aid.

Is the support measure specific insofar as it benefits, as a matter of law or fact, certain economic actors over others in relation to the production of certain goods or services?

No

Provide further information supporting your answer

The provision by public authorities of 'general' infrastructure, such as the building of roads that are open to the public and which are not to be commercially exploited, has been held by the EU Commission not to constitute State Aid.

In this regard the infrastructure is provided for general use as opposed to a dedicated purpose, benefiting no specific user and not favouring one undertaking in competition with other undertakings, consequently there is no selectivity and the project will not constitute State Aid.

Does the support measure have the potential to cause a distortion in or harm to competition, trade or investment?

No

Provide further information supporting your answer

The provision by public authorities of 'general' infrastructure, such as the building of roads that are open to the public and which are not to be commercially exploited, has been held by the EU Commission not to constitute State Aid.

In this regard the infrastructure is provided for general use as opposed to a dedicated purpose, benefiting no specific user and not favouring one undertaking in competition with other undertakings, consequently there is no selectivity and the project will not constitute State Aid**Public policy objective principle**

Will you be disbursing the funds as a potential subsidy to third parties?

No

Section 6: Strategic Fit

Has an MP given formal priority support for this bid?

Yes

Full name of MP

Helen Whately

MP's constituency

Faversham and Mid Kent

Upload pro forma 6

LUF Round 2 Pro formas V6.1 Proforma 6 - M20 J7.docx

Describe what engagement you have undertaken with local relevant stakeholders. How has this informed your bid and what support do you have from them?

Engagement with stakeholders has been driven by KCCs stakeholder management process, described more fully later in this application.

Early-stage engagement with stakeholders has commenced and will be an important part of the project going forward. A formal Stakeholder and Communication Strategy sets out which stakeholders to engage with (a stakeholder mapping and identification exercise), how to engage with those stakeholders (what forms of media) and the frequency of engagement. This strategy was developed in accordance with the Office of Government Commerce (OGC) paper 'Category Management Toolkit – Stakeholder Management Plan' and KCC's stakeholder and communications management policy.

Stakeholders were identified through use of the KCC stakeholder management database. This includes:

• Bus companies

• Tesco – Borough Green

• Orida Hotels Maidstone , Business Park, Next and M&S located on A249

• Notcutts and Medical Campus

• Members, parish councils, Maidstone Borough Council

• National Highways

• Blue light services

• Local businesses

• Local schools

• Crematorium

• Road users in and around Maidstone:

- Maidstone Residents, particularly around the works area

- Commuters (also from out of the town who travel into Maidstone – Kent wide, Medway and south London)

- School traffic and school children (parents of) who use the buses

- Business deliveries

- Taxi services

The following objectives for stakeholder communication were identified:

• Inform target audiences well in advance that there will be a new roadwork scheme that may impact their journey

• Communicate the long-term benefits of the project

• Direct people online for information to keep calls to the contact centre to a minimum

• Manage resident/business/commuter expectations around journey times during construction and to help them make informed choices about their journeys through Maidstone

These communications aim to achieve community buy-in and reduce the potential for objections.

Communication channels include:

• Bus backs (for 8 weeks)

• Bus shelters (4/6 weeks)

• Smart screens (4/8 weeks)

• Banners/signs (3 months)

• Radio (Heart FM, KM Radio) (8 weeks)

• Kent Messenger (newspaper add), 4 bi-weekly

• KM digital

• Facebook ads (Oct/December)

• MBC newsletter

• Twitter

To date, Maidstone Borough Council, National Highways, and landowners adjacent to the highway have been actively consulted.

The M20 J7 scheme was included in the statutory 12-week public consultation undertaken for the Local Transport Plan 4 (LTP4). The Kent Districts were consulted extensively on their transport priorities in advance of the full consultation.

In Maidstone Borough Council's Infrastructure Delivery Plan 2021, the M20 J7 is identified as a priority 'critical' transport scheme with a delivery timescale of 2026/27 due to the existing funding gap.

Planned stakeholder engagement will be undertaken with public transport operators and the Parish Council. Businesses and residents will also be engaged through a full programme of events, briefing sessions, and newsletters.

A public consultation on the A249 Bearsted Road scheme, including details of the M20 J7 component, was presented on 23 October 2018 and 6 November 2018 with further business briefings held on 12 March 2019 and 9 April 2019 at the then Hilton Hotel, Maidstone. The scheme was well received by both the local community and business, given that it seeks to address a significant, renowned congestion hotspot, whilst also seeking to deliver much needed new homes and local jobs.

Letters of Support are provided in Appendix C, Letters of Support.

Has your proposal faced any opposition?

No. The proposal enjoys very broad support from the local community and stakeholders, and we are not aware of any opposition campaigns.

The scheme is widely supported because stakeholders can see how it will improve conditions for users of the local transport network, improve local air quality, help create jobs in the local area and support local economic growth. Evidence of support of the bid is included in Appendix C, which includes letters of support from Helen Whately MP, Greater North Kent, Kent and Medway Economic Partnership and National Highways.

Do you have statutory responsibility for the delivery of all aspects of the bid?

No

Which parts of the project do you not have statutory responsibility for?

National Highways has statutory responsibility to deliver highway improvements on the Trunk Road in this location, therefore the required agreements will be put in place (where necessary) for KCC to carry out works on M20 Jct 7 and associated slip roads.

KCC has worked closely with National Highways to date and are pleased to include in this bid evidence of National Highways support for the project.

Who is the relevant responsible authority?

Kent County Council and National Highways

Support/consent of the relevant responsible authority

Do you have the support/consent of the relevant responsible authority?

Yes

Pro forma upload (if required)

20220801 LUF Round 2 Pro formas V6.1 Proforma 1 - NH MBv.pdf

Provide evidence of the local challenges / barriers to growth and context that the bid is seeking to respond to

Barriers to growth - Plans for new employment, retail and housing development cannot be fully delivered without improvement to the M20 Junction 7.

Employment: Kent Medical Campus (KMC)

The KMC (https://www.kentmedicalcampus.com) is part of the North Kent Enterprise Zone (NKEZ). It lies immediately south-east of the M20 J7. Fully developed, it would provide 98,000m2 of specialist medical facilities, R&D facilities, offices, and associated uses. It has the potential to create more than 3,300 highly skilled jobs, bringing high-quality employment to the area. A picture of the KMC is included in Appendix A, Figure 7.

Planning consent was granted in 2017, subject to conditions, including a ‘Grampian’ condition set by NH. Whilst 75% of the development may be occupied upon completion of the Bearsted Road improvements, occupation of the remaining 25% is dependent on the delivery of improvements at the M20 J7. The outline planning agreement is included in Appendix B, Third Party Funding.

The KMC cannot achieve its maximum potential without the proposed improvement to the M20 J7. This, as well as the existing congestion, may act as a deterrent to investors even before 75% occupation is achieved, slowing the delivery of this key development.

Retail: The Newnham Court Shopping Village

Newnham Court Shopping Village lies to the south of M20 J7 and the proposed KMC. It has developed piecemeal over time and its appearance is poor. A map showing the location is provided in Appendix A: Figure 8.

The Maidstone Borough Local Plan provides for its replacement with a new retail development providing 14,300m2 of high-quality buildings in a parkland setting. The Local Plan identifies this development as dependent upon the proposed improvements to the M20 J7.

Housing:

The following developments have been identified in the 2020 Maidstone Borough Infrastructure Delivery Plan (IDP) as dependent upon the J7 improvement:

• 421 houses west of Church Road

• 623 houses south of Sutton Road

• 271 houses north of Bicknor Wood

Section 106 agreements have been signed requiring these developments to contribute towards the J7 improvement.

The supply of new housing in Maidstone is considered in the IDP to be constrained by the lack of capacity at M20 J7.

Local Challenges

Congestion and journey time reliability:

Congestion makes it harder for people to travel for work, education, healthcare, leisure or business. Delays and journey time unreliability increase business costs and discourage investment.

Significant queueing is a regular occurrence on the A249 at M20 J7, especially in the morning peak. At times, queueing on the roundabout can affect the M20.

Growth and planned development will increase the number of trips through J7. Without improvement, congestion and delay will get worse, despite limits on the amount of development permitted, thereby deterring inward investment.

Access to better quality jobs:

Maidstone is a Category 2 priority area in the Levelling Up Index; the adjacent borough, Swale, is in Category 1, the highest level of need. Appendix A Figure 9 shows the location of the districts. The A249 is the main link from Swale to the M20, and an important route for journeys to work. Intervention at M20 J7 will improve access to employment opportunities for residents of Maidstone and Swale.

Explain why Government investment is needed (what is the market failure)

Government investment will bridge a gap in funding the infrastructure improvements needed to deliver employment and housing growth. It will also allow the necessary infrastructure improvements to be delivered ahead of further development in the area which will proceed regardless and exacerbate the current congestion experienced at M20J7.

To fully realise planned growth and development, improvements are needed at both Bearsted Road and at M20 J7. An integrated scheme was developed but cannot be fully achieved with the funding available.

An £14.657m funding package covering the Bearsted Road improvement has been assembled from the NPIF with land owner and MBC contributions.

