

Local Pinch Point Fund Application Form



Department
for Transport

Guidance on the Application Process is available at:

<https://www.gov.uk/government/organisations/department-for-transport/series/local-pinch-point-fund>

Please include the Checklist with your completed application form.

The level of information provided should be proportionate to the size and complexity of the scheme proposed. As a guide, for a small scheme we would suggest around 25-35 pages including annexes would be appropriate.

One application form should be completed per project.

Applicant Information

Local authority name(s): Essex County Council

Bid Manager Name and position:

Alastair Southgate, Transportation Strategy Manager

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When authorities submit a bid for funding to the Department, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department. The Department reserves the right to deem the business case as non-compliant if this is not adhered to.

Please specify the weblink where this bid will be published:

www.essex.gov.uk/pinchpointfund

SECTION A - Project description and funding profile

A1. Project name: Army and Navy Improvements: Extended left turn slip lane from A1060 Parkway to A138 Chelmer Road

A2. Headline description:

Please enter a brief description of the proposed scheme (in no more than 100 words)

The scheme will provide improvements at the Army and Navy roundabout (A1060/A138/A1114); a gateway to Chelmsford where a number of key radial routes meet. Significant congestion is experienced in this location which has a detrimental effect on the vitality of the city centre and wider urban area.

The project will deliver an extended left turn slip lane from A1060 Parkway to A138 Chelmer Road to provide more stacking capacity on the approach to the roundabout. An extended slip will provide more capacity for left turning vehicles, which form a significant number of movements, and also free capacity in the other two running lanes.

Works will also include the linking of the existing part-time traffic signals to enable improved efficiency of the roundabout and also improved provision of sustainable transport options with the delivery of a wider footway and cyclepath, and a wider, two-stage signalled toucan crossing.

This scheme complements the Parkway widening scheme which was awarded Pinch Point Funding in Tranche 2.

A3. Geographical area:

Please provide a short description of area covered by the bid (in no more than 100 words)

Chelmsford City (population approximately 100,000) is located in the Heart of Essex. The key routes serving the city are the A130, A414 and A12 resulting in a wide catchment area for commuters and shoppers.

Chelmsford is poised to develop further with 16,000 new homes and 20,000 new jobs to be delivered by 2021. Development will be focused within a new neighbourhood in north east Chelmsford and the existing urban area with over 2,000 new homes in the city centre. Expanded retail opportunities, offering up to 100,000m² of retail space including a new anchor store, alongside significant new business development including an Innovation Centre will be delivered.

The Army and Navy roundabout is a gateway to the city where key routes converge resulting in significant congestion, especially at the peak periods.

Please find attached a plan showing the proposed scheme and a location map showing the proposed developments in the city centre in Appendix 1 and 2 respectively.

OS Grid Reference: E: 571500, N: 206000
Latitude, Longitude: 51°43'35"N, 0°28'53"E
Postcode: CM2 7GY

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

Small project bids (requiring DfT funding of between £1m and £5m)

Scheme Bid
Structure Maintenance Bid

Large project bids (requiring DfT funding of between £5m and £20m)

Scheme Bid
Structure Maintenance Bid

Note: Scheme and Structure Maintenance bids will be assessed using the same criteria.

A5. Equality Analysis

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

An Essex County Council Level 1 Equality Impact Statement has been completed and has identified the need for further consultation during detailed design. It will form part of the internal governance process as the scheme progresses. A copy is attached (See Appendix 3).

A6. Partnership bodies

Please provide details of the partnership bodies (if any) you plan to work within the design and delivery of the proposed scheme. This should include a short description of the role and responsibilities of the partnership bodies (which may include Development Corporations, National Parks Authorities, private sector bodies and transport operators) with confirmatory evidence of their willingness to participate in delivering the bid proposals.

The scheme will be delivered by Essex County Council in partnership with its Integrated Service Provider Essex Highways. All design work will be carried out by Essex Highways and to ensure value for money, the scheme construction element will either be procured internally utilising Essex Highways, or utilising existing framework contracts available to the County Council, for example the Eastern Highways Alliance or the Highways Agency Framework to ensure an efficient and reduced tender process in order to deliver the scheme within the timescales.

The scheme will also require close working with Statutory Undertakers, the Highways Agency, and the Parkway widening project team, to ensure costs and timescales are managed.

Key stakeholders will be bus operators, to minimise disruption to bus services and journey time reliability as far as possible, the land owner, local businesses and Chelmsford City Council who we will also keep engaged throughout the scheme.

The City Council has offered their full support to this bid as detailed in their letter of support in Appendix 4.

A7. Local Enterprise Partnership / Local Transport Body Involvement

It would be beneficial (though not essential) if the relevant LEP or LTB (or shadow(s)) have considered the bid and, if necessary, prioritised it against other bids from the same area. If possible, please include a letter from the LEP / LTB confirming their support and, if more than one bid is being submitted from the area, the priority ranking in order of growth significance.

Have you appended a letter from the LEP / LTB to support this case? Yes No

Please find a copy of the letter in Appendix 5

SECTION B – The Business Case

You may find the following DfT tools useful in preparing your business case:

- [Transport Business Cases](#)
- [Behavioural Insights Toolkit](#)
- [Logic Mapping Hints and Tips](#)

B1. The Scheme - Summary

Please select what the scheme is trying to achieve (this will need to be supported by evidence in the Business Case). Please select all categories that apply.

- Improve access to a development site that has the potential to create housing*
- Improve access to a development site that has the potential to create jobs*
- Improve access to urban employment centres*
- Improve access to Enterprise Zones*
- Maintain accessibility by addressing the condition of structures*
- Ease congestion / bottlenecks*
- Other(s), Please specify – Improve access to city centre*

B2. The Strategic Case

This section should set out the rationale for making the investment and evidence on the strategic fit of the proposal. It should also contain an analysis of the existing transport problems, identify the barriers that are preventing growth, explain how the preferred scheme was selected and explain what the predicted impacts will be. The impact of the scheme on releasing growth potential in Enterprise Zones, key development sites and urban employment centres will be an important factor in the assessment process.

