

Capital Project Business Case M11 Junction 8 Improvements

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 though 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.

Local Board Decision

- Consideration of long list of projects, submitted with a short strategic level business case
- •Sifting/shortlisting process, with projects either discounted, sent back for further development, directed to other funding routes such as SEFUND, or agreed for submission to SELEP

CELED

- Pipeline of locally assessed projects submitted to SELEP Board for information, with projects supported by outline business cases i.e., partial completion of this template
- Pipeline prioritised locally, using top-level common framework
- •Locally prioritised lists submitted by SELEP to Government when agreed

- •Full business case, using this template together with appropriate annexes, developed when funding decision made.
- •FBC taken through ITE gate process
- Funding devolved to lead delivery partner when it is available and ITE steps are completed

Funding & Delivery

•Lead delivery partner to commence internal project management, governance and reporting, ensuring **exception reporting mechanism back to SELEP Accountability Board** and working arrangements with SELEP Capital Programme Manager.

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

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

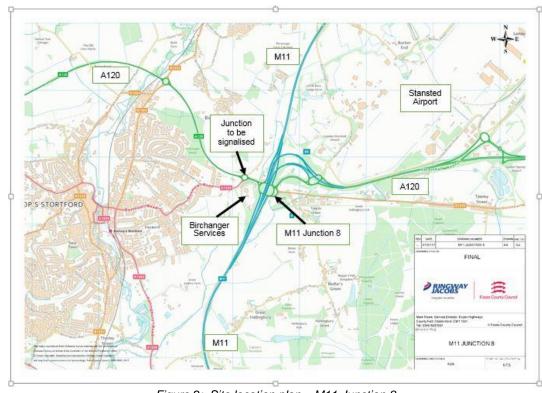


Figure 2: Site location plan – M11 Junction 8

1.4. Local authority area



Description Drawings of the proposed improvements can be found at Appendix A. (max 300 words) The project includes three schemes involving changes to M11 Junction 8 in order to improve traffic flow across the junction, improve access to Stansted Airport, the Services area and between the M11 and the A120. Location 1: South-west of M11 Junction 8 - Add additional approach lane from M11 J8 northbound exit slip onto existing A120 (Birchanger Green Services), Bishop's Stortford. West of M11 J8 - Replace the existing A120/A1250 roundabout with a multi-arm signalised junction and widen to three lanes the A120 "west link" (both directions) and A120 "east link" (eastbound only). Location 3: Improved and widened slip between the M11 Southbound slip and A120 East. At the junction with the roundabout, a gantry will be installed spanning the five lanes. Location 4: Improved and widened two lane entry to B1256 Dunmow Road from roundabout (housing developer S278 funded and constructed). 1.6. Lead applicant **Essex County Council** 1.7. Total project £9.056m value 1.8. SELEP £2.7m SELEP funding is requesting from the LGF to match the £0.948m funding to be funding provided by ECC and the £1.0m funding from Cambridge & Peterborough LEP. £4.1m has request, been requested from DfT through the National Productivity Investment Fund (NPIF), but if it including type is not forthcoming, because of the importance of this package of schemes, ECC will raise (e.g. LGF, GPF their contribution from £0.948m to £5.035m. The project team are currently working to etc.) secure £1m from the Manchester Airport Group (MAG). The team are confident of securing the money which would reduce the ECC contribution to zero. Additionally, the housing developer at Takeley will design, build and fund the work at Location 4 to approximately £320,000. This is an additional piece of work over and above work described in the bid and previous business cases and adds to the overall benefits of the project. It should also be noted that the overall costs have reduced since the bid as design work has progressed and risk has reduced with greater certainty particularly around the STATS packages. Rationale for Junction 8 of the M11 is currently operating at capacity and already experiences significant **SELEP** request queuing on some arms at peak periods. Stansted Airport is 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 add to this congestion. Local Plans for East Herts and Uttlesford are being progressed, and this junction is key to these plans being found sound. 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. 1.10. Other funding The Greater Cambridge & Greater Peterborough Local Enterprise Partnership (GC&GP sources LEP) have secured £1m of funding to support delivery of Junction 8. There is the potential of investment of £1m from MAG the owners of Stansted Airport, but it is subject to

LEP) have secured £1m of funding to support delivery of Junction 8. There is the potential of investment of £1m from MAG the owners of Stansted Airport, but it is subject to confirmation. ECC are currently contributing £0.948m, but will raise this to £5.035m if £4.1m is not forthcoming from the DfT NPIF. Any contribution from MAG will reduce the ECC contribution which could be zero if the NPIF bid is successful. Based on the results of the outline business case submission, it is assumed that SELEP will contribute £2.7m.