S106 contributions have been secured for the delivery of the M20J7 scheme, with £1,062,249 banked. Further S106 may be forthcoming to the scheme, however this is subject to development proceeding and hitting triggers; therefore the precise amount (if any) is subject to clarification by the local planning authority. The lack of certainty around this means that in order to deliver this hugely important infrastructure improvement to enable growth; external funding is required to bridge the funding gap.

The consequences of not addressing capacity issues at J7 are very significant. As demonstrated previously in this section, planned growth will be constrained whilst opportunities to attract new investment will be reduced. Congestion will get worse, just as improvement is needed to enable wider investment in the area.

Although local contributions have been identified, it would not be viable or equitable to expect these alone to fund the scheme (which also needs to tackle existing congestion) without public sector investment.

The proposal fully addresses identified challenges and barriers to development, offers very high value for money, and supports levelling-up objectives. Government investment of £7.276m from the LUF is therefore sought to bridge the remaining funding gap.

Explain what you are proposing to invest in and why the proposed interventions in the bid will address those challenges and barriers

We propose to invest in a scheme which:

• Improves the capacity of the M20 / A249 intersection (Junction 7)

• Provides improved infrastructure for pedestrians and cyclists at M20 J7, removing the current barrier from north-south between Maidstone and Swale Districts

Rationale for the location

The scheme is located in a part of a LUF Category 2 area with enormous potential for growth and links with a Category 1 area, but is constrained by congestion at M20 J7. The scheme layout is shown in Appendix A Figure 10.

A package of improvements has been designed to enable the full delivery of planned employment, retail and housing development (including the prestigious Kent Medical Campus (KMC), part of the NKEZ, located immediately south-east of M20 J7).

The first part of the package is the £14.657m Bearsted Road scheme, which is fully funded and committed. It will deliver improvements for vehicles, pedestrians, cyclists and bus users, but will only unlock 75% of the KMC.

The proposed intervention will complete the package and unlock full delivery of planned employment, retail and housing, including the final 25% of the KMC.

The intervention will also address existing congestion at M20 J7, helping to stop this from getting worse with growth and development. It will prevent congestion impacting the motorway itself and help the A249 (MRN) to work efficiently as a link between the M20 and the M2.

The proposed interventions comprise:

• Introducing signal control on the western part of the roundabout at J7

• Enabling the future use of smart technology to optimise performance of the intersection

• Provision of a new, safer route for pedestrians and cyclists between the A249 north and A249 south

How the proposed interventions will address the barriers and challenges

The key barriers and challenges are detailed earlier in this bid.

Barrier: Plans for new employment, retail and housing development cannot be fully delivered without improvement to the M20 Junction 7.

The proposed interventions will satisfy the planning conditions imposed on:

• Employment: development at KMC (enabling delivery of the final 25% of this prestigious scheme which creates high-value jobs)

• Retail: upgraded facilities at Newnham Court Shopping Village

• Housing: 1,315 units allocated in Local Plan subject to S106 agreements.

Conditions were imposed because these developments, if delivered in full, would create unacceptable additional congestion at M20 J7. National Highways has stated that the M20 J7 capacity improvements are needed otherwise the planned new housing will be constrained by road congestion. Microsimulation modelling shows that the interventions will address this problem by increasing the junction's capacity.

The network-wide benefits of the intervention, compared with "Do Nothing" and "Do Minimum" (Bearsted Road only), are clearly seen in the graphs provided in Appendix A Figure 11 and Figure 12.

These time savings underpin the intervention's strong economic performance (detailed later in this bid).

Challenge: Congestion and journey time reliability

The proposed intervention will significantly reduce congestion on the A249. Because congestion fluctuates throughout the day, and from day to day, journey times are unpredictable, causing problems for commuters, business users and deliveries. By reducing congestion (evidenced above), the intervention will improve reliability.

Challenge: Access to better quality jobs

The intervention will support the access to new and better paid jobs by:

• Enabling full build-out of quality employment at KMC

• Enabling upgraded retail facilities

• Improving accessibility to work by all modes

The proposed use of smart technology follows the A2/M2 ‘Connected Vehicle Corridor’ testbed established by the Department of Transport (DfT) in partnership with National Highways (formerly Highways England), Transport for London and Kent County Council. KCC piloted the infrastructure, data management and service delivery necessary for connected vehicle services during the trial. By providing the possibility to extend the connected corridor to include the A249 Bearsted Road in the future as part of this scheme, it is hoped it will deliver improved benefits for vehicles entering Maidstone. There are significant benefits in delivering a connected corridor that directly links the M20 junction 7 presenting information to drivers to allow them to make more informed decisions based on live upstream information, displayed directly to the driver. Such information will aim to smooth traffic flows, improve journey time reliability and increase road safety.

Upload Option Assessment report (optional)

How will you deliver the outputs and confirm how results are likely to flow from the interventions?

This section explains how the intervention will deliver the required long-term impacts.

A simplified theory of change (logic map) has been produced showing the causal links that are expected to occur between actions and effects. Provided these links are logical, we may conclude that the intervention will achieve its objectives. They also highlight assumptions about how the intervention will work in practice.

The expected impacts relate to these objectives for the M20 J7 improvement:

• To support economic growth and deliver high-quality jobs

• To cut congestion and improve the experience of transport users

• To support the delivery of new housing and quality retail development

Please see the attached Theory of Change for further details.

Theory of change upload (optional)

M20 J7 Theory of Change.pdf

Set out how other public and private funding will be leveraged as part of the intervention

The M20 J7 project is part of an overall package of integrated interventions to reduce congestion and support economic growth and development – the Bearsted Road improvement scheme already has committed funding of £14.657 million.

S106 contributions have been secured for the delivery of the M20J7 scheme, with £1,062,249 banked. Further S106 may be forthcoming to the scheme, however this is subject to development proceeding and hitting triggers; therefore the precise amount (if any) is subject to clarification by the local planning authority. The lack of certainty around this means that in order to deliver this hugely important infrastructure improvement to enable growth; external funding is required to bridge the funding gap.

Explain how your bid aligns to and supports relevant local strategies and local objectives for investment, improving infrastructure and levelling up

The information below summarises how the M20 J7 improvements align to and complement local policy and strategic aims.

North Kent Innovation Zone (NKIZ, 2015)

In 2015 this became an Enterprise Zone, aiming for 9,900 new jobs in Kent and Medway. The J7 improvements directly support the delivery of the NKEZ and KMC, for which there is a planning condition limiting development until this transport work is undertaken.

Kent and Medway Economic Renewal and Resilience Plan (2020)

Kent and Medway's claimant count in 2020 rose by 119% due to Covid-19. Its recovery plan focuses on long-term productivity growth and providing 'better opportunities and fairer chances'. The KMC has the potential to add 3,300 highly skilled jobs, including specialised R&D, and will support the redevelopment of the adjacent Newnham Court Shopping Village. A lack of sufficient road capacity through M20 J7 slows expansion and deters growth.

Kent Local Transport Plan (2019)

Kent's LTP4 recognises the impact of increased congestion on the local and strategic networks. It targets economic growth through resilient transport infrastructure that reduces congestion and improves reliability. The M20 J7 improvements support LTP4's central theme: growth without gridlock.

South-East Strategic Economic Plan (SELEP, 2019)

SELEP drives the region's aim to grow as a productive, prosperous economy, playing a pivotal role in the UK's future growth. It identifies Maidstone as supporting a large economic hinterland and refers to the role of the KMC in productivity and innovation. This will raise skill levels and drive an increase in the number of knowledge-based workers. The J7 improvements remove a barrier to full roll-out of the KMC, helping attract new investment.

Maidstone Integrated Transport Strategy (ITS, 2016)

Maidstone's ITS sets out transport priorities to support growth. It establishes the need for highway improvements at strategic locations to relieve congestion, including M20 J7. It also identifies a need to improve the frequency and quality of bus services between Maidstone town centre and M20 J7. The improvement will support buses by improving journey times on key routes.

Maidstone Borough Council Infrastructure Delivery Plan (2021)

Maidstone's Infrastructure Delivery Plan supports the sustainable delivery of growth by identifying the strategic infrastructure requirements for the Borough. This includes as a priority project the M20 J7 scheme which is listed as a critical scheme for supporting growth.

Air Quality Action Plan (2015)

An AQMA was declared in 2008 that incorporates the whole Maidstone urban area and the M20 corridor. Reducing the amount of time spent idling due to congestion should improve emission targets and corresponding health.

Maidstone Economic Development Strategy (EDS, 2015)

Maidstone's EDS, wants local people to benefit from new jobs, increasing prosperity and sustainable growth. KMC is central to achieving this objective, "…creating highly skilled, well-paid jobs that will boost productivity and income in Maidstone…and opportunities to attract further inward investment." Eclipse Business Park, Newnham Court Shopping Centre, KIMS, and the KMC are all served from J7, and further expansion is constrained until it can be improved.

Explain how the bid aligns to and supports the UK Government policy objectives

The proposed scheme is designed to increase capacity of the M20 J7, enabling development that will increase housing and employment opportunities in the area. This route is core to traffic flow in the south-east of England. A summary of how improvements to M20 J7 will support relevant UK Government objectives and commitments is provided below.

