

The template

*This document provides the business case template for projects seeking funding which is made available through the **South East Local Enterprise Partnership**. It is therefore designed to satisfy all SELEP governance processes, approvals by the Strategic Board, the Accountability Board and also the early requirements of the Independent Technical Evaluation process where applied.*

It is also designed to be applicable across all funding streams made available by Government through SELEP. It should be filled in by the scheme promoter – defined as the final beneficiary of funding. In most cases, this is the local authority; but, in some cases, the local authority acts as Accountable Body for a private sector final beneficiary. In those circumstances, the private sector beneficiary would complete this application and the SELEP team would be on hand, with local partners in the federated boards, to support the promoter.

Please note that this template should be completed in accordance with the guidelines laid down in the HM Treasury's Green Book. <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>.

As described below, there are likely to be two phases of completion of this template. The first, an 'outline business case' stage, should see the promoter include as much information as would be appropriate for submission through SELEP to Government calls for projects where the amount awarded to the project is not yet known. If successful, the second stage of filling this template in would be informed by clarity around funding and would therefore require a fully completed business case, inclusive of the economic appraisal which is sought below. At this juncture, the business case would therefore dovetail with SELEP's Independent Technical Evaluation process and be taken forward to funding and delivery.

The process

This document forms the initial SELEP part of a normal project development process. The four steps in the process are defined below in simplified terms as they relate specifically to the LGF process. Note – this does not illustrate background work undertaken locally, such as evidence base development, baselining and local management of the project pool and reflects the working reality of submitting funding bids to Government.



In the form that follows:

- **Applicants for funding for non-transport projects should complete the blue sections only**
- **Applicants for funding for transport projects should complete both the blue and the orange sections**

Version control	
Document ID	M11 Junction 8 Improvements Business Case - Rebid
Version	Revised - February 16, 2021
Author	D R Joy
Document status	Final
Authorised by	
Date authorised	

1. PROJECT SUMMARY

1.1. Project name	M11 Junction 8 Improvements - Rebid
1.2. Project type	Junction improvements - Revised slip roads and replacing A1250 / A120 Birchanger roundabout with a staggered signalised junction.

1.3. Location (incl. postal address and postcode)	OS Grid Reference:	TL 51424 21542
	Postcode:	CM23 5QZ



Figure 1: Aerial view of M11 Junction 8 looking northwards

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 west of the M11 and to the north of the services.

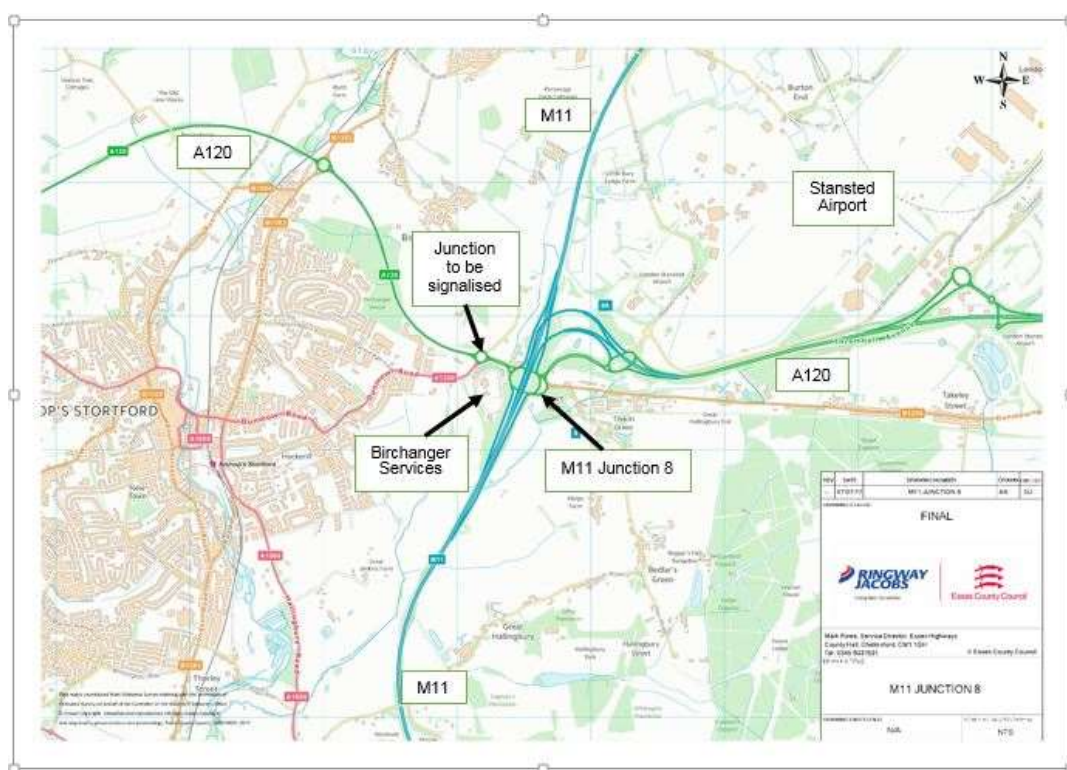





Figure 2: Site location plan – M11 Junction 8

1.4. Local authority area



1.5. Description (max 300 words)	<p><i>Drawings of the proposed improvements can be found at Appendix A.</i></p> <p>The project includes three schemes involving changes to M11 Junction 8 in order to improve traffic flow across and through the junction, improve access to Stansted Airport, the Services area and between the M11 and the A120.</p> <p>Location 1: South-west of M11 Junction 8:-</p> <ul style="list-style-type: none">• Add an additional inside approach lane from the M11 Junction 8 northbound exit slip onto the A120, with dedicated access into Birchanger Green Services• Install upgraded traffic signals elevated on mast-arm gantries. <p>Location 2: West of M11 J8:-</p> <ul style="list-style-type: none">• Replace the existing A120 / A1250 Birchanger roundabout with a staggered signalised junction• Widen the A120 eastbound and westbound to three lanes on the approach to the new junction with the A1250, introducing a dedicated lane for A1250 traffic, and a new right turn lane for traffic for Birchanger Lane• Realign Birchanger Lane at the new A120 junction within the highway boundary• Install toucan crossings (shared pedestrian and cycle crossing) to connect both sides of the A120, with a new footway extending to Birchanger Village and provision of on and off ramps to the on-road cycleway• Realign the bus laybys on A1250 Dunmow Road with an uncontrolled pedestrian crossing• Create a spur link off Birchanger Lane for direct access to Bishop's Stortford / A120 (West) for buses / taxis / ambulances• Reduce the speed on the A120 to 50mph through the scheme area. <p>Location 3: North-east of M11 Junction 8:-</p> <ul style="list-style-type: none">• Add an additional outside approach lane on the M11 Southbound slip road to separate traffic to London Stansted Airport, the A120, Takeley, the services, and Bishop's Stortford• Install upgraded traffic signals that will be elevated on mast-arm gantries with overhead signage.																																		
1.6. Lead applicant	Essex County Council																																		
1.7. Total project value	£15.086m																																		
1.8. SELEP funding request, including type (e.g. LGF, GPF etc.)	<table><tr><th>Funding source (£m)</th><th>Up to Mar 21</th><th>2021/22</th><th>2022/23</th><th>Total</th></tr><tr><td>SELEP (LGF)</td><td>2.289</td><td>1.445</td><td></td><td>3.734</td></tr><tr><td>NPIF (DfT)</td><td>0.138</td><td>3.949</td><td></td><td>4.087</td></tr><tr><td>ECC</td><td>0.869</td><td>0.450</td><td>4.927</td><td>6.246</td></tr><tr><td>MAG (Stanstead)</td><td></td><td>1.019</td><td></td><td>1.019</td></tr><tr><td>Total funding requirement</td><td>3.296</td><td>6.863</td><td>4.927</td><td>15.086</td></tr></table> <ul style="list-style-type: none">• A total of £3.734m funding is requested from SELEP through the LGF, of which £2.289m has already been provided. This represents an increase of £1m over the original ask to replace the money first allocated by the Cambridge and Peterborough Combined Authority LEP (CPCA), but subsequently reallocated due to the delays in the programme timing.• £1.019m has been committed towards the scheme by the Manchester Airport Group (MAG) who own Stansted Airport.• £4.087m has been awarded (and received) by the DfT through the National Productivity Investment Fund (NPIF).• ECC will cover the remaining £6.246m, of which £0.869m has already been spent.					Funding source (£m)	Up to Mar 21	2021/22	2022/23	Total	SELEP (LGF)	2.289	1.445		3.734	NPIF (DfT)	0.138	3.949		4.087	ECC	0.869	0.450	4.927	6.246	MAG (Stanstead)		1.019		1.019	Total funding requirement	3.296	6.863	4.927	15.086
Funding source (£m)	Up to Mar 21	2021/22	2022/23	Total																															
SELEP (LGF)	2.289	1.445		3.734																															
NPIF (DfT)	0.138	3.949		4.087																															
ECC	0.869	0.450	4.927	6.246																															
MAG (Stanstead)		1.019		1.019																															
Total funding requirement	3.296	6.863	4.927	15.086																															
1.9. Rationale for SELEP request	Prior to the pandemic, Junction 8 of the M11 was already operating at capacity and experiencing significant queuing on some arms at peak periods. Stansted Airport had been growing at an unprecedented rate of 2 million passengers per annum (mppa) and committed developments in the area, in particular in Bishop's Stortford, will, in the longer term, add to																																		