ECC funding has been approved and is guaranteed.





Department for Transport

1.11. Delivery partners

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
East Herts District Council	Strategic support
Ringway Jacobs	Highways Partner Services Provider

1.12. Key risks and mitigations

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

- Need to seek agreement with HE with regard to the two slip roads off the M11
- Agreement with the Services Area owner (Welcome Break Group, now owned by Appia Investments) re modifications to the ingress and egress
- Impact of Stats and Utility diversions.

Risks have been identified for each scheme component (Locations 1, 2 and 3 identified in the Cost Estimate breakdown, Appendix E1) and assigned pre-mitigation probability, severity and likely ranges of cost impact, as shown in Appendix E2. An overall P50 allowance for risk was obtained by applying a stochastic analysis using the @Risk program to perform quantitative analysis of outcome ranges.

ECC will initiate a proactive risk management procedure, including a quantified risk assessment which ensures that risks are continuously identified, owners assigned and mitigation measures put in place. Regular reviews check the status of each risk and regulate their control and mitigation. Project procedures also require that, should the likelihood or severity of risks be identified as increasing, responsibility for mitigation is escalated upwards through the project management chain to ensure that resolution is achieved.

All risks are owned by the partner authorities. As the project develops, some of these risks will be transferred to construction contractors. In addition, ECC uses a proprietary online Risk Register to assess levels of risk and to track the progress of the strategy for the scheme.

	Further detailed risks are shown as part of the QRAs which can be seen at Appendix E2.
1.13. Start construction date	 Location 1 – Northbound slip – August 2018 Location 2 – Signalised junction – April 2019 Location 3 – Southbound slip – December 2018 Location 4 – B1256 Dunmow Road – April 2019 The four main individual components will be programmed for delivery on a phased timescale to avoid undue congestion on the network in this area.
1.14. Completion date	 Location 1 – Northbound slip – December 2018 Location 2 – Signalised junction – March 2021 Location 3 – Southbound slip – April 2019 Location 4 – B1256 Dunmow Road – June 2019
1.15. Project development stage	The project is well advanced in detailed design and feasibility. (Stage 3A)
1.16. Proposed completion of outputs	 Feasibility and design will be completed in 2017 to allow construction to commence in 2018 Discussions with HE will be conducted in sufficient time to allow construction to commence as scheduled The developer construction will be timed to minimize congestion.
1.17. Links to other SELEP projects, if applicable	 The proposed new M11 junction 7A HE are planning ITS upgrades on the M11 between J8 and J14 - technology improvements, including emergency roadside telephones, signals on slip roads, motorway incident detection and automatic signalling, variable message signs, CCTV cameras and gantries Chelmsford to Harlow RBS – to be submitted concurrent with this bid Colchester to Clacton RBS – to be submitted concurrent with this bid.

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
- Population has grown at double the national rate (between 2000 and 2014) and is forecast to continue this high rate of growth.
- The wider LSC region contributed £226 billion of economic output in 2014.

The London-Stansted-Cambridge Corridor (LSCC)



Figure 2: 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, 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 170 destinations across Europe, North Africa, Central and North America 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 2016, it was the fourth busiest airport in the United Kingdom after Heathrow, Gatwick and Manchester handling a record 24.3 million passengers.

The airport has the second highest volume of dedicated freighter traffic among the London airports. 225,000 tonnes of cargo were transported through the airport in 2016, 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 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 over 10,000 people across 190 companies on 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. 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 3: Stansted Airport looking South Westwards

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. 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 Stortford, 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 4: 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

since the recession 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 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 this junction improvement 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.