The M20 J7 is aligned with the missions of the Levelling Up White Paper. The scheme will improve travel conditions, reducing journey time delays and queues at a key road junction critical for the provision of an effective and efficient transport network in the Maidstone and Swale region. This will provide a catalyst for economic growth and housing development. In so doing, the M20 J7 Improvements will increase opportunities to access more skilled and better paid employment opportunities, and reduce unproductive time spent in traffic congestion. The scheme output of reduced congestion will make public transport trips more reliable.

By offering improved cycling and walking connectivity, a barrier to active mode travel will be removed and encourage more use of active travel engendering greater well-being and better health. The scheme will enable the full completion of the KMC, a health sector cluster creating skilled employment in healthcare research and development.

Improved homes for people will be supported as the M20 J7 will unlock the full build out of 1,315 planned new homes in Maidstone. Reduced queuing will lead to less production of tailpipe carbon emission by slow moving traffic providing a positive contribution to the Government's Clean Growth Strategy and Clean Air Strategy in reducing carbon and improving air quality. The M20 J7 improvements will be carried out within the current footprint of the junction, therefore the impact on the natural assets and biodiversity will be negligible.

UK Climate Change and Net Zero Commitments (2021)

In 2021, the commitment to reduce emissions by 78% by 2036 was enshrined into law. Improvements to J7 aims to reduce queue lengths and waiting time for approaching traffic, thereby reducing NO2 emissions in this AQMA.

National Infrastructure Strategy (2020)

The government aims to deliver an infrastructure revolution in the UK in order to level up the country, boosting growth and productivity, and put the UK on the path to net zero emissions. The J7 improvements align not only with the need to reduce carbon emissions, but also with the impetus on levelling up, boosting growth at the KMC by improving capacity and resilience in the transport system.

Build Back Better (2021)

Build Back Better sets out a case for investment in innovation, delivering growth that creates high-quality jobs across the UK. The KMC is not only a key employment offering but aims to become Kent's first Academic Health Science Centre with support from Maidstone Borough Council and the South-East LEP. A planning condition has recently been set that will impede this work until capacity constraints on the M20 are alleviated.

Alignment and support for existing investments

Where applicable explain how the bid complements or aligns to and supports existing and/or planned investments in the same locality

The bid directly aligns to and supports investment already committed for the Bearsted Road improvement scheme, which is in receipt of NPIF government funding and contributions from land owners and Maidstone Borough Council.

The bid also complements other schemes in KCC's LTP, including:
• Maidstone Integrated Transport Package, including improvements on routes feeding into the A249 corridor
• Maidstone walking and cycling improvements
• Maidstone public transport improvements, including on radial routes

The capacity improvements at M20 J7 will also complement National Highways M2 Junction 5/A249 Stockbury roundabout scheme which aims to improve journey time reliability on the strategic road network.

Explain how the bid aligns to and supports the government's expectation that all local road projects will deliver or improve cycling and walking infrastructure

Cycling and walking

The bid will deliver new cycling and walking infrastructure, illustrated in Appendix A: Maps, Figure 13, including:

• A new pedestrian and cycle route between the north and south sides of J7, connecting to existing routes and replacing an existing sub-standard facility.

• Four new pedestrian / cycle crossings. The introduction of signal control means that pedestrians and cyclists will be able to cross safely to use the new route which will run around the central island of the roundabout.

As shown in Appendix A Figure 14, these new cycling and walking facilities will align with existing facilities complementing the cycling and walking improvements in the Bearsted Road scheme. This will encourage cycling and walking to the KMC and other sites, helping reduce congestion and improve air quality, health and well-being. The cycling and walking facilities were designed to TA 90/05 standards before the publication of the LTN 1/20 guidelines. However, these designs will be reviewed with regard to LTN 1/20 guidance during scheme delivery.

The proposals align with the principles of “Gear Change - a bold vision for walking and cycling”, by being safe, direct, logical and easy to understand. The detailed design will seek to follow the Government’s cycling design guidance as appropriate.

Buses

The intervention will significantly reduce delays for buses using the A249 at M20 J7, making bus journeys more reliable and attractive. This is in line with the objectives of the Maidstone Integrated Transport Strategy.

Confirm which Levelling Up White Paper Missions your project contributes to

Select Levelling Up White Paper Missions (p.120-21)

Living Standards
Research and Development (R&D)
Transport Infrastructure
Skills
Health
Wellbeing
Pride in Place
Housing

Write a short sentence to demonstrate how your bid contributes to the Mission(s)

Living standards will be improved through the M20 J7 scheme reducing unproductive time spent in queues, and, improving access to and acting as a catalyst for the full build out of the Kent Medical Campus with the potential to create 3,300 highly skilled jobs supporting economic growth.

The scheme will unlock the final 25% of the Kent Medical Campus, providing high quality research and development facilities.

The contribution to transport infrastructure as the M20 J7 capacity improvements will improve journey times and reliability for public transport and active mode users by reducing traffic congestion and improving connectivity through the junction.

The scheme enables the full build out of the Kent Medical Campus comprising 98,000m2 of specialist medical facilities, R&D facilities, offices, and associated uses. which will offer employment opportunities for local people completing high quality skills training.

Health will be improved by the M20 J7 scheme improvements in active mode connectivity providing safer and better connectivity for cyclists and pedestrians mitigating the current barrier to north-south active mode travel between Maidstone and Swale District.

The M20 J7 scheme will support improved well-being by offering improved active mode connections between Maidstone and Swale creating a better ambience and environment and hence sense of well-being for active mode users.

The scheme will contribute to pride in place by tackling an existing congestion hot spot, providing improved connectivity between Maidstone and Swale.

The scheme will contribute to housing by facilitating the construction of new homes through S106 funding agreements with developers, which will unlock the full build out of 1,315 planned houses in Maidstone.

Section 7: Economic Case

Provide up to date evidence to demonstrate the scale and significance of local problems and issues

Queueing

The main problem is queueing at the approaches to the M20 / A249 roundabout at M20 J7, especially the A249 southbound approach. This has been simulated using the microsimulation model. The results are clearly illustrated in the graphs provided in Appendix A, Figures 15 to 20, which show the build-up of queue length (m) in the morning peak period at 2021 levels, including planned growth.

The Do Minimum (DM) scheme (green line) would have no significant impact on very long queues on the heavily congested A249 southbound approach (the first graph). Without improvement to M20 J7, this level of queueing would be unacceptable and unmanageable.

The DM scheme would, however, improve queuing on the westbound approach (the second graph) by reducing congestion further south and preventing blocking back to J7. This is useful, but it is not enough.

The graphs also show the forecast impact of the proposed intervention at M20 J7 (the blue ‘Do Something’ line). These impacts are discussed in detail further on in Section 7.

Significance of the local problems and issues

Serious queueing on a key approach to Maidstone will cause delay and journey time uncertainty for all road users, including commuters, business users and deliveries. Buses will also be affected. The costs of delay will have an adverse economic impact.

Queueing and delay at J7 will also inhibit access to the KMC and other development immediately south of J7. It will discourage investment in the NKEZ. Without the J7 improvement, the only option has been to limit the build-out of this prestigious development.

The final 25% of the KMC development is therefore reliant on the delivery of the M20J7 scheme.

Demonstrate the quality assurance of data analysis and evidence for explaining the scale and significance of local problems and issues

The main objectives of the data collection and analysis method were to collect data to build, calibrate and validate the transport model for the network, for use in assessing the impact of the traffic impacts of the scheme (reduced congestion, reduced queuing, reduced vehicle emissions in the AQMA), and to ensure the data collected is robust, up to date and unbiased.

In order to capture the evidence to demonstrate the scale and significance of the local problems previously described, the data collection followed these principles / satisfied these conditions:
The data collected was complete (all data needed for the analysis was available), accurate (was collected in line with best practice with sufficient checks to ensure its accuracy), authorised (followed appropriate quality management processes and was authorised accordingly, timely (collected in time for the analysis to be completed within programme), processed (as close to the source data as possible and not unduly reworked), and secure. These are the fundamental components on data collection within the analytical assurance framework.

The analysis of the data followed the RIGOUR method, meaning that it was:
• Repeatable
• Independent
• Grounded in reality
• Objective
• has been Understood and managed uncertainty
• and the results addressed requirements Robustly

Traffic count data was collected by WSP's Data Collection and Analysis Team, a professional data collection company (who run the national programme of traffic data collection for the DfT) in accordance with methodologies set out within DMRB and TAG (Unit M1-2 'Data sources and surveys').
Data was collected over sufficient time periods to ensure that if there were any technology failures, the was sufficient data coverage to avoid the need for resurveys (technology failure did not occur). The data was also cleaned to remove any outliers.
Checks and quality assurance of the data and subsequent analysis were undertaken in alignment with WSP's Quality Management System, which is ISO9001 accredited. This included data verification / validation checks, such as by checking in and outbound flows within a traffic network diagram. Analysis was undertaken in line with spreadsheet best practice requiring quality control sign off.
Data was collected in neutral months (March 2018), on a neutral day and avoided bank holidays, school holidays, i.e. up to date (within the 5-year threshold) and reflective of current traffic conditions.
The collected information includes manual classified counts (at the junctions listed earlier in this section), queue length information (video and direct observation), journey time information for two routes, and pedestrian crossing data.
All these data sources and data collection techniques are recommended as appropriate within TAG (Unit M1-2)
Traffic flow, pedestrian flow, and queue length data was collected for the AM (07:00 to 10:00) and PM (16:00 to 19:00) periods on Tuesday 20 March. The journey time information was collected from 19-21 March.
Separately, air quality data was collected from existing roadside diffusion tubes in the Air Quality Management Area. This data collection is continuous and operated, managed and analysed by MBC, in accordance with DEFRA requirements.