	<p>this congestion. Local Plans for East Herts and Uttlesford state that improvements to this junction are key to these plans being found sound. In particular, as part of the 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.</p>																																																																								
1.10. Other funding sources	<p>There is an investment of £1.019m allocated from the MAG, who own Stansted Airport; £4.087m has been awarded by the DfT through the National Productivity Investment Fund (NPIF) and ECC are contributing £5.666m. A total of £3.734m funding is requested from SELEP, through the LGF, of which £2.289m has already been provided. This represents an increase of £1m over the original ask to replace the original money allocated by the Cambridge and Peterborough LEP (CPCA), but subsequently reallocated due to the delays in the programme timing.</p> <p>ECC funding has been provisionally approved.</p> <div></div>																																																																								
1.11. Delivery partners	<table><tr><th>Partner</th><th>Nature and/or value of involvement (financial, operational etc)</th></tr><tr><td>Highways England</td><td>Stakeholder, strategic and financial support</td></tr><tr><td>Cambridge & Peterborough LEP</td><td>Stakeholder, strategic and financial support</td></tr><tr><td>Hertfordshire LEP</td><td>Strategic support</td></tr><tr><td>Stansted Airport</td><td>Strategic and financial support</td></tr><tr><td>Uttlesford District Council</td><td>Stakeholder management</td></tr><tr><td>Birchanger Parish Council</td><td>Stakeholder management</td></tr><tr><td>East Herts District Council</td><td>Strategic support</td></tr><tr><td>Ringway Jacobs</td><td>Highways Partner Services Provider</td></tr></table>	Partner	Nature and/or value of involvement (financial, operational etc)	Highways England	Stakeholder, strategic and financial support	Cambridge & Peterborough LEP	Stakeholder, strategic and financial support	Hertfordshire LEP	Strategic support	Stansted Airport	Strategic and financial support	Uttlesford District Council	Stakeholder management	Birchanger Parish Council	Stakeholder management	East Herts District Council	Strategic support	Ringway Jacobs	Highways Partner Services Provider																																																						
Partner	Nature and/or value of involvement (financial, operational etc)																																																																								
Highways England	Stakeholder, strategic and financial support																																																																								
Cambridge & Peterborough LEP	Stakeholder, strategic and financial support																																																																								
Hertfordshire LEP	Strategic support																																																																								
Stansted Airport	Strategic and financial support																																																																								
Uttlesford District Council	Stakeholder management																																																																								
Birchanger Parish Council	Stakeholder management																																																																								
East Herts District Council	Strategic support																																																																								
Ringway Jacobs	Highways Partner Services Provider																																																																								
1.12. Key risks and mitigations	<table><tr><th>Type</th><th>Description</th><th>Responsibility</th><th>Mitigation / Proposed Resolution</th><th>Probability</th><th>Impact</th></tr><tr><td>Design</td><td>Design and construction scope changes</td><td>Essex Highways / ECC</td><td>Clear communication and early confirmation of scope</td><td>Low</td><td>Medium</td></tr><tr><td>Highways England</td><td>Disagreement with Highways England on design and implementation of slips</td><td>Essex Highways</td><td>Undertake early consultations with representatives of HE. Continue to work with them throughout implementation of scheme</td><td>Low</td><td>Low</td></tr><tr><td>Utilities</td><td>Discovery of undetected utilities during construction</td><td>Essex Highways</td><td>Undertake early surveys with trial holes</td><td>Medium</td><td>Medium</td></tr><tr><td>Ground Conditions</td><td>Unforeseen soft spots and voids requiring redesign</td><td>Essex Highways</td><td>Undertake early surveys with trial holes</td><td>Low</td><td>Medium</td></tr><tr><td>Traffic Management</td><td>Potentially complex and costly with approvals required</td><td>Essex Highways</td><td>Consult early and work closely with Network Management</td><td>Low</td><td>Medium</td></tr><tr><td>Tender Prices</td><td>Tender prices at variance with estimates and client budget</td><td>Essex Highways</td><td>Obtain early estimates, compare with other recent information and work with suppliers</td><td>Low</td><td>Medium</td></tr><tr><td>Costs</td><td>Construction costs escalation</td><td>Essex Highways</td><td>Monitor regularly and develop alternative actions as necessary</td><td>Low</td><td>Medium</td></tr><tr><td>Stats Costs</td><td>C3 Prices at variance with estimates</td><td>Essex Highways</td><td>Timely requests, utility mapping and trial holes</td><td>Low</td><td>Medium</td></tr><tr><td>Approvals</td><td>Time consuming processes with legal and cost implications</td><td>Essex Highways</td><td>Commence approval process early</td><td>Low</td><td>Low</td></tr><tr><td>Weather</td><td>Adverse conditions could jeopardize programme timing</td><td>Essex Highways</td><td>Plan programme taking account of likely weather conditions and provide programme float</td><td>Low</td><td>Low</td></tr><tr><td>Project</td><td>Lack of capacity to deliver the programme in full</td><td>ECC</td><td>Ensure resources are allocated and identify potential contingency support</td><td>Medium</td><td>Medium</td></tr></table> <ul style="list-style-type: none">• Need to seek agreement with HE with regard to both the NB and SB slip roads off the M11• Additional structures and groundwork• Impact of Stats and Utility diversions. <p>Risks have been identified for each scheme component (Locations 1, 2 and 3 identified in the Cost Estimate breakdown, <i>Appendix F</i>) and assigned pre-mitigation probability, severity and likely ranges of cost impact, as shown in <i>Appendix G</i>. An overall P50 allowance for risk was</p>	Type	Description	Responsibility	Mitigation / Proposed Resolution	Probability	Impact	Design	Design and construction scope changes	Essex Highways / ECC	Clear communication and early confirmation of scope	Low	Medium	Highways England	Disagreement with Highways England on design and implementation of slips	Essex Highways	Undertake early consultations with representatives of HE. Continue to work with them throughout implementation of scheme	Low	Low	Utilities	Discovery of undetected utilities during construction	Essex Highways	Undertake early surveys with trial holes	Medium	Medium	Ground Conditions	Unforeseen soft spots and voids requiring redesign	Essex Highways	Undertake early surveys with trial holes	Low	Medium	Traffic Management	Potentially complex and costly with approvals required	Essex Highways	Consult early and work closely with Network Management	Low	Medium	Tender Prices	Tender prices at variance with estimates and client budget	Essex Highways	Obtain early estimates, compare with other recent information and work with suppliers	Low	Medium	Costs	Construction costs escalation	Essex Highways	Monitor regularly and develop alternative actions as necessary	Low	Medium	Stats Costs	C3 Prices at variance with estimates	Essex Highways	Timely requests, utility mapping and trial holes	Low	Medium	Approvals	Time consuming processes with legal and cost implications	Essex Highways	Commence approval process early	Low	Low	Weather	Adverse conditions could jeopardize programme timing	Essex Highways	Plan programme taking account of likely weather conditions and provide programme float	Low	Low	Project	Lack of capacity to deliver the programme in full	ECC	Ensure resources are allocated and identify potential contingency support	Medium	Medium
Type	Description	Responsibility	Mitigation / Proposed Resolution	Probability	Impact																																																																				
Design	Design and construction scope changes	Essex Highways / ECC	Clear communication and early confirmation of scope	Low	Medium																																																																				
Highways England	Disagreement with Highways England on design and implementation of slips	Essex Highways	Undertake early consultations with representatives of HE. Continue to work with them throughout implementation of scheme	Low	Low																																																																				
Utilities	Discovery of undetected utilities during construction	Essex Highways	Undertake early surveys with trial holes	Medium	Medium																																																																				
Ground Conditions	Unforeseen soft spots and voids requiring redesign	Essex Highways	Undertake early surveys with trial holes	Low	Medium																																																																				
Traffic Management	Potentially complex and costly with approvals required	Essex Highways	Consult early and work closely with Network Management	Low	Medium																																																																				
Tender Prices	Tender prices at variance with estimates and client budget	Essex Highways	Obtain early estimates, compare with other recent information and work with suppliers	Low	Medium																																																																				
Costs	Construction costs escalation	Essex Highways	Monitor regularly and develop alternative actions as necessary	Low	Medium																																																																				
Stats Costs	C3 Prices at variance with estimates	Essex Highways	Timely requests, utility mapping and trial holes	Low	Medium																																																																				
Approvals	Time consuming processes with legal and cost implications	Essex Highways	Commence approval process early	Low	Low																																																																				
Weather	Adverse conditions could jeopardize programme timing	Essex Highways	Plan programme taking account of likely weather conditions and provide programme float	Low	Low																																																																				
Project	Lack of capacity to deliver the programme in full	ECC	Ensure resources are allocated and identify potential contingency support	Medium	Medium																																																																				

	<p>obtained by applying a stochastic analysis using the @Risk program to perform quantitative analysis of outcome ranges.</p> <p>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 will 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 resolution is achieved.</p> <p>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 the levels of risk and to track the progress of the strategy for the scheme.</p> <p>Further detailed risks are shown as part of the QRAs which can be seen at <i>Appendix G</i>.</p>																																																																																																																											
1.13. Start construction date	<table><tr><th rowspan="2">M11 J8</th><th colspan="5">2021</th><th colspan="5">2022</th><th colspan="3">2023</th></tr><tr><th>J</th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th></tr><tr><td>Location 1: NB Slip</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Location 2: Roundabout</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Location 2: Landscaping</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Location 3: SB Slip</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> <ul style="list-style-type: none">• Location 1 – Northbound slip – July 2021• Location 2 – Staggered signalised junction – November 2021• Location 3 – Southbound slip – July 2021	M11 J8	2021					2022					2023			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	Location 1: NB Slip																						Location 2: Roundabout																						Location 2: Landscaping																						Location 3: SB Slip																					
M11 J8	2021					2022					2023																																																																																																																	
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M																																																																																																							
Location 1: NB Slip																																																																																																																												
Location 2: Roundabout																																																																																																																												
Location 2: Landscaping																																																																																																																												
Location 3: SB Slip																																																																																																																												
1.14. Completion date	<ul style="list-style-type: none">• Location 1 – Northbound slip – October 2021• Location 2 – Staggered signalised junction – March 2023• Location 3 – Southbound slip – November 2021 <p>A more detailed timing programme can be seen at Appendix H.</p>																																																																																																																											
1.15. Project development stage	Detailed design and feasibility are currently being completed.																																																																																																																											
1.16. Proposed completion of outputs	<ul style="list-style-type: none">• Discussions with HE will be conducted in sufficient time to allow construction to commence as scheduled• Tenders will be issued in February 2021.																																																																																																																											
1.17. Links to other SELEP projects, if applicable	<ul style="list-style-type: none">• The proposed new M11 junction 7A• Gilden Way upgrading• Also, HE is undertaking ITS upgrades on the M11 between J8 and J14 – the technology improvements include emergency roadside telephones, signals on slip roads, motorway incident detection and automatic signalling, variable message signs, CCTV cameras and gantries.																																																																																																																											

2. STRATEGIC CASE

2.1. Challenge or opportunity to be addressed

London-Stansted-Cambridge Corridor

M11 Junction 8 is at the heart of the London-Stansted-Cambridge (LSC) corridor, one of the most dynamic economic regions in the country – generating over £160 billion for the UK economy.

