

Capital Project Business Case – Chelmsford to Braintree Route Based Strategy

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.

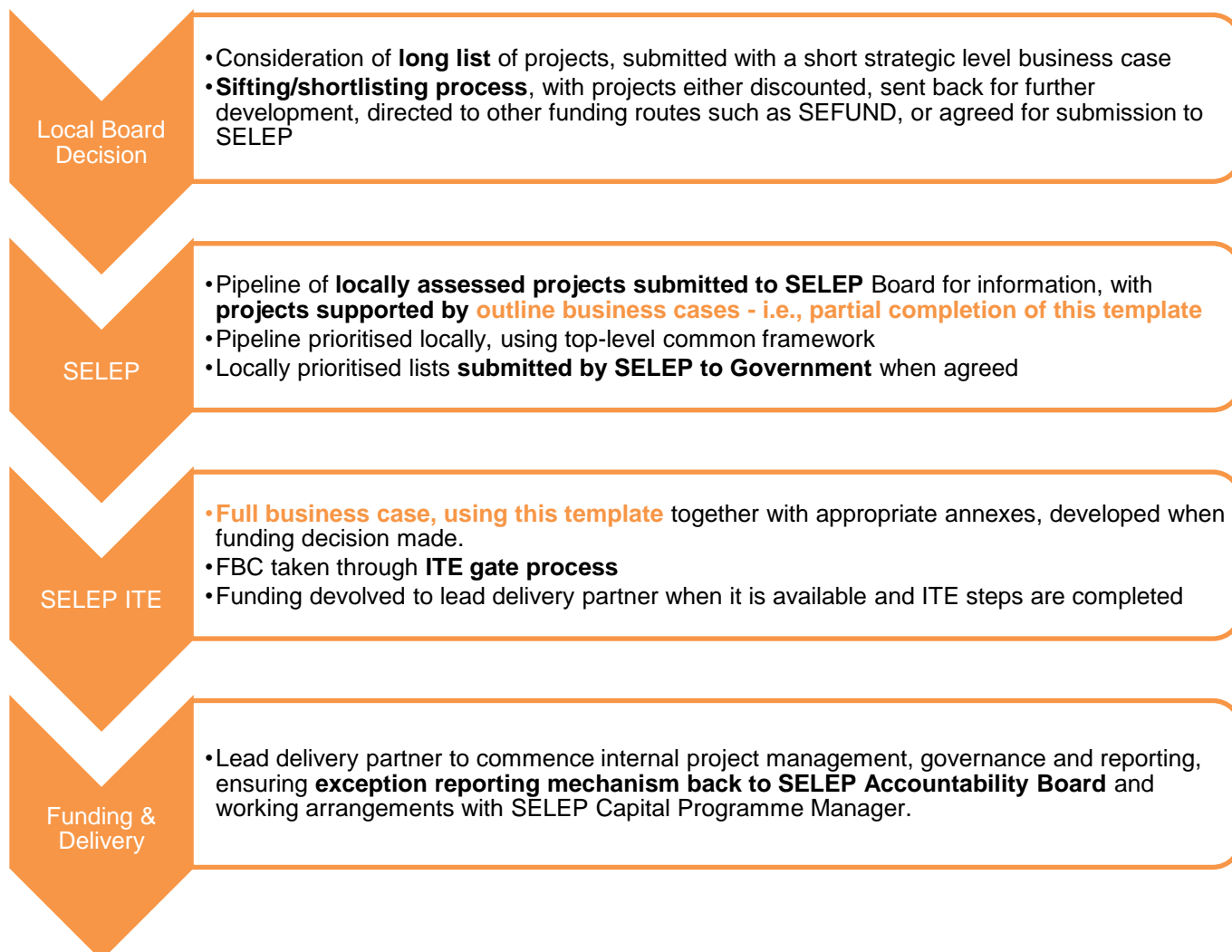
Please note that this template should be completed in accordance with the guidelines laid down in the HM Treasury's Green Book. <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>.

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.

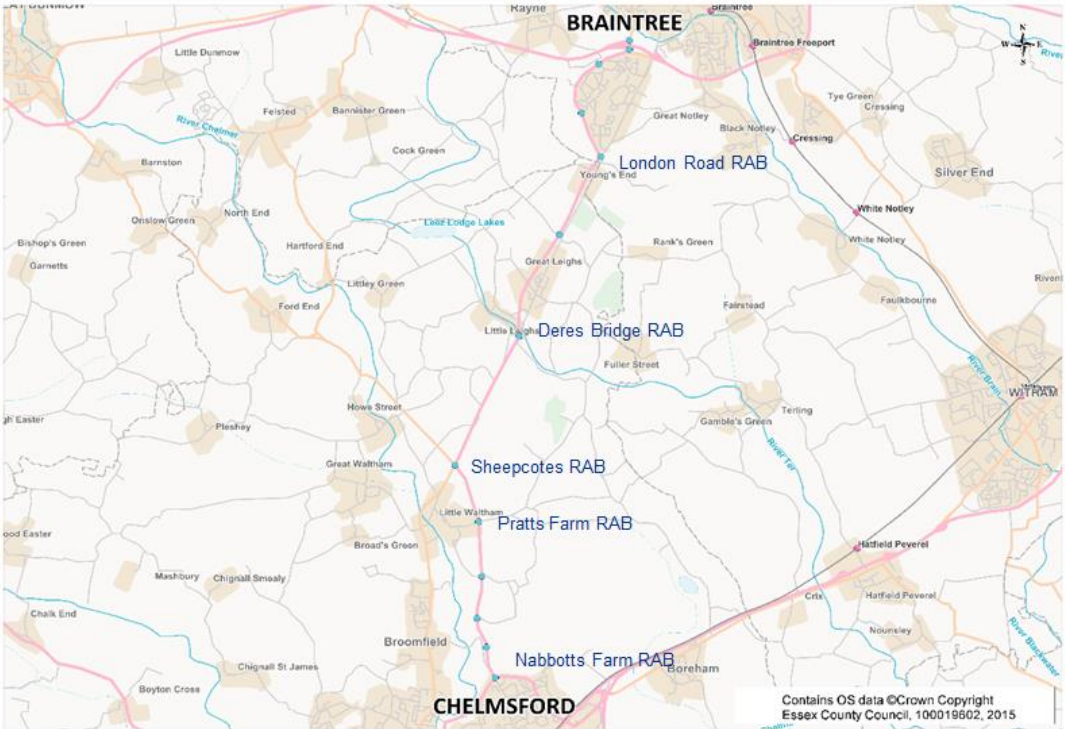



Note – this does not illustrate background work undertaken locally, such as evidence base development, baselining and local management of the project pool and reflects the working reality of submitting funding bids to Government.



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	
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1. PROJECT SUMMARY	
1.1. Project name	Chelmsford to Braintree Route Based Strategy Business Case
1.2. Project type	Corridor Improvements – Highways Capacity, Passenger Transport and Safety
1.3. Location (incl. postal address and postcode)	<p>Chelmsford to Braintree Corridor</p>  <p>Figure 1: Chelmsford to Braintree Corridor</p>
1.4. Local authority area	<p>Essex County Council / Chelmsford City Council / Braintree District Council</p> <div style="display: flex; justify-content: space-around; align-items: center;">    </div>
1.5. Description (max 300 words)	<p>The A131 is a key route providing access to Chelmsford from north Essex and linking Braintree and Chelmsford.</p> <p>The purpose of this bid is to deliver a package of schemes to provide highways capacity, passenger transport and safety improvements for the Chelmsford to Braintree corridor.</p> <p>The following improvements were identified from a Route Based Strategy (RBS) study performed earlier this year, which included site visits, workshops, consultations and the publication of recommendations / reports:-</p> <ul style="list-style-type: none"> • Safety Improvements – Following on from initial reviews and workshops, the Essex Safety Audit Team has conducted a detailed audit of the route and developed a list of safety related improvements for the corridor, including non-slip resurfacing, signs and lines. • Nabbotts Roundabout – Provide a lengthened bus lane (150m to 310m) on Chelmer Valley Road (A1016) from Lawn Lane outbound, to Nabbotts Roundabout. Also, provide an increased entry flare from White Hart Lane (A130). Concurrent with these actions, the developer (Countryside Zest) of the new major housing, retail and school site (Beaulieu Park – 3,600 homes), as part of its S278 obligations, will provide a dedicated left turn slip