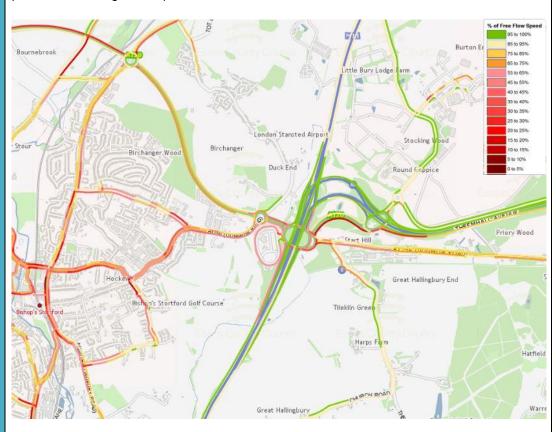


Figure 5: Congestion – AM Peak (Source 2016 Trafficmaster data)

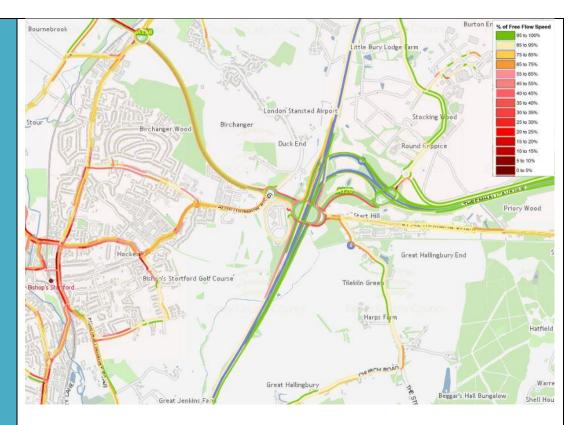


Figure 6: Congestion - PM Peak (Source 2016 Trafficmaster data)

2.2. Description of project aims and SMART objectives

The package of schemes will deliver the following outcomes:-

- Alleviate existing congestion and capacity constraints, which will enable,
- 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
- Support for East Herts and Uttlesford local plans
- Improve air quality
- Incentivise skills and apprenticeship opportunities at Stansted 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.

2.3. Strategic fit

SELEP Strategic Fit

The SE LEP's Strategic Economic Plan aims to:

- 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.

ECC Strategic Fit

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.

The seven outcomes are listed below:

- 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

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.

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

- Our support for employment and entrepreneurship across our 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 we develop and maintain the infrastructure that enables our residents to travel and our businesses to grow. Delivery of this scheme will drive economic growth in Essex, widening access to employment and improving the competitiveness of the Essex economy, driving sustainable economic growth for Essex communities and businesses.

This investment in this scheme is essential for the delivery of these ambitions.

Strategic Development Sites

There are some significant strategic development projects planned along the corridor which will drive change over the next few years. These include:

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.

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.

Adderley Riverside, Bishop's Stortford - A development of 70 one and two bedroom apartments and three bedroom houses.

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

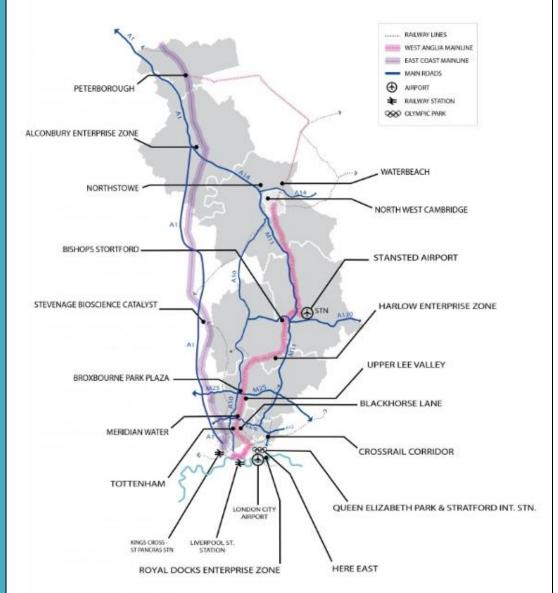


Figure 7: LSC - Strategic Opportunity Sites

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.