In particular please provide evidence on the following questions (where applicable):

- a) *What is the problem that is being addressed, making specific reference to barriers to growth and why this has not been addressed previously?*

The A1060/A138/A1114 junction, known locally as the Army and Navy roundabout, is a 5 arm roundabout with a single lane tidal flow flyover east/west between the A1114 (from the A12) and the A1060.

As a key gateway to the city centre, improvements to this pinch point are essential to support and facilitate housing and economic growth by making the area more attractive to businesses and developers for investment.

Improvements at this key gateway will therefore support the delivery of over 2,000 new homes in the city centre; expanded retail opportunities, offering up to 100,000m² of retail space

including a new anchor store; and significant new business development including an Innovation Centre. A plan illustrating the proposed developments in the city centre can be found in Appendix 2.

The points below provide an overview of the issues experienced in this location resulting in it being a notorious pinch point for Chelmsford:

- Key five-arm junction on strategic network in Chelmsford and a major gateway to the city;
- A number of key radial routes converge at it, including routes from the A12, the A138, the A414 and the A130 from south Essex;
- The junction experiences significant and extensive peak and off peak period congestion;
- Between 4,400 and 4,800 vehicles pass through it during weekday peak hours and resulting in the junction being a key pinch point on the network into the city centre;
- Up to 70 local and interurban bus services per hour pass through the junction
- Sandon Park & Ride route runs east-west through the junction, carrying both commuters and shoppers;
- Other local bus services serve the Great Baddow residential area to the south east as well as operating north-south between Moulsham and Chelmer Village residential, retail and commercial centres;
- There is currently a very short section of left turn slip lane, demarked by on carriageway lining after the pedestrian crossing. Therefore vehicles wishing to use the slip have to queue amongst those vehicles making other movements, before they can access the slip lane;
- There are no dedicated cycle facilities on this approach to the junction resulting in a lack of sustainable transport options at this location, presenting severance for cycle users and preventing the linkage with the local and wider cycle network and proposed cycle facility improvements;
- The part time traffic signals at the junction are currently not linked with each other or with the pedestrian crossing on Parkway, and are therefore not as effective as they could be at managing traffic flows; and
- Delays at the junction, particularly in the peak, affect access to the city centre, which in turn affects businesses and the vitality of the city centre.

During the peak hours traffic currently queues on the Parkway approach to the roundabout, both in the morning when the tidal flyover operates west bound (i.e. to allow for traffic movements inbound into the city centre), and in the afternoon due to the volume of left turn flows towards Chelmer Road. In the worst instances these queues can extend back to the preceding 'Odeon' roundabout.

There is currently only a narrow footpath on the north-western side of Parkway approaching the roundabout, with no off road provision for cyclists. There is currently a Puffin crossing. The narrow footpath means if pedestrians are waiting to cross they can block the whole path, and as a result, other pedestrians wanting to pass by them have to step into the road. The lack of sustainable options needs to be address, especially as 25% of the accidents in the area in the last 3 years have involved cyclists.

The proposed scheme has been a long-term aspiration for the area but to date the land and funding required have not been available. This tranche of Pinch Point Funding therefore comes at an opportune moment as a planning application has been submitted for a new superstore adjacent to the site, (planned to open at the end of 2014), and the applicant is willing to transfer the safeguarded land for highways to Essex County Council.

Investment in this corridor is wholly compliant with the aspirations of the Essex Economic Strategy and the Greater Essex Integrated County Strategy, supports the delivery of the Essex Local Transport Plan, and has the support of Chelmsford City Council.

The Economic Growth Strategy has the stated ambition to make Essex the location of choice for business for those already based in Essex and those who may choose Essex in the future. To grow, the Essex economy depends on the efficient movement of people, goods and information, via effective and reliable transport and communications networks at competitive prices to provide access to markets and suppliers. The Economic Growth Strategy also acknowledges that our future economic prosperity depends on ensuring that a ready supply of development land, new housing and the co-ordinated provision of appropriate infrastructure.

Essex County Council has been working closely with the district, borough, city and unitary councils to agree on where growth should take place in future. The results of this cooperation form the Integrated County Strategy for Greater Essex. Investment will be focused on our principal urban areas; Basildon, Chelmsford, Colchester and Harlow (as well as Southend and Grays) as these are the main locations for growth.

The Local Transport Plan applies an incremental approach to ensuring that our transport network is fit for purpose and enables economic growth. This entails; prioritising the maintenance and smarter use of our existing transport network; making targeted investments to address local network pinch points and land to support local development; and promoting larger scale projects only where these are required to most effectively address the transport challenges facing Essex.

Our strategy has identified the need for economic growth in Chelmsford and investment in three key priorities to support this: journey reliability improvements at the Army and Navy roundabout to address congestion at this key junction and to improve access to the city centre and Chelmer Waterside; a north Chelmsford package to support major business park and housing development to the north of Chelmsford; and Chelmsford City Centre Public Realm Improvements: a series of significant public realm improvements in Chelmsford linked to major redevelopment sites including improved access to the railway station.

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

Providing improvements at the Army and Navy junction, has long been identified by Essex County Council as being essential for Chelmsford and the reasons for this have been outlined in the previous section.

A number of measures have already been put in place to alleviate congestion, including the implementation of Sandon Park and Ride which has served to remove a significant amount of traffic from the junction.

There is currently an on carriageway left-turn slip from Parkway to Chelmer Road to remove left turning vehicles from the junction itself, however this is a very short dedicated lane (c.35m before the roundabout), and does not provide much stacking capacity.

There are also congestion activated signals at the Parkway and Chelmer Road entrances to the junction, with corresponding signals on the roundabout itself, to manage flows as events dictate. These improve the operation of the junction; however the two sets of signals are not linked together, or linked with the existing pedestrian crossing signals on Parkway.

