

Capital Project Business Case

Chelmsford City Growth Area Scheme

The template

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

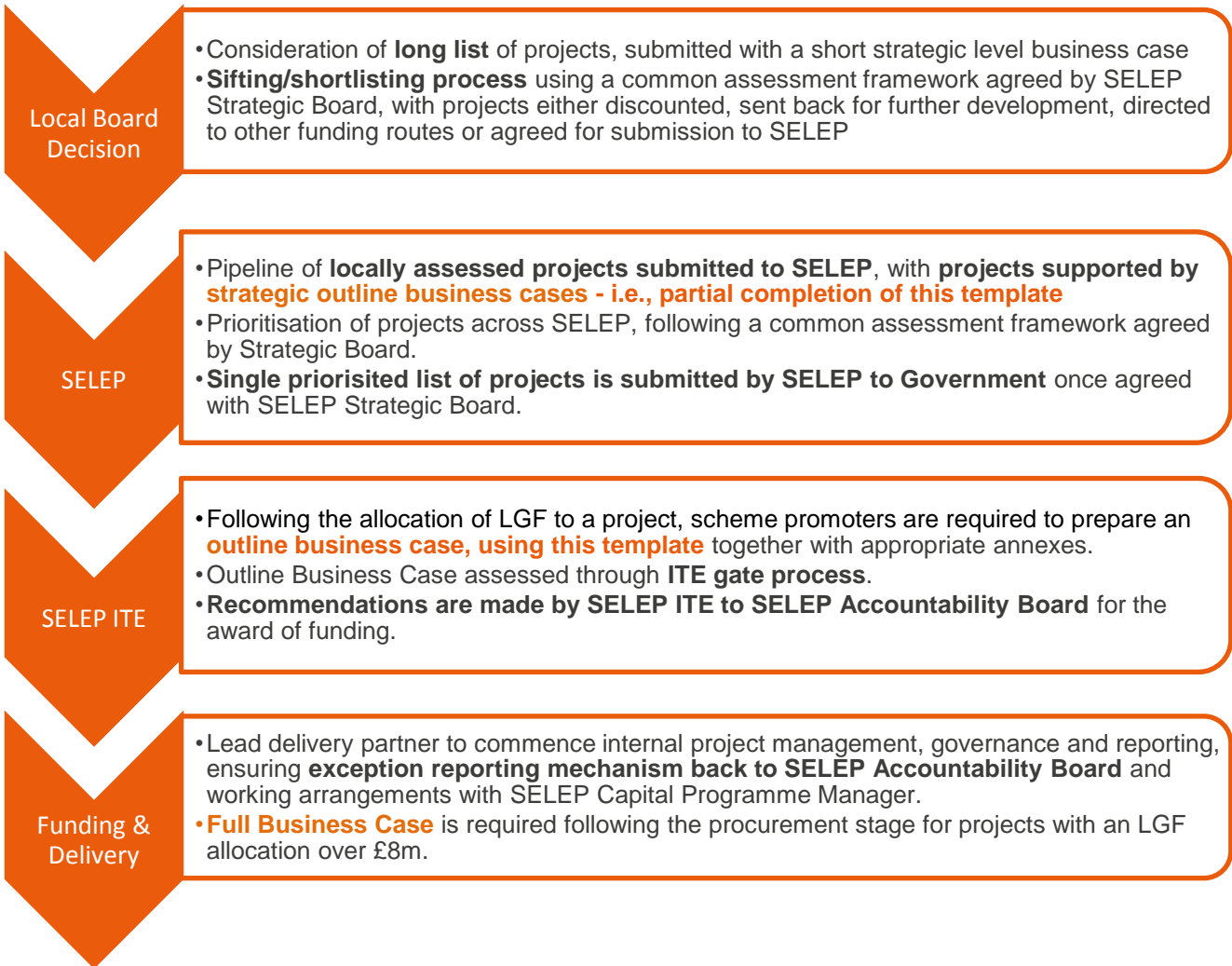
It is also designed to be applicable across all funding streams made available by Government through SELEP. It should be filled in by the scheme promoter – defined as the final beneficiary of funding. In most cases, this is the local authority; but, in some cases, the local authority acts as Accountable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

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

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



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1. PROJECT OVERVIEW

1.1. Project name:

Chelmsford City Growth Area Scheme

1.2. Project type:

A sustainable transport package with highways improvements to key junctions and route corridors, together with a major focus on improvements to passenger transport and cycling provision, such as bus priority measures, cycling links / corridors, plus upgrades to city wide communications and control equipment to enable dynamic traffic management.

1.3. Federated Board Area:

Essex

1.4. Lead County Council / Unitary Authority:

Essex County Council

1.5. Development location:

The City of Chelmsford

1.6. Project Summary:

The purpose of this bid is to deliver a package of schemes to provide additional transportation capacity through enhanced sustainable transport, highways capacity improvements and key safety and technology upgrades for the City of Chelmsford.

The City of Chelmsford is undergoing significant growth and it is essential to keep people and goods moving freely and easily around the city. Currently, Chelmsford's roads are under a lot of pressure, with only 4% capacity remaining on the City Centre core area highway network during morning and evening peak times, meaning that its sensitivity to incidents is heightened. If nothing is done to improve transport accessibility and provide more options for people to travel around, future growth will lead to gridlock on the city's roads, thereby impacting the city's economy and having a negative effect on the quality of the environment.

The County Council has developed a vision of a 'Future Transport Network' for the city, with the intention to make all modes of transport attractive, giving people a real and credible choice in the way they travel to work, to the shops and to their families / friends, and, by so doing, supporting the city's expanding economy. Encouraging more sustainable travel on foot, by bicycle, and on public transport will reduce the number of cars making short journeys (i.e. less than 5kms) on the road network, improving congestion and air quality for all residents.

Following a series of public consultations and discussions with stakeholders, 28 improvement schemes have been identified within the three key element groups of bus, cycling and highways. When linked together with signage and technology enhancements, the total package will make a step change in responding to the identified transport problems in the City of Chelmsford.



Figure 1: Interlinked Chelmsford Transport Solutions

Drawings of the proposed improvements can be found at Appendix F.

1.7. Delivery partners:

Partner	Nature and / or value of involvement (financial, operational etc)
Essex County Council	Financial, operational, programme management and project direction
Essex Highways	Responsible for design, management and coordinating delivery of schemes
Ringway Jacobs	Responsible for constructing schemes

1.8. Promoting Body:

Essex County Council

1.9. Senior Responsible Owner (SRO):

Andrew Cook, Director, Highways & Transportation, ECC

1.10. Total project value and funding sources:

Funding source	Amount (£m)	Constraints, dependencies or risks and mitigation
SELEP	£10.000	Dependent on this bid
ECC	£4.913	Confirmed
Total project value	£14.913	

1.11. SELEP funding request, including type (LGF, GPF etc.):

£10.0m capital funding is requested from SELEP in the form of a financial contribution.

The funding will not constitute State Aid.

1.12. Exemptions:

This scheme, as defined, is not subject to any Value for Money exemptions.