		Stanste econom and Fel growth LEP Stanta	nic growth ald lixstowe. The over the nex rategic Econ	a key member ong the A120 corridor has t decade and omic Plan. T atically impro	er of the Have corridor bet the potentia d is highlighte The Partnersl ve road acce	ween the air Il to attract si ed as a key g nip's A120 ca	port and the ignificant hou growth area in ampaign to detect the contract of t	ports of Harusing and but in the South dual key sect	wich siness East ions of
2.4.	Summary outputs (3.2 will	Specifi	ic to this bid:	-					
	contain more detail)			17/18	18/19	19/20	20/21	Totals	7
	detailj		Jobs	600	600	700	650	2,550	
			Homes	250	750	750	750	2,500	
			-	ing forward	on the basis	of the projec	t going throu	ıgh planning	
2.5.	Planning policy	proces		e found at A	nnondiy E				
	context, consents and permissions	The jus	tification for	the scheme I	nas been est There is a co				oort Plan
		 Need to confirm provisional agreement with HE with regard to the modifications to the two slip roads off the M11 and the entrance and exit of the Services 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 will delay 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. Careful consideration within the programme needs to be made for the advanced delivery of this. An environmental assessment has not yet been undertaken. Agreement with the Services Area operator (Welcome Break Group, now owned by Appia Investments) re modifications to ingress and egress and effect on their business under traffic management conditions. The housing developer construction needs to be carefully managed to minimize any potential disruption to the network. 							
2.7.	Scheme dependencies	• the	the land and the state of the DAGO in the state of the DAGO.						
2.8.	Scope of scheme and scalability	2) the s junction others, Essex I	The scheme could be split into three major sections – 1) the slip southbound off the M11, 2) the slip northbound from the M11, and 3) converting the roundabout to a signalised junction. Based on initial modelling analysis, only doing one, or combinations of the others, would significantly reduce the overall impact of the junction improvement. 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	Becaus would b will only The cap	e of the size be able to aff y get worse,	and comple: ord funding in aggravated burns at this jur	xity of the pa ndependently by the growth nction are alr	y and therefor at Stansted	ore the situat airport.	ion at this ju	nction

ECONOMIC CASE Impact For Scheme Appraisal Summary Table please see Appendix D. **Assessment** Positive impacts (inc. jobs & homes) **Negative impacts** Journey time improvements None identified so far Assist with Stansted's expansion plans 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). This project indirectly supports jobs in the Bishop's Stortford / Stansted area and the **Outputs** development of Stansted, associated business parks and housing growth as detailed above. 3.3. Wider The project will not only have an immediate impact of reducing congestion at this junction, benefits 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 backing from the GC&P LEP also shows the wider benefits of the junction improvement to the overall East Anglian community, especially in terms of access to Stansted airport. There is an agreed proposal to construct a new £11m Harlow College Professional and Technical Skills Centre facility for up to 300 trainees at Stansted Airport for airport related activities training. Monetised value was simply taken as 10% of estimated Business User Benefits per TAG A2.1 3.4. **Standards** All works will be subject to regular building and highways standards. 3.5. Value for See below - Sections 3.12 and 3.13. money assessment Options Location 1. Northbound Slip – The 'Do Nothing' alternative would be viable, but not assessed 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, 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 dualling, then the work would have to be completed. A reconfigured roundabout was investigated but found to be challenging design standards with little clear benefits in terms of adding capacity and reduced journey times. 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. Location 4, B1256 Dunmow Road - As above, the 'Do Nothing' alternative would be viable, but given that the housing developer has agreed to fund and build the improved exit onto B1256, it would be pointless not to progress. There is no real 'Do Minimum' alternative, as once it has been agreed to proceed, 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 is pending investigation into land ownership issues but could be delivered in the future.

The next three alternatives have been studied but dismissed due to high costs:-

- 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.