Despite the improvement measures already in place, traffic flows remain significant; with between 4,400 and 4,800 vehicles passing through the junction during weekday peak hours. Therefore further improvements are still required.

Investigation into solutions has been undertaken, with options being explored such as a two-way flyover, a two-way flyover with signalisation at the junction, and a new at-grade signalised

gyratory layout. However such schemes are extremely costly (around £30M) and any improvements to the junction, of this scale will require S106 contributions from development in the area to facilitate implementation of a scheme.

Therefore alternative smaller scale options, such as the Parkway Widening scheme (awarded funding via Pinch Point Tranche 2) to improve flows along Parkway and the efficiency of the roundabout circulation; and this extended left turn slip lane, have been pursued.

To arrive at the current option various lane layout options have been considered, taking into account the land available, physical constraints and the needs of vehicles, pedestrians and cyclists.

An extended slip lane means that the existing pedestrian crossing must be extended to cross a third running lane. This can be achieved either by a single phase crossing of 3 lanes or via a split crossing with a refuge island between the left turn slip and the 2 main running lanes. The latter provides the greater capacity for vehicles, as the pedestrian phases of the signal cycle are shorter, it is also considered safer.

Alternative arrangements that were considered include the modifications to the subway; either lengthening or widening it to provide an improved facility for cyclists. The subway is constrained by statutory undertakers' plant and land availability, so both options would be prohibitively expensive. It is proposed to curve the subway ramp as part of these works to improve the road alignment. Unfortunately due to the existing statutory plant running directly below the ramp, it is believed unlikely that the gradient of the ramp can be improved in line with DDA standards. This will be investigated further.

The preferred option therefore presents the most significant benefits to relieve this pinch point without delivering the full larger scale improvements to the junction.

c) What are the expected benefits / outcomes? For example, job creation, housing numbers and GVA and the basis on which these have been estimated.

The scheme will provide improved flow and capacity at the Army and Navy roundabout, a key pinch point and gateway to Chelmsford city.

Extending the left turn slip and widening Parkway to 3 lanes will provide additional stacking capacity by enabling left turning traffic to filter into the slip lane c.80m sooner, and by removing these vehicles from the other two running lanes.

Queuing on the Parkway approach to the roundabout will be reduced as left turning vehicles will be separated from other movements via an extended left turn slip, with additional stacking capacity. Additionally the two sets of part time signals at the roundabout will be linked together, along with those for the signal controlled crossing. This will improve the management of traffic entering and circulating the roundabout, and will better balance the needs of pedestrians and cyclists with general traffic flow.

Cyclists will benefit from an off carriageway cycle path (shared with pedestrians) alongside Parkway and Chelmer Road, and a toucan crossing across Parkway. Cyclists made up 26% (271) of all observed users of the A&N subway over 12 hour period (760 pedestrians used the subway over same period), this is despite this route not being an official cycle route (though some cyclists could have been pushing their bikes). These facilities will not only cater for cyclists and encourage increased cycling, but they will reduce the possibility of accidents in the area as 25% of accidents in the last 3 years have involved cyclists.

As a key gateway to the city centre, improvements to this pinch point are essential to support and facilitate housing and economic growth by making the area more attractive to businesses and developers for investment and this has been identified within the Essex Economic Strategy and the Greater Essex Integrated County Strategy, the Essex Local Transport Plan, and has the support of Chelmsford City Council.

Improvements at this key gateway will therefore support the delivery of over 2,000 new homes in the city centre; expanded retail opportunities, offering up to 100,000m² of retail space including a new anchor store; and significant new business development including an Innovation Centre. Chelmsford will accommodate 20,000 new jobs by 2021, a significant proportion of which will be delivered by this commercial development in the city centre. A plan illustrating the key proposed developments in the city centre can be found in Appendix 2 and details are listed below:

- Chelmsford Innovation Centre: 27,000 square ft
- Marconi site: 440 new homes and mixed use development
- Anglia Ruskin Central Campus redevelopment: 500 new homes and 40,000 square ft of commercial development
- John Lewis: 66,000 square ft
- Waitrose: 24,000 ft²
- Chelmer Waterside = major retail and mixed use development
- Essex County Cricket Ground: 430 new homes

A supporting document from Chelmsford City Council with details of the City's Development Opportunities can be found in Appendix 6.

The scheme has been designed to accommodate any future two-way flyover, a larger scale solution to provide extra capacity for the junction. The safeguarded land is sufficient for both the extended left turn slip lane and a widened flyover, although the Parkway running lanes will need to be realigned to accommodate this. This scheme will physically secure the highways land required for the full scheme.

d) What is the project's scope and is there potential to reduce costs and still achieve the desired outcomes? For example, using value engineering.

The scheme comprises widening a c.80m length of Parkway (A1060) eastbound, to provide an extension to the dedicated left turn slip into Chelmer Road. It also provides a shared use cycle path and toucan crossing, and links together the existing part time signals on the roundabout to improve traffic management.

To maximise benefits (journey time savings) a physically segregated left turn lane is proposed, to minimise the impact of extending the pedestrian crossing and thus extending the pedestrian phase of the signals cycle. To accommodate this in the land available, it is necessary to realign the subway ramp and extend the underpass by one metre. Detailed design will establish if the extension of the subway is necessary. The ramp could be left in situ if a three-lane crossing without a segregated island were pursued instead, although this would not offer the same benefits.

e) Are there any related activities, that if not successfully concluded would mean the full economic benefits of the scheme may not be realised. For example, this could relate to land acquisition, other transport interventions being required or a need for additional consents?

Land required for the scheme was safeguarded for highways purposes through Chelmsford City Council's Local Development Framework process via the Core Strategy adopted in 2008.

However the scheme is reliant on the transfer of land to Essex County Council which is expected as part of the planning application process and the successful conclusion of S106 negotiations with the landowner.