	<p>from Essex Regiment Way (A130) to White Hart Lane (A130).</p> <ul style="list-style-type: none">• Bus Lane Extension – Provide a significant extension of the current bus lane from 275m to 1175m, such that the entire length of the road from Pratts Farm roundabout (location of Chelmer Valley Park and Ride) to Nabbotts includes a bus lane. This is a natural extension of Essex County Council (ECC) and Chelmsford City Council's (CCC) plans to encourage more sustainable travel in Chelmsford by improving the Park and Ride (P&R) services.• Sheepcotes Roundabout – Provide a dedicated left turn slip from Braintree Road (A131) to Essex Regiment Way (A130). The roundabout will be reduced in size to make two lane traffic movements possible around the roundabout and the entry flares from Essex Regiment Way (A130) and Braintree Road (B1008) will be increased.• Deres Bridge Roundabout – Provide increased entry and exit flares (two lanes) on Essex Regiment Way (A130). <p><i>Drawings of the proposed improvements can be found at Appendix A.</i></p> <p><i>Copies of the full Route Based Strategy Reports are available on request.</i></p>						
1.6. Lead applicant	Essex County Council (ECC)						
1.7. Total project value	£7.32m						
1.8. SELEP funding request, including type (e.g. LGF, GPF etc.)	£3.66m SELEP funding is requested from the LGF to match the £3.66m funding to be provided by ECC.						
1.9. Rationale for SELEP request	<p>The SELEP SEP included a list of thirteen Route Based Strategies in Essex that were identified for improvement work. The first route based strategy, A414 Chelmsford to Maldon, has previously been approved by SELEP and work is already underway delivering the improvements, which are anticipated to be complete by March 2017.</p> <p>This request follows on from the first RBS and is felt to be the route that provides the next greatest opportunity for network improvements.</p>						
1.10. Other funding sources	Coordination will be required with the developer, Countryside Zest, on the timing of the introduction of the left turn slip at Nabbotts to ensure work is coordinated to minimize network traffic problems during the construction periods at the roundabout. The work will be fully funded by the developer.						
1.11. Delivery partners	<table><tr><th>Partner</th><th>Nature and / or value of involvement (financial, operational etc)</th></tr><tr><td>Chelmsford City Council</td><td>Potential to improve the frequency of the Park and Ride Bus Service as a result of increased bus lane provision</td></tr><tr><td>Developer – Countryside Zest</td><td>Provision of left turn slip at Nabbotts Roundabout</td></tr></table>	Partner	Nature and / or value of involvement (financial, operational etc)	Chelmsford City Council	Potential to improve the frequency of the Park and Ride Bus Service as a result of increased bus lane provision	Developer – Countryside Zest	Provision of left turn slip at Nabbotts Roundabout
Partner	Nature and / or value of involvement (financial, operational etc)						
Chelmsford City Council	Potential to improve the frequency of the Park and Ride Bus Service as a result of increased bus lane provision						
Developer – Countryside Zest	Provision of left turn slip at Nabbotts Roundabout						

1.12. Key risks & mitigations	Type	Description	Responsibility	Mitigation / Proposed Resolution	Probability	Impact
	Developer	Developer (Countryside Zest) fails to deliver or delivers left turn slip at Nabbotts late	ECC	Conduct early discussions and continue to negotiate	Medium	Medium
	Chelmsford City Council	Unable to reap benefits of improved bus lane from Pratts Farm to Nabbotts Roundabout	ECC	Conduct early discussions with Park and Ride operations	Low	Medium
	Ecology	The Ancient Woodland abutting Sheepcotes Roundabout	Essex Highways	Ensure plans avoid any impact on the woodland to protect the environment and ecology	Low	Medium
	Utilities	Discovery of undetected utilities during construction	Essex Highways	Undertake early surveys with trial holes	Medium	Medium
	Traffic Management	Uncoordinated TM could have serious adverse impact on traffic in North Chelmsford	Essex Highways	Careful planning associated with in depth experience should alleviate this risk	Low	Medium
	Tender Prices	Tender prices at variance with estimates and client budget	Essex Highways	Obtain early estimates and work with suppliers	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>The left turn slip at Sheepcotes abuts 'ancient woodland' owned by the Forestry Commission and improvement works at this location will have to be carefully monitored to avoid any adverse impact on the local environment. It will be essential to avoid any encroachment onto this land.</p> <p><i>Further detailed risks are shown as part of the QRAs which can be seen at Appendix E.</i></p>						
1.13. Start date	Phased package of improvements, commencing formally in April 2017, although initial design work and costs have already been undertaken.					
1.14. Practical completion date	<ul style="list-style-type: none"> • Safety Improvements – May 2018 • Nabbotts Roundabout – March 2019 • Bus Lane Extension – March 2018 • Sheepcotes Roundabout – March 2020 • Deres Bridge Roundabout – September 2017 					
1.15. Project development stage	All – Draft designs, costs and programmes have been produced. Detailed designs are being developed and will be available to support this bid.					
1.16. Proposed completion of outputs	<ul style="list-style-type: none"> • Safety Improvements – May 2018 • Nabbotts Roundabout – March 2019 • Bus Lane Extension – March 2018 • Sheepcotes Roundabout – March 2020 • Deres Bridge Roundabout – September 2017 					
1.17. Links to other SELEP projects, if applicable	<ul style="list-style-type: none"> • Chelmsford to Maldon Route Based Strategy and Chelmsford Mill Yard (Station Access improvements) – both approved in Round 1 of the Growth Fund • Chelmsford Parkway Widening – SELTB bid approved in 2013 • Chelmsford City Growth Package – Business Case to be submitted in 2017/2018. 					

2. STRATEGIC CASE

2.1. Challenge or opportunity to be addressed

Chelmsford City Council has approved plans to build 4,350 homes, plus retail development, a new hotel and a new school, in north Chelmsford. Construction started two years ago and the first couple of build phases are now complete. Most of the traffic for the two developments (Beaulieu Park – 3,600 homes and Channels – 750 homes) will enter the A131 on Essex Regiment Way or White Hart Lane (A130). Although the White Hart Lane traffic will split into two directions – one towards the A12 and London / Colchester, the other will feed into Nabbotts Roundabout. This additional traffic will put increasing pressure on the efficient functioning of the lower half of the Chelmsford to Braintree corridor.

Further growth in Chelmsford, beyond 2021, is set out in their next Local Plan 2021 – 2036, which looks to allocate a further 14,000 new homes, a significant amount of which are planned for delivery in north and north east Chelmsford. Exact numbers will be confirmed when Chelmsford City Council go out to consultation on their Preferred Options in February 2017. This growth will also add further pressure along the A131 corridor.



Figure 2: Beaulieu Park

Additionally, Braintree District Council has plans to build between 11,000 and 15,000 new homes over the next 15 year period. Again, a significant portion of the traffic from these new dwellings will head down the A130 towards Chelmsford and will put increased pressure on the Chelmsford to Braintree corridor.