Demonstrate that the data and evidence supplied is appropriate to the area of influence of the interventions

Microsimulation was selected as the most appropriate form of model to examine a small network of potential junction improvements, effort was focused on collecting high quality data over a relatively compact area, which can be modelled in detail to determine the impacts of proposed development and highway interventions.
The area of influence of the microsimulation model is illustrated in Appendix A, Figure 17 . The model includes the following junctions:
• Junction 7 of the M20 (M20 slip roads / A249)
• A249 / Bearsted Road roundabout
• Eclipse Park Access (A249 / Sittingbourne Road signalised junction)
• Bearsted Road / Newnham Court shopping village access

• Bearsted Road / Crematorium access
• Bearsted Road / New Cut Road roundabout.
The collected information includes manual classified count data at these junctions, together with queue length information (video and direct observation), journey time information for two routes, and pedestrian crossing data. The traffic flow, pedestrian flow, and queue length data was collected on Tuesday 20 March, and the journey time information was collected across the 19-21 March during a Department for Transport neutral data collection window. All data was collected for the AM and PM periods of 07:00 to 10:00 and 16:00 to 19:00 respectively.

Provide analysis and evidence to demonstrate how the proposal will address existing or anticipated future problems

The inputs and activities set out in the scheme theory of change address the need to reduce congestion and support economic growth in the Maidstone area. The inputs are the scheme interventions in terms of the introduction of traffic signal controls, improved cycling and pedestrian connectivity north to south through the M20 J7 including four cycle and pedestrian crossings. The assessment of the quantifiable impacts of the scheme in addressing the congestion issues was carried out using a local transport model to represent existing conditions and forecast the impacts of the scheme. Impacts were quantified in terms of reduced queuing, improved journey times and improved reliability for all road users and more attractive conditions for cycling and walking.

The biggest problem is lack of capacity at M20 J7, which will inhibit planned employment development.
Queueing
Queueing at the M20 J7 has been simulated using the microsimulation model. The results are clearly illustrated in the graphs in Appendix A, Figures 15-20, which show the build-up of queue length (m) in the morning peak period in 2021.
The proposed J7 improvement will dramatically improve the most serious problem which is the queueing on the A249 southbound approach as shown in Appendix A Figure 18.

The DS scheme (blue line), which includes the M20 J7 improvement, would dramatically reduce queueing on the A249 southbound approach. There would be some increase on the northbound and eastbound approaches, but queues here would remain short.
With the improvement to M20 J7, the overall level of queuing at J7 would be acceptable and manageable. The proposal achieves what the DM scheme cannot and enables the full roll-out of employment development in the NKEZ and elsewhere.

Delay / Journey time savings
Reductions in queueing will lead to significant journey time savings. Appendix A figures 19 and 20 show the total time in the microsimulation model network for the DN, DM and DS scenarios in 2031. As can be seen from these diagrams the Bearsted scheme and the M20 J7 scheme are required to deliver the full benefits in terms of reduced journey times through the junction.
These time savings drive the economic benefits reported later in this bid.

Cycling and walking
The proposal will also address the problem of poor pedestrian and cycle access to the NKEZ from the A249 north. The creation of a new pedestrian and cycle route through J7, with safe, convenient signal-controlled crossings will make walking and especially cycling to work more acceptable.

Public transport
The reductions in delay will also help to make bus travel quicker, more reliable and more attractive. It will support wider measures in the LTP designed to encourage greater use of public transport.

Describe the robustness of the analysis and evidence supplied such as the forecasting assumptions, methodology and model outputs

A Paramics Discovery (version 19) model was selected as the most appropriate model to examine the M20 J7 and Bearsted Road schemes and the impacts of major development in a small area. Its advantages over a larger scale model are:
• Close focus on the area of interest
• Models the behaviour of individual drivers
• Accurate, detailed modelling of queueing and congestion at intersections
• Realistic modelling of peak period profiles of demand
• Realistic modelling of interactions between junctions in a small network
• Easy to check outputs against observed network performance

The model has an opening year of 2021, and two forecast years, 2031 and 2036.
An uncertainty log captured planned development associated with the KMC, with forecast housing and job growth taken from TEMPro 7.2. Development information was taken from the Transport Assessment associated with the planning application.
TEMPro growth factors were gathered for both Urban Principal roads and Rural Motorways for AM and PM for each of the forecast years. Rural Motorway growth factors were applied to traffic heading along the main carriageway or along any strategic route (i.e. those between the motorway and the A249 north and A249 west) while all other trip pairs used Urban Principal.
The TEMPro factors for the zone related to KMC have been set to 1 to avoid growth in trips related to the development, as they were already represented by a directly assigned set of trips.

The resultant TEMPro growth factors applied are shown in Appendix A Figure 21.

Trip matrices have been built directly from the observed traffic count data, with profiles constructed from turning counts and queue data. No synthetic information was required as there was a full coverage both spatially and temporally within the model extent.
Calibration of the model has been carried out to turning counts and queue lengths. Turning counts have been calibrated to standard WebTAG criteria and modelled queue lengths have been calibrated to be of a similar frequency and magnitude as the observed queue lengths. The AM and PM peak hours of the model pass all the specified DMRB criteria. The overall pass rate is significantly better than that required, being 100% compared to the 85% needed.
Journey time validation has been carried out to act as comparison between the modelled and observed journey times and provides validation statistics indicating a goodness of fit to observed data.
Link flow validation has been carried out using the same criteria as that used for the turning count data calibration.
Overall, the link count calibration shows an exceptional fit between the observed data and the modelled data, with the relevant criteria being exceeded in both AM and PM periods.

Three scenarios were modelled:
• Do nothing
• Do minimum (includes Bearsted Road but not M20 J7)
• Do something (includes M20 J7)

Full details of the development, calibration and validation of the model are set out in the Paramics Modelling Report (November 2018) and Scheme update report (May 2019) which are included in Appendix D.

Explain how the economic costs of the bid have been calculated, including the whole life costs

Costs within the Economic Case are consistent with the Financial Case, but have been subsequently adjusted in accordance with the method set out within TAG A1.2 ‘Scheme Costs’ for road scheme at SOBC stage.

Costs were estimated by Quantity Surveyors (Allen Dadswell) and are provided in Q2 2021 prices.

The assumptions include:
• Inflation has been applied according to the BCIS Civil Engineering Cost Indices
(and adjust as of TAG for the real cost adjustment)
• An optimism bias cost-adjustment at 44%
• Rebasing to the Department for Transport base year (2010)
• Discounting to 2010 prices and values (3.5% for 30 years, 3% for next 30 years,
using the TAG Data Book, May 2022 V1.18)
• A market price adjustment factor (19% uplift to convert from factor prices to market prices)

These costs have been used as an input into the DfT LUF small scheme appraisal toolkit proforma May 2022).

Whole-life costs are likely to be minimal and have not been included within the financial ask or within the Value for Money Assessment. Given their scale, they would not impact upon the BCR of Value for Money category.

Describe how the economic benefits have been estimated

The economic benefits have been estimated using the DfT LUF Small Scheme Proforma. Use of the Small Scheme Proforma aligns with the following TAG units:
• A1-1 'Cost-benefit analysis'
• A1-3 'User and provider impacts'
An S-paramics microsimulation model was used to undertake the analysis of scheme impacts and provide the input data into the Small Scheme Proforma. Whilst the limitations of use of an operational model are acknowledged, given the size and complexity of the scheme, the use of this model is considered to be proportionate.
The following impacts have been estimated:
• User benefits (journey time and vehicle operating cost changes)
• Noise
• Local air quality
• Greenhouse gases
• Physical activity
Land Value Uplift associated with both the employment / development at the Kent Medical centre, and housing developments Land North of Bicknor Wood, Sutton Road and Land South of Sutton Road have not been quantified and monetised and included within the Value for Money assessment, as no dependent development testing has been undertaken. However, these impacts are reported on qualitatively.

Provide a summary of the overall Value for Money of the proposal

A summary of the overall Value for Money assessment is provided below from the Costing and Planning Workbook. As described above this assessment has been undertaken using an operational microsimulation model, with the results input into the LUF Small Scheme Proforma to derive scheme benefits.

Present Value of Benefits: £226.97 million
Present Value Costs: £10.96 million
Benefit Cost Ratio: 27.28

Whilst the Benefit Cost Ratio (BCR) is extremely high, this is quite typical of Value for Money Assessments that use microsimulation models, rather than a Highway Assignment Model such as SATURN. As above, this was considered to be proportionate for this size and complexity of scheme.