1.13. Key dates:

North Chelmsford

Project milestone	Indicative date
Preliminary design	Now
Detailed design	June 2018
Tender	March 2019
Start construction	January 2020
End construction	March 2021

West Chelmsford

Project milestone	Indicative date
Preliminary design	Now
Detailed design	December 2017
Tender	January 2018
Start construction	April 2018
End construction	December 2018

Chelmsford City Centre

Project milestone	Indicative date
Preliminary design	Now
Detailed design	September 2018
Tender	October 2018
Start construction	March 2019
End construction	March 2020

Parkway Corridor

Project milestone	Indicative date
Preliminary design	Now
Detailed design	December 2017
Tender	March 2018
Start construction	July 2018
End construction	December 2019

South & East Chelmsford

Project milestone	Indicative date
Preliminary design	Now
Detailed design	March 2018
Tender	June 2018
Start construction	March 2019
End construction	September 2019

City-wide Signage

Project milestone	Indicative date
Preliminary design	Now
Detailed design	March 2018
Tender	June 2018
Start construction	March 2019
End construction	March 2020

A summary Gantt chart detailing all of the schemes can be seen at Appendix C.

1.14. Project development stage:

Project development stages completed to date			
Task	Description	Outputs achieved	Timescale
Proposal	Detailed study	Completed – paper issued	2017
Public Consultation	Review options	Completed – options identified and prioritised	2017
Design	Preliminary design	Completed – feasibility, costs and drawings	2017
Project development stages to be completed			
Task	Description	Timescale	
Business Case	Full Business Case – this bid	Oct 2017 to Feb 2018	
Design	Detailed design	Nov 2017 to Sep 2018	

1.15. Proposed completion of outputs:

Other Chelmsford related projects funded by SELEP:-

- Chelmsford to Maldon RBS – £2m funding, approved in 2015 with construction completed December 2016
- Chelmsford Mill Yard – £3.0m funding, approved in 2015 with construction due to be completed by March 2018
- Chelmsford to Braintree RBS – £3.7m funding, approved at the November 2016 Accountability Board, with work due to start January 2018 and to be completed by March 2020.
- Chelmsford to Harlow RBS – £2.2m funding, submission to November 2017 Accountability Board, with work due to start March 2018 and to be completed by September 2019
- Chelmsford Beaulieu Park Station - £12m funding secured for scheme delivery with completion by 2023.

2. STRATEGIC CASE

2.1. Scope / Scheme Description:

The City of Chelmsford is undergoing significant growth and it is essential to keep people and goods moving freely and easily around the city. Currently, Chelmsford's roads are under a lot of pressure, with only 4% capacity remaining on the highway network during morning and evening peak times, meaning that its sensitivity to incident is heightened. If nothing is done to improve transport accessibility and provide more options for people to travel around, future growth will lead to gridlock on the city's roads, thereby impacting the city's economy and having a negative effect on the quality of the environment.

The County Council has developed a vision of a 'Future Transport Network' for the city, with the intention to make all modes of transport attractive, giving people real and credible choice in the way they travel to work, to the shops and to their families / friends, and, by so doing, supporting the city's expanding economy. Encouraging more sustainable travel on foot, by bicycle, and on public transport will reduce the number of cars making short journeys (ie less than 5kms) on the road network, improving congestion and air quality for all residents.

Following a series of public consultations and discussions with stakeholders, 28 improvement schemes have been identified within the three key element groups of bus, cycling and highways. When linked together with signage and technology enhancements, the total package will make a step change in responding to the identified transport problems in the City of Chelmsford.

- **North Chelmsford** – 11 schemes in total, which propose changes and improvements to junctions and road layouts, footways and cycle routes, crossings, and cycling connectivity:-
 1. Broomfield Road Corridor
 2. Great Waltham to City Centre Cycle Route
 3. Essex Regiment Way Crossing
 4. Chelmer Valley Road
 5. Lawn Lane Cycle Route
 6. New Nabbotts Way Cycle Route (North)
 7. New Nabbotts Way Cycle Route (South)
 8. Springfield Road (near Pump Lane) Toucan Crossing
 9. Oliver Way Cycle Route
 10. Pump Lane Cycle Route
 11. Patching Hall Lane Cycle Route

- **West Chelmsford** – 4 schemes in total - three are centred on proposals for improvements to footways, cycle routes and cycling connectivity, and one proposes enforcement and extension of an existing bus lane restriction:-
 12. Melbourne Avenue Cycle Route
 13. Writtle to City Centre Cycle Route Improvements
 14. Admirals Park Bridge Improvements
 15. New London Road Bus Lane Improvements

- **Chelmsford City Centre** – 4 schemes in total, which propose changes and improvements to cycleways and footways, as well as cycling connectivity and the implementation of crossings and additional parking provisions for people who cycle:-
 16. Tindal Square Closure
 17. Chelmsford City Centre Cycling Connectivity
 18. New Street Cycle Route
 19. City Centre Cycle Parking

- **Parkway Corridor** – 5 schemes – Army & Navy Roundabout, new Bus Gate, Parkway Corridor Improvements, extended Bus Lanes, Key Junction Improvements, new and improved cycle routes:-

- 20. Army & Navy Roundabout Improvements: Baddow Road Bus Gate (repeated in Volume 5)
- 21. Parkway Westbound: Bus Priority Lane and Improvements to Road Layout
- 22. Manor Road Cycling Improvements
- 23. New London Road/Parkway Junction Enhancements
- 24. Odeon Roundabout / High Bridge Road – Making Left Turn Restrictions Permanent

- **South & East Chelmsford** – 4 schemes – new and improved cycle routes and connectivity of the existing cycling network:-
 - 25. Great Baddow to City Centre Cycle Route
 - 26. Chelmer Village Way Cycling Route
 - 27. Beehive Lane and Loftin Way Connections
 - 28. Great Baddow High School Cycling Route
- **City-wide Signage and Technology** – new and improved communications equipment and controllers plus improved directional signage (a summary of these proposals can be found at Appendix G):-
 - 29. A signage strategy for the city and upgrade to the directional signage, traffic management and information systems around the key roads within and around the city of Chelmsford.

Objectives

Seven objectives have been determined for the Chelmsford City Growth Area Scheme:

1. **Connectivity** – Provide high quality transport improvements and enhance connectivity in Chelmsford for all modes of transport;
2. **Economic Growth** – Support and facilitate sustainable, economic growth and regeneration;
3. **Capacity Management** – Reduce congestion and manage traffic distribution across Chelmsford's road network to improve journey time reliability and predictability, maximising the effective capacity through innovative solutions;
4. **Sustainable Transport Modes** – Encourage increased use of sustainable transport modes and services (bus, cycling, walking) by supporting improved accessibility, travel choice, community cohesion and social inclusion through the integrated public transport network;
5. **Environment** – Contribute to protecting and enhancing the natural, built and historic environment, to maintain a high quality of life and reduce pollution;
6. **Safety** – Improve safety on the transport network and enhance / promote a safe and secure travelling environment; and
7. **Resilience** – Secure and maintain all transport assets to an appropriate standard and ensure that the transport network is available for use.

Outcomes will primarily be:-

- To improve safety, especially for cyclists (reduced collisions)
- To improve sustainable transport (increased number of bus passengers, pedestrians and cyclists)
- To improve journey times and reliability for all vehicles (JT flows etc)
- City centre growth (homes and jobs)
- Completion of at least 4,350 new homes in north Chelmsford (new homes)
- To support economic growth and businesses (jobs and new starts / builds)
- To provide up to 250 jobs associated with the new retail development, a new hotel and a new school in north Chelmsford (new jobs).

Therefore, the package of schemes comprises highways and public transport improvements to key corridors and completes missing links in the cycling network, which together will make a real difference to transportation in Chelmsford.