Traffic Congestion

The following diagrams show the congestion flows based on recent Trafficmaster data. It can be seen that the significant issues in the AM Peak are southbound from Deres Bridge, especially through Sheepcotes and also the approach to Nabbotts. The PM Peak is more spread and results in less congestion:-

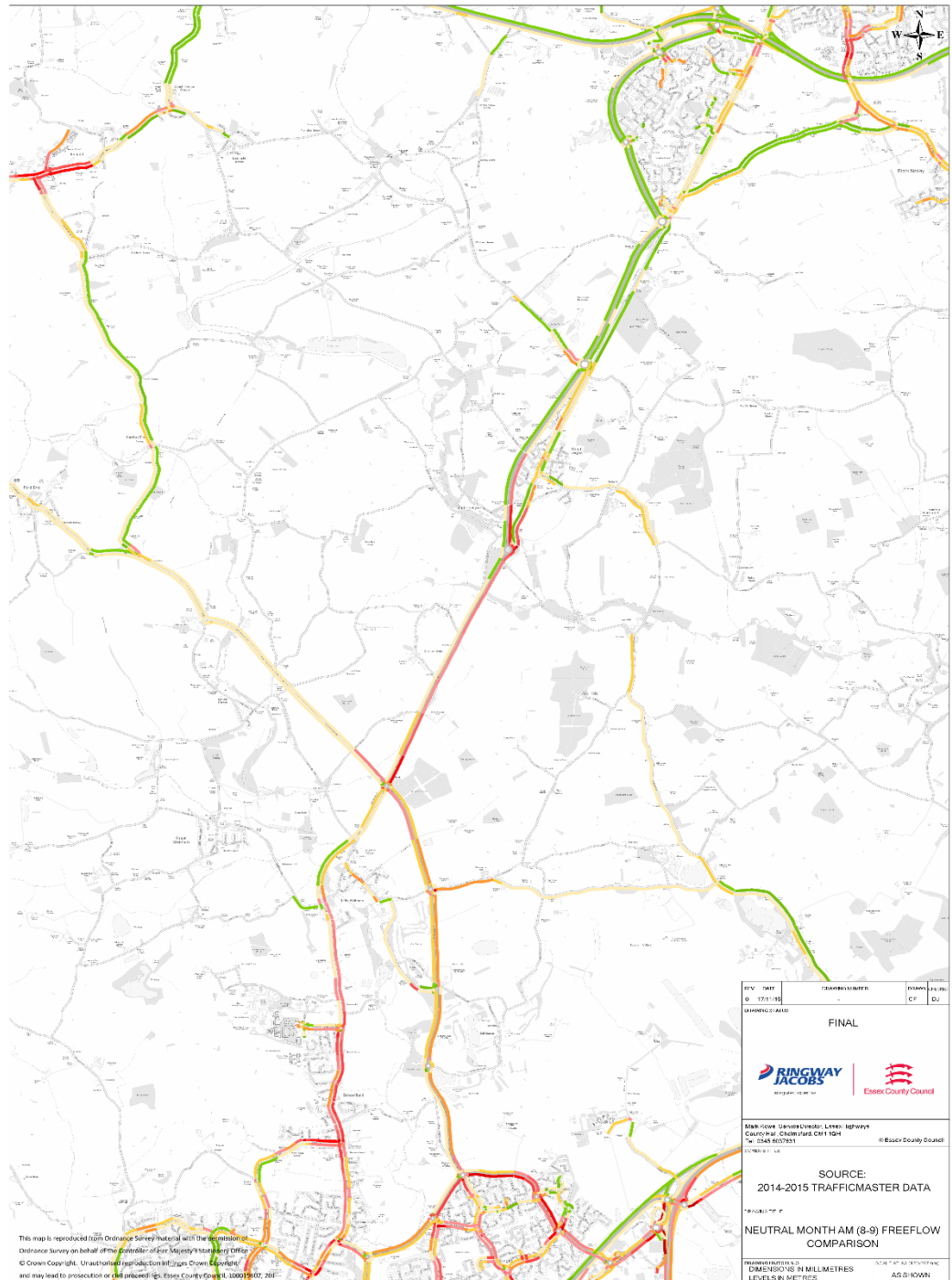
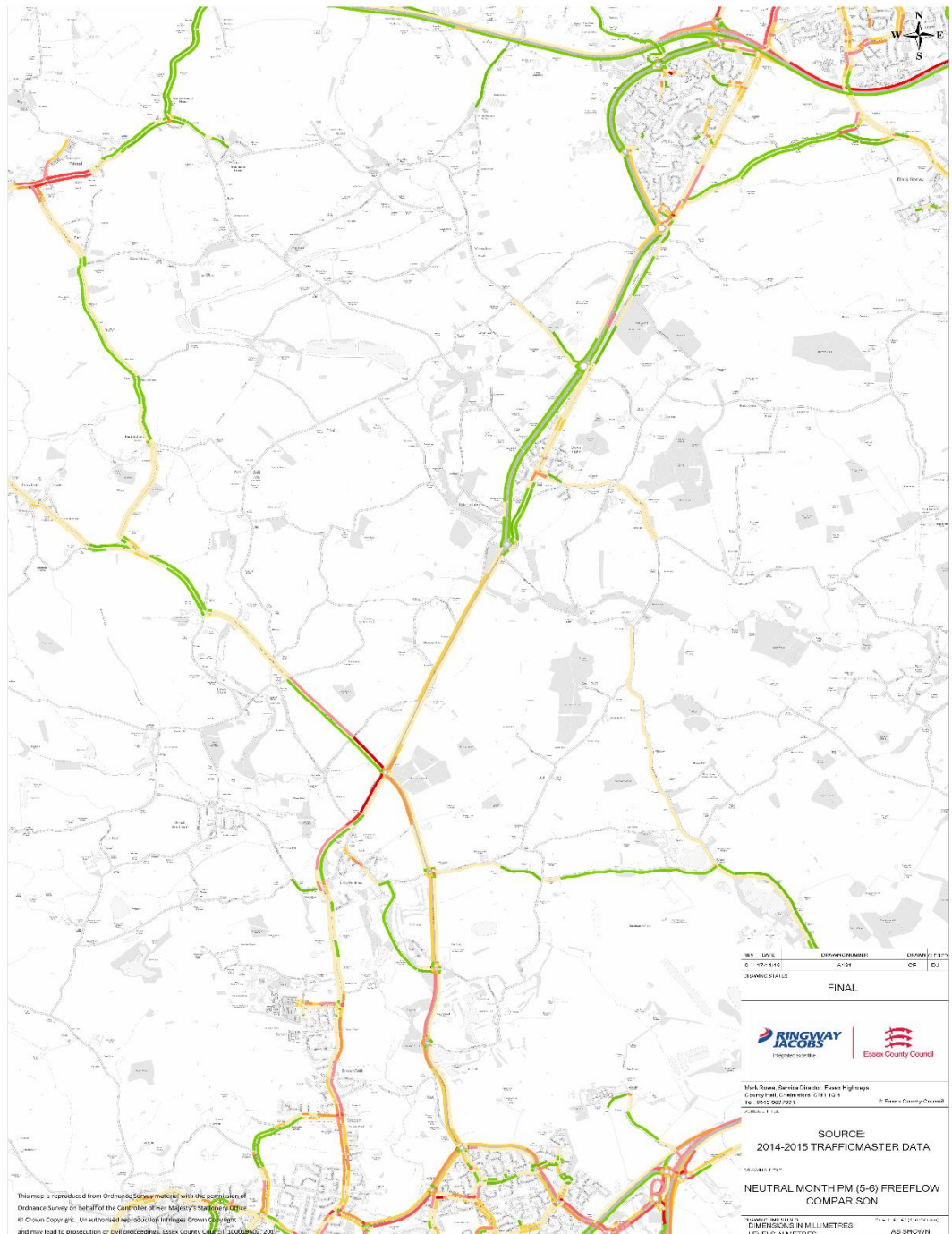


Figure 3: AM Peak Hour Congestion Indicator



2.2. Description of project aims and SMART objectives

Outcomes will primarily be:-

- To improve safety along the corridor (reduced collisions)
- To improve sustainable transport along the corridor (number of buses and passengers)
- To encourage (Park and Ride) bus patronage (number of passengers)
- To improve journey times and reliability for all vehicles along the A131 corridor (JT flows etc)
- Completion of at least 4,350 new homes in north Chelmsford
- To support economic growth and businesses along the corridor
- Up to 250 jobs associated with the new retail development, a new hotel and a new school in north Chelmsford

2.3. Strategic fit

SELEP Strategy

The Chelmsford to Braintree Route Based Strategy supports the SELEP Vision; to 'Create the most enterprising economy in England' and the single SELEP goal; to promote steady, sustained economic growth over the next two decades.