A SWOT Analysis is shown below:-

Strengths:

- 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:

- Major road congestion at peak times
- Lack of opportunities to include footways or cycle tracks

Opportunities:

- 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:

- Potential decline of London as a world financial services centre
- Significant change in the build up to, and following Brexit, 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
	Business Users and Transport Providers	Large Beneficial
Economy	Reliability Impact on Business Users	Large Beneficial
	Regeneration	Large Beneficial
	Wider Impacts	Large Beneficial
Environment	Noise	Slight Beneficial

	Air Quality	Slight Beneficial
	Greenhouse Gases	Slight Beneficial
	Landscape	Moderate Beneficial
	Townscape	Neutral
	Heritage	Neutral
	Biodiversity	Neutral
	Water Environment	Neutral
	Commuting & Other Users	Large Beneficial
	Reliability Impact on Commuting and Other Users	Large Beneficial
	Physical Activity	Neutral
	Journey Quality	Moderate Beneficial
Social	Accidents	Moderate Beneficial
Coolai	Security	Neutral
	Access to Services	Large Beneficial
	Affordability	Slight Beneficial
	Severance	Neutral
	Option Values	Slight Beneficial
D. I. II.	Cost to Broad Transport Budget	Neutral
Public Accounts	Indirect tax	Slight Adverse
Accounts		

- 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 there are 60 measurable KPIs for the total contract. Of these, the following four are relevant to this scheme:-

KPI Ref No	KPI	Target	YTD
JTR3	95% of journeys on specified routes are undertaken within target time range	95.00%	94.4%
SC4	Percentage increase in average daily cycling trips	+ 2.5%	+ 2.7%
SE3	Number of people killed and seriously injured	593	621
SE4	Number of people slightly injured	3531	3732

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 M11 Junction 8 Improvements - Traffic Modelling, dated 29/08/2017.

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 model, two forecast years (2021 & 2036) have been developed which represent the scheme opening year and 15 years after. The 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: an 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 2016, yielding factors of 2.635 and 2.710 for the AM and PM peak periods, respectively. Annualisation was further taken over 253 weekdays per year. The flow profile observed at the count site is shown below.

As input to the economic appraisal, all estimates had:

- Base year of assessment (2017 for construction and 2016 for the estimate of maintenance profiles)
- Allowance for Risk at P50 level from an assessment of risks (Appendix E2)
- 60-year DM and DS maintenance profiles.

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

3.10. Sensitivity

At this stage, sensitivity tests have not been conducted.

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: £8.628m	Wider impacts lead to:- Adjusted PVB of £25.486m, PVC of £7.676m, resulting in a NPV of £17.810m and an adjusted BCR of 3.32 .	Townscape heritage Biodiversity Water Security Access
Environment	Highway capacity enhancement scheme with positive impact on noise and air quality – not yet assessed	Landscape Not assessed at this stage	to Services Affordability
Social	PVB: Commuting Users: £8.973m Other users: £7.118m 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.	Reliability option and non- use values Not assessed at this stage	Severance Not assessed at this stage
Public accounts	Broad Transport Business Cost: £7.676m		

3.12. Transport value for money statement

	Present values in 2010 prices and values
PVB	£24.623m
PVC	£7.676m
NPV = PVB - PVC	£16.947
Initial BCR = PVB / PVC	3.21

3.13. Value for money summary

	Assessment	Detail
Initial BCR	3.21	Estimated using WebTAG/TUBA guidance
Adjusted BCR	3.32	As above
Qualitative	Largely beneficial	Not assessed in detail, but considered beneficial
Assessment		
Key risks,		QRA allowed in cost estimate and additional 44% optimism bias
sensitivities		for BCR calculations
VfM category	High	

COMMERCIAL CASE Essex County Council (ECC) are committed to delivering best value in the delivery of 4.1. Procurement major highways schemes across the county. ECC has undertaken numerous procurement processes for major schemes. **Procurement Strategy** 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. Construction will be delivered through the Essex Highways Service Direct Delivery Framework using supply chain partners. The benefits of procuring the scheme through this route are:-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. Commercial Essex Highways will be the delivery partner for design of the scheme dependencies 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 The project will include an ongoing maintenance programme over the next 60 years, as sustainability is normal for all new road schemes. Apart from scheduled maintenance, there will be no requirement for cash flow injections post-completion. 4.4. Compatibility with Funding for this scheme does not constitute state aid. State Aid rules 4.5. Commercial Throughout the development of the scheme, risks will be identified, recorded and viability 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. 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. 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. Any cost overrun will be met by ECC. The declaration from the S151 officer will be submitted by ECC as part of the final submission, once ECC governance processes have been completed.

