

National Productivity Investment Fund for the Local Road Network Application Form



Department
for Transport

Applicant Information

Local authority name: Essex County Council

Bid Manager Name and position: Gary MacDonnell – Commissioning Delivery Manager

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

www.essexhighways.org/transport-and-roads/highway-schemes-and-developments/Bids-and-Funding/m11-junction-8-improvements.aspx

Name of Project: M11 Junction 8 Improvements

Date: June 28, 2017

SECTION A - Project description and funding profile

A1 Project name: M11 Junction 8 Improvements

A2 Please enter a brief description of the proposed project (no more than 50 words):

M11 Junction 8 is currently operating at capacity, experiencing significant delays at peak periods. The following improvements are proposed:-

- Additional lane from M11 J8 northbound exit slip onto A120.
- Replace the A120/A1250 roundabout with a signalised junction.
- Expand southbound exit slip to 5 lanes with 2 lanes dedicated to A120.

A3 Please provide a short description of area covered by the bid (no more than 50 words):

OS Grid Reference: TL 51424 21542
 Postcode: CM23 5QZ

The location of the bid is the area around Junction 8 of the M11, including, specifically, the southbound slip from the M11 for traffic accessing the A120, the northbound slip from the M11 for traffic accessing Bishops Stortford / Birchanger Services and the roundabout to the north of the services.