The scheme improves access, from the north, to Chelmsford— a key employment zone in Essex, by providing improved availability to employment, markets and suppliers. The traffic enhancements, provided along the A130, will also provide safety improvements and will assist passenger transport users along the route. Through the Park and Ride Bus Lane improvements, the scheme will promote sustainable travel and, thereby, help to enhance and protect valuable natural assets.

Essex Strategy

Investment in improvements along the A130 between Chelmsford and Braintree is wholly compliant with the aspirations of the Economic Plan for Essex (EPfE) that updates and incorporates the Greater Essex Integrated County Strategy (ICS) and the ECC Economic Growth Strategy (EGS). The package of improvements proposed also supports the delivery of the Essex Local Transport Plan (LTP), 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:

- 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
- 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.

This investment along the strategic corridor from Chelmsford to Braintree is essential for the delivery of these ambitions.

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 life-long 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.

Essex Local Transport Plan

The *Essex Local Transport Plan (2001,)* which includes the *Essex Transport Strategy (2011)*, sets out the 15 year vision to improve travel in the county and underlines the importance of the transport network in achieving sustainable, long term economic growth and enriching the life of residents. It is supplemented by delivery strategies for public transport, highways, cycling and public rights of way.

Location

Chelmsford is a city situated in the county town of Essex. It is approximately 50kms north east from Charing Cross, London and around 20kms south from Braintree. Braintree is some 25kms west of Colchester.

Population and Demography

In 1971, the urban city of Chelmsford had a population of 58,000, which grew by the 2011 census to 112,000, while the overall district has a population of 168,000. Chelmsford's population now consists of a large number of City and Docklands commuters, attracted by the 30–35 minute rail journey from Central London. Overall population is forecast to grow further to 192,000 by 2022. With a further 30,000 new residents anticipated by 2036.

According to the 2011 Census, Braintree had a population of 41,600, while the urban area, which includes Great Notley, Rayne and High Garrett, had a population of 53,500. Again, strong growth is predicted for the Braintree district. Currently, from Census data, there are already 5,000 journey to work trips along this corridor which will increase with the planned growth.

History

Originally a Roman town, Chelmsford grew as a market town through the development of agriculture and business. Chelmsford has been a significant place for industry since the nineteenth century and the first wireless telegraph broadcast service (Marconi) started in the town in 1920.

Braintree dates back over 4,000 years and, as early as the 14th Century, Braintree was processing and manufacturing woollen cloth. The town prospered from the 17th century, when Flemish immigrants made the town famous for its wool cloth trade and then, when the wool trade died out in the early 19th century, Braintree became a centre for silk manufacturing, after George Courtauld opened a silk mill in the town. By the late 19th century, Braintree was a thriving agricultural and textile town, benefiting from the railway connection to London.

Transport Connections – Chelmsford

The A130 / A131 is a key radial route serving Chelmsford from north Essex, and specifically linking Chelmsford and Braintree.

The A12 passes around the eastern side of Chelmsford on its route from Great Yarmouth to London and is one of the main arterial routes through East Anglia. It is a particularly important connection (with the A14) for goods traffic between London and the Port of Felixstowe. The M25 is located 19kms away and the M11 is 24kms away. The junction with the A130 and A13 (Sadlers) is some 18kms south.

Chelmsford railway station is the busiest in Essex and is an important stop on the Great Eastern Main Line between London Liverpool Street and Colchester / Ipswich / Norwich, with over 8.38m entries and exits in 2014/15. Services provide up to ten trains per hour in peak times. In the longer term – 2021+, there are plans for a new rail station at Beaulieu Park to handle the forecast additional volume of commuters.

The main bus terminal in Duke Street, which opened in March 2007, is mainly used by the First Essex Bus Company, which has many routes around the city and beyond, including intermediate stops on the X30 Southend to Stansted and the X10 Basildon to Stansted Airport. Other bus companies serving the area include Regal Busways, Stephenson's of Essex, Heddingham Omnibus and Network Colchester.

Chelmsford has two Park and Ride services – Sandon which serves the east of Chelmsford and Chelmer Valley located on the A130 / A131 corridor serving the north of Chelmsford.

Southend Airport is some 32kms south east of Chelmsford (via the A130 and A127), whilst Stansted Airport is 28kms to the north west (via the A130 and A120).

The port of Harwich is some 68kms to the north east via the A12 and A120. The port of Felixstowe is 80kms north east via the A12 and A14 and the new container port DP World is 36kms south via the A130, A13 and A1014.

Transport Connections - Braintree

Braintree is the terminus of a branch line of the Great Eastern Main Line which feeds into the main line at Witham. There were 808,000 entries and exits at the town station in 2014/15, plus a further 72,000 entries and exits at the station at Freeport Braintree.

The A120 passes around the southern side of Braintree on its route from Harwich to the A10 at Puckeridge. The A131 runs from Chelmsford north east to Braintree, missing a section out

A map of the Housing Market Area (HMA) for Braintree, Colchester, and Tendring. The map shows the geographical boundaries of the HMA in purple, covering Braintree, Colchester, and Tendring. Major roads are shown in red, including the A10, A12, A13, A14, A131, A133, A120, A414, A127, A130, and A2. The M11 and M25 motorways are shown in blue. Key locations marked include Cambridge, Saffron Walden, Great Dunmow, Braintree, Colchester, Harwich, Clacton-on-Sea, Maldon, Chelmsford, Epping, Harlow, Brentwood, Basildon, Grays, Tilbury, and Southend-on-Sea. The map also shows the proximity to London and the River Thames. A legend in the bottom right corner indicates the Housing Market Area boundary.

The Assessed Housing Need Study, completed in July 2015, identifies that Chelmsford shares a Housing Market Area (HMA) with Braintree, Colchester and Tendring Councils. The starting point for calculating how many new homes are required is the trend-based projections of the likely number and type of future households. This is published by the Government and includes forecasts for natural change e.g. births and deaths and migration. The latest household projections indicate a number of 657 new homes per year will be required for Chelmsford. However, Chelmsford believe that a more realistic rate, taking into account other factors, would raise this number to 775 new homes per year. Additionally Chelmsford City Council are proposing to provide an additional 20% buffer taking the number to 930 homes per year over the plan period.

- The two housing developments (Beaulieu Park – 3,600 homes and Channels – 750 homes)
- Beaulieu Park – New hotel, retail development and new school
- Channels Business Park – 8.5 acres adjacent to the A130
- Chelmsford City Race Course – All weather horse racing, entertainment and conferencing facility which is gaining in popularity
- Great Notley Country Park and Discovery Centre – country park with cycling and walking trails and a visitor centre
- Skyline 120 Business Park – Industrial Estate / Business Park with over (40,000m²) of

- warehouse and office space already developed and with more land available
- Eastlink Business Park (to the south of the Country Park) – the original developer has recently pulled out of negotiations, but the site remains open for development.

Additionally, the expanding Freeport Designer Village, Freeport Retail Park and Freeport Leisure are located less than 5kms away from the junction of the A131 and the A120.

Future Significant Transport Plans in Essex

- Widening of the A12 (Highways England RIS)
- Chelmsford North East By-Pass
- Potential new Western Relief Road for Chelmsford
- New Park and Ride (Widford)
- Improvements to the A132 serving South Woodham Ferrers
- Major improvements to the Great Eastern Main Line (GEML) between London and Norwich (Network Rail).

Businesses

Two major businesses have recently relocated their headquarters to Chelmsford – Amlin Insurers and US owned cosmetics company, Benefit.