A planning application has been submitted for an Aldi store in this location and a decision on the application is expected to be made in late 2013.

Should the Aldi superstore not be granted planning permission, (and therefore the safeguarded land would remain outside the County Council's control), the land constraints would mean that an extension of the current left turn slip is not deliverable.

If the land is successfully transferred, the benefits of the scheme are otherwise self-contained and not reliant on any other interventions or consents.

Temporary Traffic Regulation Orders will be required to carry out construction including lane closures. There will be working restrictions in the peak periods to minimise the impact on the junction during the works.

Co-ordination will be required with other nearby works such as the Parkway widening (Pinch Point Tranche 2 funded) project, the development of the proposed Aldi store and the viaduct replacement works on Chelmer Road which is expected to tie in to the Army & Navy roundabout in Summer 2015. The delivery of this project will be challenging due to the co-ordination of several work activities, delivered by different contractors, within the same work area and time scale.

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

Should Pinch Point Funding not be secured, then the proposed Aldi development may fund some improvements in this location, however their contribution would not be sufficient to provide the full benefits that our proposed scheme would provide. The County Council would be reliant on securing other contributions from developments in the vicinity in order to deliver the full scheme.

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

There is a declared air quality management zone covering both the Army and Navy roundabout and the Odeon roundabout to the west, owing entirely to the amount of traffic and congestion in the vicinity. A reduction in queue lengths will reduce the impact of vehicle emissions on the local air quality.

A map of the AQMA can be found here:

http://aqma.defra.gov.uk/images/aqma_maps/Chelmsford.jpg

B3. The Financial Case – Project Costs

Before preparing a scheme proposal for submission, bid promoters should ensure they understand the financial implications of developing the scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and

the need to secure and underwrite any necessary funding outside the Department's maximum contribution.

Please complete the following tables. Figures should be entered in £000s (i.e. £10,000 = 10).

Please refer to Appendix 7 for full details of the costs.

Table A: Funding profile (Nominal terms)

£000s	2013-14	2014-15	2015-16	Total
DfT funding sought	260	1,191	-	1,451
Local Authority contribution	-	-	272	272
Third Party contribution	-	350	-	350
TOTAL	260	1,541	272	2,073

Table B: Cost estimates (Nominal terms)

Cost heading	Cost (£000s)	Date estimated	Status (e.g. target price)
Preliminaries	130.5	Oct 13	Estimate
Temporary Traffic Management	193.0	Oct 13	Estimate
Site Clearance	16.57	Oct 13	Estimate
Fencing	13.38	Oct 13	Estimate
Road Restraint System	49.875	Oct 13	Estimate
Drainage and Service Ducts	7.02	Oct 13	Estimate
Earthworks	47.84	Oct 13	Estimate
Pavements	221.262	Oct 13	Estimate
Kerbs Footways and Paved Areas	70.77	Oct 13	Estimate
Traffic Signs and Road Markings	28.624	Oct 13	Estimate
Road Lighting Columns and Brackets CCTV Masts	16.8	Oct 13	Estimate
Structure Ramp Alteration	284.0	Oct 13	Estimate
Installation of new Pedestrian (Toucan) Crossing	35.0	Oct 13	Estimate
Link Pedestrian Crossing to Junction Signals	20.0	Oct 13	Estimate
Statutory Undertakers Diversions	140.0	Oct 13	Estimate
Scheme Preparation	315.622	Oct 13	Estimate
Contract Administration	127.464	Oct 13	Estimate

Sum from Quantified Risk Assessment	355.250	Oct 13	Estimate
TOTAL	2,072.976		

Notes:

- 1) Department for Transport funding must not go beyond 2014-15 financial year.
- 2) A minimum local contribution of 30% (local authority and/or third party) of the project costs is required.
- 3) Costs in Table B should be presented in outturn prices and must match the total amount of funding indicated in Table A.

B4. The Financial Case - Local Contribution / Third Party Funding

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

- a) *The non-DfT contribution may include funding from organisations other than the scheme promoter. If the scheme improves transport links to a new development, we would expect to see a significant contribution from the developer. Please provide details of all non-DfT funding contributions to the scheme costs. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available.*

Of the £622,000 local contribution (30% of the scheme cost), this will be split between Chelmsford City Council and Essex County Council. Chelmsford City Council will fund £350,000, the majority of which will come from S106 monies they currently hold and the rest from future contributions. Confirmation of Chelmsford City Council's position on this is contained within their letter of support and can be found in Appendix 4. The remaining £272,000 will need to come from Essex County Council capital monies. However as part of the S106 negotiations which are currently underway for the Aldi development, a contribution towards the scheme is likely to be secured so this will reduce the amount required to come from Chelmsford City Council and Essex County Council capital monies and this will also allow other S106 contributions held by Chelmsford City Council to be reserved for the larger scale improvements required at this junction.

- b) *Where the contribution is from external sources, please provide a letter confirming the body's commitment to contribute to the cost of the scheme. The Department is unlikely to fund any scheme where significant financial contributions from other sources have not been secured or appear to be at risk.*

Have you appended a letter(s) to support this case? Yes No N/A
A copy can be found in Appendix 4.

- c) *The Department may accept the provision of land in the local contribution towards scheme costs. Please provide evidence in the form of a letter from an independent valuer to verify the true market value of the land.*

Have you appended a letter to support this case? Yes No N/A

The land required for this scheme was safeguarded in the Local Development Framework Core Strategy for Chelmsford adopted in 2008. Negotiations are ongoing with Aldi to transfer the land to Essex County Council. No value is being claimed directly against this.

d) Please list any other funding applications you have made for this scheme or variants thereof and the outcome of these applications, including any reasons for rejection.

Essex's Economic Growth Strategy (EGS) has been allocated a budget to deliver economic growth, of which a component is for transport projects that deliver EGS outcomes. A bid for monies for improvements to the Army and Navy junction has been submitted, however this is for the larger scale improvements to the junction itself, and this funding is for design work only.