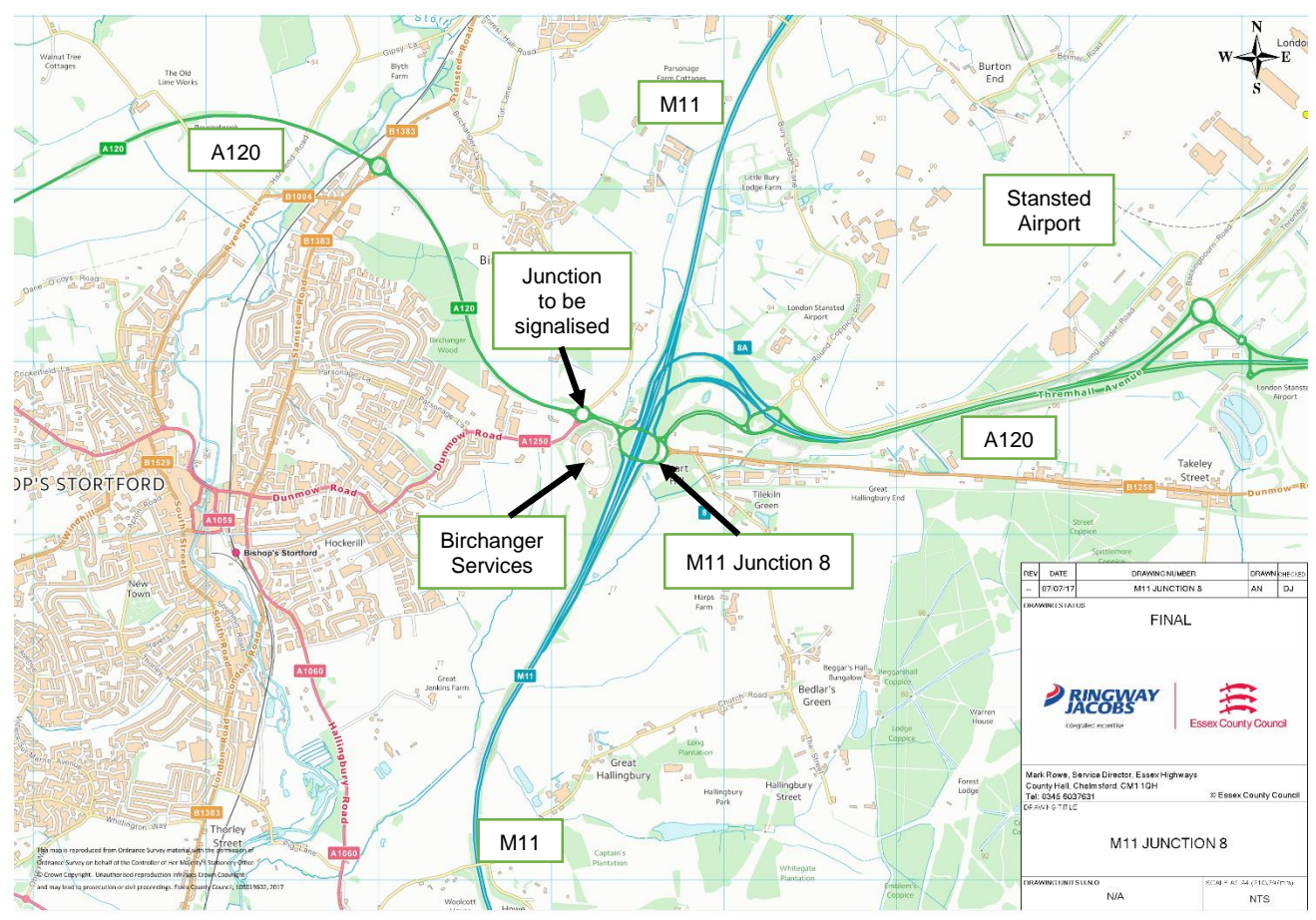


Fig 1: M11 Junction 8 (For a wider area map please see Appendix A1)

A4 How much funding are you bidding for ? (Please tick the relevant box):

Small project bids (requiring DfT funding of between £2m and £5m)

Large project bids (requiring DfT funding of between £5m and £10m)

A5 Has any Equality Analysis been undertaken in line with the Equality Duty ?

Yes, the standard Essex County Council Equality Analysis has been undertaken for this project and can be provided on request.

A6 If you are planning to work with partnership bodies on this project (such as Development Corporations, National Parks Authorities, private sector bodies and transport operators) please include a short description below of how they will be involved.

Work will involve / include:-

- SELEP – support. (The scheme is listed in SELEP’s SEP) (Appendix B1)
- The Greater Cambridge & Greater Peterborough Local Enterprise Partnership – support for scheme, including financial (£1.0m) (Appendix B2)
- Hertfordshire LEP – support for scheme (Appendix B3)
- Uttlesford District Council – support for scheme (Appendix C1)
- Braintree District Council – support for scheme (Appendix C2)
- East Herts District Council – support for scheme
- Highways England (HE) – M11 / A120 / Services – support for scheme, including technical (Appendix D1)
- Welcome Break – Birchanger Services – support for scheme
- Manchester Airports Group - Stansted Airport – support for scheme, including financial (£1.0m).

A7 Combined Authority (CA) Involvement

Have you appended a letter from the Combined Authority supporting this bid ? No – N/A

A8 Local Enterprise Partnership (LEP) Involvement and support for housing delivery

Have you appended a letter from the LEP supporting this bid ?

There are three LEP support letters – one from the South East LEP, the second one from Greater Cambridge and Greater Peterborough LEP and the third from Hertfordshire LEP (Appendices B1, B2 and B3).

For proposed projects which encourage the delivery of housing, have you appended supporting evidence from the house builder / developer ?

Because local plans are in development, it is not possible to provide letters from specific developers at this time. It should be noted that we have a Letter of Support from Uttlesford District Council stipulating that the improvements are required in support of the Local Plan (Appendix C1).

SECTION B – The Business Case

B1 Project Summary

Please select what the project is trying to achieve (select all categories that apply)

Essential

- Ease congestion – at and through the junction
- Unlock economic growth and job creation opportunities – Stansted Airport
- Enable the delivery of housing development – Uttlesford

Desirable

- Improve air quality and reduce CO2 emissions – improved traffic flows
- Incentivising skills and apprentices – Ringway Jacobs, Harlow College Professional & Technical Skills Centre at Stansted Airport

Other(s)

- Improve access – especially Birchanger Services and Stansted Airport

B2 Please provide evidence on the following questions (max 100 words for each answer):

a) *What is the problem that is being addressed ?*

Junction 8 of the M11 is currently operating at capacity and already experiences significant queuing on some arms at peak periods. Stansted Airport is growing at an unprecedented rate of 2mppa and committed developments in the area, in particular at Bishop's Stortford, will add to this congestion. Local Plans for East Herts and Uttlesford are being progressed, and this junction is key to these plans being found sound. During discussions around the Uttlesford plan, the issue of M11 J8 was raised. The plan's success through inquiry will need a clear commitment and delivery of the junction improvement to ease congestion.