According to the consumer insight experts, Experian, Chelmsford is the biggest business base in Essex. There are already 11,870 businesses, supporting 83,000 jobs, in the area. The financial sector, business administration and support services are all well represented with International Financial Data Services, QBE, Royal & Sun Alliance, Royal Bank of Scotland, Amlin, Cofunds & Coutts, whilst science and technology companies such as e2v and BAE Systems take advantage of the city's close position to Higher Education institutions, as well as the easy access to London, Cambridge and Europe.

New developments

There are currently numerous large scale office developments underway in Chelmsford with commercial development in the city focusing on almost 100,000m² of additional office floor space. Developments such as the recently opened Bellway / Marconi Evolution and Genesis / City Park West provide new prime office locations in the city centre.



Figure 6: Bond Street, Chelmsford retail development

The growth in the city is not confined to commercial ventures, with a large retail and leisure development that opened recently in September 2016. When finally completed, by

December 2016, Bond Street, Chelmsford will have a projected spend of £120million and is estimated to bring £67 million to the local economy and create 450 jobs. It includes a 28,000m² shopping development with the John Lewis department store as the flagship store.

In addition, two other major sites are being redeveloped - Trade Park Westway, based on the old Britvic and DHL site, and Chelmsford Waterside (residential and retail) on the old gasworks site, close to the city centre.

Chelmsford City Council Local Plan: 2021 - 2036

Chelmsford City Council area is a diverse mixture of connected towns, villages and countryside, and is within one of the Government's designated Growth Areas. Chelmsford continues to face significant pressure for development, especially for new housing. Therefore, the challenge is to ensure that future development is managed in a way that it can meet the needs of current and future generations, whilst also protecting and enhancing the local environment and people's quality of life.

Chelmsford is facing radical change and has embraced working in partnership with other local, regional and national agencies and authorities. This has helped develop a positive vision for Chelmsford, within Mid-Essex, which seeks to bring about maximum benefits to existing and future communities.

The planning strategy, objectives and policies are aimed at helping to achieve sustainable development and provide a robust and sound means of planning for the development requirements up to 2021.

The key headline issues, subject to consultation, include:

- As stated earlier, the objectively assessed housing need is for 775 homes per year to 2036, but the Council are testing a higher number of 930 homes per year or 14,000 homes to take account of increased affordable housing delivery.
- The Council do not intend to undertake a strategic review of the Green Belt, but they intend to designate a series of Green Buffers on land at the edge of some of the villages.
- The Council are planning for approximately 900 jobs per year in the plan period. Additional new employment sites will be allocated to meet this requirement, including 50,000m² of new office floorspace.
- In terms of retail development, an initial figure of 1,900m² and 11,500m² of new retail floorspace at South Woodham Ferrers and the Chelmsford Urban Area respectively are being proposed.

The Council has identified three spatial options to accommodate this future growth:

1. **Urban Focus** – This option seeks to concentrate new development at locations within and / or close to the existing urban areas that are within Chelmsford.
2. **Urban Focus and Growth on Key Transport Corridors** – In addition to 'Urban Focus', this option also promotes development at locations on the key transport corridors serving the district such as the A130 / A131.
3. **Urban Focus and Growth in Key Villages** – This option promotes a more dispersed approach to planning for new development with planned development at the Service Settlements outside of the Green Belt, in addition to urban focused development.

With a population of around 168,000, which is likely to rise to 192,000 by 2022, the City is rapidly expanding. Its locality close to London and Stansted airport will help stimulate this growth. Therefore, the Council is planning the following:-

- Provide housing and job opportunities for all sectors of the community
- Promote healthier, inclusive and more active lifestyles
- Enhance cultural and leisure activities
- Ensure that the right type of development is in the right place
- Deliver the necessary supporting infrastructure
- Provide high quality public and private spaces
- Maintain and enhance a more sustainable environment.

The vision is for Chelmsford's transport system to become 'best in class', offering enhanced connectivity and access to opportunities for residents, commuters, visitors and businesses to support the sustainable economic growth of the city.

The Council has developed a Transport and Access Strategy, splitting the city into three ring-

like zones to focus transportation improvements which will improve journey times and reliability for all people travelling around Chelmsford, along key routes, into, and within, the city centre. This will be supported by infrastructure to be delivered from the proposed Chelmsford City Growth Package bid to SELEP, for which the FBC is anticipated to be submitted in 2017/18.

In order to achieve this vision, the following objectives of the strategy are to:

- Reduce congestion and facilitate improved reliability of journeys
- Improve accessibility and connectivity into and within Chelmsford
- Maintain and improve the public transport network
- Extend and upgrade the Chelmsford cycle network and promote its use
- Facilitate and improve pedestrian routes into and around the city
- Deliver transport improvements to support and accommodate future housing and employment growth
- Encourage and assist economic growth
- Develop long-term solutions to resolve gaps within the strategic network
- Improve air quality and environment by providing and promoting the use of more sustainable forms of travel
- Improve the attractiveness of streets and public spaces
- Improve road safety by working to reduce the incidence and severity of road traffic collisions on roads in Essex
- Maintain assets ensuring that the highways network (including roads, footways and cycleways) is resilient, safe to use, and fit for purpose.

Braintree Plan

Braintree Council has ambitious plans for growth, by creating a corridor of economic expansion, along the A120, by effectively linking Stansted Airport and the Haven Ports with 14,000 new houses and around 20,000 new jobs, planned for delivery by 2033.

Situated between the major urban centres of Chelmsford and Colchester, close to Cambridge and the international transport hubs of London Stansted Airport and the Haven ports, Braintree is well located to support business growth and inward investment. London is only 45 minutes away by rail. However, these good connections mean that the Braintree District must compete with these centres for employees, and out-commuting levels are high.

Braintree is a large, mainly rural, District that covers 612 square kilometers in north and mid Essex. Because of the rural influence, car ownership in the District is high, and cars are the primary means of transport for many residents.

Braintree has a wide employment base of mainly small and medium sized businesses. In 2011, approximately 58,000 residents worked within the District, 15,000 travelled into the District to work, and 32,000 travelled from the District to work in the major centres of London, Chelmsford and Colchester.

Currently, there are 62,700 homes in the District, accommodating 147,000 people (2011 census). Government projections show that the District population will continue to rise over the next 15 years. The population is growing as a result of longer life expectancy and greater numbers of people moving into the District, rather than moving out of it. It is forecast that the District will need to accommodate an average of between 750 and 950 homes per year up to 2033. West of Braintree, there is a plan to deliver a new garden community of up to 2,500 homes (as part of an overall total of between 10,000-13,000 homes).

The Council has already approved two major new employment sites for development: one at 'Eastlink' off the A131 near Great Notley, and an expansion to the Springwood Drive industrial estate in Braintree. The development of these sites is progressing, but, on their own, it will not be enough to provide the forecast necessary number of jobs in the future.

2.4. Summary outputs (3.2 will contain more detail)

Specific to this bid:-

	16/17	17/18	18/19	19/20	20/21	Totals
Jobs		20	50	80	100	250
Homes	600	750	1,000	1,000	1,000	4,350

2.5. Planning

A Programme Timing Plan can be found at Appendix F.

policy context, consents and permissions	<p>All schemes are contained within current highways land.</p> <ul style="list-style-type: none"> • Nabbotts Roundabout – Plans are being finalised • Bus Lane Extension – Plans are being finalised • Sheepcotes Roundabout – Plans are being finalised, however, work must be sensitive to the requirements of the Woodland Trust regarding the wood to the east of the roundabout • Deres Bridge Roundabout – Plans are being finalised.
2.6. Delivery constraints	Nabbotts Roundabout – Coordination will be required with the developer, Countryside Zest on the timing of the introduction of the left turn slip at Nabbotts to ensure work is coordinated to minimize network traffic problems during the construction periods at the roundabout.
2.7. Scheme dependencies	Should the developer not proceed with the proposed left turn slip at Nabbotts, this could have an adverse impact on the overall effectiveness of the package of improvements.
2.8. Scope of scheme and scalability	<p>The scope of this bid is to deliver a package of schemes to provide highways capacity, passenger transport and safety improvements for the Chelmsford to Braintree corridor.</p> <p>Because the package involves five distinct elements, it would be possible to defer or cancel individual items. However, this would have a detrimental effect on the overall benefit of the package. The impact of not providing an overall route based strategy would be reduced and the general taxpaying public and users may judge this to be a missed opportunity.</p>
2.9. Options if funding is not secured	<p>If funding for this package is not secured, it would not be possible for ECC to fund the complete works without support. As described above, individual elements could be considered, but, on their own, they would not have the same level of impact.</p> <p>Doing nothing is not an option, because all of the transport modelling indicates that, with the steady progression of house building in north Chelmsford, the network will be seriously constrained as demand increases along this corridor.</p>

3. ECONOMIC CASE

3.1. Impact Assessment

For Scheme Appraisal Summary Table please see Appendix D.