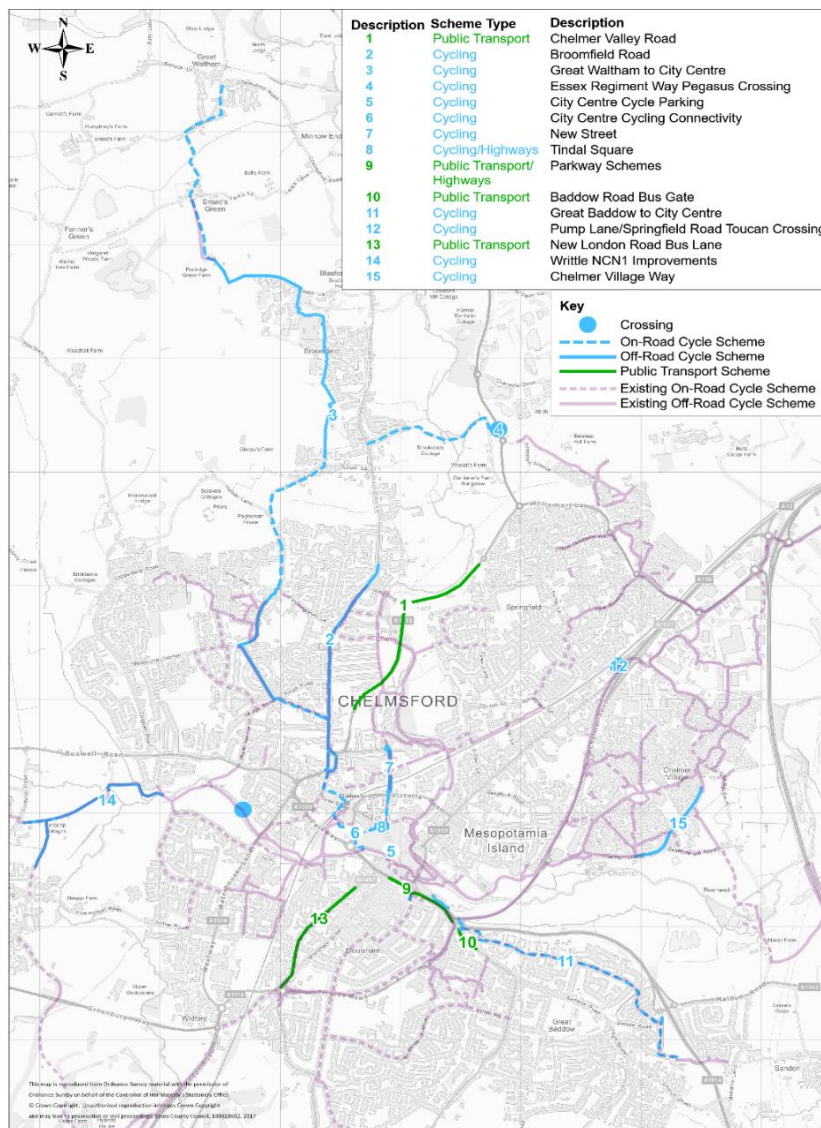


Figure 2: Scheme Location Summary

2.2. Location description:

Location

Chelmsford is the county city of Essex and is approximately 32 miles north east from Charing Cross, London.

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.

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, with an overall district 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 to 192,000 by 2022 with a further 30,000 new residents anticipated by 2036.

Transport Connections – Chelmsford

The A12 passes around the eastern side of Chelmsford on its way 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 12 miles away and the M11 is 15 miles away. The junction with the A130 and A13 (Sadlers) is some 12 miles 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 8.5m entries and exits in 2015/16. Services provide up to ten trains per hour in peak times. In the longer term, by 2023, 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 mostly 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, Stephensons of Essex, Hedingham Omnibus and Network Colchester.

Chelmsford has two Park and Ride services – Sandon (with 1,450 spaces) which serves the east of Chelmsford and Chelmer Valley (with 1,000 spaces) located on the A130 / A131 corridor serving the north of Chelmsford.

Southend Airport is some 20 miles south east of Chelmsford (via the A130 and A127), whilst Stansted Airport is 18 miles to the north west (via the A130 and A120).

The port of Harwich is some 42 miles to the north east via the A12 and A120. The port of Felixstowe is 50 miles north east via the A12 and A14 and the new container port, DP World, is 22 miles south via the A130, A13 and A1014.

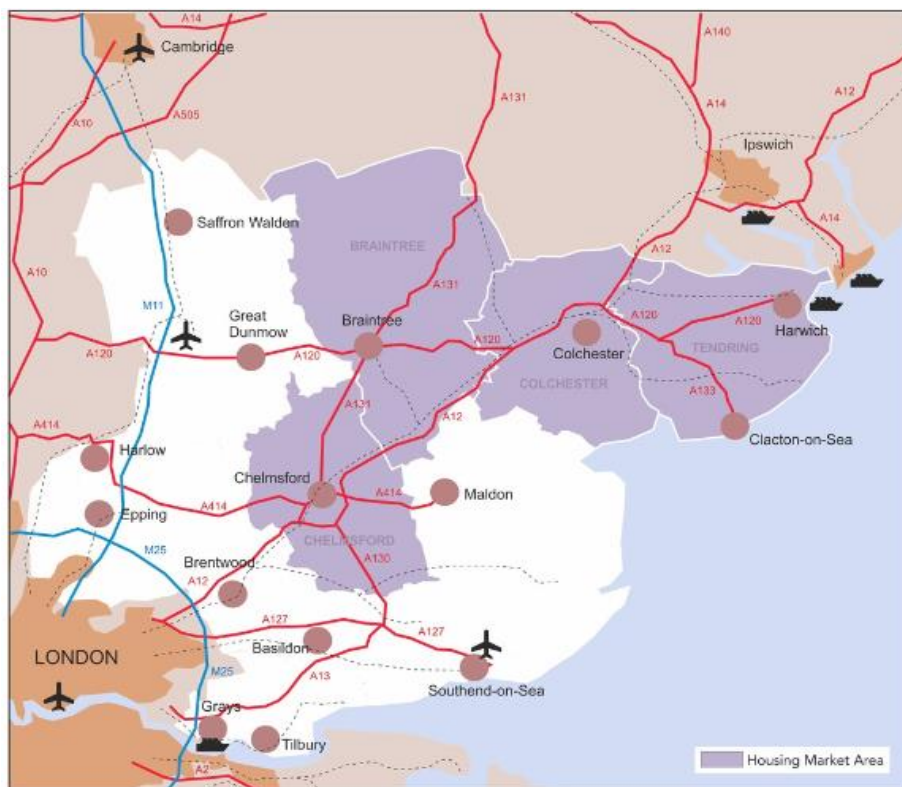


Figure 3: Strategic Transport Network and the Housing Market Area

Chelmsford – Housing

The Assessed Housing Need Study, completed in July 2015, identified 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 next proposed Local Plan period of 2021 to 2036, 14,000 new homes are proposed.

Significant Developments in Chelmsford

There are some significant developments already underway, or recently established, which will drive change over the next few years. These include:

- City Park West Phase 1 – 500 new homes
- City Park West Phase 2 – 426 new homes
- Bond Street – Major new shopping area and restaurants including John Lewis (now opened)
- Marconi Evolution – 280 new homes
- Hanbury Place, Broomfield Hospital Approach – 165 new homes
- Heron Gate, Great Baddow – 53 new homes
- Former St John's Hospital – 127 new homes
- Former St Peter's College development – new housing and schools
- Beaulieu Park – 3,600 homes and Channels – 750 homes
- Beaulieu Park – New hotel, retail development and new school
- Chelmsford Trade Park, Westway (8 new trade outlets)
- Chancerygate Retail Park, Westway (90,000 ft² - 11 Acres)
- Clock Tower Industrial Park, Westway (84,000 ft²) (3 new trade outlets)
- Channels Business Park – 8.5 acres adjacent to the A130.