Previous Value for Money Assessments for the scheme, including those submitted within the successful NPIF, and Local Growth Funds (and which also used ARCADY / LinSig operational models in conjunction with a Highways England PAR form) generated BCRs ranging from 4.36 (NPIF) and 2.34 (Local Growth Fund). Each of these put the scheme in or above the High Value for Money Category.

We believe that the apparent air quality and GHG dis-benefits are likely to be a consequence of the way a microsimulation model deals with un-met demand in the congested “do minimum” scenario. In practice the prevention of excessive queues of stationary traffic achieved by the scheme is likely to deliver improved local air quality with either neutral or positive benefits for GHG. This would be demonstrated by more detailed analysis which has not yet been done.

Active Mode Benefits associated with the improvements for walking and cyclists (active mode users) have also not yet been appraised. This work is planned for later in 2022. The local air quality and gas impacts noted above would be improved by the addition of these benefits, and other active mode user benefits would be captured.

The size of the monetised benefits is very large. This reflects the very significant impacts of the scheme on queuing, delay and journey times, with traffic conditions switching from almost gridlock to more free-flowing conditions. The Value for Money of the scheme, given the relatively small investment for the magnitude of benefits is therefore Very High.

The economic appraisal results using the Small Scheme Appraisal Toolkit is set out in Appendix E.

Upload explanatory note (optional)

Have you estimated a Benefit Cost Ratio (BCR)?

Yes

Estimated Benefit Cost Ratios

Initial BCR

27.28

Adjusted BCR

Describe the non-monetised impacts the bid will have and provide a summary of how these have been assessed

Non-monetised impacts have been appraised qualitatively using the 7-point scale, as permitted within the DfT Value for Money framework.
• Regeneration – moderate beneficial (associated with the unlocking of jobs, housing and other development)
• Landscape - neutral (given works are within the existing highway boundary)
• Townscape - neutral (given works are within the existing highway boundary)
• Historic Environment - neutral (given works are within the existing highway boundary)
• Biodiversity - neutral (given works are within the existing highway boundary)
• Water environment - neutral (given works are within the existing highway boundary)
• Security - neutral (no change to personal security is expected to arise)
• Access to services - minor beneficial (there is the potential for operators to increase frequency associated with additional demand for jobs within the area, and because buses will now operate in an uncongested network)

• Affordability – moderate beneficial (the scheme will reduce travel costs through reduction in fuel usage due to congestion relief)
• Severance – moderate beneficial (associated with additional walking, cycling facilities and signal crossings)

Provide an assessment of the risks and uncertainties that could affect the overall Value for Money of the bid

There is a risk that the level of travel time savings and costs are not as expected. A series of sensitivity tests have therefore been undertaken to understand how some of the parameters and assumptions used within the appraisal of the Kent Medical Campus Junction Improvements influence the economic case.

Sensitivity analysis will test the vulnerability of the option against unavoidable future uncertainties to test the robustness of the Kent Medical Campus scheme. Sensitivity tests have been undertaken by assuming uncertainty surrounding travel time savings and cost. The sensitivity tests assume current travel time savings and costs may vary and have been conducted by reducing the total inflating and reducing delay/cost savings by 25% to understand the full extent of the scheme benefits. PVB is based on benefits extrapolated for years between 2017 and 2032.
Sensitivity tests were carried to provide a broader understanding of the value for money presented by the Kent Medical Campus Junction Improvements, detailed earlier in this section. The initial BCR of 4.36 was based on travel time savings for vehicle users, and excluded an estimate for bus user benefits.

The results of the sensitivity tests using the Paramics operational microsimulation model, indicate the scheme remains very high value for money when costs are increased by 25% and benefits decreased by 25%.

Upload an Appraisal Summary Table to enable a full range of impacts to be considered

Upload appraisal summary table

M20 J7 Appraisal Summary Table.pdf

Additional evidence for economic case

None selected

Section 8: Deliverability

Confirm the total value of your bid

Total value of bid

£8338127

Confirm the value of the capital grant you are requesting from LUF

Value of capital grant

£7275698

Confirm the value of match funding secured

£1062429

Evidence of match funding (optional)

Where match funding is still to be secured please set out details below

S106 contribution of £1,062,429 is secured and banked; giving a 13% local contribution towards the scheme delivery.

Land contribution

If you are intending to make a land contribution (via the use of existing owned land), provide further details below

N/A

Upload letter from an independent valuer

Confirm if your budget includes unrecoverable VAT costs and describe what these are, providing further details below

N/A - the bid does not include unrecoverable VAT costs.

Describe what benchmarking or research activity you have undertaken to help you determine the costs you have proposed in your budget

KCC commissioned an independent cost consultant (Allan Dadswell Construction Consultants (ADCC)) to review the cost estimate for the scheme based on Q3 2022 indices. This exercise was completed in July 2022, and therefore gives confidence that a robust cost estimate is provided; and the scheme will be deliverable within the budget specified.

The budget costs have been built up from a fully measured and quantified cost plan. The rates utilised therein have been benchmarked against a full set of tender returns for an adjacent scheme tendered in early 2021, shortly before this cost plan was produced. These rates have also been benchmarked against rates from several other recently tendered works in Kent where the scope of works may differ. For example, preliminaries have been allowed for based on the weekly rates for the adjacent scheme, but an additional allowance has been included for traffic management on the motorway based on previously delivered works to motorway junctions.

Where the level of design did not enable ADCC to fully measure the works, for example in pricing traffic signs and earthworks, they have again undertaken benchmarking exercise against previously delivered schemes in Kent and the South East and made appropriate assumptions. For example, it was assumed that the majority of the directional and advanced directional signs can be maintained or relocated where necessary, and that there will be minimal change to the finished levels of existing carriageways as the majority of the works are online.

The overall costs have been benchmarked against a database of completed Kent County Council Schemes based on cost per metre of carriageway, and cost per square metre of carriageway. Non-Construction costs have similarly been reviewed against completed Kent County Council schemes.

For each cost item, applicants should provide a clear explanation of the benchmarking/market research undertaken to support the proposed cost, including details of any assumptions.

Provide information on margins and contingencies that have been allowed for and the rationale behind them

The level of detail within the design necessitated numerous assumptions for pricing the works, which were informed by work on previous schemes and discussions with Kent County Council and our designers. ADCC generally assume that conditions will not be favourable for delivery of the works and ensure that their assumptions are robust, and therefore an element of risk is priced for and quantified within the works themselves.

They have allowed for an average risk of 18% below the line on the construction and non-construction works, based on their experience of the general level of risk experienced on previously delivered projects for Kent County Council. While it is accepted that the overall risk allowance is low at this stage of the project, it should be considered that some additional risk has been allowed for within the measured works as noted above. It should also be considered that most of the works are bound by the existing kerb lines apart from a minor length of widening to the Junction 7 Eastbound Off-Slip, and therefore the risk of unforeseen utilities diversions and poor ground conditions associated with off-line works are relatively minor for a scheme of this size.

Describe the main financial risks and how they will be mitigated

The key financial risk to the project is not securing LUF funding, as the scheme would not proceed without it.

The main financial risks from the risk register are summarised below:

• Not securing LUF funding, which would lead to non-delivery and further cost increases due to inflation prior to scheme construction commencing in the future.

• Cost increases due to accuracy of utility cost estimates

• Construction price inflation

• Design creep

• Additional scheme costs due to KCC's Lane Rental scheme

KCC Section 151 officer will underwrite any cost increases on the project over and above those described, as with other risks managed by the scheme project manager in accordance with Kent County Council Business Management System (which is 9001 accredited).

Risk will be shared with the scheme contractor as set out within the tendered contract. The contract will be developed in line with the Construction Playbook, which provides the current guidance / best practice for procuring contractors within the UK. The contract is a traditional contract, using NEC4, and it is likely that Option B will be used, which provides a balance between risk and reward for the contractor. Key financial risks will be allocated according to the contract; this is currently confidential as contract award has not yet been confirmed but further details can be provided once the award has been made.

The risk register is attached.

Upload risk register

M20 J7 Risk Register.xlsx

If you are intending to award a share of your LUF grant to a partner via a contract or sub-grant, please advise below

N/A

What legal / governance structure do you intend to put in place with any bid partners who have a financial interest in the project?

N/A - KCC will deliver the project in its entirety.

Summarise your commercial structure, risk allocation and procurement strategy which sets out the rationale for the strategy selected and other options considered and discounted

Procurement Strategy:

The estimated contract cost for the Programme of works is above the WTO Government Procurement Agreement (over £4,733,252) to apply the public procurement rules in the Trade and Co-operation Agreement (TCA).

The Works will be procured using the NEC4 form of Contract Option A, B or C.

There are several options to get to market listed below:

Option 1 – Restricted Procedure

• PPN / Contract notice (all new procurements) to be advertised through the UK's new e-notification 'Find a Tender' service ("FTS"), which effectively replaces notifications through OJEU/TED.

• A two-stage process: Stage One (Selection) pre-qualification stage- Suppliers are alerted to express an interest in the opportunity by obtaining and submitting a Selection Questionnaire (SQ); this will be used to establish their capability, experience and suitability etc. (backward facing).