The Corridor provides a national innovation and knowledge hub, driving UK growth and economic dynamism. The London-Stansted-Cambridge Corridor economy is a significant contributor to UK economic growth and jobs, has grown at a higher rate than nationally, is strongly entrepreneurial and is a major location for knowledge-based jobs and innovation.

Key characteristics:

- The LSC Corridor area has 2.7 million residents
- The wider region (based on counties and unitaries, and including Westminster and the City) has 5.4 million residents
- The population grew at double the national rate between 2000 and 2014, and is forecast to continue this high rate of growth into the 2020s.
- The wider LSC region contributed £226 billion of economic output in 2014.

The London-Stansted-Cambridge Corridor (LSCC)



Figure 3: The London – Stansted – Cambridge Corridor

Stansted (Ref: Stansted Sustainable Development Plan, 2015)

When the Airports Commission advised on how to maintain the UK's leading position in the global aviation market, the Commission recognised the importance of Stansted in providing additional capacity to meet increased demand for air travel. Although the Commission recommended an additional runway at Heathrow (now approved), they identified Stansted as an important long-term option for future runway capacity, reflecting the long-term economic potential of Stansted's catchment area.

Stansted currently serves over 160 destinations across Europe, Asia and Africa and has more scheduled European destinations than any other airport in the UK. Stansted is the

base for a number of major European low-cost carriers and the largest base for Ryanair, with over 130 destinations served by the airline. In 2019, it was the fourth busiest airport in the United Kingdom after Heathrow, Gatwick and Manchester handling a record 28.1 million passengers.

The airport has the second highest volume of dedicated freighter traffic among the London airports. 224,000 tonnes of cargo were transported through the airport in 2019, although the potential exists to expand this to 400,000 tonnes p.a.

The airport is owned and operated by the Manchester Airports Group (MAG), which also owns and operates three other UK airports. Planning permission exists to expand Stansted to 35mppa, 243,500 passenger air transport movements and 20,500 cargo air transport movements p.a.

Stansted is the largest single-site employer in the East of England, employing 11,600 people across over 200 companies on the site. This highlights its importance to the regional economy and to Essex, in particular, where over half of the people working at the airport live. Stansted generates around £770 million in GVA, of which, a substantial proportion is derived directly from activities associated with aviation and air transport. Other important sectors include construction, retail and hospitality, training, services and 'other' transport activities.

The growth of Stansted to 35mppa (the current planning cap) by 2025 would be worth £1.7 billion to the UK economy in present value terms. Beyond that, it has been forecast that further growth of the airport up to 45mppa by 2030 would be worth £4.6 billion to the UK economy and generate an extra 10,000 jobs.

Stansted has announced plans for a new £130 million arrivals building to significantly improve the passenger experience. Originally, due for completion in 2020, the planned upgrade has been placed on hold because of the pandemic. The building is the latest phase in the multi-million pound transformation programme by MAG to support future growth at the airport and attract new passengers and airlines.

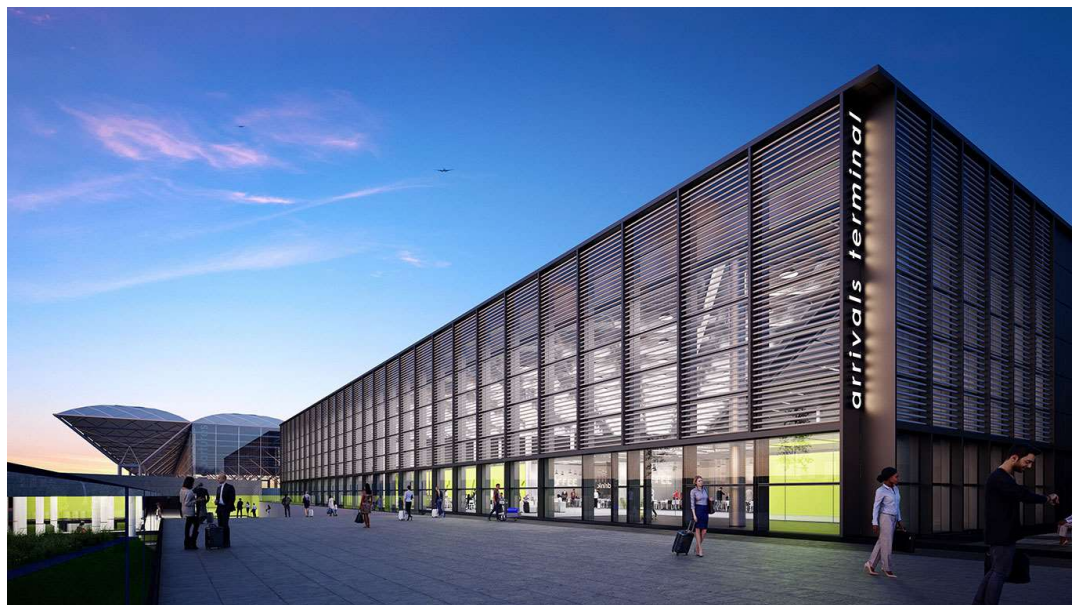


Figure 4: New Arrivals Hall

Connectivity

Enhanced connectivity to Stansted will be a key factor in driving economic regeneration and productivity in local areas around the airport. The airport is located within an area which has strong economic capacity and significant future potential and it has a key role to play in providing international connectivity, which acts to both sustain and drive economic growth, inward investment and productivity.

M11 Junction 8 was previously considered adequate to support airport development through to a passenger throughput of 35mppa. However, a number of major new housing

and employment sites are now planned in the wider area, many of which are likely to create additional demand at this junction and on other strategic routes.

Airport traffic relies on Junction 8 of the M11, which also links to the east – west A120 and serves Bishops Cleeve, local communities and a motorway service area. There have been a number of improvements over the years, and it is now a complex, signal controlled junction. The junction is under stress, but there is some scope to make further changes to accommodate traffic growth.

The main access point to the airport from the north, south and west is M11 Junction 8. The south provides access to London and a direct link to the M25, and, to the north, it provides easy access to Cambridge and then to the A10, A14 and A1. These routes are becoming increasingly congested with limited resilience. This has led to increasing instances of delay and disruption. From an airport perspective, this has an adverse impact on passenger and employee journeys and it also has the potential to limit the ability to attract passengers from areas further away from the airport.

The Stansted Area Transport Forum

One of the key priorities for the Stansted Area Transport Forum is to increase capacity at Junction 8 to improve access to the airport.

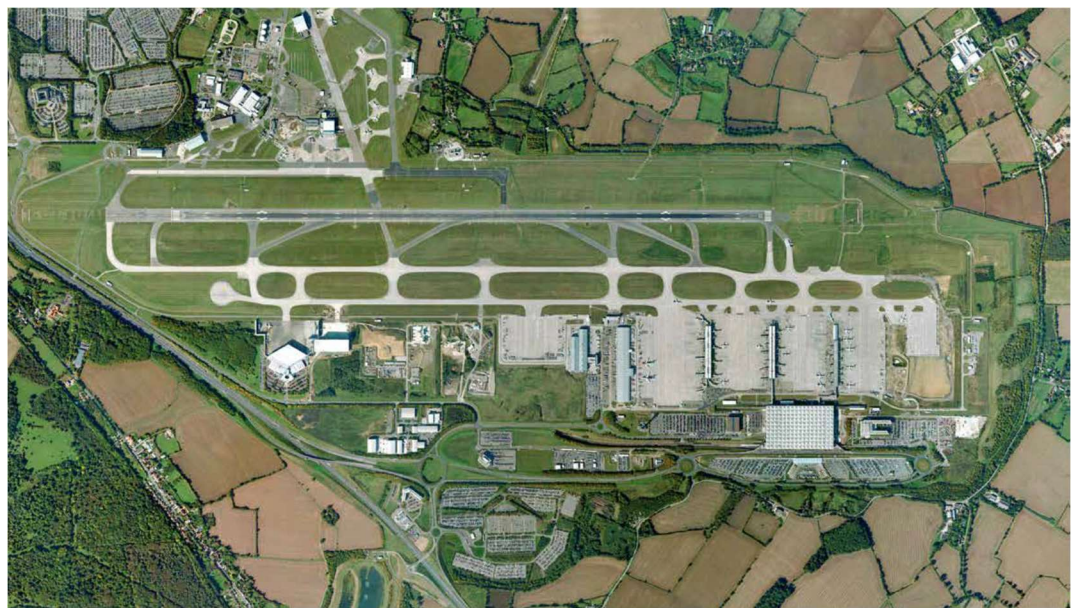


Figure 5: Stansted Airport

Prior Schemes and Alternatives

Previously, a scheme to improve Junction 8 proposed that 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. The scheme was given an original estimated cost of £131 million in May 2008. A number of public consultations and exhibitions were held which established that, although the public had several concerns regarding environmental impact, most attendees agreed that the scheme would be necessary, if the Stansted Airport expansion proceeded.

Following the government decision not to proceed with full expansion at Stansted, the scheme was dropped in 2010. However, passenger numbers have continued to increase and the need to improve the junction still exists.

Other developments

The western approaches to M11 J8 are already congested and new development in Bishops Stortford will exacerbate this, along with planned growth in Uttlesford, particularly along the B1383 and in Elsenham. At peak periods, the motorway service area at the junction suffers from heavy congestion, making egress difficult.

The improvement is needed now to deal with existing capacity constraints at the junction and the imminent future committed housing growth and airport capacity at Stansted. Without these junction improvements coming forward, it is likely that the local plans for both East Herts and Uttlesford could be severely questioned again at Inquiry. Growth at Stansted Airport will be stifled as passengers struggle to make flights, especially business fliers, which are a growing percentage of users at Stansted.

Local Network

It can be seen that in both peak hours there is congestion around the area and, in particular, at the grade separated roundabout above Junction 8.