Positive impacts (inc. jobs & homes)	Negative impacts
Journey time improvements	None identified so far
Increased Park & Ride bus patronage	
Improved access to new homes	
Improved access to jobs	

Modelling approach:-

- **Nabbotts Roundabout** – Arcady
- **Bus Lane Extension** – Trafficmaster
- **Sheepcotes Roundabout** – Arcady and LINSIG
- **Deres Bridge Roundabout** – Arcady

Improvements have already been implemented on the northern half of this route with the dualling of the Great Notley bypass in August 2007 and the introduction of the Great Leighs bypass in September 2002.

The remaining work is therefore focussed on the southern half of the route, starting at Deres Bridge and heading southwards to Nabbotts Roundabout.

3.2. Outputs

Specific to this bid:-

Jobs – New retail development, new hotel and new school at Beaulieu Park – up to 250 new jobs

Homes – New homes at Beaulieu Park – 3,600, New homes at Channels – 750.

However, with these planned improvements in place, people will be encouraged to seek employment in Chelmsford, leading to potentially further incremental jobs.

3.3. Wider benefits

Access to Chelmsford will be improved, and through the proposed improvements at Deres Bridge, Sheepcotes and Nabbotts, access to Broomfield Hospital will be improved.

Depending on demand and scheduling, it may be possible for the Park and Ride operator to introduce reductions in the schedule leading to a more frequent and a more reliable bus service, which, in turn, will stimulate greater use of the service and reduce car usage. However if a reduced schedule is not possible, at the very least, this project will provide journey time savings and improved journey time reliability for P&R users with increased bus lane provision.

3.4. Standards

All works will conform to regular building and highways standards.

3.5. Value for money assessment

See below – Sections 3.12 and 3.13.

3.6. Options assessed

Private funding is not an option, so that the only other opportunities for funding are through SELEP and ECC.

- **Nabbotts Roundabout** – The ‘Do Nothing’ alternative would be viable, but would be regarded as a real missed opportunity whilst the developer is working on a left turn slip on the other side of the roundabout. There is no real ‘Do Minimum’ alternative, as once it has been agreed to proceed with the increased flares and extension to the bus lane, then stats work, resurfacing, new kerbs and signing would all naturally have to be completed. The ‘Do Something’ and ‘Do Optimum’ options would both be the complete proposal, as this element is effectively an ‘all-or-nothing’ project.
- **Bus Lane Extension** – The ‘Do Nothing’ alternative would be viable, but would be regarded as a real missed opportunity when there is so much new housing being constructed in the area and there is a stated desire to encourage more people to use sustainable transport alternatives. It would be possible to deliver a ‘Do Minimum’ alternative by just shortening the length of bus lane, but again this may be viewed as a missed opportunity – why stop the lane half way along the road ? The ‘Do Something’ and ‘Do Optimum’ options would both be the complete bus lane.
- **Sheepcotes Roundabout** – The ‘Do Nothing’ alternative would be viable, but would definitely be regarded as a real missed opportunity as this is the junction with the most serious congestion problems. One ‘Do Minimum’ alternative could be to provide the left turn slip without modifying the roundabout or providing the increased entry flare, but this would seriously compromise the likely benefits. The other ‘Do Minimum’ alternative of providing the roundabout improvements and the increased entry flare without the left turn slip would not provide any discernible benefit and would be regarded as a waste of public money. The ‘Do Something’ alternative could be a combination of the left turn slip with either the roundabout changes or the entry flare change, but again this would not provide the full benefit that this roundabout sorely needs. The ‘Do Optimum’ would be the complete scheme, as previously described.
- **Deres Bridge Roundabout** – The ‘Do Nothing’ alternative would be viable, but may be regarded as a missed opportunity as there is a known issue exiting this roundabout. There is no real ‘Do Minimum’ alternative, as once it has been decided to proceed with the increased exit flare, then resurfacing, new kerbs and signing would all naturally have to be completed. The ‘Do Something’ and ‘Do Optimum’ would be the complete scheme.

A SWOT Analysis is shown below:-

<p>Strengths:</p> <p>The A131 is a key radial route serving Chelmsford from north Essex and linking Chelmsford and Braintree.</p> <p>The only city in Essex, with a fast growing population</p> <p>Well-established partnership working with both BDC and CCC</p> <p>Strong and unique connectivity to the markets of London and the south-east, with onward connections to Europe and other international markets</p> <p>High employment rate</p> <p>Significant environmental and historical assets</p> <p>Cultural and tourism appeal</p> <p>Served by major railway line with good connectivity to London</p>	<p>Weaknesses:</p> <p>Major road congestion at peak times</p> <p>No cycleway alternative without using completely different route</p> <p>Slow journey times accessing Chelmsford</p> <p>No real alternative to north-south route between the two locations</p>
<p>Opportunities:</p>	<p>Threats:</p>

	<p>Fully utilise the land, labour and capital assets to achieve Chelmsford and Braintree's economic and growth potential</p> <p>Important locations for housing development</p> <p>Commercial development in the city centre</p> <p>Improving sustainable transport links</p> <p>Fully realise the potential of economic links with London, including capacity to accommodate growth to the East of London</p>	<p>Potential decline of London as a world financial services centre</p> <p>Prevailing economic conditions discourage private sector investment, including bringing forward key development sites</p> <p>Public concern that growth will lead to increased congestion as a result of failure to invest in adequate infrastructure improvement</p> <p>Significant change following Brexit decision may bring changes in policies and investor confidence</p> <p>Potential construction cost increases e.g. if ground contamination levels are higher than expected or undisclosed Stats or services are found</p> <p>Possible time delays</p>	
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	Large Beneficial
		Regeneration	Large Beneficial
		Wider Impacts	Large Beneficial
	Environment	Noise	Slight Beneficial
		Air Quality	Slight Beneficial
		Greenhouse Gases	Slight Beneficial
		Landscape	Slight Beneficial
		Townscape	Neutral
Heritage		Neutral	
Biodiversity		Neutral	
Water Environment		Neutral	
Social	Commuting & Other Users	Large Beneficial	
	Reliability Impact on Commuting and Other Users	Large Beneficial	
	Physical Activity	Neutral	
	Journey Quality	Moderate Beneficial	
	Accidents	Moderate Beneficial	
	Security	Neutral	
	Access to Services	Moderate Beneficial	
	Affordability	Slight Beneficial	
	Severance	Neutral	
	Option Values	Slight Beneficial	
Public Accounts	Cost to Broad Transport Budget	Slight Beneficial	
	Indirect tax	Slight Adverse	
	<ul style="list-style-type: none">For the 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

Junctions were assessed using the latest available 2015 survey data, software and assessment tools, outlined in 3.1 above. Growth was forecast to 2016 using NTM TEMpro adjusted growth. The schemes proposed have been shown to be necessary to accommodate the forecast growth. In cases where delays in the Do-Minimum forecast case were excessive, these were tempered to avoid exaggerating the benefits of reduction of delay and post forecast year growth in value of time reduced.