• Stage Two (Award) - Shortlisted suppliers which meet the selection criteria are then invited to tender (ITT). All tenders are evaluated in line with the methodology and award criteria set out in the tender documentation. The specifications of the entire requirement for Tenderers to be able to deliver a fully priced bid without the need for any negotiations following receipt of the bid.

Consider the restricted procedure where you want to "pre-qualify" suppliers based on their financial standing and technical or professional capability to narrow the number permitted to submit bids. This tender process opens the opportunity up to all suppliers within the market as the purpose of the SQ is to select a shortlist of 5 (or more) suppliers which are likely to meet the tender requirements.

Advantages: ·

• Restricts the number of organisations invited to tender making the tender evaluation more manageable so to enable a detailed Selection assessment.

• Reduced number of suppliers invited to tender can mean a faster and less resource intensive evaluation of tender responses. ·

• Only suppliers who pass the SQ will incur the full cost of completing an ITT.

• Potential bidders not restricted to a pre-selected list.

Disadvantages: ·

• Speculative SQ's being submitted since the full tender documentation may be unavailable at the Selection stage. ·

• Longer procurement process with two distinct stages. ·

• SQ can be a barrier to smaller providers and added resource cost and potentially unnecessary burden for suppliers.

Option 2 - Open Procedure

The open procedure is the fastest and simplest route to award a contract, but it allows no opportunity for negotiation. The open procedure is suitable for simple procurements where the requirement is straightforward. As there is no "pre-qualification" of bidders, anyone can submit a tender and it is possible that many suppliers could bid.

Advantages: ·

• A shorter procurement process due to only being one stage.

• Reduced bureaucracy with suppliers not needing to complete a SQ.

• A simpler procurement process can be easier for smaller suppliers to manage.

Disadvantages ·

• Additional resource may be required for evaluation if a high volume of tender responses is received.

• Can increase the bid costs for all suppliers because a full tender response must be completed.

• Larger suppliers may not bid because of cost of tendering v chance of winning contract.

• The open procedure is suitable for simple procurements where the requirement is straightforward.

Option 3 - Competitive Procedure with Negotiation (CPN)

This procedure includes a selection stage questionnaire and Invitation to Tender (or ITN), and the final negotiation stage is optional as along as this has been stated within the tender. The majority of the principles of the restricted procedure are included with this route to market.

• Market engagement - good dialogue/negotiation requires sufficient market interest in the procurement. It is important to engage early with the market and listen to the wider perspective in order to structure the process and the requirements in a way that they will incentivise sufficient numbers of suppliers to participate in the process.

• Selection Questionnaire stage – optional Bidders Day ·

• Issue invitation to submit initial tender ·

• Negotiation stages- can help to test the deliverability, exploring opportunities for innovation to remove assumptions, reduce risk mitigation, contract terms and pricing mechanisms, environment aspects. ·

• Invitation to submit final tender highlighting all changes ·

• Evaluate invitations to submit final tender and award contract

Advantages: ·

• More flexibility (than a restricted procedure), more control over bidders (than an open procedure). The contracting authority can accept initial tenders (and opt not to enter further negotiations with bidders) provided it has retained this discretion in the published contract notice

• Ability to clarify priced submissions to ensure both parties fully understand the scheme. Would be unable to make amendments in Option 1 and 2.

Disadvantages: -

• CPN can take up to 9 months and can be complex (but dependent on subject matter).

• Negotiation stage should be defined upfront i.e., what can be negotiated

Option 4 – Framework Agreement

A framework would allow the appointment a contractor from a pre-awarded supplier list during the life of the agreement. A mini competition would be used to determine the best bidder against our criteria, but terms and conditions cannot be re- negotiated but can be refined or supplemented. This competition would not need to include traditional selection questions to assess supplier capability and capacity and framework agreement must be stated clearly in the notice calling for competition.

• Need to check authorisation to use the chosen framework

• Comply with the terms of the framework agreement and follow any rules of the framework

• Decide the level of service you want and send an invitation to tender to all suppliers on the framework who can provide what you need

• Evaluation process to choose the supplier based on criteria.

• Award the contract to the winning supplier.

Advantages: -

• Frameworks can deliver many benefits, as they have been designed to ensure competitive pricing, drive efficiency and savings.

• Long-term relationship agreements override short-term procurement policies that cause endless uncertainty for suppliers.

• Continues improvement, creates employment in local construction businesses, and cuts waste in processes and physical resources.

• Providers on a framework have also been evaluated against pre-qualification criteria providing confidence that the works can be delivered.

• Terms and conditions of contract are also pre-agreed which removes the risk of disagreement later.

Disadvantages: - ·

• Terms and conditions cannot be re- negotiated.

• Not all frameworks can be authorised to use.

There are several frameworks currently available to KCC however this would need to be reassessed prior to procurement to confirm that they are still live.

Preferred procurement and contracting strategy:

The procurement options for the M20 J7 improvements were considered as part of the initial funding bid for the A249 Bearsted Road Roundabout. Consideration was given as to whether the schemes should progress as separate contracts, or as one contract, with the advantages and disadvantages of each detailed.

It is expected that the J7 improvements will proceed as an extension to the A249 Bearsted Road contract, with a single supplier responsible for both schemes. KCC expects to benefit from volume aggregation, with the assurance of competitive tendering, market value rates and value for money captured by the initial bidding process for Bearsted Road.

While procuring the J7 improvements as a separate contract may allow for greater flexibility and a more competitive process, this is balanced by the likelihood of additional costs in terms of mobilisation, a lack of continuity, and the application of lessons learned.

Securing Levelling Up Fund would allow greater flexibility in the programming and remove the cash flow issue that works are currently experiencing owing to the trigger points of the section 106 contributions. This would allow the successful contractor to manage their resources more effectively and limit their costs. If the funding bid is successful, the J7 improvements will follow on from the Bearsted Road contract. If, however, the bid is not successful it is likely that a break clause would be required, or indeed separate contracts.

This option would also make the scheme more attractive to potential bidders which can only be of benefit to KCC and by making the tender process more competitive will help ensure that KCC would receive the best value for money.

There are various options available that promote the sharing of risks across the various parties involved on the construction project. The procurement strategy and contractual mechanisms through the proposed form of contract will ensure that all options for risks transfer are considered and applied where appropriate.

Through procurement and as part of scheme delivery, the contractor will produce a priced risk register. This will be reviewed as part of the process of target setting and decisions made on the mechanism for sharing risk between the contractor and KCC, ensuring that the proposed allocation provides the best value for money for the project for both KCC and the DfT.

The above approach builds on KCC's experience with such delivery mechanisms on recently and successfully delivered schemes, with a clear understanding between contractor and authority of how they work and what their processes are. This is not just in terms of roles, but also agreed standards, mechanisms and clarity over risk and risk allocation and transfer through the design and construction phases.

Who will lead on the procurement and contractor management on this bid and explain what expertise and skills do they have in managing procurements and contracts of this nature?

The KCC Major Capital Programme Team has a successful track record in the development and delivery of complex and varied major infrastructure projects on time and within budget, and that deliver the scheme objectives.

The team are a 'knowledgeable client' in the development and delivery of schemes. Appropriate transportation, engineering, planning and environmental consultancy support will be commissioned and the knowledge and skills of KCC staff will also be drawn upon.

In terms of scheme construction, KCC works closely with the construction industry and individual contractors, and will develop a procurement model best suited to the scheme and programme. As an authority that procures multiple construction contracts a year, KCC are in regular communication with the Civil Engineering Contractors Association (CECA), providing regular updates to their members on the forward programme. KCC have well established relationships with a large number of construction companies.

This project will be undertaken and managed by the Major Capital Programme Team, supported by The Commercial and Procurement Team which provides procurement services, as well as commercial expertise, professional procurement advice, and guidance for KCC staff. This includes finding the most appropriate suppliers, conducting tendering exercises, negotiating and awarding contracts. The scheme will have a designated Project Manager (PM) who is an appropriately trained and experienced member of the Major Capital Programme Team. The PM will manage the development of the scheme, including, commissioning a consultant to develop the design, with particular emphasis on realising the intended benefits through a well-evidenced and well-rounded appraisal that provides decision makers with the information they need.

Appendix F shows the organisational structure of the KCC Major Capital Programme Team, which is part of the Highways and Transportation division, reporting to David Brazier as the Cabinet Member for Highways and Transportation. The Major Capital Programme Team will develop the team structure and identify named personnel for delivering the scheme, subject to further review of the design and securing funding.

Are you intending to outsource or sub-contract any other work on this bid to third parties?

The Project Manager will manage the development of the scheme, including, commissioning a consultant to develop the design, with particular emphasis on realising the intended benefits through a well-evidenced and well-rounded appraisal that provides decision makers with the information they need.

How will you engage with key suppliers to effectively manage their contracts so that they deliver your desired outcomes

KCC utilises a contract management tool (CEMAR) to create, store, report and manage contractual data for each of the projects it delivers (for both professional services and construction). This software has been introduced to ensure our framework contract and construction contracts can be managed centrally, consistently and are fully audited.

The key benefits of the system are:

• Drives procedure: Procedurally guide users through the built in NEC3 Package Order contract format and lifecycle.

• Manage all NEC3/4 process including change control, Early Warnings and Compensation Events

• Create a single portal for the creation of contractual documentation and correspondence. Provide a snapshot/overview of all key PO information within a central register.