b) *What options have been considered and why have alternatives been rejected ?*

Previously, a scheme to improve J8 and remove the pinch point, proposed a new junction 8B would be created, linked to and situated just north of Junction 8/8A, together with a new junction on the A120, to provide additional access to Stansted Airport - originally costed at £131 million. Public consultations established that the scheme would be necessary, if airport expansion proceeded. Following the decision not to proceed with expansion, the scheme was dropped in 2010. However, passenger numbers have continued to increase and the need to provide a cost effective solution to improve the junction is becoming increasingly important.

c) *What are the expected benefits / outcomes ? For example, could include easing urban congestion, job creation, enabling a number of new dwellings, facilitating increased GVA.*

The scheme will deliver the following outcomes:-

- Alleviate existing congestion and capacity constraints, which will enable,
- Delivery of committed housing growth in the local plan - Bishop's Stortford (2,300 homes), Uttlesford District (3,400 homes) and Harlow (16,000 homes), plus potentially a further 4,000 homes around Bishop's Stortford
- Unlock job creation – 2,400 new jobs in the surrounding area and growth at Stansted Airport, especially for the increasing percentage of business fliers
- Support for East Herts and Uttlesford local plans
- Improve air quality
- Incentivise skills and apprenticeship opportunities – at Stansted and through Ringway Jacobs.

d) *Are there any related activities that the success of this project relies upon? For example, land acquisition, other transport interventions requiring separate funding or consents?*

All land required for the scheme is within the Highways boundary and belongs to either Highways England (HE) or Essex County Council (ECC). Some alterations will be required to the service area ingress and egress which will require modifications to Highways England land and is also fully supported by the Welcome Break Group, now owned by Appia Investments, who operate the site.

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

The scheme has already been cost reduced by ensuring the design for the southbound slip does not impact the existing footbridge over Thremhall Avenue. The scheme could be split into sections – 1) the slip southbound off the M11, 2) the slip northbound from the M11, and 3) converting the roundabout to a signalised junction. Based on initial modelling analysis, only doing one, or combinations of the others, would significantly reduce the overall positive impact of the overall junction improvement.

f) *What is the impact of the project – and any associated mitigation works – on any statutory environmental constraints? For example, Local Air Quality Management Zones.*

There are no known environmental constraints and this is not an AQMA. However, air quality will be improved in the area due to reductions in queuing traffic.

B3 Table A: Funding profile (Nominal terms) £000s

| | <u>2017-18</u> | <u>2018-19</u> | <u>2019-20</u> | <u>2020-21</u> | <u>Total</u> | <u>%</u> |
|------------------------------|----------------|----------------|----------------|----------------|---------------|--------------|
| DfT funding sought | | £580 | £3,507 | | £4,087 | 40.9 |
| ECC contribution | £500 | | | £700 | £1,200 | 12.0 |
| Cambridge & Peterborough LEP | | £100 | £500 | £400 | £1,000 | 10.0 |
| Stansted Airport (MAG) | | £1,000 | | | £1,000 | 10.0 |
| SELEP – Growth Fund | | £500 | £1,800 | £400 | £2,700 | 27.1 |
| TOTAL | £500 | £2,180 | £5,807 | £1,500 | £9,987 | 100.0 |

Please see Appendix E1 for the detailed breakdown of costs. The cost estimate includes scheme development cost, inflation and quantified risk assessment, but does not include optimism bias. Commensurate with the stage of the scheme development, 44% optimism bias should be added for the purposes of economic appraisal. This is discussed in more detail in Appendix F2

Note:

Through the GHF, HE have been approached for additional financial support, but the fund announcement has not yet been made.

B4 Local Contribution & Third Party Funding:

a) *Provide an outline of all non-DfT funding contributions to the project costs, the level of commitment, and when the contributions will become available.*

The Greater Cambridge & Greater Peterborough Local Enterprise Partnership (GC&GP LEP) has secured £1m of funding to support delivery of this scheme; there is further investment of £1m from Stansted Airport, subject to formal confirmation, and ECC are contributing £1.2m (see table above). Total non DfT funding is £5.9m ie 59.1%.