Future Significant Transport Plans in Chelmsford and Essex

- Widening of the A12 (Highways England RIS)
- Widening of the A130 (underway as part of a PFI agreement)
- Army & Navy Junction Improvements
- Passenger Transport Interchange Improvements
- Chelmsford North East By-Pass (currently subject of a DCLG Housing Infrastructure Fund bid)
- New Park and Rides (3rd Park & Ride to serve West Chelmsford, 4th Park & Ride to serve North-East Chelmsford)
- Beaulieu Park Station (new mainline, three platform station)
- 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

Currently, there are numerous new large scale office buildings 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 4: Bond Street, Chelmsford retail development

The growth in the city is not confined to commercial ventures, but, also, with a large retail and leisure development that opened recently in September 2016. Bond Street, Chelmsford has 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.

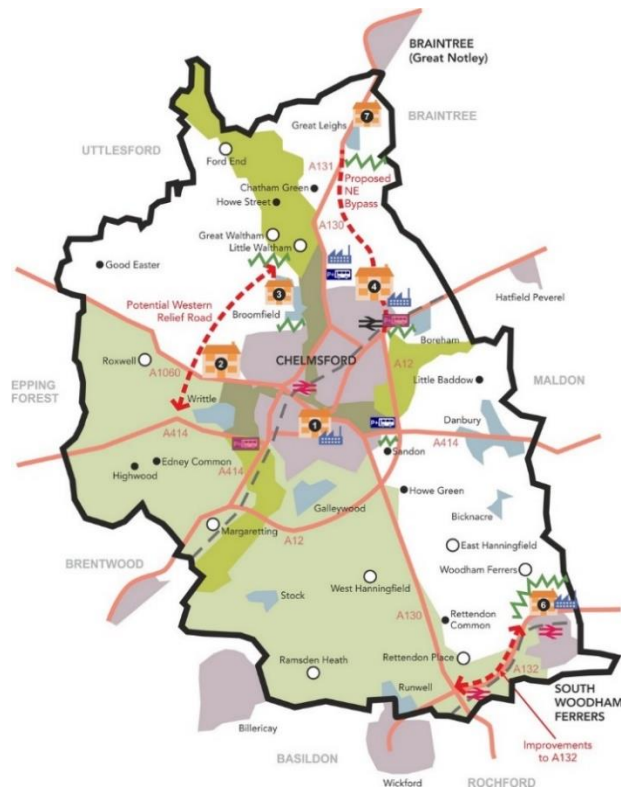


Figure 5: Chelmsford and the surrounding districts

2.3. Policy context:

SELEP Strategy

The Chelmsford City Growth Area Scheme 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.

Essex Strategy

Essex County Council acknowledges that Essex change will over the next 20 years and wants to make sure that change is positive and that it happens in a way that benefits everyone. ECC is working with partners across Essex to develop a single vision for Essex, ‘The Future of Essex’, to enable Essex to seize opportunities offered.

- Unite behind a sense of identity: Busting stereotypes, celebrating achievement, building pride.
- Enjoy life long into old age: Reducing the gap in life expectancy, tackling avoidable physical and mental illnesses and promoting independence wherever possible.
- Provide an equal start for every child: Improving school readiness, supporting safe and secure relationships, and making sure every child can go to a great Essex school.
- Strengthen communities through participation: Nurturing a safer, better connected society by giving people more ways to control and contribute to their communities.
- Develop our county sustainably: Enhancing the things that make Essex a great place to live – our countryside, our coastline, our heritage – and working with local people and communities, to build homes not houses, places not developments, communities not estates.
- Connect us to each other and the world: Tackling congestion on our roads and railways, securing large scale investment in low carbon modes of transport and delivering super-fast broadband to every part of Essex.
- Share prosperity with everyone: Giving more people the chance to achieve the highest qualifications in key growth industries, providing the space for businesses to grow and relocate, and developing a united and relentless focus on attracting and maximising investment in Essex.

The Chelmsford City Growth Area Scheme contributes to all of these outcomes and it is particularly strongly aligned with the delivery of the shared outcomes to develop our county sustainably, connect us to each other and the world and share prosperity with everyone.

Essex County Council has reflected the outcomes sought within ‘The Future of Essex’ in its new Essex Organisational Strategy. The scheme is strongly aligned with the delivery of the new for Essex.

- Enable inclusive economic growth
- Help people get the best start and age well
- Help create great places to grow up, live and work
- Transform the council to achieve more with less

An effective transport system is integral to peoples’ daily lives; it underpins business and commerce; provides access to work, education and training, essential services and leisure activities; and enables people to make the most of opportunities as they arise.

Specifically, the Chelmsford City Growth Area Scheme enables inclusive economic growth within Chelmsford, identified as a major economic engine within the Essex Organisational Strategy and supports the following strategic priorities;

- Enable Essex to attract and grow large firms in high growth industries. The scheme supports trade, by better connecting key economic centres, especially along major transport corridors, and helping people to travel by public transport, bike and on foot.
- Help secure sustainable development and protect the environment. The scheme ensures that growth can be sustainable and accommodated in a way that enhances Essex.
- Facilitate growing communities and new homes, the project enhances transport access to new housing, employment, education and training, and essential services including healthcare, retail and leisure facilities to enable participation in everyday life.

The proposals support the delivery of the Essex Local Transport Plan vision for a transport system that supports sustainable economic growth and helps deliver the best quality of life for the residents of Essex by providing connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration.

They will also facilitate economic growth in the Chelmsford area and the delivery of the Local Development Framework and the emerging Chelmsford New Local Plan creating 3,600 new homes, 40,000m² business park area and in excess of 4,100 jobs. The proposals will also accelerate the pace of development and job creation.

The proposals 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.

Encouraging sustainable travel will ensure that the people in Essex experience a high quality and sustainable environment, and improved public transport, walking and cycling facilities will ensure that the people in Essex can live independently and exercise control over their lives.

ECC will work with local partners to ensure that the preferred option delivers value for money and benefits the people of Essex.

The proposals have been identified as a SELEP priority within the SELEP Strategic Economic Plan.

Greater Essex Growth and Infrastructure Framework (2016-2036)

This report presents an overview of growth patterns and the infrastructure projects needed to support such growth in Essex.

Growth in Greater Essex over recent decades has created a deficit in existing infrastructure.

In particular the growth in journeys by road and rail has not been matched by sufficient government investment to enhance the network. The framework has identified that major transport projects need to secure £26.5 billion (regional) and £5.5 billion (cross-boundary) funding.

Capacity within Greater Essex will also be affected by housing and economic growth in neighbouring areas. In particular, the influence and reach of the London City Region, and the overheating Cambridge economy will impact in different ways on localities within Essex. The emergence of the new London Plan is expected to displace housing and employment from London along strategic growth corridors into Essex with Chelmsford being a main attractor.

Essex Local Transport Plan

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

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 plan 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 A12 / A130 / A131 / A414.
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.

Chelmsford Transport Vision

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.

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 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.