A Pinch Point bid for Army and Navy Improvements: A1060 Parkway Widening was awarded funding in Tranche 2. This provides improvements on the south western side of the roundabout, and will be delivered in parallel with this scheme.

B5. The Financial Case – Affordability and Financial Risk

This section should provide a narrative setting out how you will mitigate any financial risks associated with the scheme (you should refer to the Risk Register / QRA – see Section B11).

Please ensure that in the risk / QRA cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.

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

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

A Quantified Risk Assessment (QRA) has been undertaken and is attached as Appendix 8. It should be noted that this is based on P50 values. The total risk allowance is £355,250.00

b) How will cost overruns be dealt with?

This will be determined by the method of procurement used. If the scheme is delivered by Essex County Council in partnership with its Integrated Service Provider Essex Highways, there are provisions in the partnership agreement to share pain / gain.

All design work will be carried out by Essex Highways and to ensure value for money, the scheme construction will either be procured internally utilising Essex Highways or tendered under one of two framework contracts; the Eastern Highways Alliance or the Highways Agency framework contracts. Within this the works will be delivered using the New Engineering Contract (NEC) 3 suite of documents which has mechanisms to deal with cost overruns including penalties and pain/gain provisions. If necessary specific terms and clauses could be added to the tender documentation.

Additionally the project specific risks have been identified through the undertaking of a risk assessment with risk allowance identified within the project budget.

Any cost over runs not covered by the contract or due to third party issues will be dealt with through the County Council's budget.

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

The highest risks are contained in the QRA (Appendix 8) including their associated mitigations. The QRA provides details of the cost impacts.

The primary risk to the project timescale is land availability. Any delay in the availability of land after January 2014 will delay the project programme. Traffic Management restrictions (works must take place outside peak hours) will reduce flexibility in the programme.

Any statutory undertakers' apparatus which requires diversion will rely on third party companies to work within our timescales, which cannot be guaranteed. The sooner any scheme is confirmed, the sooner external parties can be engaged with.

As stated earlier, there are several disparate schemes in a limited area, on a key strategic route, all working to a similar timescale. This will require careful co-ordination to ensure that all schemes can be delivered.

d) *How will cost overruns be shared between non-DfT funding partners (DfT funding will be capped and will not be able to fund any overruns)?*

As stated above, any cost overruns not covered by the contract or due to third party issues will be dealt with through the County Council's budget.

B6. The Economic Case – Value for Money

This section should set out the full range of impacts – both beneficial and adverse – of the scheme. The scope of information requested (and in the supporting annexes) will vary according to whether the application is for a small or large project.

Small project bids (i.e. DfT contribution of less than £5m)

- a) *Please provide a description of your assessment of the impact of the scheme to include:*
- *Significant positive and negative impacts (quantified where possible);*
 - *A description of the key risks and uncertainties;*
 - *A short description of the modelling approach used to forecast the impact of the scheme and the checks that have been undertaken to determine that it is fit-for-purpose.*

** Small projects bids are not required to produce a Benefit Cost Ratio (BCR) but may want to include this here if they have estimated this.*

Description of assessment

Data and analysis to support the description of traffic characteristics of the junction, the impact of the proposals and the data used to populate the pro-forma tables are contained in a separate note: *Army and Navy Improvements: Extended left turn slip lane from A1060 Parkway to A138 Chelmer Road - Supplementary Report on Modelling and Data October 2013* which can be found in Appendix 9. This report expands on the methodology and results and provides a list of data sources used in the assessment.

Methodology

A microsimulation model based on an SParamics model first developed in 2007 was used to determine the scheme impact; outputs from the model comprised vehicle and bus flows, distances, and journey times for both the Do-minimum and Do-something cases and input to the

proforma spreadsheet. The model was updated with 2013 traffic counts and AM, Interpeak and PM traffic flows were assessed. A fixed matrix was used and flows updated to the opening year of 2015. Bus occupancies were updated with the latest available data.

Modelling Risks

The modelling is from 2007 and, as such, is presented as the best available tool to estimate the scheme impacts. Although flows were updated to the latest available survey data, the model has not been re-calibrated or validated and no forecast modelling was undertaken.

Since the model was originally built, some traffic management improvements to the junction have been introduced. These changes have not been incorporated into the model, but the geometric changes of a proposed widening of Parkway Westbound has been incorporated.

There is thus room for improvement of the model, but it was considered appropriate for the current application while the results overall appear both reasonable and robust.

Significant positive and negative impacts

An Appraisal Summary Table is attached as Appendix 10 and a Stage 0 Social and Distribution Impact Assessment as Appendix 11.

Significant positive impact is expected for business users, transport providers, commuters and other users due to reduced congestion and improved journey times at the Army & Navy junction, which would also be likely to positively impact on journey reliability for these users.

The estimated savings are set out below:

	Saving (Do-Something vs. Do-Minimum)		
	AM peak hour	IP peak hour	PM peak hour
Highway Vehicle Trips	18 vehicle hours	8 vehicle hours	6 vehicle hours
PT Passenger Trips	5 passenger hours	4 passenger hours	1 passenger hours

The proposed off-road cycle facility and toucan crossing will link into the planned Great Baddow Cycle Route and is expected to increase comfort and safety for vulnerable road users, and encouraging cycling.

A preliminary economic assessment was undertaken, using default values in WebTAG 3.5.6, except where scheme specific data is available as shown in the pro-forma tables. Assumption included:

- Cost include Quantified Risk Assessment but not Optimism Bias;
- Discount period 20 years;
- Discounted from Opening Year to 2010 costs;
- No Growth in flows, demand or changes in journey times;
- Fixed Matrix (with slight variations due to the stochastic nature of the micro-simulation and only recording completed journeys).
- Accident savings of 0.8 slight injury accidents per year.