An application was made to the South East Local Enterprise Partnership (SELEP) for Round 3 of the Growth Fund and £2.7m has been approved for LGF allocation, pending submission of a full Business Case – due to be submitted to the November 2017 Accountability Board.

b) *List any other funding applications you have made for this project or variants thereof and the outcome of these applications, including any reasons for rejection.*

In relation to the £2.7m SELEP funding stated in part above. The original bid was for £6.8m, which was only partially successful due to budgetary constraints from the overall funding envelope.

B5 Economic Case

A) Requirements for small project bids (i.e. DfT contribution of less than £5m)

a) *Please provide a description of your assessment of the impact of the project.*

Positive impacts will accrue from reduced congestion levels and accommodation of future growth with commensurate positive impact on air quality. Negative impacts will occur as a result of the traffic management requirements during construction, but every attempt will be taken to mitigate and minimize the effects by phasing the construction of the two slips and the signalised junction.

- *Key risks and uncertainties:*

- Need to confirm provisional agreement with HE with regard to the modifications to the two slip roads off the M11 and the entrance and exit of the Services
- Additionally, agreement with the Services Area operator (Welcome Break Group, now owned by Appia Investments) re modifications to ingress and egress and effect on their business under traffic management conditions
- Impact of Stats and Utility diversions.

No detailed appraisal, e.g. applying model results in TUBA has been undertaken at this stage, but a simplified spreadsheet calculation indicated a BCR of 3.0 using a no-growth post-2021 scenario. As no-growth scenario was analysed as junction delays are excessive in the Forecast Do-Minimum Scenario, yielding unrealistic high benefits (Please refer to Appendix F2). Junction modelling showed that reasonable operation can be expected in the Forecast Scenario with the scheme in place (DS-case).

LinSig has been used to model the junction network using assignment from a Visum model of the area. A Vissim model is under construction.

b) *Small project bidders should provide the following in annexes as supporting material:*

| | |
|---|-------------------|
| Has a Project Impacts Pro Forma been appended ? | Yes (Appendix F1) |
| Has a description of data sources / forecasts been appended ? | Yes (Appendix F2) |
| Has an Appraisal Summary Table been appended ? | Yes (Appendix G1) |

User benefits shown in the Appraisal Summary Table (Appendix G1) are based on the analysis of the no-growth scenario using a simplified spreadsheet tool.

B6 Economic Case:

Please describe the air quality situation in the area where the project will be implemented by answering the three questions below.

i) *Has Defra's national air quality assessment, as reported to the EU Commission, identified and / or projected an exceedance in the area where the project will be implemented ?* No

ii) *Is there one or more Air Quality Management Areas (AQMAs) in the area where the project will be implemented? AQMAs must have been declared on or before the 31 March 2017.* No

iii) *What is the project's impact on local air quality ?*

Positive

Positive impacts will accrue from improved emissions and air quality as a consequence of the reduction in traffic delays in the vicinity of the junction.

iv) *Does the project promoter incentivise skills development through its supply chain?*

Ringway Jacobs, who are in partnership with ECC as Essex Highways, has an active skills development and apprenticeship programme provided through Anglia Ruskin University and Adalta Development. Advanced apprenticeship courses, Supervisory & Management Diplomas, Chartered Management courses and Royal Institution Master Classes are all available through the scheme.

Additionally, there is an agreed proposal to construct a new £11m Harlow College Professional and Technical Skills Centre facility for up to 300 trainees at Stansted Airport for airport related activities training.