The overarching approach is to develop focus on three strategic zones:-

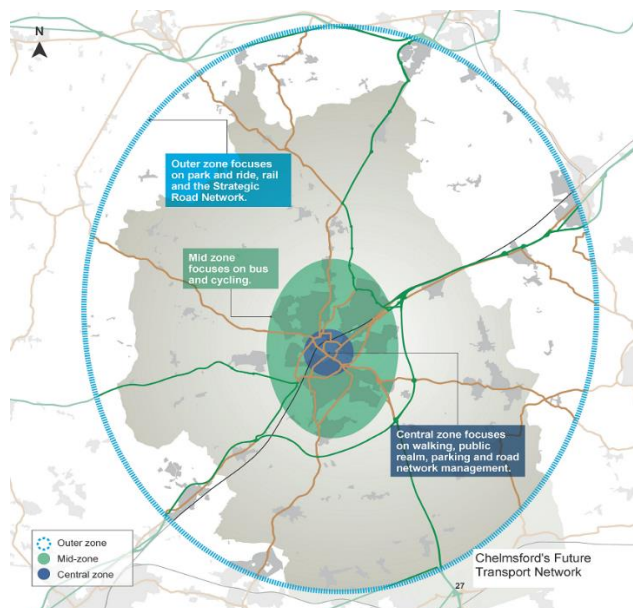


Figure 6: Chelmsford's Zones

Outer

- Remove as much traffic as possible on the outskirts of the city and beyond
- Utilise the existing and potential future Park and Rides (Park and Ride Strategy)
- Encourage rail use to access Chelmsford (Rail Strategy)
- Efficient utilisation of the strategic route network to direct people onto the most appropriate routes into the city centre (Network Management Strategy).

Mid

- Encourage trips originating within Chelmsford to be made by sustainable modes (Bus Strategy and Cycling Strategy).

Central

- Improve the pedestrian environment for walking trips and shoppers and visitors (Public Realm Strategy and Walking Strategy)
- Utilise the network to its best advantage by directing trips onto the most appropriate route (Network Management Strategy)
- Direct the remaining car trips to the most appropriate car park (working with Chelmsford City Council to develop a Parking Strategy).

The Chelmsford City Growth Area Scheme is the short term solution to deliver these objectives as it is essential to kick-start a step change in travel behaviour for the future prosperity and health of Chelmsford.

2.4. Need for intervention:

Chelmsford is the county city of Essex with an important regional and sub-regional role, providing jobs, shopping, healthcare, education, leisure and recreation. Being able to access and move around the city easily and without delay is a key element in maintaining Chelmsford's prosperity and supporting future growth.

Current issues

The city is growing and demand for travel on the already busy road network is increasing. Currently, Chelmsford's roads are under a lot of pressure, with only 4% capacity remaining on the highways during morning and evening peak times. This leads to queuing, often for short trips, with only a driver in each car, unreliable journey times, poor air quality, and increased traffic on unsuitable residential streets. It also impacts bus users, and the quality of walking and cycling journeys. These impacts are all consequences of the road network exceeding 95% of its operational capacity, whereby it can no longer cope with incidents, maintenance needs and the level of traffic generally.



Figure 7: Typical Chelmsford traffic

If nothing is done to improve transport accessibility and provide options for people to travel around, future growth will lead to gridlock on the city's roads, which will impact the city's economy and have a negative effect on the quality of the environment.

Vision for Chelmsford to 2036

The 'Vision for Chelmsford to 2036' is for the city to have a transport system which is 'best in class' - rivalling similar size cities across the UK - offering enhanced connectivity and choice, and access to opportunities for residents, commuters, visitors and businesses, to support the sustainable economic growth of the city.

A new and strategic approach is required to help solve the issues that are being experienced currently on Chelmsford's transport network. It is necessary to ensure that the benefits of Chelmsford can be used and enjoyed for generations to come. In particular, it is necessary to challenge the way people think about travelling and to provide viable alternatives to the car.

There simply is not the available space in the centre of Chelmsford to increase existing road capacity, or build new and bigger roads, and urgent action is required to tackle the fact that traffic is still growing. Major stakeholders also share the view that building new roads is not a viable solution to the transport problem, particularly where space is limited, and more development is planned for the city. A strategic approach is required, centred on sustainable transport and development, coupled with a change in attitudes to the use of private vehicles and public transport. It is necessary to look at ways to better use the existing road network in the city centre and give residents, commuters, visitors and businesses more choice and options as to how they can travel.

Public Engagement and Consultation

From the initial Public Engagement conducted in the Spring, the key issues identified were:

- Unreliable and long journey times
- Lack of alternative transport options
- Road safety issues
- Impact of poor air quality on health.

The key feedback received was that focus was required on the following improvements:

- Buses should have priority on the network over other motorised vehicles;
- More reliable bus services and quicker journey times
- Facilities for pedestrians and cyclists should be improved in order to encourage people to walk and cycle more
- Improved safety, security and lighting of cycle routes
- Introduction of more segregated cycle routes.



Figure 8: Public Engagement – February 2017

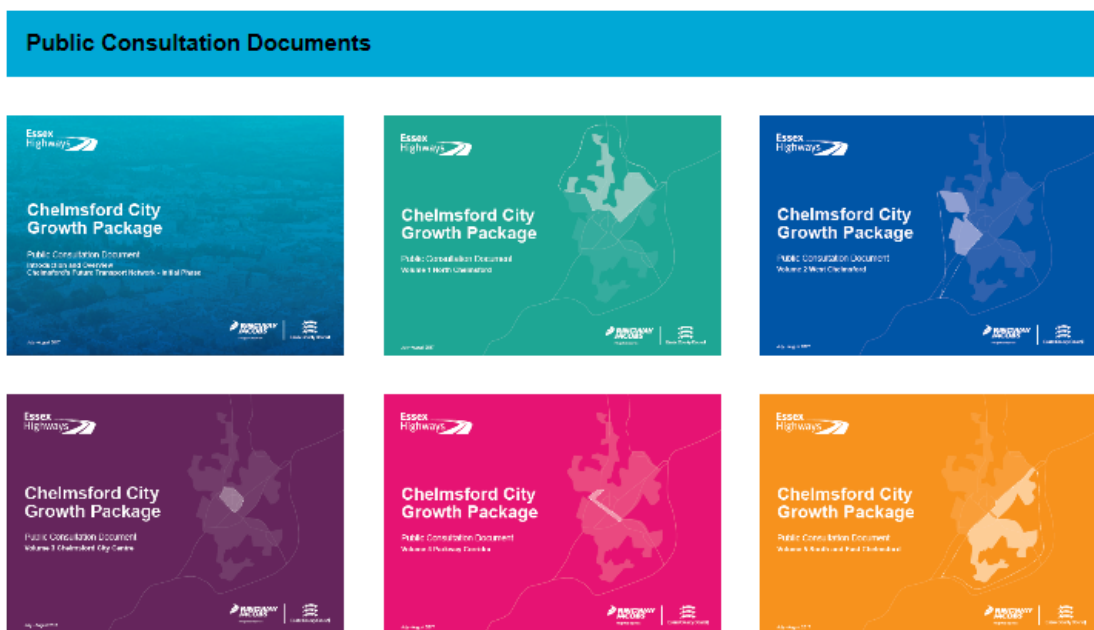


Figure 9: Public Consultation – July / August 2017

The initial Public Engagement was followed up, in July and August, with a full Public Consultation Programme outlining the proposals in detail.

Growth in Chelmsford

The City of Chelmsford is undergoing significant growth and it is essential to keep people and goods moving freely and easily around the city. There is a severe lack of capacity on the city's roads and, with the impending developments, the situation will only get worse.