• Create unique references for each PO.

• Ensure Contracts undergo change control process, ensuring that correct data is captured and shared to the suppliers prior to the contract becoming live.

• Highlight potential savings gained throughout the contract period which can be tracked

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• Capture contract cost & payment information

• Track and trace types of work, and all change controls including cost alterations.

Set out how you plan to deliver the bid

Schedule

A schedule for the delivery of the M20J7 scheme is attached in the costings and planning workbook and demonstrates that the scheme can be delivered by March 2025 in line with the LUF funding requirements. The M20J7 scheme is on KCC's managed Major Road Network and is non-unique in its scope and scale. KCC has a successful track record of delivering similar major transport schemes within the county.

The key milestones are shown below:

Project Review and bid submission – Aug 22

Detailed design – Nov 22

C4 Estimates – Jan 23

Tender commencement – Aug 23

Appointment of contractor – Dec 23

Construction – Apr 24

Opening – Nov 24

The proposal has no identified dependencies with other works planned or underway however a risk is identified concerning availability of road capacity should delivery programmes for this proposal and those at Coldharbour junction on the east of Maidstone for the M20 overlap. Whether overlap of the programmes is viable will be dependent on precise timings of respective works and their traffic management impacts on local and trunk road traffic – accordingly National Highways position will be informative once greater certainty is forthcoming on the likely timescales for delivery of both (in turn dependent on availability of funding).

The Project Team and their key responsibilities are summarised below:

Lee Burchill - Major Capital Programme Manager - Overseeing Manager

Kerry Clarke - Senior Programme Manager - Programme Management, Governance

Colin Shorter - Project Manager - Delivery, Budget Management, Risk Management, Monitoring and Evaluation

Isla Rutter - Senior Project Officer - Financial monitoring and project management support

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KCC has established a robust governance structure to provide accountability and a clear decision-making process for major capital projects within its remit. A diagram illustrating the governance structure is included in Appendix I, Figure 1.

Project Steering Group meetings will be held monthly, with progress discussed in technical detail to allow for the proactive management of programme and project. The resulting Highlight Report will identify and escalate any areas of concern or where decisions are required to the Programme Board.

Programme Board will be held monthly, with attendees from the delivery team, and KCC leadership. This is an opportunity to drill into specific details and review financial progress. Where the board is unable to resolve an issue, it is escalated to the Sponsoring Group.

The Sponsoring Group is held bi-monthly, and is chaired by the KCC Head of Transportation, with the Director of Highways & Transportation, Cabinet Member for Highways & Transportation and the Major Capital Programme Manager in attendance. Technical advisors are invited where necessary to close out any issues escalated to this point. The Sponsoring Group is the final decision point for any escalated issues. A diagram showing the KCC meeting governance is included as Appendix J.

The delivery of this scheme will be managed in line with KCC contract management processes.

Benefits Realisation Plan

A Monitoring and Evaluation Plan has been completed as detailed later in this bid, and a Benefits Realisation Plan will be completed upon LUF funding being secured. Traffic Counts will be collected and will be used as a baseline for congestion and air quality monitoring. Success will also be evidenced by the number of developments that will be able to proceed once the conditions of planning around M20J7 are met.

Stakeholder Engagement:

Early-stage engagement with stakeholders has commenced and will be an important part of the project going forward. A formal Stakeholder and Communication Strategy is in progress, which will underscore KCC's approach to managing different stakeholders. Stakeholders will be approached with different level of engagement depending on their needs, as shown in Appendix I, Figure 2.

KCC has considered the scheme in terms of its impact on the built and natural environment as follows:

• Regeneration – moderate beneficial (associated with the unlocking of jobs, housing and other development)

• Landscape - neutral (given works are within the existing highway boundary)

• Townscape - neutral (given works are within the existing highway boundary)

• Historic Environment - neutral (given works are within the existing highway boundary)

• Biodiversity - neutral (given works are within the existing highway boundary)

• Water environment - neutral (given works are within the existing highway boundary)

• Security - neutral (no change to personal security is expected to arise)

• Access to services - minor beneficial (there is the potential for operators to increase frequency associated with additional demand for jobs within the area, and because buses will now operate in an uncongested network)

• Affordability – moderate beneficial (the scheme will reduce travel costs through reduction in fuel usage due to congestion relief)

• Severance – moderate beneficial (associated with additional walking, cycling facilities and signal crossings)

As is evident, environmental factors and their potential to impact on the project and vice versa are rated as neutral – meaning there are no significant interfaces and hence a low likelihood of the proposal being impacted by any unforeseen works or delays. The detailed design and development of the scheme will continue to assess these risks.

Consents

The scheme qualifies as permitted development as an improvement of the existing highway network and is a genuinely standalone scheme. All works to implement the scheme are contained within the highway boundary of the A249/M20 and do not require land to be acquired. The scheme is some distance from nearby homes and is unlikely to generate controversy. Therefore, the scheme does not require any statutory powers or consents.

As the scheme is on the Strategic Road Network, National Highways holds the relevant Statutory Authority to complete the works, and so the necessary approvals and licenses will be sought from them prior to scheme construction. As has been evidenced by the letter of support and pro-forma attached to this bid, National Highways are engaged and fully supportive of the scheme.

Demonstrate that some bid activity can be delivered in 2022-23

As shown in the costings and planning workbook; LUF spend of £845,164 can be achieved in 2022/23. This will predominantly be made up of detail design costs, but also includes surveys and ecology studies which will be required to inform the design. The detail design work will commence in November 2022 as outlined in Table D, Delivery Milestones in the costings and planning workbook.

Risk Management: Set out your detailed risk assessment

The Kent County Council Risk Management Policy and Strategy (2021-24) is informed by the Cabinet Office publication Management of Risk: Guidance for Practitioners, the HM Treasury Orange Book, and the UK implementation of the international standard for risk management BS ISO 31000:2018. It takes into account the operating environment for local government, and has been updated to reflect the major social and economic impacts of the coronavirus pandemic. The Policy is reviewed at least annually with changes presented to the Governance and Audit Committee for approval.

This policy applies to all of KCC’s core functions, as well as any partnerships KCC enters into. Significant contractors must have risk management arrangements at a similar level.

A diagram illustrating the risk management framework is included in Appendix I, Figure 3.

It is built around five key principles. Risk management is:

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1. An essential part of governance, and fundamental to how the organisation is directed, managed and controlled

2. An integral part of all organisational activities to support decision-making

3. Collaborative and informed by the best available information

4. Structured, with the process recognised as iterative rather than sequential

5. Continually improved through learning and experience

Risk management process:

Project risks are managed around a cycle of identification and assessment, treatment, monitoring, and reporting. Risks should be identified and escalated as needed by all members of the project team, whether or not the sources are under KCC's direct control.

KCC's Risk Management Strategy (Appendix I, Figure 4) includes a full breakdown of the risk management roles and responsibilities. All identified risks are assigned a risk owner, accountable for the management and control of all aspects of the risk assigned to them, a control owner, who assures that the specified control is fit for purpose, and an action owner, who is required to manage the mitigation effort.

KCC's approach to determining risk levels is shown in Appendix I, Figure 5, with risks assigned an overall rating of between 1 and 25, by multiplying the likelihood of occurrence by the impact of the risk.

Each risk is assigned a 'current' and 'target' risk rating, considering any existing mitigation measures. KCC recognises that risk is inherent in delivering and commissioning services and does not seek to avoid all risk, instead aiming to have an 'open' approach, with risks managed in a proportionate manner. Risks rated as "High" are deemed to have exceeded tolerance levels and are subject to escalation for review and action. The target residual rating for a risk is 'medium' or lower.

The frequency of risk assessment, analysis and review is determined by how fast risks are emerging and the level of their materiality. Ongoing monitoring provides an understanding of whether and how a risk profile is changing, and the extent to which mitigation measures are effective. Senior officers and elected Members must receive unbiased information about KCC's principal risks and how management is responding to them.

The top five project risks as of July 2022 can be seen in Appendix I, Figure 6. Mitigation measures have been identified as part of the risk management process to reduce the likelihood and impact of these risks going forward.

Provide details of your core project team and provide evidence of their track record and experience of delivering schemes of this nature

The key project team is shown below, with details of their relevant experience in delivering projects similar to M20J7:

Lee Burchill - Major Capital Programme Manager - Over 15 years' experience within transportation fields in both the public and private sectors, working either directly or on behalf of various Highway Authorities

Kerry Clarke – Senior Porgramme Manager - Over 14 years' experience within transportation fields in the public sector and 4 years experience in programme management including the Local Growth Fund Programme for KCC

Colin Shorter – Project Manager - Many years' experience project managing construction projects throughout mid & west Kent, operating under various forms of contract to manage quality of workmanship, programme & budget. Examples of completed projects are St Clements Way, Greenhithe (2018 – 2019), Rathmore Road Link, Gravesend (2016 – 2018) & Tunbridge Wells Public Realm - 2015

The project on KCC's managed Major Road Network is non-unique in its scope and scale. KCC has a successful track record of delivering similar major transport schemes within the county. In the last 10 years, the Major Capital Programme Team (and its predecessor) has procured and a large number of projects. These projects cover a wide range of schemes including green field, complex geotechnical and structural construction, high quality public realm and work on and over the Strategic Road Network.