B7. Management Case - Delivery (Essential)

a) *Has a project plan been appended to your bid ?* Yes (Appendix H1)

b) *Has a letter relating to land acquisition been appended ?* N/A

Because all land required for the scheme is within the Highways boundary and belongs to either Highways England or ECC.

c) *Please provide in Table C summary details of your construction milestones (at least one, but no more than six) between start and completion of works:*

Table C: Construction milestones **Estimated Date**

| | |
|--|------------|
| Start of works (two slips) | July 2018 |
| Completion of works & opening date (two slips) | March 2019 |
| Start of works (signalised junction) | April 2019 |
| Completion of works & opening date (signalised junction) | June 2020 |

d) *Please list any major transport projects costing over £5m in the last 5 years which the authority has delivered, including details of whether these were completed to time and budget (and if not, whether there were any mitigating circumstances).*

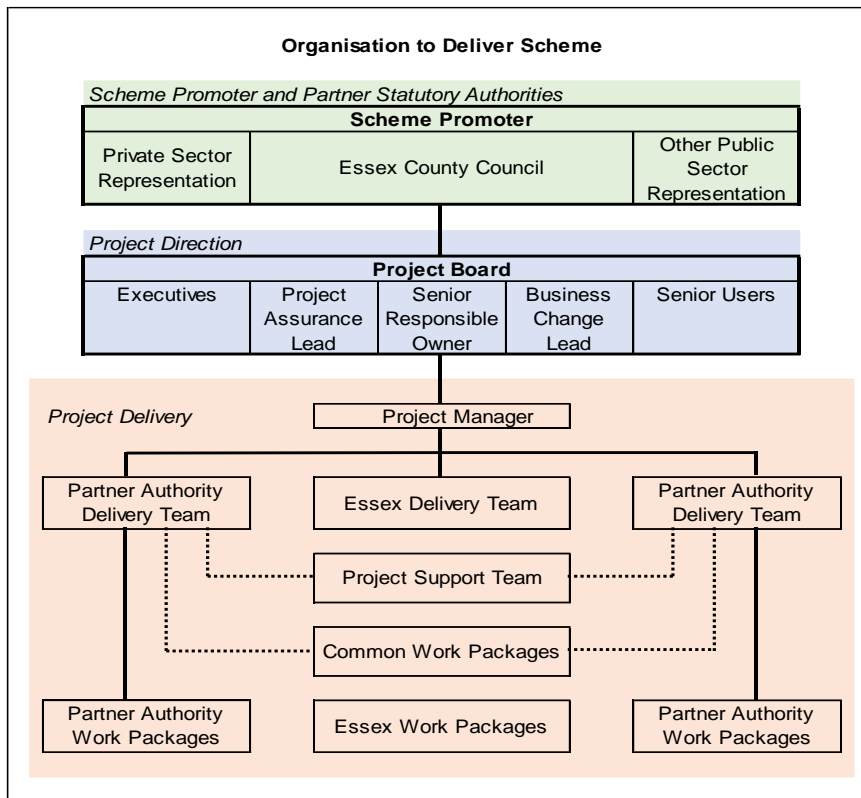
The following transport projects have all been completed on time and to budget:-

| | |
|---|--------|
| • Sadlers Farm Interchange | £63.5m |
| • Roscommon Way Extension | £12.1m |
| • Basildon Enterprise Corridor | £14.5m |
| • Northern Approach III | £14.5m |
| • A127 Capacity Enhancements | £ 9.2m |
| • Colchester Integrated Transport Package (ITP) | £12.7m |
| • Colchester Park and Ride | £ 7.2m |
| • Colchester Town Centre | £ 5.0m |
| • South Essex LSTF Programme | £ 5.4m |

B8 Management Case – Statutory Powers and Consents (Essential)

- No statutory powers or consents have been obtained and none are required.

B9. Management Case – Governance (Essential)



The Project Board – is responsible for the direction and overall management of the scheme. The Project Board is chaired by the Senior Responsible Owner and made up of the Executive and Senior User for each of the partner statutory authorities, the Project Assurance Lead and the Business Change Lead. These roles are defined below. Project Board meetings are normally held every six weeks. The Project Manager reports regularly to the Project Board, keeping members informed of progress and highlighting any issues or concerns.

The responsibilities of the Project Board include:

- Setting the strategic direction of the project;
- Defining the scope and setting the timescales for major project milestones;
- Approving the appointment of the Project Manager;
- Providing the Project Manager with the strategy and decisions required to enable the scheme to proceed to programme and resolve any challenges;
- Securing necessary approvals through the partner statutory authorities;
- Approving the project scope of work, programme and budgets, as well as any subsequent changes;
- Signing off completion of each stage of the project and authorising the start of the next stage; and
- Monitoring project risks and taking any appropriate action to mitigate risks.