The results are shown in the table below from the data in the pro-forma sheet.

	Journey Time All Users	Business Only	Commuter & Others
Highway			

Single Year	£276,756	£174,152	£102,604
NPV 20 Year Life	£3,823,739	£2,438,298	£1,385,441
Passenger Transport			
Single Year	£77,104	£16,429	£60,675
NPV 20 Year Life	£1,049,441	£219,625	£829,816
Accidents			
Single Year	£79,536		
NPV 20 Year Life	£985,076		
Total NPV	£5,858,256		
Cost	£2,072,976		
Overall B/C Estimate	2.83		

Reduced congestion and journey times will also have a positive impact on the city centre regeneration as the junction is a key gateway to the city and its commercial and retail areas.

The impact on environmental issues will be neutral or slightly positive, the latter being as a result of the reduced congestion leading to improved air quality and reduced greenhouse gases.

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

- *A completed Scheme Impacts Pro Forma which summarises the impact of proposals against a number of metrics relevant to the scheme objectives. It is important that bidders complete as much of this table as possible as this will be used by DfT – along with other centrally sourced data – to form an estimate of the BCR of the scheme. Not all sections of the pro forma are relevant for all types of scheme (this is indicated in the pro forma).*
- *A description of the sources of data and forecasts used to complete the Scheme Impacts Pro Forma. This should include descriptions of the checks that have been undertaken to verify the accuracy of data or forecasts relied upon. Further details on the minimum supporting information required are presented against each entry within the pro forma.*

Has a Scheme Impacts Pro Forma been appended? Yes No N/A
A copy can be found in Appendix 12

Has a description of data sources / forecasts been appended? Yes No N/A
This information can be found within the modelling report in Appendix 9

- *A completed Appraisal Summary Table. Bidders are required to provide their assessment of all the impacts included within the table and highlight any significant Social or Distributional Impacts (SDIs). Quantitative and monetary estimates should be provided where available but are not mandatory. The level of detail provided in the table should be proportionate to the scale of expected impact with particular emphasis placed on the assessment of carbon, air quality, bus usage, sustainable modes, accessibility and road safety. The source of evidence used to assess impacts should be clearly stated within the table and (where appropriate) further details on the methods or data used to inform the assessment should be attached as notes to the table.*

Has an Appraisal Summary Table been appended? Yes No N/A
A copy can be found in Appendix 10

- Other material supporting the assessment of the scheme described in this section should be appended to your bid.

** This list is not necessarily exhaustive and it is the responsibility of bidders to provide sufficient information to demonstrate the analysis supporting the economic case is fit-for-purpose.*

Large project bids (i.e. DfT contribution of more than £5m)

- c) Please provide a short description of your assessment of the value for money of the scheme including your estimate of the BCR. This should include:

- Significant monetised and non-monetised costs and benefits;
- A description of the key risks and uncertainties and the impact these have on the BCR;
- Key assumptions including (but not limited to): appraisal period, forecast years, level of optimism bias applied; and
- A description of the modelling approach used to forecast the impact of the scheme and the checks that have been undertaken to determine that it is fit-for-purpose.

- d) Detailed evidence supporting your assessment – including a completed Appraisal Summary Table – should be attached as annexes to this bid. **A checklist of material to be submitted in support of large project bids has been provided.**

Has an Appraisal Summary Table been appended? Yes No N/A

- Please append any additional supporting information (as set out in the Checklist).

**It is the responsibility of bidders to provide sufficient information for DfT to undertake a full review of the analysis.*

B7. The Commercial Case

This section should set out the procurement strategy that will be used to select a contractor and, importantly for this fund, set out the timescales involved in the procurement process to show that delivery can proceed quickly.

- a) Please provide evidence to show the risk allocation and transfer between the promoter and contractor, contract timescales and implementation timescales (this can be cross-referenced to your Risk Management Strategy).

As already mentioned either the Essex Highways partnership agreement or the NEC 3 contract suite will be used, within these forms of contract are various options regarding the transfer of risk from the promoter to the contractor, typical examples of risk transfer include, programme, and weather. These issues will obviously be confirmed once an appropriate contractor has been brought on board. For risks which cannot be transferred an allowance has been made in the Quantified Risk Register (Appendix 8).

Please refer to Appendix 13 for the Risk Management Strategy.

- b) What is the preferred procurement route for the scheme and how and why was this identified as the preferred procurement route? For example, if it is proposed to use existing framework agreements or contracts, the contract must be appropriate in terms of scale and scope.

The scheme will be delivered by Essex County Council in partnership with its Integrated Service Provider Essex Highways. All design work will be carried out by Essex Highways and to ensure value for money, the scheme construction will either be procured internally utilising Essex Highways, or undertaken via mini competitive tender process utilising existing framework contracts available to the County Council, for example the Eastern Highways Alliance or the Highways Agency Framework to ensure an efficient and reduced tender process in order to deliver the scheme within the timescales. These framework contracts are suitable for schemes up to and including £10 million.

- c) *A procurement strategy will not need to form part of the bid documentation submitted to DfT. Instead, the Department will require the bid to include a joint letter from the local authority's Section 151 Officer and Head of Procurement confirming that a strategy is in place that is legally compliant and is likely to achieve the best value for money outcome.*

Has a joint letter been appended to your bid? Yes No
A copy can be found in Appendix 14

**It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department with confirmation of this, if required.*

B8. Management Case - Delivery

Deliverability is one of the essential criteria for this Fund and as such any bid should set out any necessary statutory procedures that are needed before it can be constructed.