Chelmsford City Council plans for 10,875 new homes to be built in and around the city before 2036. The first of the areas targeted for development, named 'Central and Urban Chelmsford', is set to provide 3,200 new properties. The majority of these, some 2,000, are intended to be built on brownfield sites in and around the city centre, with an additional 4,000 square metres set aside for office space and 11,500 square metres for food and retail. Proposed sites for these homes include the former gas works and the waterfront off Wharf Road and Navigation Road, and the current Essex Police headquarters off Sandford Road.

The Local Plan also outlines plans for 800 new homes to be built in west Chelmsford (the Warren Farm area to the north of Roxwell Road), with an additional 400 homes and 5,000 square metres of office space and, also, high tech business parks to be built in east Chelmsford (to the east of Great Baddow and the north of Sandon).

The second distinct site earmarked by the council for development is 'North Chelmsford,' with over half of the total number of homes, around 5,500, set to be built in this area.

As many as 4,350 of these will be built in north east Chelmsford at Beaulieu Park, which encompasses land around Chelmer Valley Park and Ride and Channels Golf Club. Construction started two years ago and the first two build phases are now complete. This site will also see 45,000 square metres of office and business space, the delivery of a bypass looping round the north east of the city, an extension of the Chelmer Valley Park and Ride and the provision of new and enhanced cycle routes.

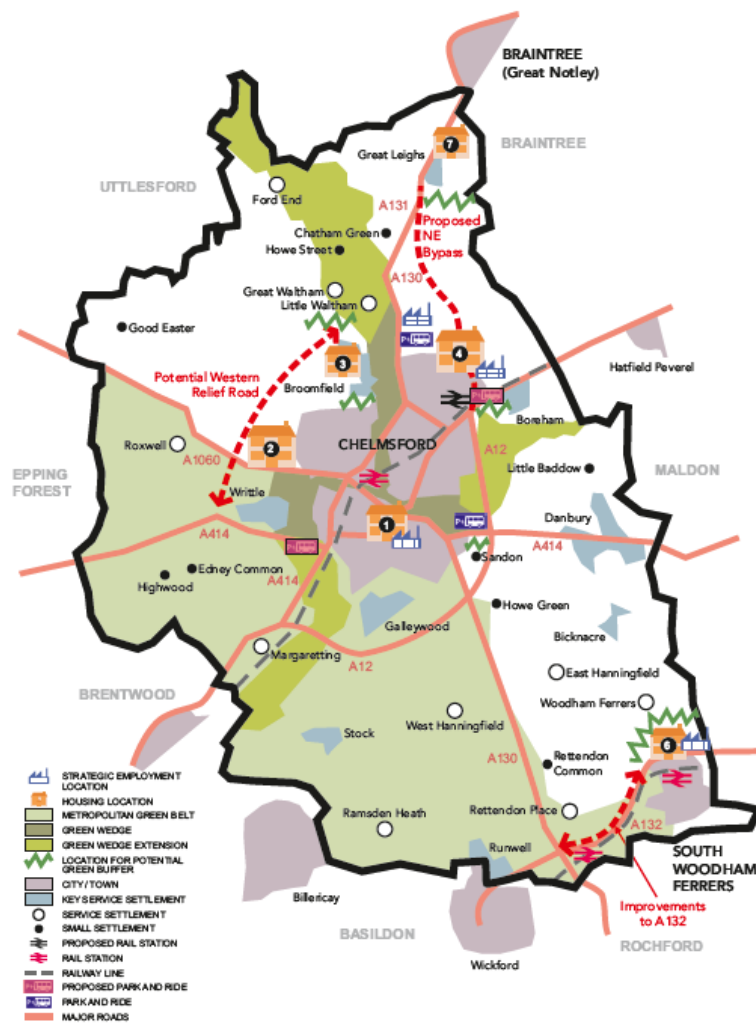


Figure 10: Chelmsford and Proposed Development

A further 750 homes are planned for Moulsham Hall, 350 to the north of Great Leighs, while a plot to the north of Broomfield Hospital will also see an extra 800 homes. Additionally, 145 homes are planned for a small site east of Boreham.

The last of the three sites the council plan to develop is 'South and East Chelmsford,' which will see a total of 1,130 new homes added. The vast majority of these, 1,000 in total, will be built just to the north of South Woodham Ferrers, with plans for 1,000 square metres of flexible business space and 1,900 square metres of food retail space.

Traffic Congestion

The following diagrams show the magnitude of peak hour delay in the network, based on 2016 Trafficmaster data.