Strategic Partnership Board – formed from Highways England and ECC and is responsible for managing the scheme and handling of any issues. HE will also provide technical support and advice.

Delivery Teams – reporting to the Project Manager, the Delivery Teams (one for each partner statutory authority) are responsible for organising and delivering work packages on the highways under the authority's jurisdiction. The Essex Delivery Team has the additional responsibility for common work packages.

Project Support – this team is responsible for project administration, including document control, project team communications, arranging meetings, updating plans, and chasing up the completion of actions.

Individual Roles:

Senior Responsible Owner (Andrew Cook, Director, Highways & Transportation, ECC) – has ultimate responsibility and delegated authority for ensuring effective delivery of the scheme on time and budget.

Project Manager (Elliot Smith, Infrastructure Project Manager, ECC) – is the individual responsible for organising, controlling and delivering the scheme. The Project Manager leads and manages the project team, with the authority and responsibility to run the project on a day-to-day basis. They also will be assigned the task of running and updating the risk register and organising the monitoring of the delivery of the programme objectives.

Executives – represent the group in each partner statutory authority with responsibility for obtaining funding for the scheme (Chris Stevenson, Head of Connected Essex Integrated Transport, ECC) and securing resources to deliver it (Ben Finlayson, Head of Infrastructure Delivery, ECC). In Essex County Council, this is coordinated through the Transportation Strategy and Engagement Group (David Sprunt, ECC).

Sponsor – the role of major sponsor is coordinated through the Transportation Strategy and Engagement Group (David Sprunt, ECC).

Commissioning Delivery Manager (Gary MacDonnell, Project Manager, Commissioning Delivery, ECC) - The Commissioning Delivery Manager will provide coordinated management of projects associated with change management activities to achieve the aims and objectives associated with external funding requirements.

Senior Users (including David Forkin, Senior Manager, Head of Maintenance, ECC) – represent the group who will oversee the future day-to-day operation of the scheme.

Project Assurance Lead (Erwin Deppe, Client Services Director, Ringway Jacobs) – provides an independent view of how the scheme is progressing. Tasks include checking that the project remains viable, in terms of costs and benefits (business assurance), the users' requirements are being met (user assurance), and that the project is delivering a suitable solution (technical assurance).

B10 Management Case - Risk Management (Essential)

Has a QRA been appended to your bid ?

Yes (Appendix J1)

Risks were identified for each scheme component (1, 2 and 3 identified in the Cost Estimate breakdown, Appendix E1) and assigned pre-mitigation probability, severity and likely ranges of cost impact, as shown in Appendix J1. An overall P50 allowance for risk was obtained through applying the @RISK programme, which carries out stochastic analysis using simulation to perform quantitative analysis of outcome ranges.

Has a Risk Management Strategy been appended to your bid ?

See paragraph below

ECC will initiate a proactive risk management procedure, including a quantified risk assessment which ensures that risks are continuously identified, owners assigned and mitigation measures put in place. Regular reviews check the status of each risk and regulate their control and mitigation. Project procedures also require that, should the likelihood or severity of risks be identified as increasing, responsibility for mitigation is escalated upwards through the project management chain to ensure that this is achieved. All risks are owned by the partner authorities. As the project develops, some of these risks will be transferred to construction contractors. In addition, ECC uses a proprietary online Risk Register to assess levels of risk and to track the progress of the strategy for the scheme.

a) What risk allowance has been applied to the project cost ?

Risks are based on risk profile output, pre-mitigation P50 (See Appendix J1)

b) How will cost overruns be dealt with ?

Essex County Council will bear all risk for the project as part of its role as the Highways Authority.

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

- Land availability – HE
- Stats and utilities
- Planning permissions, if required
- Traffic management at such a key junction.

All could affect project programme and costs, but allowed for in the QRA.