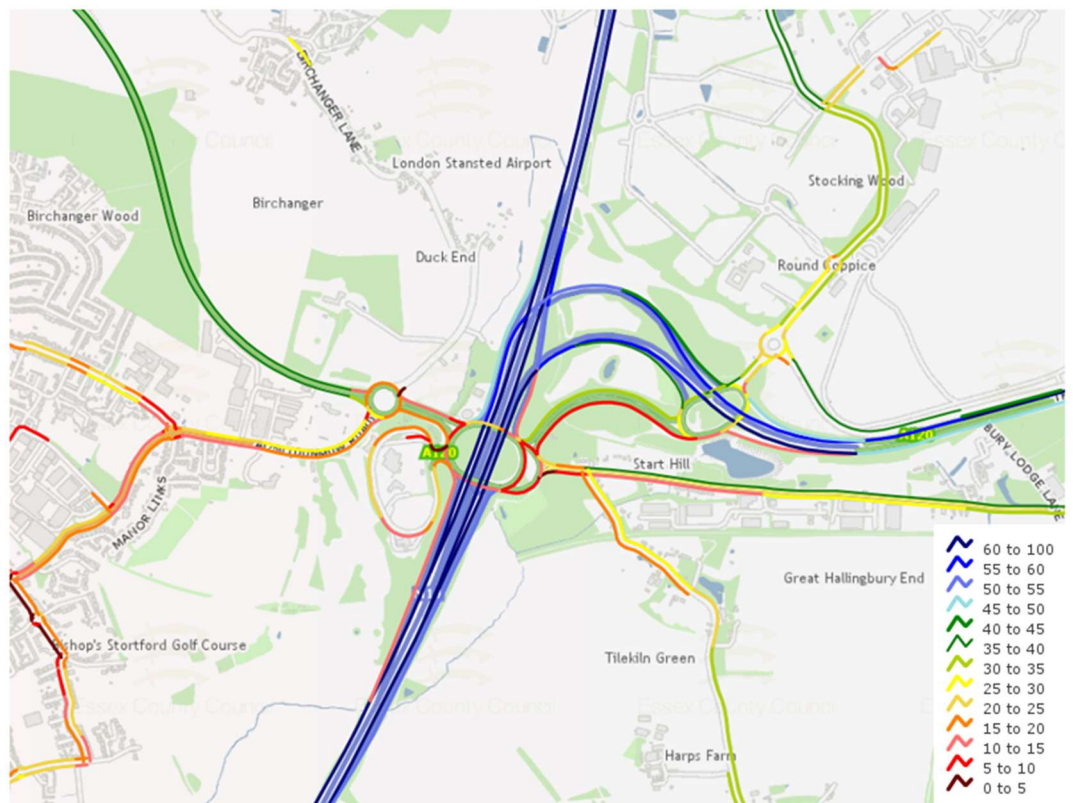


Figure 6: Average Traffic Speed AM Peak 2019 (Source 2019 Teletrac data)

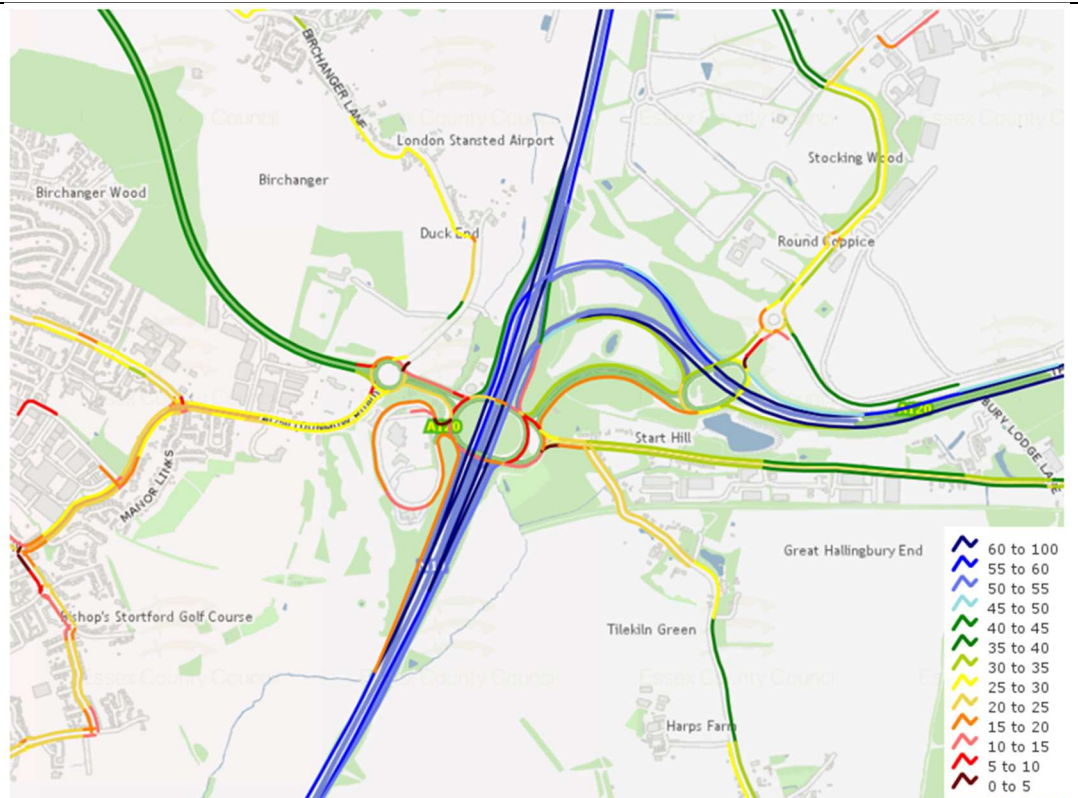


Figure 7: Average Traffic Speed PM Peak 2019 (Source 2019 Teletrac data)

2.2. Description of project aims and SMART objectives

The package of improvements will deliver the following **outcomes**:-

- Alleviate existing congestion and capacity constraints, which will:-
- Help the delivery of committed housing growth - 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
- Provide support for East Herts and Uttlesford local plans
- Improve air quality
- Incentivise skills and apprenticeship opportunities – at Stansted with the new Airport College and through Ringway Jacobs.

The primary aim of this scheme is to improve traffic flows around and through Junction 8. Transport network improvements around Stansted are necessary to support significant economic growth and development in the area.

Currently, the London-Stansted-Cambridge Corridor area has a population of 2.7 million, which is forecast to increase 20% by 2032. The number of employees in this area is forecast to grow from 1.3 million in 2012 to 1.5 million in 2032. This corridor already has identified a range of major sites to deliver a total of 117,000 new homes and 170,000 new jobs. Specifically, the Stansted-Harlow-Broxbourne corridor is forecast to provide 20,000 jobs and 14,000 homes.

SMART objectives will be derived from comparisons of journey time improvements, housing and job growth, based on the following:-

- Improved access from the M11 to the A120, London Stansted Airport, Bishop's Stortford, Birchanger Services and Takeley, and improve access from A1250 to M11 and A120 (eastbound and westbound movements)
- Reduced congestion experienced at peak times particularly between 07:00-08:00 and 17:00-18:00
- Improved capacity to address congestion, encourage streamlined traffic and better lane discipline
- Enhanced traffic movement for regional residents and businesses from M11, A1250 and A120
- Support of local plan delivery and future investment

	<ul style="list-style-type: none"> • Providing better facilities for people who walk and cycle.
2.3. Strategic fit	<p>SELEP Strategic Fit</p> <p>The SE LEP's Strategic Economic Plan aims to:</p> <ul style="list-style-type: none"> • enable the creation of 200,000 sustainable private sector jobs over the decade to 2021, an increase of 11.4% since 2011, • complete 100,000 new homes by 2021, which will entail increasing the annual rate of completions by over 50% in comparison with recent years; and, • lever investment totalling £10 billion, to accelerate growth, jobs and homebuilding. <p>ECC Strategic Fit</p> <p>The Essex County Council Corporate Outcomes Framework 2014-2018 sets out the seven high level outcomes that ECC want to achieve to ensure prosperity and wellbeing for Essex residents. Securing these outcomes will make Essex a more prosperous county; one where people can flourish, live well and achieve their ambitions.</p> <p>The seven outcomes are listed below:</p> <ul style="list-style-type: none"> • Children in Essex get the best start in life • People in Essex enjoy good health and wellbeing • People have aspirations and achieve their ambitions through education, training and lifelong-learning • People in Essex live in safe communities and are protected from harm • Sustainable economic growth for Essex communities and businesses • People in Essex experience a high quality and sustainable environment • People in Essex can live independently and exercise control over their lives. <p>Investment in this scheme is wholly compliant with the Outcomes Framework 2014-2018 and the aspirations of the Economic Plan for Essex (EPfE) that will be updated and incorporate the Greater Essex Integrated County Strategy (ICS) and the ECC Economic Growth Strategy. The package of improvements proposed supports the delivery of the Essex Local Transport Plan, and has the support of partner authorities.</p> <p>Essex County Council has the stated ambition to make Essex the location of choice for business and to be a County where innovation brings prosperity.</p> <ul style="list-style-type: none"> • Support for employment and entrepreneurship across the economy is focused on ensuring a ready supply of development land, new housing and the coordinated provision of appropriate infrastructure. • To grow, the Essex economy depends on the efficient movement of people, goods and information, via effective and reliable transport and communications networks to provide access to markets and suppliers. It is therefore essential that infrastructure is developed and maintained that enables residents to travel and businesses to grow. Delivery of this scheme will drive economic growth in Essex, widening access to employment and improving the competitiveness of the local economy, driving sustainable economic growth for Essex communities and businesses. <p>This investment in this scheme is essential for the delivery of these ambitions.</p> <p>Strategic Development Sites</p> <p>There are some significant strategic development projects planned along the corridor which will drive change over the next few years. These include:</p> <p>As the largest town in East Herts District, Bishop's Stortford is set to take the highest amount of planned new houses - between 3,729 and 4,142 homes in the next 15 years. It is assumed that the impact of development on the town's road networks will be mitigated by upgrading the existing junction - Junction 8 of the M11, plus the introduction of the new M11 Junction 7A.</p> <p>Stortford Fields - A major mixed-use development will comprise of 2,200 new homes, as well as two new primary schools, employment land, shops, community facilities and approximately 58 hectares of green open space including play areas and allotments.</p> <p>Adderley Riverside, Bishop's Stortford - A development of 70 one and two bedroom apartments and three bedroom houses.</p>

Kingswood Place - A collection of three, four and five-bedroom homes in Elsenham.