FINANCIAL CASE 5.1. Total project cost £9.056m and basis for estimates 5.2. Total SELEP £2.7m Capital funding is requested in the form of a grant. funding request Funding is already in place for £1m from the GC&GP LEP. 5.3. Other sources of There is already an agreed grant of £1m secured from the GC&GP LEP funding An application has been submitted to the DfT's National Productivity Investment Fund for £4.1m. If the bid is unsuccessful, ECC has already committed to fund the shortfall because of the scheme's importance There is the potential for further funding from a 'Unilateral Undertaking' at Stansted airport of a further £1m, once the overall scheme has been secured The housing developer at Takeley will fund and build the exit improvements on to the B1256 (£320k). Discussions have taken place between ECC and HE and comments back on the proposals have been received and taken on board. No planning permission is expected to be required at this stage, with all land in either HE or ECC ownership. There is a possibility that some land may be required from Stansted airport, as detailed design progresses, but they have already indicated they are fully supportive of the scheme. The Cabinet Member is also fully of supportive of the proposals.

5.4. Summary financial profile (£m)

Funding (£m)	17/18	18/19	19/20	20/21	Total
SELEP request		0.900	1.300	0.500	2.700
Cambridge & Peterborough LEP				1.000	1.000
ECC contribution	0.400	0.400	0.148		0.948
DfT (NPIF) – to be covered by ECC if not forthcoming		0.580	3.507		4.087
Housing Developer			0.321		0.321
Total	£0.400	£1.880	£5.276	£1.500	£9.056

Costs (£m)	17/18	18/19	19/20	20/21	Total
Scheme Preparation	0.100	0.490	0.647		1.237
Preliminaries	0.100	0.400	0.654		1.154
Site Preparation	0.050	0.050	0.041		0.141
Barriers, Fencing		0.020	0.031		0.051
Drainage, Earthworks	0.047	0.200	0.408		0.655
Pavements, Footways, Kerbs		0.200	1.081		1.281
Signs and Lines			0.059	0.050	0.109
Signals				0.250	0.250
Lighting, Electrical Work			0.043	0.100	0.143
Structures				0.250	0.250
Landscaping			0.029	0.100	0.129
Stats	0.040	0.200	0.293	0.250	0.783
Risk	0.035	0.220	1.461	0.400	2.116
Inflation	0.028	0.100	0.529	0.100	0.757
Management (included above)					0.000
Total	£0.400	£1.880	£5.276	£1.500	£9.056

5.5.	Viability: How					
secure are the external sources of		Туре	Source	How secure?	When will the money be available?	
	funding?		SELEP LGF	Dependent on this bid	2018	
		Public	GC & GP LEP	Totally	2018 through 2020	
			ECC	Totally	2018 (for detailed design)	
			DfT	Dependent on NPIF outcome	2018	
		Private	Housing Developer	Agreed	2019	
5.6.	Cost overruns	ECC will bear any cost overrun risk for the project.				
		Loc will bear any cost overruit risk for the project.				
5.7.	Delivery timescales	The main risks associated with the delivery timescales of the project are as described above – land availability and obtaining HE's agreements.				
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 8 below. The roles and responsibilities of the parties indicated in the figure are described in the following paragraphs.