B11 Management Case - Stakeholder Management (Essential)

a) *Strategy for managing stakeholders:*

Stakeholder Plan

- Public consultation to secure public engagement and buy-in will be required and outcomes of this consultation will be taken into account.
- Ongoing liaison with key stakeholders (HE, Bishops Stortford Town Council, Stansted Airport – Manchester Airports Group, Welcome Break Services) will be essential to ensure buy-in, especially in delivery and decision making.

The stakeholder plan will:

- Communicate and reinforce branding;
- Improve awareness and understanding of the proposals;
- Allow the Project Board to obtain feedback on the proposals;
- Help gauge the level and nature of any opposition and address these appropriately; and
- Enable the Project Team to establish a consensus.

b) *Can the project be considered as controversial in any way ?* No

c) *Have there been any external campaigns either supporting or opposing the project ?* No

B12 Management Case – Local MP support (Desirable)

Because of the recent General Election, it has not been possible to obtain support from the new ministers in time for this bid.

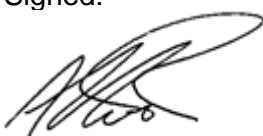
B13 Management Case - Assurance (Essential)

*For Section 151 Officer confirmation (Section D) that adequate assurance systems are in place.
See Section D2 below*

SECTION C – Monitoring, Evaluation and Benefits Realisation

C2 A detailed Benefits Realisation Plan will be developed to confirm the benefits of the scheme. Lessons learned from prior projects will be reviewed. The scheme will have an evaluation plan, independently reviewed, and monitored in accordance with this plan. Monitoring will be done according to government guidance and will, where appropriate, include 1 and 5 year reports. Surveys will capture volumes, patterns of movement and journey times. Traffic volumes, speeds and journey times will be monitored, together with the outcomes of proposed housing and developments. Road safety impacts will be monitored to verify future accident incidences, numbers and locations.

SECTION D: Declarations

| | |
|--|---|
| D1. Senior Responsible Owner Declaration | |
| As Senior Responsible Owner for the M11 Junction 8 Improvements Scheme, I hereby submit this request for approval to DfT on behalf of Essex County Council and confirm that I have the necessary authority to do so. | |
| I confirm that Essex County Council will have all the necessary statutory powers in place to ensure the planned timescales in the application can be realised. | |
| Name: Andrew Cook | Signed:  |
| Position: Director Highways and Transportation | |

| | |
|--|---------|
| D2 Section 151 Officer Declaration | |
| As Section 151 Officer for Essex County Council, I declare that the project cost estimates quoted in this bid are accurate to the best of my knowledge and that Essex County Council: | |
| <ul style="list-style-type: none"> - has allocated sufficient budget to deliver this project on the basis of its proposed funding contribution - accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties - accepts responsibility for meeting any ongoing revenue requirements in relation to the project - accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested and that no DfT funding will be provided for this bid in 2020/21. - confirms that the authority has the necessary governance / assurance arrangements in place and, for smaller project bids, the authority can provide, if required, evidence of a stakeholder analysis and communications plan in place - confirms that if required a procurement strategy for the project is in place, is legally compliant and is likely to achieve the best value for money outcome. | |
| Name: | Signed: |

HAVE YOU INCLUDED THE FOLLOWING WITH YOUR BID?

| | |
|--|------------------------------|
| Combined Authority multiple bid ranking note (if applicable) | N/A |
| Map showing location of the project and its wider context | Yes – Appendix A1 |
| Combined Authority support letter (if applicable) | N/A |
| LEP support letter | Yes – Appendix B1, B2 and B3 |
| House builder / developer evidence letter (if applicable) | Yes – Appendix C1 |
| Letter of support – Braintree District Council | Yes – Appendix C2 |
| Letter of support – Highways England | Yes – Appendix D1 |
| Land acquisition letter (if applicable) | N/A |
| Cost schedule | Yes – Appendix E1 |
| Projects impact pro forma (must be a separate MS Excel) | Yes – Appendix F1 |
| Description of data sources / forecasts | Yes – Appendix F2 |
| Appraisal summary table | Yes – Appendix G1 |
| Project plan / Gantt chart | Yes – Appendix H1 |
| QRA | Yes – Appendix J1 |