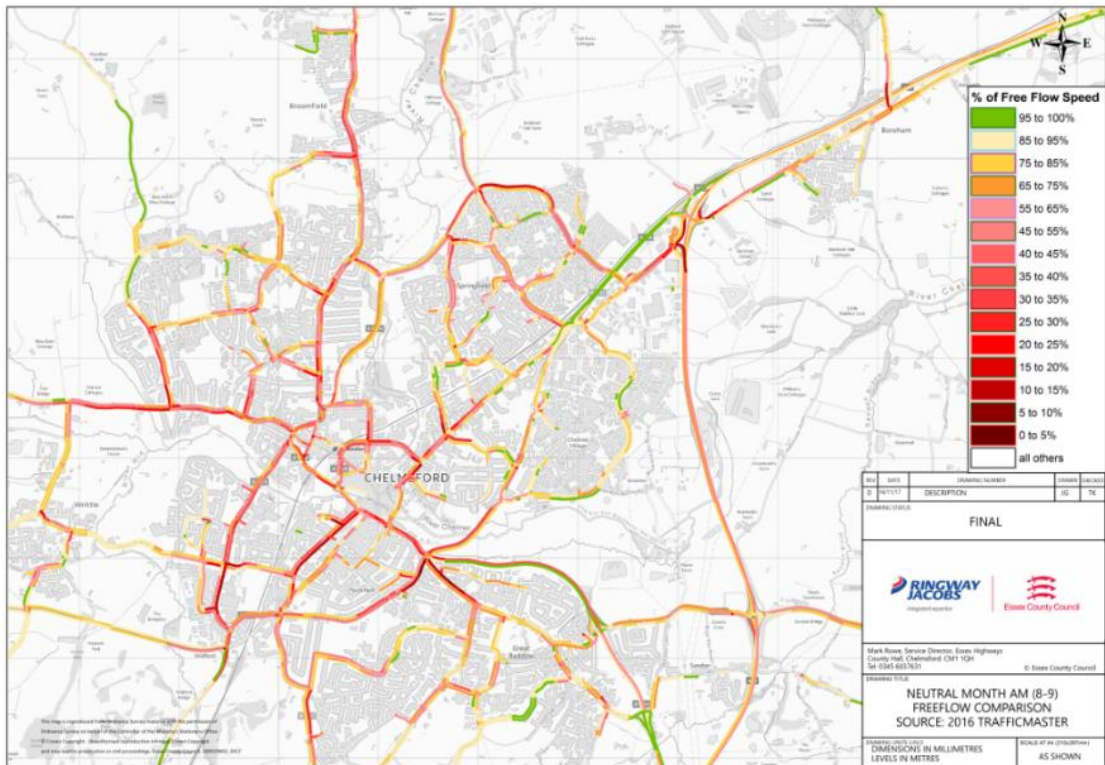


Figure 11: AM Peak Hour Delay Indicator

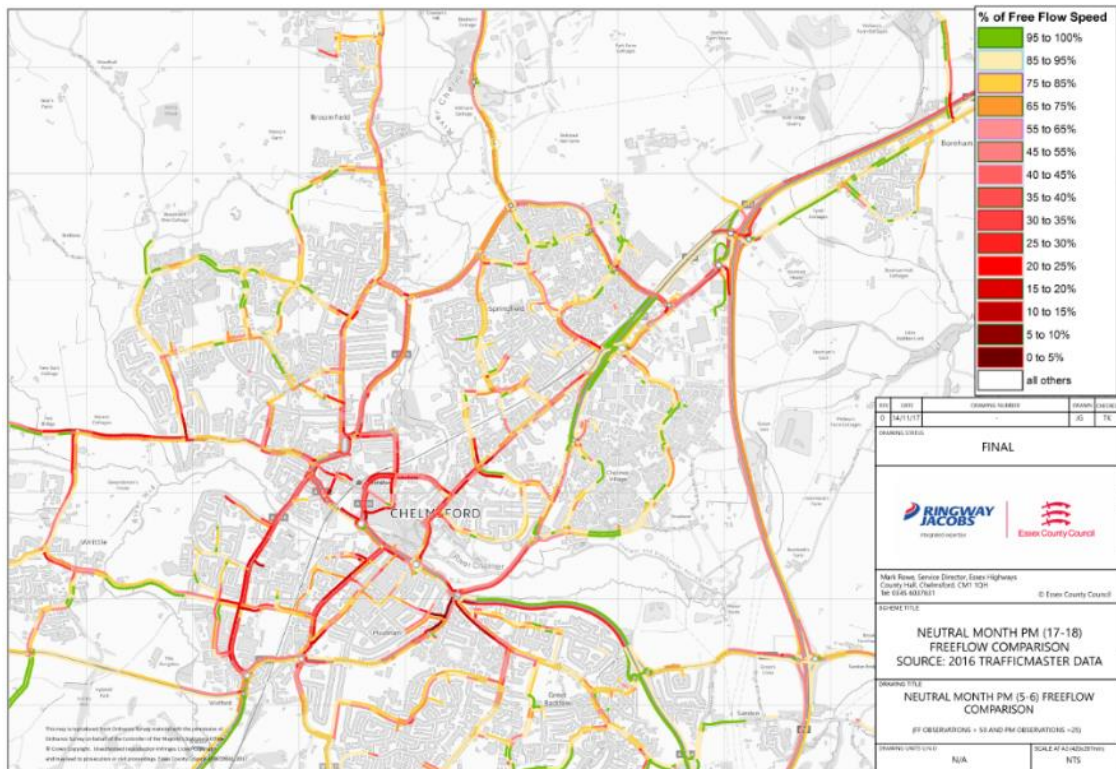


Figure 12: PM Peak Hour Delay Indicator

The levels of peak hour delay, captured by journey times compared with estimated free-flow journey times, are evident particularly in the City Centre and links leading into the centre, including at the Army and Navy Junction, and along Parkway and New London Road.

2.5. Sources of funding:

If funding for this package is not secured, it would not be possible for ECC to fund all of the works without support. Individual elements could be considered, but, as described above, a step change is required and random options on their own would not have the same level of impact.

Doing nothing is not an option, because all of the transport modelling indicates that, with the steady progression of developments in Chelmsford, and a network already at 96% capacity, roads around Chelmsford will be seriously constrained as demand continues to increase.

2.6. Impact of non-intervention (do nothing):

Private funding is not an option, schemes have been cost reduced wherever possible, so the only other opportunities for funding are through SELEP and ECC. Please also see Appendix L for an assessment of each option versus alternatives and consideration of 'do nothing' alternatives.

- **North Chelmsford** – A 'Do Nothing' alternative would clearly be viable, but unacceptable, as the Broomfield Road is the main access to the City's Hospital. Additionally, from a political standpoint, it would not be acceptable to fund developments in other areas of Chelmsford without undertaking improvements in North Chelmsford. For the 'Do Minimum' alternative, one or two elements of the cycling schemes could be postponed, but that would lead to a non-joined-up network which would be regarded as a missed opportunity. The 'Do Something' alternative would fall into the same category as 'Do Minimum' and a missed opportunity. The 'Do Optimum' option would be the complete proposal.
- **West Chelmsford** – A 'Do Nothing' alternative would clearly be viable, but unacceptable, for similar reasons as described above for North Chelmsford. For the 'Do Minimum' alternative, one or two elements of the cycling schemes could be postponed, but that would lead to a non-joined-up network which would be regarded as a missed opportunity. The 'Do Something' alternative would fall into the same category as 'Do Minimum' and a missed opportunity. The 'Do Optimum' option would be the complete proposal.
- **Chelmsford City Centre** – Central Chelmsford requires more urgent action than other areas such that a 'Do Nothing' alternative would be unacceptable. Key stakeholders, who currently support the complete package, may withdraw their backing if key elements of the package were removed. For the 'Do Minimum' alternative, one or two elements of the cycling schemes could be postponed or the enhanced cycle parking could be dropped, but that would be regarded as a missed opportunity. The 'Do Something' alternative would fall into the same category as 'Do Minimum' and a missed opportunity. The 'Do Optimum' option would be the complete proposal.
- **Parkway Corridor** – Given that Parkway experiences the highest density of traffic in Chelmsford with average daily volumes in excess of 55,000 vehicles and the fact that the Army & Navy Roundabout is the single biggest pinch point in Chelmsford, action on this corridor is almost mandatory. For the 'Do Minimum' alternative, as long as the Parkway proposals proceed, individual cycle routes could be dropped. The 'Do Something' alternative would fall into the same category as 'Do Minimum' and be regarded as a missed opportunity. The 'Do Optimum' option would be the complete proposal.
- **South & East Chelmsford** – A 'Do Nothing' alternative would clearly be viable, but unacceptable, for similar reasons as described above for North Chelmsford. For the 'Do Minimum' alternative, one or two elements of the cycling schemes could be postponed, but that would lead to a non-joined-up network which would be regarded as a missed opportunity. The 'Do Something' alternative would fall into the same category as 'Do Minimum' and a missed opportunity. The 'Do Optimum' option would be the complete proposal.
- **City-wide Signage** – Communication is vital and it needs to be across the City. If the opportunity is removed to advise people of route alternatives, parking spaces etc then the benefits of the schemes will be undermined. Therefore, for this part of the package, it should be viewed that there is no viable alternative.

2.7. Objectives of intervention:

Objectives

Table 1 – Objectives versus Problems / Opportunities

	Problems / Opportunities identified in Need for Intervention section					
	Support Growth	Congestion	Safety	Public Transport	Walking / Cycling	Environment
Objective 1 - Connectivity	✓✓	✓✓✓	✓	✓	✓	
Objective 2 - Economic Growth	✓✓✓					
Objective 3 - Capacity Management	✓✓	✓✓✓		✓✓	✓✓	
Objective 4 - Sustainable Transport Modes	✓✓	✓✓✓	✓	✓✓✓	✓✓✓	
Objective 5 - Environment						✓✓✓
Objective 6 - Safety			✓✓✓	✓✓	✓✓	
Objective 7 - Resilience	✓	✓✓	✓	✓	✓	

Seven objectives have been determined for the Chelmsford City Growth Area Scheme:

1. **Connectivity** – Provide high quality transport improvements and enhance connectivity in Chelmsford for all modes of transport;
2. **Economic Growth** – Support and facilitate sustainable, economic growth and regeneration;
3. **Capacity Management** – Reduce congestion and manage traffic distribution across Chelmsford's road network to improve journey time reliability and predictability, maximising the effective capacity through innovative solutions;
4. **Sustainable Transport Modes** – Encourage increased use of sustainable transport modes and services (bus, cycling, walking) by supporting improved accessibility, travel choice, community cohesion and social inclusion through the integrated public transport network;
5. **Environment** – Contribute to protecting and enhancing the natural, built and historic environment, to maintain a high quality of life and reduce pollution;
6. **Safety** – Improve safety on the transport network and enhance / promote a safe and secure travelling environment; and
7. **Resilience** – Secure and maintain all transport assets to an appropriate standard and ensure that the transport network is available for use.