Scheme costs used in the economic appraisal include scheme development, preparation, relocation of services, construction, quantified risk assessment, estimate of construction inflation over general inflation, to which 44% optimism bias was applied to all for the economic appraisal, but not included in the amounts in the financial case. Sixty year maintenance profile for the Do-Something and Do-minimum scenarios are included.

TUBA 1.9.7, which is based on the July 2016 TAG data book, applicable at the time of writing, has been used in the analysis. For the junction schemes, simplified networks were constructed to suit application of TUBA. As link distances and only delay, rather than journey times, were used, it was considered that vehicle operating costs would not be calculated accurately and, therefore, deleted from the analysis.

For the bus lane improvements, bus schedules and passenger numbers were obtained from recent records, including ticket sales and car park automatic counters. Bus journey time savings on bus lanes were only calculated for the peak direction, with peak period and free-flow journey times from 2014-15 Trafficmaster data. Delay savings were based on bus speeds for the bus lanes, set at the lowest of free-flow speed, or 45 miles per hour. Without the benefit of a detail demand model, no change in user numbers, due to the scheme, could be applied and an annual growth rate of 8.5%p.a. compared to historical growth of 10.5%, over a 10 year period was assumed.

More details are provided in the Note on Economic Evaluation at Appendix C.

3.10. Sensitivity tests

Sensitivity tests have not been undertaken at this stage.

3.11. Appraisal summary

Provide positive and negative impacts of the scheme in the table below. Please adhere to WebTAG guidance.

Category of impact	Impacts typically monetised	Impacts that can be monetised	Impacts currently normally monetised
Economy	PVB: Business users and providers: £ 34.616M	<i>Reliability regeneration</i> <i>Wider impacts</i> Not assessed at this stage	<i>Townscape heritage</i> <i>Biodiversity Water</i> <i>Security Access to</i> <i>Services Affordability</i> <i>Severance</i> Not assessed at this stage
Environment	Not assessed at this stage	<i>Landscape</i> Not assessed at this stage	
Social	PVB: Commuting Users: £ 4.070M Other users: £ 11.15M Highway capacity enhancement scheme with positive, albeit low, expected benefit to safety and journey 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: £7.120M		

3.12. Transport value for money statement – See guidance

	Present values in 2010 prices and values
PVB	£ 49.836M
PVC	£ 7.120M
NPV = PVB – PVC	£ 42.716M
Initial BCR = PVB/PVC	7.0

3.13. Value for money summary - worked example

	Assessment	Detail
Initial BCR	7.0	Conservative and standard TAG assessment undertaken
Adjusted BCR	Not adjusted	
Qualitative Assessment	Largely Beneficial	Based on journey time improvements and improved sustainable transport
Key risks, sensitivities	Forecast growth of both traffic and Park & Ride usage	Sensitivity testing not undertaken at this stage. Traffic Growth based on NTM / TEMPro adjusted growth. Park and Ride growth has been very high to date but could slow down.
VfM category	BCR = Very High	

4. COMMERCIAL CASE

4.1. Procurement	<p>Essex County Council (ECC) are committed to providing 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 eg Sadlers Farm, 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	<p>Essex Highways will be the delivery partner for the design of the scheme. The construction will be subject to tender process through the Eastern Highway Alliance (EHA).</p> <p>ECC have a good track record of scheme delivery through this process. Use of the EHA ensures a ready supply chain / Contractors.</p>
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 possible, 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 and basis for estimates	£7.32m
5.2. Total SELEP funding request	£3.66m Capital funding is requested in the form of a grant.
5.3. Other sources of funding	£3.66m ECC

5.4. Summary financial profile

(£m)		16/17	17/18	18/19	19/20	20/21	Total
Source of funding							
SELEP request			0.750	1.750	1.160		3.660
Applicant contribution			0.750	1.750	1.160		3.660
Third party & other contributions (<i>specify per row</i>)							
Borrowing							
Local contribution total (leverage)							
Total			1.500	3.500	2.320		7.320
(£m)	Cost estimate status	16/17	17/18	18/19	19/20	20/21	Total
Costs							
Preliminaries			0.375				0.375
Site Preparation, Land			0.145				0.145
Scheme Preparation			0.320	0.189			0.509
Barriers, Fencing			0.000				0.000
Drainage			0.050	0.175			0.225
Earthworks				0.240	0.110		0.350
Footways, Kerbs				0.880	0.960		1.840
Signs & Lines					0.120		0.120
Lighting & Electrical				0.191	0.045		0.236
Landscaping & Ecology					0.041		0.041
Risk			0.200	0.450	0.708		1.358
Inflation			0.060	0.130	0.185		0.375
Stats			0.300	1.150	0.075		1.525
Management			0.050	0.095	0.076		0.221
Total			1.500	3.500	2.320		7.320

5.5. Viability: How secure are the external sources of funding?	Type	Source	How secure?	When will the money be available?
	Public	SELEP LGF	Dependent on this bid	2017
		ECC	Secure	2017
	Private	Developer S278	Secure	2017

5.6. Cost overruns	ECC will bear any cost overrun risk for the project.
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5.7. Delivery timescales	<p>The main risks associated with the delivery timescales of the project are as described above.</p> <p>Should the complete package go ahead, then the timing of the various elements would have to be phased so as not to cause undue adverse effects on the traffic network by working on adjacent parts of the network simultaneously.</p>
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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	<p>No loan funding is requested.</p> <p>None of the investment will be repaid.</p>

6. DELIVERY/MANAGEMENT CASE

6.1. Project management

Project Organisation

The organisation to deliver the scheme is indicated in Figure 7 below. The roles and responsibilities of the parties indicated in the figure are described in the following paragraphs.

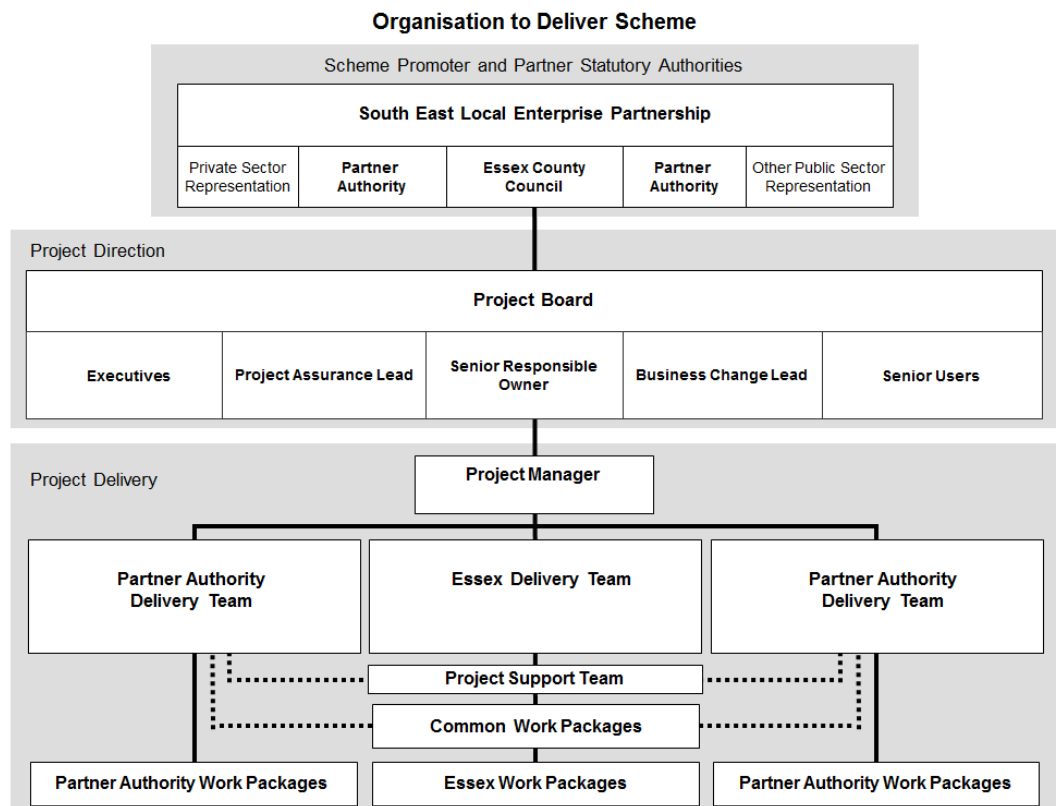


Figure 7: Arrangements for Scheme Delivery

Roles of Key Interested Parties:

South East Local Enterprise Partnership Board (SE LEP) – 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.