Solum Regeneration has submitted a planning application to East Hertfordshire District Council to redevelop the Goods Yard site around Bishop's Stortford station. Plans have been worked up with the station operators, Greater Anglia, and follow extensive consultation with the local community. The scheme will transform the neglected, brownfield site into a modern transport hub, providing better links for those walking, cycling or driving to the station and better connectivity with local bus services. It will also deliver much needed homes, a hotel and new waterside park.

Within the LSC, there are a number of strategic opportunity sites, with M11 J8 being right at the heart of the corridor:-

Strategic Opportunity Sites within the London Stansted Cambridge Corridor

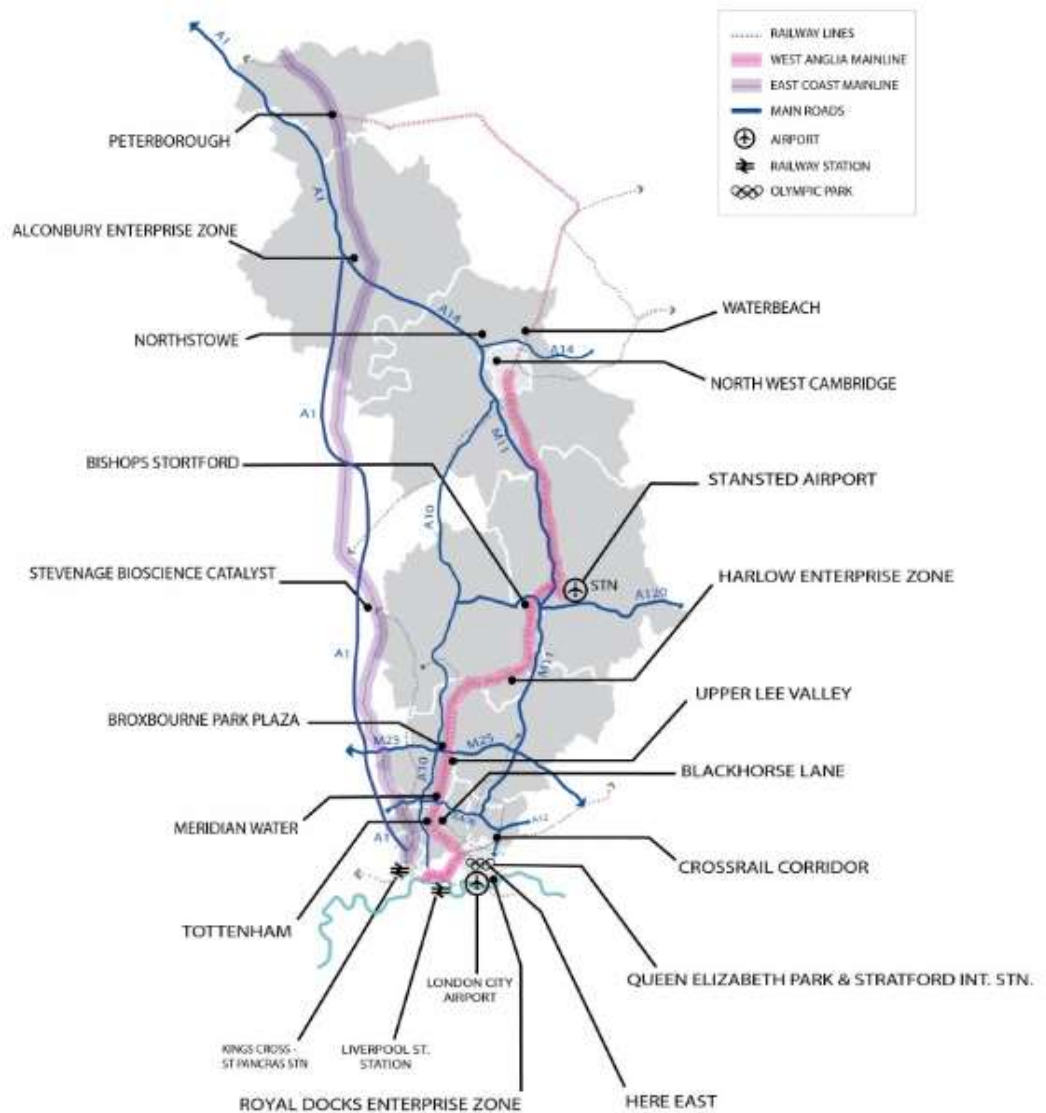


Figure 8: LSC - Strategic Opportunity Sites

Harlow Enterprise Zone

Harlow Enterprise Zone occupies a strategically significant site adjacent to the M11, eight miles south of Junction 8, with its proximity to Stansted making it a premier business location. The 51 hectare site is divided into three specific areas that focus on providing high quality, modern business space for the ICT, advanced manufacturing and life sciences sectors. It is home to Anglia Ruskin University Med Tech Campus – one of the world's largest health innovation spaces, delivering research and development services to businesses working in the health and life sciences sectors.

Over the next decade, the Enterprise Zone is looking to attract over 100 businesses and create 2,500 jobs with the potential to create 5,000 jobs over a 25 year period, driving inward investment along the corridor and West Essex sub region. The airport's connectivity to European life science clusters such as Gothenburg in Sweden and Lyon in France, as well as express air freight facilities, have been cited as key attractions to global companies looking to relocate to the UK.

Haven Gateway Partnership

Stansted Airport is a key member of the Haven Gateway Partnership, formed to drive economic growth along the A120 corridor between the airport and the ports of Harwich and Felixstowe. The corridor has the potential to attract significant housing and business growth over the next decade and is highlighted as a key growth area in the South East LEP Strategic Economic Plan. The Partnership's A120 campaign to dual key sections of the A120, will dramatically improve road access between the airport and ports to unlock wider growth in the region.

Wider Benefits

The project will not only have an immediate impact of reducing congestion at this junction, but will also provide headroom for the growth of Stansted. In addition, the scheme supports the delivery of local plans which is essential for the provision of new homes and businesses in the area and, consequently, supports the economic growth of both Essex and the wider UK economy. The original backing from the CPCA LEP also shows the wider benefits of the junction improvement to the overall East Anglian community, especially in terms of access to Stansted airport.

A new £11m Harlow College Professional and Technical Skills Centre facility for up to 300 trainees at Stansted Airport for airport related activities training has recently been opened. Clearly, improvements to the junction will help improve access to the new college.



Figure 9: Stansted Airport College – now open

2.4. Summary outputs (3.2 will contain more detail)

Specific to this bid:-

2021/2024	
Jobs	2,550
Homes	2,500

2.5. Planning policy context, consents and permissions

The justification for the scheme has been established through ECC's Local Transport Plan and wider corporate objectives. There is a confirmed fit with planning policy.

2.6. Delivery constraints	<p>High level constraints, or other factors which may present a material risk to delivery include:-</p> <ul style="list-style-type: none"> • Need to confirm agreement with HE with regard to the modifications to the two slip roads off the M11, as the majority of the works is on HE's land. (The remaining land is Highways belonging to ECC.) • Traffic management will be problematic. This is a major interchange between two strategic routes. Furthermore, there is a need to coordinate carefully with the Service area and Stansted Airport to ensure that impact is limited. This may impact the length of the construction programme. • This is a key statutory undertakers' corridor and, as such, agreed diversions are key to the programme, but reliant on third parties. The extent of the Stats requirements has greatly expanded since the original studies and, therefore, careful consideration within the programme needs to be made for the advanced delivery of all of this. • An environmental assessment has not yet been undertaken.
2.7. Scheme dependencies	<p>The dependencies for this scheme are:-</p> <ul style="list-style-type: none"> • the need to obtain Stansted (MAG) board approval for the £1.019m • agreement from Highways England to the details of the scheme.
2.8. Scope of scheme and scalability	<ul style="list-style-type: none"> • The scheme will be split into three major sections – 1) the slip northbound off the M11, 2) converting the roundabout to a staggered signalised junction and 3) the slip southbound from the M11. Based on initial modelling analysis, only doing one, or combinations of the others, would significantly reduce the overall impact of the junction improvements. • Essex Highways will continue to apply strict cost controls and will seek opportunities to reduce costs wherever practical.
2.9. Options if funding is not secured	<ul style="list-style-type: none"> • Because of the size and complexity of the package of schemes, it is not possible for ECC to afford funding the scheme independently and therefore the situation at this junction will only get worse, aggravated by the growth at Stansted airport. • The capacity problems at this junction are already well known and, by doing nothing, the situation will only get worse.

3. ECONOMIC CASE

3.1. Impact Assessment

For Scheme Appraisal Summary Table please see Appendix E.

Positive impacts (inc. jobs & homes)	Negative impacts
Journey time improvements	None identified so far
Assist with Stansted's expansion plans	
Improve access	
Help unlock jobs	
Help unlock new homes	
Helps unlock local plan delivery	

The scheme was assessed using a Vissim model, with input from a wider Harlow Area model (Refer 3.8 and Appendix C).

3.2. Outputs

This project indirectly supports jobs in the Bishop's Stortford / Stansted area and the development of Stansted, associated business parks and housing growth as detailed above.

3.3. Wider benefits

Due to limited data, models and other tools immediately available, it was not possible to fully assess the wider economic benefits, although some estimates have now been conducted which provide Agglomeration, Output Change in imperfectly competitive markets and tax revenues arising from labour market impacts (labour supply impacts and move to more or less productive jobs). An estimate of the impact for the output change in imperfectly competitive markets (WI2) can be made per TAG Unit A2.1 (4.4.3). It is estimated as a proportion of total user benefits for business journeys, calculated as a 10% uplift to business user benefits (10% of £12.802m = £1.280m) and have been added as estimate of wider economic benefits.

3.4. Standards

All works will be subject to regular building and highways standards.

3.5. VfM assessment

See below – Sections 3.12 and 3.13.