- a) *A detailed project plan (typically in Gantt chart form) with milestones should be included, covering the period from submission of the bid to scheme completion. The definition of the key milestones should be clear and explained. The critical path should be identifiable and any key dependencies (internal or external) should be explained. Resource requirements, task durations, contingency and float should be detailed and easily identifiable. Dependencies and interfaces should be clearly outlined and plans for management detailed.*

Has a project plan been appended to your bid? Yes No
A copy can be found in Appendix 15

- b) *If delivery of the project is dependent on land acquisition, please include a letter from the respective land owner(s) to demonstrate that arrangements are in place in order to secure the land to enable the authority to meet its construction milestones.*

Has a letter relating to land acquisition been appended? Yes No N/A

The land required for this scheme was safeguarded for highways purposes in the Local Development Framework Core Strategy for Chelmsford adopted in 2008. Negotiations are ongoing with Aldi to transfer the land to Essex County Council, (subject to the approval of their planning application by Chelmsford City Council).

c) *Please provide summary details of your construction milestones (at least one but no more than 5 or 6) between start and completion of works:*

Table C: Construction milestones

Milestones

C3/C4 Statutory Diversion Estimate Request	November - December 2013
Place Order with Statutory Undertakers	January 2014
Finalise Detailed Civils Design	November 2013 - April 2014
Land transferred to Essex County Council	December 2013 – January 2014
Statutory Diversions	March 2014 – June 2014
Procurement of Civils Contractor	April 2014 – June 2014
Mobilisation	August 2014 – September 2014
Construction	October 2014 – March 2015
Works complete	March 2015

d) *Please list any major transport schemes 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)*

Please see Appendix 16 for details regarding the past delivery for Essex County Council

B9. Management Case – Statutory Powers and Consents

a) *Please list separately each power / consents etc obtained, details of date acquired, challenge period (if applicable) and date of expiry of powers and conditions attached to them. Any key dates should be referenced in your project plan.*

- The land required for this scheme was safeguarded for highways purposes in the Local Development Framework Core Strategy for Chelmsford adopted in 2008.
- Planning approval is not required as the proposed works are considered permitted development under Part 13 (Development by Local Highway Authorities) of the Town and Country Planning (General Permitted Development) Order 1995 (as amended).

b) *Please list separately any outstanding statutory powers / consents etc, including the timetable for obtaining them.*

- Negotiations are ongoing with Aldi to transfer the necessary land to Essex County Council, (subject to the approval of their planning application by Chelmsford City Council). The planning application is expected to be considered by Chelmsford City Council's planning committee in mid-November. Subsequently the S106 agreement is expected to be finalised in December 2013 with the land being transferred to the County Council in January 2014.
- Statutory diversions are required and C3/C4 estimates will be requested. For the Parkway Widening project we were advised that there is a 4 month lead in time for BT diversions; we are optimistic that we can coordinate the two sets of diversions.
- The scheme will need to be tendered so a small competitive tender process will need to be completed prior to construction commencing whichever procurement route is selected.
- Temporary Traffic Regulation Orders will be required to carry out construction including lane closures. There will be working restrictions in the peak periods to minimise the impact on the junction during the works.

B10. Management Case – Governance

Please name who is responsible for delivering the scheme, the roles (Project Manager, SRO etc.) and responsibilities of those involved, and how key decisions are/will be made. An organogram may be useful here. Details around the organisation of the project including Board accountabilities, contract management arrangements, tolerances, and decision making authorities should be clearly documented and fully agreed.

Essex County Council and its Contractors use the Office of Government and Commerce PRINCE 2 frameworks and as such will hold formal Project Boards on a regular basis. The responsibilities and accountabilities of the members of the Project Board are in accordance with current PRINCE 2 methodologies.

The structure chart shown in Appendix 17 is the basis for monthly progress meetings of the project management team to fully update the Project Executive via the Project Manager, Senior Supplier and Project Assurance. The Project Board and progress meetings take place on a monthly basis to update project milestones and any other items by exception. The Project Board reports to the Senior Responsible Owner and (as necessary) Essex County Council Corporate Management throughout the project.

The Project Sponsor and Project Manager (once appointed) will communicate with the Project Board at scheduled meetings or on an ad-hoc basis when raising a project issue, warning of an instance where Stage tolerance could be exceeded (presenting an Exception Report), producing a Highlight Report to flag up a particular incident or issue with strategic implications, or when indicating that a Stage is about to be completed through the submission of an End Stage Report.

From commencement of construction the Project Sponsor will also be responsible for allocating duties to the Project Manager (once appointed). The contractor's Project Manager will be responsible for the day to day responsibilities under the build contract and to provide the lead in costs, delivery and stakeholder issues.

B11. Management Case - Risk Management

All schemes will be expected to undertake a thorough Quantified Risk Assessment (QRA) and a detailed risk register should be included in the bid. The QRA should be proportionate to the nature and complexity of the scheme. A Risk Management Strategy should be developed and should outline on how risks will be managed.

Please ensure that in the risk / QRA cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.

Has a QRA been appended to your bid?

Yes No

A copy can be found in Appendix 8

Has a Risk Management Strategy been appended to your bid?

Yes No

A copy can be found in Appendix 13

B12. Management Case - Stakeholder Management

The bid should demonstrate that the key stakeholders and their interests have been identified and considered as appropriate. These could include other local authorities, the Highways Agency, statutory consultees, landowners, transport operators, local residents, utilities companies etc. This is particularly important in respect of any bids related to structures that may require support of Network Rail and, possibly, train operating company(ies).

a) *Please provide a summary of your strategy for managing stakeholders, with details of the key stakeholders together with a brief analysis of their influences and interests.*

The strategy for engagement is in 3 stages:

Stage 1 Development Phase

Early initial contact with local decision makers, statutory undertakers and transport operators to ensure that key stakeholders are engaged and managed as appropriate.

Local decision makers:

Chelmsford City Council, South East LEP

Interests: To facilitate economic growth in Chelmsford City Centre, ensuring that there is appropriate infrastructure to support the growth.

Letters of support for this scheme are provided in Appendix 4 and Appendix 5.

Statutory Undertakers:

Utility companies who own plant and/or equipment in the vicinity of the scheme.