The appointed contractors have all been proactive in resolving issues in partnership with KCC to the mutual benefit of all parties. Lessons learnt exercises have been undertaken at the end of each contract and where appropriate improvements made in the procurement process and contract documents of subsequent contracts.

These projects demonstrate that KCC has a considerable amount of recent experience in procuring major schemes and effectively managing construction contracts to achieve favourable outcomes and deliver projects to programme and to budget.

A summary of projects recently procured is given in Appendix H and some key projects are summarised below:

Like the M20 J7, the £5.74m Maidstone Bridges Gyratory (March 2017), was designed to reduce congestion, improve journey time reliability and support economic growth. This complex project within the heart of a busy county town was successfully delivered on time and to budget, while maintaining access for local businesses and commuters alike. Excellent working relations with Maidstone Borough Council were formed that will be beneficial to the delivery of M20 J7.

The M20 J4 Eastern Overbridge Widening, completed in 2017, was implemented to reduce congestion and support local housing growth in the surrounding area. The project required significant collaboration with Highways England (Now National Highways) to ensure safety to all network users. This £5m scheme was delivered on time and within budget.

Set out what governance procedures will be put in place to manage the grant and project

KCC has established a robust governance structure to provide accountability and a clear decision-making process for major capital projects within its remit (Appendix I, Figure 1).

Project Steering Group meetings will be held monthly, with progress discussed in technical detail to allow for the proactive management of programme and project. The resulting Highlight Report will identify and escalate any areas of concern or where decisions are required to the Programme Board.

Programme Board will be held monthly, with attendees from the delivery team, and KCC leadership. This is an opportunity to drill into specific details and review financial progress. Where the board is unable to resolve an issue, it is escalated to the Sponsoring Group.

The Sponsoring Group is held bi-monthly and is chaired by the KCC Head of Transportation, with the Director of Highways & Transportation, Cabinet Member for Highways & Transportation and the Major Capital Programme Manager in attendance. Technical advisors are invited where necessary to close out any issues escalated to this point. The Sponsoring Group is the final decision point for any escalated issues. A diagram illustrating the KC meeting governance is included as Appendix J.

All KCC funding streams are subject to internal and/or external audit procedures, and the team have extensive experience in ensuring all project documentation is comprehensive and auditable.

Kent County Council's Section 151 Officer can confirm that adequate assurance systems are in place and this is reflected in the Declarations below.

If applicable, explain how you will cover the operational costs for the day-to-day management of the new asset / facility once it is complete to ensure project benefits are realised

The works are to be undertaken by KCC Highways to implement new KCC Highways and National Highways assets. The design and approvals process within the development of the proposal will ensure that the assets designed and implemented are to KCC and National Highways' standard and KCC's proposal to undertake the works to M20 J7 is tacit guarantee of KCC's intention to operate and maintain those assets at this point, with any formality for the adoption of the assets factored into the project delivery schedule.

KCC's Highways Maintenance budget is funded in part through KCC's tax receipts as well as other sources of income including from Government. Given KCC has a guaranteed income from Council tax receipts, KCC can guarantee continued funding for maintenance of its road network. The precise annual value will vary year by year based on the available funds and the condition of assets, but as a principle KCC plans to spend between £25m to £30m annually, and for the current financial year of 2022/23, as published in KCC's Budget Book, non-staffing revenue funds on maintenance are budgeted at £25.8m.

As evident in this submission, KCC regards guarantees on operation and maintenance of the new assets delivered by the M20 J7 proposal as a non-risk and hence it is not recorded as a risk on the risk register.

Upload further information (optional)

Set out proportionate plans for monitoring and evaluation

Approach

The proposed approach for the Monitoring and Evaluation of the scheme is proportionate and aligned with the Magenta Book and DfT's 'Monitoring and Evaluation Strategy' (March 2013). It follows the 'standard approach' as the scheme costs less than £50m.

The Monitoring and Evaluation Plan describes how scheme's delivery, including wider scheme impacts, construction and budget management, is to be evaluated. It will culminate with a brief Post-Implementation Review approximately one year after scheme opening. A follow-up review will be undertaken approximately five years after scheme opening. The Monitoring and Evaluation Plan is owned by the Project Manager, although ownership will be reviewed and delegated as necessary.

Post-implementation Review

This will be in two parts - Scheme Implementation and Wider Impacts.

Scheme Implementation:

The first part of the Post-Implementation Review will focus on scheme delivery, covering the following aspects:

• Construction – including the efficiency and cost of the infrastructure contractor's procurement exercise, and the extent to which the construction programme was delivered within the estimated timescales and budget and

• Project Management – including the cost of project management resources, as well as the extent to which overall scheme timescales were adhered to.

This review will be completed approximately one year following the opening of the final component of the proposed package. A key output of the review will be a log of the lessons learnt, which will assist in the planning and delivery of future schemes so best practice can be taken forward. To ensure that an accurate and informative Post-Implementation Review can be undertaken, the project manager will maintain detailed records in relation to procurement processes, the scheme budget and expenditure and project management meetings.

Wider Impacts:

The second part of the Post-Implementation Review will focus on the wider set of impacts as a result of the scheme:

• Scheme benefits – a summary of the formal benefits review, one year and five years post scheme completion and

• Unexpected (dis)benefits – identifying any additional impacts that were not planned for as part of the projects.

Evaluation Milestones and Outputs

It is proposed the evaluation process consists of three key phases:

· Phase 1: Pre-Construction Baseline

· Phase 2: One Year After Implementation and

· Phase 3: Five Year After Implementation.

Data will be collected for baseline conditions during 2022/2023 following confirmation of funding from DfT, prior to construction works commencing. This will ensure that the data is not compromised by the construction period. Before and after scheme monitoring will be undertaken to evaluate the projects' effectiveness against the objectives for the Levelling Up Fund and local policies.

The Governance for the monitoring and evaluation will be similar to that for the project delivery, and is outlined below:

1. Project Officer drafts report (Baseline or Post Scheme)

2. Project Manager reviews and submits to Programme Board

3. Programme Board approves or refers to Sponsoring Group

4. Sponsoring Group approves or requires further action

By submitting the monitoring and evaluation reports to the Programme Board and/or Sponsoring Group, it will ensure that any lessons learnt can be disseminated through KCC's capital programme and applied to future major capital scheme delivery.

The Project Manager will also be responsible for completing the monitoring and evaluation required for the fund; and will ensure that the information required for the quarterly progress reports and 6 monthly updates on outputs and outcomes is collected.

Research Questions

The table included in Appendix I, Figure 7 will guide the evaluation. In summary, the main themes are:

- Design evaluation / Delivered scheme

- Delivery process

- Impacts

- Value for Money

Key metrics

This evaluation will be framed by the Theory of Change framework, as illustrated earlier in this bid, which identifies the inputs, outputs, outcomes and impacts and addresses the standard monitoring measures such as:

· Scheme build

· Delivered scheme

· Costs

· Scheme Objectives

· Travel demand

· Travel times

The following metrics will be captured and presented:

· Queuing on all arms of M20 Junction 7 and A249 Beastead Road (via video queue length survey)

· Journey times (via ANPR across the routes already surveys within the model build, and via TrafficMaster data)

· Journey time reliability (using ANPR, using standard deviation analysis)

· Traffic flow change (via MCCs and ATCs)

· Vehicle composition (to determine modal share)

· Bus frequency (to determine if there have been any service changes / enhancements)

· Air Quality data from existing diffusion tubes

· Number of houses delivered

· Development square footage

· Committed improvements at Bearsted Road will only enable 75% build-out of development

· Indices of Multiple Deprivation quintiles for Maidstone

Monitoring of construction

Monitoring of the construction process during implementation will also be undertaken to ensure any mitigation measures required.

Section 9: Declarations

Senior Responsible Owner Declaration

Upload pro forma 7 - Senior Responsible Owner Declaration

LUF Round 2 Pro formas V6.1 Proforma 7 SRO (M20 Jct 7).docx

Chief Finance Officer Declaration

Upload pro forma 8 - Chief Finance Officer Declaration

LUF Round 2 Pro formas V6.1 Proforma 8 S151 (M20 Jct 7).docx

Publishing

URL of website where this bid will be published

www.kent.gov.uk

Additional attachments

Additional file attachment 1 Appendix A – Figures.pdf

Additional file attachment 2 Appendix B – Third Party Funding.pdf

Additional file attachment 3 Appendix C – Letters of Support.pdf

Additional file attachment 4 Appendix D – Modelling Report & Technical Note.pdf

Additional file attachment 5 Appendix E - DfT_Small_Scheme_Appraisal_Toolkit_v4.00_2022_V3_Submission.xlsm

Additional file attachment 6 Appendix F – Structure Chart.pdf

Additional file attachment 7 Appendix G – Equality Impact Assessment.pdf

Additional file attachment 8 Appendix H – MCPT Recent Schemes Procured.pdf

Additional file attachment 9 Appendix I - Deliverability.pdf

Additional file attachment 10 Appendix J – Scheme Meeting Governance.pdf

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