3.6. Options assessed

For the short to medium term and staying within current highway boundaries:-

- **Location 1, Northbound Slip** – The 'Do Nothing' alternative would be viable, but not acceptable, as traffic continues to grow at this junction. There is no real 'Do Minimum' alternative, as once it has been agreed to proceed with the realignment, then the work would have to be completed.
- **Location 2, Staggered Signalised Junction** – As with Location 1, the 'Do Nothing' alternative would be viable, but not acceptable, as traffic continues to grow at this key junction. There is no real 'Do Minimum' alternative, as once it has been agreed to proceed with the junction, then the work would have to be completed. A reconfigured roundabout, widened approaches, signalisation and spiral markings were all considered, but were found to challenge design standards or provide little clear benefits in terms of adding capacity, or reduced journey times. Modelling has indicated that reducing the number of lanes or restricting crossings would not provide the desired outcome.
- **Location 3, Northbound Slip** – As with Locations 1 & 2, the 'Do Nothing' alternative would be viable, but not acceptable, as traffic continues to grow at this junction. There is no real 'Do Minimum' alternative, as once it has been agreed to proceed with the realignment, then the work would have to be completed.
- A Do-Minimum scenario, in base and forecast years, was included in the Value for Money assessment and compared to a Do-Something scenario combining all elements of the scheme.

Other alternatives that have been considered include:-

- Relocating the exit from Birchanger Green Services to force traffic onto the A120 before turning onto the M11. This option was considered by the owners of Birchanger Services but, due to financial constraints has not been progressed at this time, but could be delivered in the future.

The next four alternatives have been studied, but dismissed due to high costs and requiring much longer term planning:-

- New link road from the A120 / A1250 junction across the top of the M11 and onto the Coppice Road roundabout prior to joining the A120 and the access to Stansted
- New junction north of the current Junction 8, with north only facing slips, providing access onto Bury Lodge Lane prior to joining the A120
- A new interchange link to provide westbound A120 traffic an access over the M11 and onto the M11 heading north
- Moving the services to a new junction.

A SWOT Analysis is shown below:-

Strengths: <ul style="list-style-type: none"> • The London-Stansted-Cambridge Corridor is one of the most dynamic growth areas in the UK • Stansted has huge potential for growth and expansion • Plans are strongly supported by two other LEPS and a variety of stakeholders • Strong and unique connectivity to the markets of London and the south-east, with onward connections to Europe and other international markets • High employment rate • Served by major railway line with good connectivity to London 	Weaknesses: <ul style="list-style-type: none"> • Major road congestion at peak times • Lack of opportunities to include footways or cycle tracks
Opportunities: <ul style="list-style-type: none"> • Tie-in with Junction 7A • Fully achieve Stansted's economic and growth potential • Will support Bishop's Stortford's development plans • Fully realise the potential of economic links with London and Cambridge 	Threats: <ul style="list-style-type: none"> • Ongoing adverse effects of the pandemic • Potential decline of London as a world financial services centre • Significant change following Brexit, which may bring significant changes in policies and investor confidence • Prevailing economic conditions discourage private sector investment • Public concern that growth will lead to increased congestion as a result of failure to invest in adequate infrastructure improvement

3.7. Scheme assessment	Category of impacts	Quantified / Qualitative impact	Large Beneficial to Large Adverse
	Economy	Business Users and Transport Providers	Large Beneficial
		Reliability Impact on Business Users	Moderate Beneficial
		Regeneration	Large Beneficial
		Wider Impacts	Large Beneficial
	Environment	Noise	Neutral
		Air Quality	Slight Adverse
		Greenhouse Gases	Slight Adverse
		Landscape	Moderate Beneficial
		Townscape	Neutral
		Heritage	Neutral
		Biodiversity	Neutral
		Water Environment	Neutral
	Social	Commuting & Other Users	Large Beneficial

		Reliability Impact on Commuting and Other Users Physical Activity Journey Quality Accidents Security Access to Services Affordability Severance Option Values	Large Beneficial Neutral Moderate Beneficial Moderate Beneficial Neutral Large Beneficial Slight Beneficial Moderate Beneficial Slight Beneficial
	Public Accounts	Cost to Broad Transport Budget Indirect tax	Neutral Slight Adverse

- For modelling and appraisal methodology, see below.
- For a summary of the economic case, see below.

3.8. Transport KPIs

As a fundamental part of the contract between Essex County Council and Ringway Jacobs, a number of measurable KPIs have been identified. Of these, the following is the most specific to this scheme:-

KPI Ref No	KPI	Target	YTD
JTR3	92% of journeys on specified routes are undertaken within target time range	92.0%	90.0%

3.9. Assumptions

The economic assessment was done through TUBA with input from modelling reports M11 Junction 8 – VISSIM Model, Local Model Validation Report, dated 1/08/2017 and updated M11 Junction 8 Improvements - Traffic Modelling, dated 27/01/2021.

Skim files for TUBA were extracted from the Vissim Model results. The model covers Junction 8 of the M11 and the immediate surrounding road network, and includes both weekday AM and PM peak hour scenarios.

The model was built, as far as practically possible, to the standards set out in DfT's Transport Appraisal Guidance (WebTAG). From this, two forecast years (2021 & 2036) have been developed which represent the scheme opening year and 15 years after. Appraisal was taken over 60 years, with no growth in benefits after the 2036 forecast year. The M11 J8 Vissim Model includes two 60-minute time periods: AM peak hour from 0700 – 0800 and a PM peak hour from 1700 – 1800. These are the time slices used for the TUBA assessment.

The peak hour to peak period factors have been estimated using existing continuous two-way count data from neutral months, collected from a count site on the A120 to the west of the junction in 2019, yielding factors of 1.25 and 1.5 for the AM and PM peak periods, respectively. Annualisation was further taken over 253 weekdays per year.

As input to the economic appraisal, all estimates had:

- Base year of assessment (midpoint 2022 for construction and 2017 for the estimate of maintenance profiles)
- Allowance for Risk at P50 level from an assessment of risks (*Appendix G*)
- 60-year DM and DS maintenance profiles.

Further information is supplied in Appendix C and TUBA files will also be submitted.

3.10. Sensitivity tests

In accordance to TAG M4 guidance, a high growth (High) and a low growth (Low) scenario testing was undertaken. An additional test was carried out for the above scenarios which reduced the value of Optimism Bias from 44% to 15% given the advanced stage of scheme development.

3.11. Appraisal summary

Category of impact	Impacts typically monetised	Impacts that can be monetised	Impacts currently normally monetised
Economy	PVB: Business users and providers: £12.802m	Wider impacts lead to:- Adjusted PVB of £32.985m, PVC of £13.221m, resulting in a NPV of £19.764m and an adjusted BCR of 2.59 .	<i>Townscape heritage Biodiversity Water Security Access to Services Affordability Severance</i> Not assessed at this stage
Environment	Highway capacity enhancement scheme with positive impact on noise and air quality – not yet assessed	<i>Landscape</i> Not assessed at this stage	
Social	PVB: Commuting Users: £11.259m Other users: £8.658m Highway capacity enhancement scheme with positive expected benefit to safety and journey time quality – not assessed. Lower net journey times will add to journey quality.	<i>Reliability option and non- use values</i> Not assessed at this stage	
Public accounts	Broad Transport Business Cost: £13.221m		

3.12. Transport value for money statement

	Present values in 2010 prices and values
PVB	£32.985m
PVC	£13.221m
NPV = PVB – PVC	£19.764
Initial BCR = PVB / PVC	2.50

3.13. Value for money summary

	Assessment	Detail
Initial BCR	2.50	Estimated using WebTAG/TUBA guidance
Adjusted BCR	2.59	As above
Qualitative Assessment	Largely beneficial	Not assessed in detail, but considered beneficial
Key risks, sensitivities		QRA allowed in cost estimate and additional 44% optimism bias for BCR calculations. A test on 15% optimism bias applied due to advanced stage of scheme development, which yielded a BCR of 3.20 for the Core Case, and 1.90 and 4.80 for Low and High sensitivity tests respectively.
VfM category	High	

4. COMMERCIAL CASE

4.1. Procurement	<p>Essex County Council (ECC) are committed to delivering best value in the delivery of major highways schemes across the county. ECC has undertaken numerous procurement processes for major schemes.</p> <p><u>Procurement Strategy</u></p> <p>The eastern Highways Alliance and SMARTe and the Highways Agency Framework have all been used extensively in prior major projects e.g. A12 Junction 28, Army & Navy Improvements, Chelmsford and Roscommon Way, Canvey.</p> <p>Construction will be delivered through the Essex Highways Service Direct Delivery Framework using supply chain partners.</p> <p>The benefits of procuring the scheme through this route are:-</p> <ul style="list-style-type: none"> • Early involvement with the contractor • Use of Supply Chain partners who are familiar with the delivery of smaller complex projects under tight deadlines. • Flexibility and opportunity to accelerate the delivery of smaller elements through the 'Walk, Talk and Build' process, thus increasing confidence in project delivery timeframe. • The utilisation of the Framework is endorsed by the ECC procurement team and the ESH Construction Management Group.
4.2. Commercial dependencies	<ul style="list-style-type: none"> • Essex Highways will be the delivery partner for design of the scheme • The construction will be subject to tender process through the Eastern Highway Alliance (EHA) • ECC have a good track record of scheme delivery through this process • Use of the EHA ensures a ready supply chain / contractors.
4.3. Commercial sustainability	<p>The project will include an ongoing maintenance programme over the next 60 years, as is normal for all new road schemes.</p> <p>Apart from scheduled maintenance, there will be no requirement for cash flow injections post-completion.</p>
4.4. Compatibility with State Aid rules	<p>Funding for this scheme does not constitute state aid.</p>
4.5. Commercial viability	<p>Throughout the development of the scheme, risks will be identified, recorded and actively managed. Where appropriate, risk owners will be allocated and tasked with eliminating risks, where possible, or identifying mitigation measures for residual risks. The same ethos will be taken through to the delivery stages of the scheme.</p> <p>The quantified risk register will be updated as part of the procurement process to collate and cost, as accurately as possibly, construction related risk. This process will inform a more competitive tendering process.</p> <p>The approach to risk transfer will be such that the management of a particular risk will rest with the party best placed to manage them.</p> <p>Any cost overrun will be met by ECC.</p> <p>The declaration from the S151 officer will be submitted by ECC as part of the final submission, once ECC governance processes have been completed.</p>

5. FINANCIAL CASE

5.1. Total project cost £15.086m

5.2. Total SELEP funding request

A total of £3.734m Capital funding is requested in the form of a grant. £2.289m has already been provided to assist in the payment of the extensive preliminary costs, which total £3.296m.