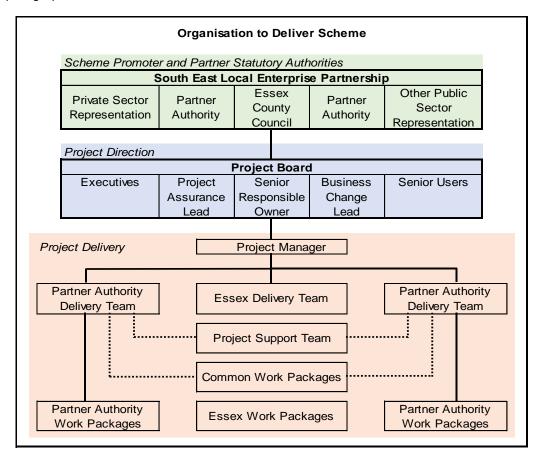


Figure 8: Arrangements for Scheme Delivery

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-today 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 See Section 2.4 above. 18/19 19/20 Output 17/18 20/21 Total Direct jobs 600 600 700 650 2,550 Housing completions 250 750 750 750 2,500 Learners supported 300 Jobs and homes as defined in local plans, together with forecast growth at Stansted airport, including the new college mentioned earlier. How will outputs A Benefits Realisation Plan will be produced and monitoring and evaluation will be be monitored? undertaken 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. Essex Highways will conduct traffic counts and analyse Trafficmaster for journey time improvements. 6.4. Milestones Location 1 - Northbound Slip Project milestone Indicative date Preliminary design Completed Detailed design April 2018 Tender June 2018 Start construction August 2018 December 2018 End construction Location 2 - Signalised Junction Project milestone Indicative date Preliminary design Completed April 2018 Detailed design Tender September 2018 Start construction April 2019 March 2021 End construction Location 3 - Southbound Slip Project milestone Indicative date Preliminary design Completed Detailed design April 2018 September 2018 Tender December 2018 Start construction End construction April 2019 Location 4 - B1256 Dunmow Road Project milestone Indicative date Preliminary design Completed April 2018 Detailed design September 2018 Tender Start construction April 2019 End construction June 2019

6.5. Stakeholder management & governance

Stakeholders

- Public consultation to secure public engagement and buy in will also be required and any outcomes of this consultation will need to be taken into account in the design and construction process.
- 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.

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.

The objectives for the Stakeholder Engagement Plan are that it:

- Communicates and reinforces the branding of the overall plan;
- Improves awareness and understanding of the proposals;
- 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.

Stakeholder Plan

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

The stakeholder plan will:

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

For the recent NPIF Bid submission to the DfT, five Letters of Support were obtained from:-

- Braintree District Council
- Greater Cambridge and Greater Peterborough LEP
- Hertfordshire LEP
- Highways England
- Uttlesford District Council.

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.

6.6. Organisation track record

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.

Essex County Council has, or is, in the process of delivering £50m of transport improvement schemes through Pinch Point, SELEP LGF and LSTF funding. The majority of the following schemes are operational and were delivered on programme and to budget:

- Mill Yard, Chelmsford £2.9m
- A414 Maldon to Chelmsford £4.0m
- A414 Harlow Pinch Point Package £15.1m
- Colchester Integrated Transport Package (ITP) £12.7m
- A127 Resilience Package £5.1m
- Colchester LSTF £2.0m
- Colchester Town Centre £5.0m
- South-East LSTF £5.0m
- Colchester Park and Ride £7.19m
- Basildon ITP (phase 1) £2.05m

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	See Appendix H.		
	Impact Assessment			
6.9.	Monitoring and	A Benefits Realisation Plan will be developed as part of further business case		
	evaluation	development to confirm the principal benefits of the scheme. Lessons learned from prior		
		projects are automatically fed through to new projects on inception.		
		Projecto and amountained, for an august of the projecto of t		
		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.		
		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.		
		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.		
		Surveye will need to conture volumes, notterns of movement and journey times for all		
		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.		
		area arrested by the somethe.		
		Road safety impacts will be monitored as part of routine county-wide annual monitoring		
		programmes to verify future accident incidences, numbers and locations.		
		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.		
		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.		
		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.		
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 E.

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

8.	DECLARATIONS				
8.1.	Has any director/partner ever been disqualified from company director under the Company Directors Disc (1986) or ever been the proprietor, partner or director that has been subject to an investigation (completed pending) undertaken under the Companies, Financia Banking Acts?	ualification Act r of a business current or	No		
8.2.	Has any director/partner ever been bankrupt or subjective arrangement with creditors or ever been the propriet director of a business subject to any formal insolvency such as receivership, liquidation, or administration, carrangement with its creditors	or, partner or cy procedure	No		
8.3.	Has any director/partner ever been the proprietor, pa of a business that has been requested to repay a gra 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				