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, in the context of local policies and the work of the SE LEP;
- 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

	<p>scheme to proceed to programme and resolve any challenges;</p> <ul style="list-style-type: none">• 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. <p>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.</p> <p>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.</p> <p>Individual Roles:</p> <p>Senior Responsible Owner (TBC - ECC) – has ultimate responsibility and delegated authority for ensuring effective delivery of the scheme on time and on budget.</p> <p>Project Manager (Specific role to be appointed by 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. The Project Manager is also assigned the task of running and updating the risk register and organising the monitoring of the delivery of the programme objectives.</p> <p>Executives – represent the group in each partner statutory authority with responsibility for obtaining funding for the scheme (TBC, ECC) and securing resources to deliver it (TBC, ECC). In Essex County Council, this is the Transportation Strategy and Engagement Group (Hannah Neve, ECC).</p> <p>Senior Users (TBC) – represent the group in each partner statutory authority who will oversee the future day-to-day operation of the scheme.</p> <p>Project Assurance Lead (TBC, 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).</p>																								
6.2. Outputs	<table><tr><th>Output</th><th>17/18</th><th>18/19</th><th>19/20</th><th>20/21</th><th>Total</th></tr><tr><td>Direct jobs</td><td>20</td><td>50</td><td>80</td><td>100</td><td>250</td></tr><tr><td>Indirect jobs</td><td>0</td><td>50+</td><td>100+</td><td>100+</td><td>>250</td></tr><tr><td>Housing completions</td><td>750</td><td>1000</td><td>1000</td><td>1000</td><td>4,350 including houses built up to 2016/17</td></tr></table>	Output	17/18	18/19	19/20	20/21	Total	Direct jobs	20	50	80	100	250	Indirect jobs	0	50+	100+	100+	>250	Housing completions	750	1000	1000	1000	4,350 including houses built up to 2016/17
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Housing completions	750	1000	1000	1000	4,350 including houses built up to 2016/17																				
6.3. How will outputs be monitored?	<p>A Benefits Realisation Plan has been produced (<i>see Appendix J</i>) and monitoring / evaluation will be 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.</p> <p>Essex Highways will conduct traffic / bus counts and analyse Trafficmaster for journey time changes.</p>																								

6.4. Milestones	Nabbotts Farm Roundabout												
	<table><tr><th>Project milestone</th><th>Indicative date</th></tr><tr><td>Preliminary design</td><td>Now</td></tr><tr><td>Detailed design</td><td>June 2017</td></tr><tr><td>Tender</td><td>March 2018</td></tr><tr><td>Start construction</td><td>October 2018</td></tr><tr><td>End construction</td><td>March 2019</td></tr></table>	Project milestone	Indicative date	Preliminary design	Now	Detailed design	June 2017	Tender	March 2018	Start construction	October 2018	End construction	March 2019
	Project milestone	Indicative date											
	Preliminary design	Now											
	Detailed design	June 2017											
	Tender	March 2018											
	Start construction	October 2018											
	End construction	March 2019											
	Bus Lane Extension												
	<table><tr><th>Project milestone</th><th>Indicative date</th></tr><tr><td>Preliminary design</td><td>Now</td></tr><tr><td>Detailed design</td><td>April 2017</td></tr><tr><td>Tender</td><td>August 2017</td></tr><tr><td>Start construction</td><td>October 2017</td></tr><tr><td>End construction</td><td>March 2018</td></tr></table>	Project milestone	Indicative date	Preliminary design	Now	Detailed design	April 2017	Tender	August 2017	Start construction	October 2017	End construction	March 2018
Project milestone	Indicative date												
Preliminary design	Now												
Detailed design	April 2017												
Tender	August 2017												
Start construction	October 2017												
End construction	March 2018												
Sheepcotes Roundabout													
<table><tr><th>Project milestone</th><th>Indicative date</th></tr><tr><td>Preliminary design</td><td>Now</td></tr><tr><td>Detailed design</td><td>July 2017</td></tr><tr><td>Tender</td><td>October 2018</td></tr><tr><td>Start construction</td><td>April 2019</td></tr><tr><td>End construction</td><td>March 2020</td></tr></table>	Project milestone	Indicative date	Preliminary design	Now	Detailed design	July 2017	Tender	October 2018	Start construction	April 2019	End construction	March 2020	
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Detailed design	July 2017												
Tender	October 2018												
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End construction	March 2020												
Deres Bridge Roundabout													
<table><tr><th>Project milestone</th><th>Indicative date</th></tr><tr><td>Preliminary design</td><td>Now</td></tr><tr><td>Detailed design</td><td>January 2017</td></tr><tr><td>Tender</td><td>July 2017</td></tr><tr><td>Start construction</td><td>March 2018</td></tr><tr><td>End construction</td><td>May 2018</td></tr></table>	Project milestone	Indicative date	Preliminary design	Now	Detailed design	January 2017	Tender	July 2017	Start construction	March 2018	End construction	May 2018	
Project milestone	Indicative date												
Preliminary design	Now												
Detailed design	January 2017												
Tender	July 2017												
Start construction	March 2018												
End construction	May 2018												
6.5. Stakeholder management & governance	Stakeholders												
	<ul style="list-style-type: none">• Liaison with key stakeholders (such as developers, land owners, Chelmsford City Council) will be essential to ensure engagement and buy-in, and also to ensure work programmes are suitably aligned. Chelmsford City Council is aware of this project and supportive of it. They have attended two stakeholder workshops already and we will continue to engage them.• A public engagement event will be held in Chelmsford in February 2017 which will include information on this project to secure public engagement and buy in, and so any outcomes can be taken into account in the design and construction process.												
	<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;• 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>Letters of support to follow.</p>												
6.6. Organisation track record	<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.</p>												

	<p>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:</p> <ul style="list-style-type: none"> • 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 confirms that adequate assurance systems are in place and evidence can be provided of financial performance over the last three years.
6.8. Equalities Impact Assessment	<i>See Appendix H.</i>
6.9. Monitoring and evaluation	<p>A Benefits Realisation Plan has been developed and will be refined further as part of the 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.

A summary of the major risks is shown below.

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

Risk	Likelihood*	Impact*	Mitigation
Developer (Countryside Zest) fails to deliver or delivers left turn slip late	1	3	Conduct early discussions and continue to negotiate
Unable to reap benefits of improved bus lane from Pratts Farm Roundabout to Nabbotts Farm Roundabout	2	2	Conduct early discussions with Park and Ride operator
Discovery of undetected utilities during construction	3	3	Undertake early surveys with trial holes
Ancient Woodland abutting Sheepcotes Roundabout is impacted by works	1	3	Ensure plans avoid any environmental or ecological impact on the woodland
Uncoordinated traffic management could have serious impact on traffic in North Chelmsford	1	3	Careful planning associated with in-depth experience should alleviate risk
Tender prices at variance with estimates and client budget	2	3	Obtain early estimates and work with suppliers
Time consuming processes with legal and cost implications	2	3	Commence approval process early
Adverse weather conditions could jeopardize programme timing	2	3	Plan programme taking account of likely weather conditions and provide programme float
Lack of capacity to deliver the programme in full	3	3	Ensure resources are allocated and identify potential contingency support

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