£1m of this is to replace the previously agreed sum approved from the CPCA LEP which, because of delays to the programme timing, has been reassigned elsewhere.

5.3. Other sources of funding

- An application to the DfT's National Productivity Investment Fund for £4.087m was submitted and approved and the funds have now been received.
- There is potential for further funding from a 'Unilateral Undertaking' at Stansted airport of a further £1m, once the overall scheme has been secured.

No planning permission is expected to be required at this stage, with all land in either HE or ECC ownership.

5.4. Summary financial profile (£m)

Funding source (£m)	Up to Mar 21	2021/22	2022/23	Total
SELEP (LGF)	2.289	1.445		3.734
NPIF (DfT)	0.138	3.949		4.087
ECC	0.869	0.450	4.927	6.246
MAG (Stanstead)		1.019		1.019
Total funding requirement	3.296	6.863	4.927	15.086

Costs - Description	Location 1 NB Slip	Location 2 Rndabout	Location 3 SB Slip	Amount (£m)
Preliminaries / Site Clearance / Demolition	0.465	2.252	0.420	3.137
Fencing / Barriers / Vehicle Restraint Systems	0.031	0.259	0.089	0.379
Drainage and Earthworks	0.046	1.203	0.088	1.336
Pavements / Kerbs / Footways	0.136	1.453	0.139	1.727
Traffic Signs and Markings	0.210	0.345	0.135	0.690
Electrical Work	0.351	0.337	0.147	0.835
Retaining Wall / Structures / Seals	0.000	0.639	0.257	0.895
Landscaping	0.004	0.148	0.008	0.160
Statutory Undertaker Diversions	0.004	0.954	0.000	0.958
Risks	0.125	1.403	0.225	1.753
Scheme Preparation / Design	0.292	1.779	0.300	2.371
Contract Management / Administration	0.025	0.155	0.026	0.206
Inflation	0.078	0.473	0.086	0.637
Total	1.767	11.400	1.919	15.086

5.5. Viability: How secure are the external sources of funding?	<table><tr><th>Type</th><th>Source</th><th>How secure?</th><th>When will the money be available?</th></tr><tr><td rowspan="4">Public</td><td>SELEP LGF</td><td>Dependent on this bid</td><td>2021</td></tr><tr><td>ECC</td><td>Agreed, but to be finally ratified</td><td>2021 through 2022</td></tr><tr><td>Stansted (MAG)</td><td>Agreed</td><td>2022</td></tr><tr><td>DfT - NPIF</td><td>Money already with ECC</td><td>2018</td></tr></table>	Type	Source	How secure?	When will the money be available?	Public	SELEP LGF	Dependent on this bid	2021	ECC	Agreed, but to be finally ratified	2021 through 2022	Stansted (MAG)	Agreed	2022	DfT - NPIF	Money already with ECC	2018
Type	Source	How secure?	When will the money be available?															
Public	SELEP LGF	Dependent on this bid	2021															
	ECC	Agreed, but to be finally ratified	2021 through 2022															
	Stansted (MAG)	Agreed	2022															
	DfT - NPIF	Money already with ECC	2018															
5.6. Cost overruns	ECC will bear any cost overrun risk for the project.																	
5.7. Delivery timescales	The main risks associated with the delivery timescales of the project are as described above – obtaining HE's agreements and the extent of groundworks and stats work.																	
5.8. Financial risk management	ECC will bear all risk for the project as part of its role as the Highways Authority.																	
5.9. Alternative funding mechanisms	No loan funding is requested. None of the investment will be repaid.																	

6. DELIVERY/MANAGEMENT CASE

6.1. Project management

Project Organisation

The organisation to deliver the scheme is indicated in Figure 10 below. The roles and responsibilities of the parties indicated in the figure are described in the following paragraphs.

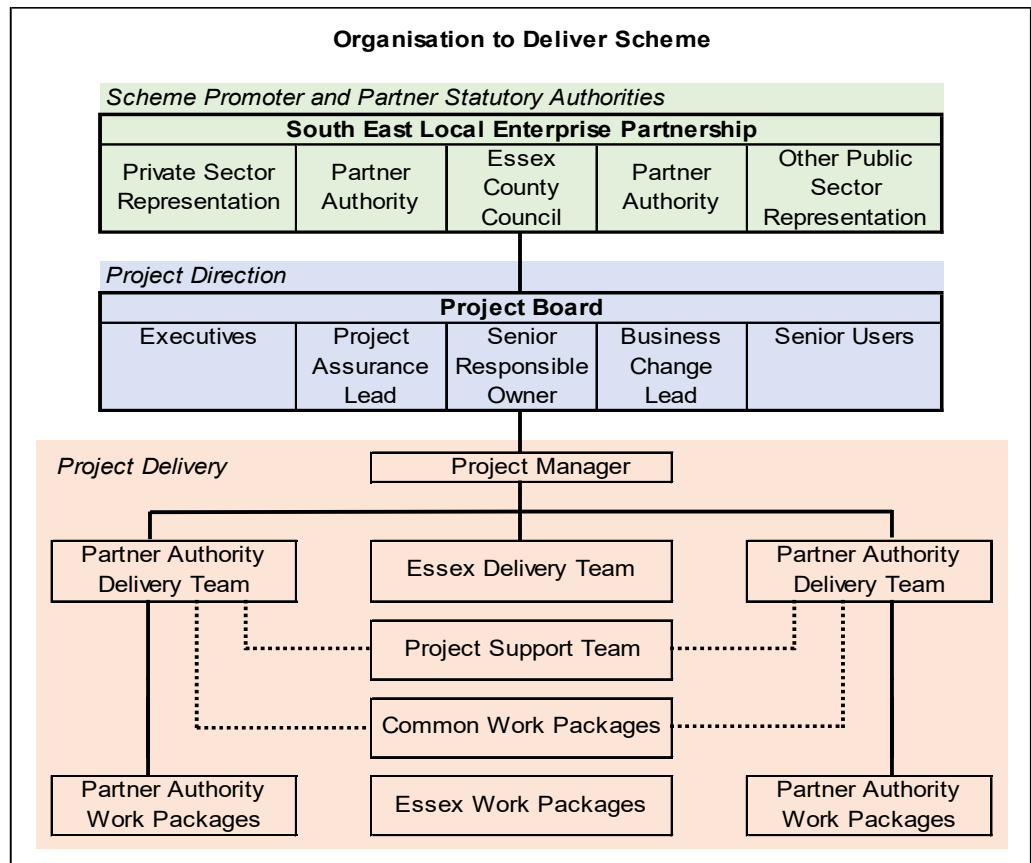


Figure 10: Arrangements for Scheme Delivery

Roles of Key Interested Parties:

South East Local Enterprise Partnership Board (SELEP) – brings together senior officers and transport portfolio holders of the partner statutory authorities promoting the scheme. Essex County Council acts as the lead authority for the scheme and provides the project's Senior Responsible Owner.

The arrangements between the statutory authorities promoting the scheme are in the process of being formalised through a joint working partnership agreement. This sets out the basis for governance of the project and for the financial contributions to be made by each party.

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 on 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).

Sponsor – the role of major sponsor is coordinated through the Transportation Strategy and Engagement Group (David Sprunt and Alan Lindsay, 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; Sean Perry, Head of Transportation, Planning and Development, ECC and Braintree District Council) – 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).

6.2. Outputs	<p>See Section 2.4 above.</p> <div data-bbox="775 168 1120 320"> <table> <tr> <td></td><td>2021/2024</td></tr> <tr> <td>Jobs</td><td>2,550</td></tr> <tr> <td>Homes</td><td>2,500</td></tr> </table> </div> <p>Jobs and homes as defined in local plans, together with forecast growth at Stansted airport, including the new college mentioned above.</p>		2021/2024	Jobs	2,550	Homes	2,500																														
	2021/2024																																				
Jobs	2,550																																				
Homes	2,500																																				
6.3. How will outputs be monitored?	<p>A detailed monitoring and evaluation plan will be developed and reported on at the appropriate points during scheme development. Monitoring activities will be aligned to those best placed to do so and to existing regular monitoring and evaluation work. Land use development related outputs are routinely monitored by planning authorities and this information will be tracked and linked to scheme completion where appropriate.</p> <p>Essex Highways will conduct traffic counts and analyse Teletrac for journey time improvements.</p>																																				
6.4. Milestones	<p>Location 1 – Northbound Slip</p> <table data-bbox="588 763 1308 938"> <tr> <th>Project milestone</th><th>Indicative date</th></tr> <tr> <td>Preliminary design</td><td>Completed</td></tr> <tr> <td>Detailed design</td><td>Jan 2021</td></tr> <tr> <td>Tender</td><td>February to June 2021</td></tr> <tr> <td>Start construction</td><td>July 2021</td></tr> <tr> <td>End construction</td><td>October 2021</td></tr> </table> <p>Location 2 – Staggered Signalised Junction</p> <table data-bbox="588 1030 1308 1205"> <tr> <th>Project milestone</th><th>Indicative date</th></tr> <tr> <td>Preliminary design</td><td>Completed</td></tr> <tr> <td>Detailed design</td><td>Jan 2021</td></tr> <tr> <td>Tender</td><td>February to June 2021</td></tr> <tr> <td>Start construction</td><td>November 2021</td></tr> <tr> <td>End construction</td><td>March 2023</td></tr> </table> <p>Location 3 – Southbound Slip</p> <table data-bbox="588 1296 1308 1471"> <tr> <th>Project milestone</th><th>Indicative date</th></tr> <tr> <td>Preliminary design</td><td>Completed</td></tr> <tr> <td>Detailed design</td><td>Jan 2021</td></tr> <tr> <td>Tender</td><td>February to June 2021</td></tr> <tr> <td>Start construction</td><td>July 2021</td></tr> <tr> <td>End construction</td><td>November 2021</td></tr> </table>	Project milestone	Indicative date	Preliminary design	Completed	Detailed design	Jan 2021	Tender	February to June 2021	Start construction	July 2021	End construction	October 2021	Project milestone	Indicative date	Preliminary design	Completed	Detailed design	Jan 2021	Tender	February to June 2021	Start construction	November 2021	End construction	March 2023	Project milestone	Indicative date	Preliminary design	Completed	Detailed design	Jan 2021	Tender	February to June 2021	Start construction	July 2021	End construction	November 2021
Project milestone	Indicative date																																				
Preliminary design	Completed																																				
Detailed design	Jan 2021																																				
Tender	February to June 2021																																				
Start construction	July 2021																																				
End construction	October 2021																																				
Project milestone	Indicative date																																				
Preliminary design	Completed																																				
Detailed design	Jan 2021																																				
Tender	February to June 2021																																				
Start construction	November 2021																																				
End construction	March 2023																																				
Project milestone	Indicative date																																				
Preliminary design	Completed																																				
Detailed design	Jan 2021																																				
Tender	February to June 2021																																				
Start construction	July 2021																																				
End construction	November 2021																																				
6.5. Stakeholder management & governance	<p>Stakeholders</p> <ul style="list-style-type: none"> Two public consultation meetings on the proposed improvements were held in September 2018 and provided positive input to the scheme, especially concerning the proposals for Birchanger Roundabout which were subsequently amended. A communication plan was developed and issued (available on request). Ongoing liaison with key stakeholders (such as developers, land owners including Stansted Airport, Highways England, East Herts District Council, Bishop's Stortford Town Council) will be essential to ensure engagement and buy-in and also to ensure work programmes are suitably aligned. <p>The overall aim is to involve key stakeholders as much as possible. Key stakeholders will be actively involved in delivery and decision making through an effective stakeholder engagement process.</p> <p>The objectives for the Stakeholder Engagement Plan are that it:</p> <ul style="list-style-type: none"> Communicates and reinforces the branding of the overall plan; Improves awareness and understanding of the proposals; 																																				