Interests: To ensure plant and/equipment is sufficiently protected and/or diverted away from the scheme. The County Council will work closely with Statutory Undertakers to ensure costs and timescales of diversions are managed.

Transport operators:

Bus operators, taxi operators.

Interests: To ensure that this strategic node for services is protected and enhanced and they can maximise the use of their mode of transport by increasing the attractiveness of the route.

Businesses:

Business representatives, key businesses and future developers in the city centre.

Interests: Reducing the congestion at this key gateway to Chelmsford City Centre. Future developers will want to ensure that the route increases the attractiveness of their developments to future residents and businesses who may want locate in the area.

Public: Local residents, local schools, travelling public including pedestrians, cyclists, bus passengers and car drivers.

Interests: The public will want to ensure that their access to the city centre by all modes of transport is not compromised by the capacity improvements at this key junction. Residents will want to ensure that their quality of life is not compromised by the capacity enhancements and new developments proposed in the area.

Stage 2 Pre-Construction Phase

This stage would involve feeding back the final scheme to stakeholders, and we will commence early engagement with transport operators, businesses and emergency services to ensure continuity during construction. In addition engagement on traffic management plans would begin as appropriate.

Stage 3 Construction Stage and Post Construction Stage

This would involve ongoing engagement with businesses, emergency services and transport operators to continue to ensure continuity of service.

The County Council will work with Bus and taxi operators regarding engagement on traffic management plans; to minimise disruption to services and to journey time reliability as far as possible.

The County Council will liaise with local businesses regarding engagement on traffic management plans; to ensure that they can be accessed throughout the construction period.

The County Council will ensure information is made available to members of public, via the internet (Essex County Council's website), press, radio and the Essex County Council Highways Helpline (to report problems and give out information).

The Essex Traffic Control Centre will be utilised to inform the public and actively manage the traffic in the area via the use of variable message signing (VMS) and traffic signal control as appropriate. The promotion of alternative forms of transport is a key part of the communications to ensure disruption is kept to a minimum. Once the scheme has been completed promotion of the scheme and travel choices should begin in the area to ensure the usage of the scheme is maximised, while preventing the generation of additional car trips.

b) *Can the scheme be considered as controversial in any way?* Yes No
If yes, please provide a brief summary (in no more than 100 words)

The scheme is not considered to be controversial, however during construction appropriate traffic management and communications will be necessary to ensure all key stakeholders are provided with all appropriate information.

c) *Have there been any external campaigns either supporting or opposing the scheme?*

Yes No

If yes, please provide a brief summary (in no more than 100 words)

There have not been any campaigns against the scheme, however there have been numerous calls for action for improvements at the Army and Navy junction, specifically in the media.

d) *For large schemes please also provide a Stakeholder Analysis and append this to your application.*

Has a Stakeholder Analysis been appended? Yes No N/A

e) *For large schemes please provide a Communications Plan with details of the level of engagement required (depending on their interests and influence), and a description of how and by what means they will be engaged with.*

Has a Communications Plan been appended? Yes No N/A

B13. Management Case - Assurance

We will require Section 151 Officer confirmation (Section D) that adequate assurance systems are in place.

See Section D and Appendix 14

For large schemes please provide evidence of an integrated assurance and approval plan. This should include details around planned health checks or gateway reviews.

SECTION C – Monitoring, Evaluation and Benefits Realisation

C1. Benefits Realisation

Please provide details on the profile and baseline benefits and their ownership. This should be proportionate to the size of the proposed scheme.

Specific measures and reporting are specified in the Benefits Realisation Table which can be found in Appendix 18.

The County Council would be the owner of these measures. The Project Team will use established best practices for this type of scheme, utilising experience gained from previous schemes successfully completed. (See Appendix 16).

C2. Monitoring and Evaluation

Evaluation is an essential part of scheme development and should be considered and built into the planning of a scheme from the earliest stages. Evaluating the outcomes and impacts of schemes is important to show if a scheme has been successful.

Please set out how you plan to measure and report on the benefits identified in Section C1, alongside any other outcomes and impacts of the scheme

Specific measures and reporting are specified in the Benefits Realisation Table which can be found in Appendix 18.

A fuller evaluation for large schemes may also be required depending on their size and type.

SECTION D: Declarations

D1. Senior Responsible Owner Declaration

As Senior Responsible Owner for the Army and Navy Improvements: Extended left turn slip lane from A1060 Parkway to A138 Chelmer Road 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: Chris Stevenson

Signed:

Position: Head of Commissioning: Integrated Transport

D2. Section 151 Officer Declaration

As Section 151 Officer for Essex County Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that Essex County Council

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested and that no DfT funding will be provided after 2014/15
- confirms that the authority has the necessary governance / assurance arrangements in place and, for smaller scheme bids, the authority can provide, if required, evidence of a stakeholder analysis and communications plan in place

Name: Margaret Lee

Signed:

Submission of bids:

The deadline for submitting bids is 5pm on Thursday 31 October 2013.

The Department only requires an electronic version of bids.

A CD version of each bid and supporting material should be submitted to:

Steve Berry
Local Transport Funding, Growth & Delivery
Department for Transport
2/14 Great Minster House
33 Horseferry Road
LONDON
SW1P 4DR

An electronic copy via email should also be submitted to:

lt.plans@dft.gsi.gov.uk

SECTION D: Declarations

D1. Senior Responsible Owner Declaration

As Senior Responsible Owner for the Army and Navy Improvements: Extended left turn slip lane from A1060 Parkway to A138 Chelmer Road 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: Chris Stevenson

Signed:

Position: Head of Commissioning: Integrated Transport



D2. Section 151 Officer Declaration

As Section 151 Officer for Essex County Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that Essex County Council

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested and that no DfT funding will be provided after 2014/15
- confirms that the authority has the necessary governance / assurance arrangements in place and, for smaller scheme bids, the authority can provide, if required, evidence of a stakeholder analysis and communications plan in place

Name: Margaret Lee

Signed:



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