	<ul style="list-style-type: none"> • Allows the Project Board to obtain timely feedback on proposals; • Helps gauge the level and nature of any opposition that may arise to the proposals and address these appropriately; and • Enables the Project Team to explore the opportunities to establish a consensus, as the basis for successful implementation of the proposals. <p>Stakeholder Plan</p> <ul style="list-style-type: none"> • Ongoing liaison with key stakeholders (Highways England, Bishops Stortford Town Council, Uttlesford District Council, Birchanger Parish Council, Stansted Airport – Manchester Airports Group, Welcome Break Services, Public Transport Operators) will be essential to ensure buy-in, especially in delivery and decision making. <p>The stakeholder plan will:</p> <ul style="list-style-type: none"> • 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; • Enable the Project Team to establish a consensus. <p>For the recent NPIF Bid submission to the DfT, five Letters of Support were obtained from:-</p> <ul style="list-style-type: none"> • Braintree District Council • Greater Cambridge and Greater Peterborough LEP • Hertfordshire LEP • Highways England • Uttlesford District Council. <p>Although they were written in support of the DfT bid, the letters do indicate strong support for the scheme and copies can be provided, if required.</p>
<p>6.6. Organisation track record</p>	<p>Essex Highways / Ringway Jacobs have been responsible for delivering all non-HE highway schemes in Essex since April 2012. All schemes are run to tight budgets and timing constraints and this programme would be managed in the same way. Since 2014, Essex County Council has delivered, or is in the process of delivering, nearly £140m of transport improvement schemes through SELEP LGF funding.</p> <p>As a demonstration of prior experience at delivering programmes such as this, the following schemes are operational and were delivered on programme and to budget:</p> <ul style="list-style-type: none"> • A414 Maldon to Chelmsford RBS • Colchester Integrated Transport Package (ITP) • Colchester LSTF • Colchester Town Centre • South-East LSTF • Colchester Park and Ride • Basildon ITP • Mill Yard, Chelmsford • Chelmsford to Braintree RBS • A127 Resilience Package • Colchester to Clacton RBS • Basildon Flagship Cycle Route (Basildon ITP3) • A414 Harlow Pinch Point Package <p>Originally Approved at the November 2017 Accountability Board:</p> <ul style="list-style-type: none"> • M11 J8 <p>Approved at the February 2018 Accountability Board:</p> <ul style="list-style-type: none"> • Chelmsford City Growth – under construction • Gilden Way Upgrading <p>Approved at the February 2019 Accountability Board:</p> <ul style="list-style-type: none"> • Fairglen Link Road and Slip Road

6.7. Assurance	S151 Officer confirmation that adequate assurance systems are in place to be provided along with financial performance over 3 years.
6.8. Equalities Impact Assessment	See <i>Appendix J</i> .
6.9. Monitoring and evaluation	<p>A detailed monitoring and evaluation plan will be developed as part of standard business case development to confirm the principal benefits of the scheme. Lessons learned from prior projects are automatically fed through to new projects on inception.</p> <p>A requirement of the SELEP Assurance Framework is that each scheme will have an evaluation plan produced prior to final approval, independently reviewed, and monitored in accordance with this plan. This monitoring will be done according to government guidance and will, where appropriate, include 1 and 5 year reports.</p> <p>A monitoring and evaluation plan for the scheme will be developed as an output of the full business case work. The plan would be informed by the quantitative and qualitative analysis undertaken for the key performance metrics and wider benefits anticipated.</p> <p>ECC is mindful of the need to review and monitor highway network performance at various stages of scheme implementation to manage and minimise any potential negative scheme impacts. A process of monitoring and evaluation will be implemented to support and inform ongoing wider monitoring activities that are in place, utilising where possible survey data which is already collected.</p> <p>Surveys will need to capture volumes, patterns of movement and journey times for all modes of transport including private vehicles, public transport, and non-motorised users. Traffic volumes, speeds and journey times will be monitored at key locations within the area affected by the scheme.</p> <p>Road safety impacts will be monitored as part of routine county-wide annual monitoring programmes to verify future accident incidences, numbers and locations.</p> <p>The process evaluation will be ongoing throughout the life of the project and will be managed by the Project Executives and reported through the Project Board. Lessons learned as part of the development of the scheme will be reported.</p> <p>Process Evaluation Monitoring reports will be produced at key milestones. Impact Evaluation Reports will be produced in line with key scheme progression and delivery milestones.</p> <p>The management of risk in delivering to the monitoring and evaluation requirements will also been taken into account and mitigation measures set out in the risk register.</p>
6.10. Post completion	The scheme will remain in the control of ECC.

7. RISK ANALYSIS

Likelihood and impact scores:

5: Very high; 4: High; 3: Medium; 2: Low; 1: Very low

Risk Management

A proactive risk management procedure is in operation, including a quantified risk assessment approach, 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 by this process, responsibility for its mitigation is escalated upwards through the project management chain to ensure that this is achieved.

All risks are currently owned by the partner authorities. As the project develops it is expected that some of these risks will be transferred to contractors constructing the infrastructure. In addition, Essex County Council uses a proprietary online Risk Register to assess levels of risk and to track the progress of the risk management strategy for the scheme. The §151 Officer also has access to this system. Risks are categorised into five main areas, i.e.:

- Project and programme risks related to delivery;
- Consultation and stakeholder acceptance;
- Reputational risks to the project partner authorities (and ultimately the contractors and service providers);
- Statutory Processes; and
- Financial and funding risks.

Risk Allocation

ECC will bear all risk for the project as part of its role as Highways Authority.

Further detailed risks are shown as part of the QRAs which can be seen at Appendix G.

Type	Description	Responsibility	Mitigation / Proposed Resolution	Probability	Impact
Design	Design and construction scope changes	Essex Highways / ECC	Clear communication and early confirmation of scope	Low	Medium
Highways England	Disagreement with Highways England on design and implementation of slips	Essex Highways	Undertake early consultations with representatives of HE. Continue to work with them throughout implementation of scheme	Low	Low
Utilities	Discovery of undetected utilities during construction	Essex Highways	Undertake early surveys with trial holes	Medium	Medium
Ground Conditions	Unforeseen soft spots and voids requiring redesign	Essex Highways	Undertake early surveys with trial holes	Low	Medium
Traffic Management	Potentially complex and costly with approvals required	Essex Highways	Consult early and work closely with Network Management	Low	Medium
Tender Prices	Tender prices at variance with estimates and client budget	Essex Highways	Obtain early estimates, compare with other recent information and work with suppliers	Low	Medium
Costs	Construction costs escalation	Essex Highways	Monitor regularly and develop alternative actions as necessary	Low	Medium
Stats Costs	C3 Prices at variance with estimates	Essex Highways	Timely requests, utility mapping and trial holes	Low	Medium
Approvals	Time consuming processes with legal and cost implications	Essex Highways	Commence approval process early	Low	Low
Weather	Adverse conditions could jeopardize programme timing	Essex Highways	Plan programme taking account of likely weather conditions and provide programme float	Low	Low
Project	Lack of capacity to deliver the programme in full	ECC	Ensure resources are allocated and identify potential contingency support	Medium	Medium

8. DECLARATIONS

8.1. Has any director/partner ever been disqualified from being a company director under the Company Directors Disqualification Act (1986) or ever been the proprietor, partner or director of a business that has been subject to an investigation (completed, current or pending) undertaken under the Companies, Financial Services or Banking Acts?

No

8.2. Has any director/partner ever been bankrupt or subject to an arrangement with creditors or ever been the proprietor, partner or director of a business subject to any formal insolvency procedure such as receivership, liquidation, or administration, or subject to an arrangement with its creditors

No

8.3. Has any director/partner ever been the proprietor, partner or director of a business that has been requested to repay a grant under any government scheme?

No

If the answer is “yes” to any of these questions please give details on a separate sheet of paper of the person(s) and business(es) and details of the circumstances. This does not necessarily affect your chances of being awarded SELEP funding.

I am content for information supplied here to be stored electronically and shared in confidence with other public sector bodies, who may be involved in considering the business case.

I understand that if I give information that is incorrect or incomplete, funding may be withheld or reclaimed and action taken against me. I declare that the information I have given on this form is correct and complete. I also declare that, except as otherwise stated on this form, I have not started the project which forms the basis of this application and no expenditure has been committed or defrayed on it. I understand that any offer may be publicised by means of a press release giving brief details of the project and the grant amount.

8.4. Signature of Applicant

8.5. Print Full Name

8.6. Designation

8.7. Date