Outcomes will primarily be:-

- To improve safety, especially for cyclists (reduced collisions)
- To improve sustainable transport (increased number of buses and passengers)
- To improve journey times and reliability for all vehicles (JT flows etc)
- Completion of at least 4,350 new homes in north Chelmsford (new homes)
- To support economic growth and businesses (jobs and new starts / builds)
- To provide up to 250 jobs associated with the new retail development, a new hotel and a new school in north Chelmsford (new jobs).

2.8. Constraints:

To date, the identified constraints revolve around public opinion, provided at and following the public consultation. Some have commented that the recommended improvements should be more extensive and do not go far enough, and some have suggested that some of the longer term plans should be brought forward.

In particular, some have specific disagreements with the Baddow Road Bus Gate (where objections were raised on social media through an on-line campaign). However, in response to the comments received on the Bus Gate, the scheme has now been modified to be one that operates at peak time only, which is when the majority of the problems exist.

Also, there are constraints imposed by the requirement to address the impact of air quality issues, such as at Baddow Road. Air quality modelling and assessments have found that, with the introduction of the package of schemes, there are 24 exceedances. However, 22 of these were improvements (21 small and one imperceptible) and only two were minor worsenings. The majority of improvements were around the Army & Navy Roundabout, Parkway and New London Road.

Additionally, within the town centre, there are land constraints which prevent a larger scale resolution to some of the highway problems.

A list of powers, consents and required orders are shown at Appendix H.

2.9. Scheme dependencies:

To deliver a step change in the traffic congestion, the vast majority of these schemes will all need to go ahead, because, if only parts of these improvement packages are delivered, it will not have the required effect. For example, the improvements delivered by the upgraded Scoot system are fundamental towards better flowing traffic and reducing delays on Parkway, but to optimize the improvements it is essential that the gap closure at New London Road proceeds.

To provide complete cycling corridors, it will be necessary to complete all the elements to link the corridors to allow uninterrupted cycling journeys, otherwise, new cyclists will not be encouraged to start cycling as a viable alternative to using personal car transport.

Scheme dependencies and interdependencies are shown in detail on Appendix J.

2.10. Expected benefits:

See Significant Developments listed above in Section 2.1.

- Homes – Supporting housing growth and specifically the 5,900 new homes, as listed above
- Jobs – New trade parks, retail development, hotel and schools – up to 600 new jobs
- Other – Supporting sustainable economic growth; increased use of the public transport network; increased use of the cycle network; and reduced congestion on the network, resulting from modal shift etc.

2.11. Key risks:

Table 2 – Key Risks

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

Please note that some mitigations noted above have already commenced.

Further detail on risks and QRA can be found at Appendix B.

3. ECONOMIC CASE

3.1. Options assessment:

Work Streams

Four separate work stream studies were commissioned in January 2016 to investigate and develop a series of options / schemes to provide a package of potential measures. Each work stream developed a series of specific schemes under the headings of:

- Cycling Action Plan
- Bus Corridor Improvements Study
- Signage Strategy with resulting Asset Register
- Highways Technical Notes:
 - TN01 Army and Navy – roundabout options
 - TN02 Highways schemes
 - TN03 Army and Navy – Baddow Road closure
 - TN04 Closure of Tindal Square.

The work carried out in these individual studies incorporated Steps 1 to 5 of the DfT Transport Appraisal Process (TAP) which included:

- Step 1 – Understanding the Current Situation
- Step 2 – Understanding the Future Situation
- Step 3 – Establishing the need for intervention
- Step 4 – Identifying a clear set of intervention-specific objectives to address the identified problems (for individual studies)
- Step 5 – Generating Options.

The purpose of the option generation process was to develop a range of measures or interventions that would have the potential to achieve the objectives identified in section 2.1. An initial set of transport improvement options were developed through a high level review, informed by:

- Relevant policy and strategy documents
- Consultation with ECC officers
- Analysis of current operations
- Recent studies
- Information from previous workshops
- Stakeholder input
- Consultation and engagement exercises.

The initial options aimed to support strategic issues, and also concerns of a more localised nature, tackling areas and facilities that could be enhanced and developed in order to improve connectivity, reduce congestion and enhance accessibility for all modes.

The options that emerged from the studies included a range of cycling, highway infrastructure, public transport and signage schemes aimed at resolving the identified network issues. In total, 83 options were identified for cycling, 31 for bus corridor improvements, 4 for the Army & Navy Roundabout and 5 categories of signage improvements.

These 123 options were presented to a workshop, conducted in September 2016, which then, after review and discussion, identified a list of 103 potential improvements over the whole of Chelmsford. Using a bespoke sifting analysis tool, based on the DfT EAST sifting tool, the list of options was reduced to a more manageable and prioritised list of 30 schemes.

Over the next few months, ECC and Essex Highways held a number of individual stakeholder workshops / engagement events with representatives from transportation service providers, schools, the Emergency Services, cycling groups and key officers from within Essex County Council who had particular knowledge of Chelmsford and the surrounding area.

A public engagement document (Chelmsford's Future Transport Network) was issued in February 2017 (<http://www.essexhighways.org/uploads/Highway-Schemes/Major-Schemes/Chelmsford-Future-Transport-Network/Chelmsford-Future-Transport-Network.pdf>) which set out Chelmsford's 'transport story' and highlighted the importance of targeting Chelmsford's most congested transport corridors. This approach made sure that everyone had the opportunity to discuss the current issues and transport vision and could take a strategic look at the issues facing Chelmsford's transport network. Through a series of public exhibitions, a workshop and feedback opportunities, the project team was provided with ideas and concerns from those that travel to, or within Chelmsford, for a variety of purposes, to help influence how Chelmsford's network should be shaped and on which key corridors work should be focussed.

The project team continued to speak with members of the public throughout March 2017. From the Public Engagement Documents and Information Leaflets handed out to residents, commuters, visitors and businesses in Chelmsford, over 350 questionnaire responses were received by the end of April 2017.

The full Public Consultation was held over July and August in a number of locations around Chelmsford (<http://www.essexhighways.org/tell-us/highway-schemes-and-developments/major-schemes/chelmsford-city-growth-package.aspx>). The Consultation Final Report and a short summary can be found at Appendix K.

The key messages and feedback received from the questionnaire responses can be summarised as follows:

- Experience of unreliable and long journey times, a lack of alternative transport options, and road safety issues were highlighted as particularly concerning for people travelling around Chelmsford;
- Many respondents agreed that buses should have priority on the network over other motorised vehicles;
- When asked what would encourage people to take the bus, instead of driving for distances less than 5km, provision of more reliable bus services and quicker journey times were amongst the most influential factors mentioned
- Many respondents said that facilities for pedestrians and cyclists should be improved in order to encourage people to walk and cycle more.
- Improved safety, security and lighting of cycle routes, and the introduction of more segregated cycle routes, were suggested as the most influential ways to encourage respondents to walk and cycle more frequently;
- The majority of respondents were concerned about the impact of poor air quality on their health;
- More than three quarters of respondents agreed that the key transport corridors identified in the engagement were the right ones on which to focus improvements.

Introduction

This section presents the methodology adopted for the option generation and appraisal process, including the consultation and engagement undertaken.

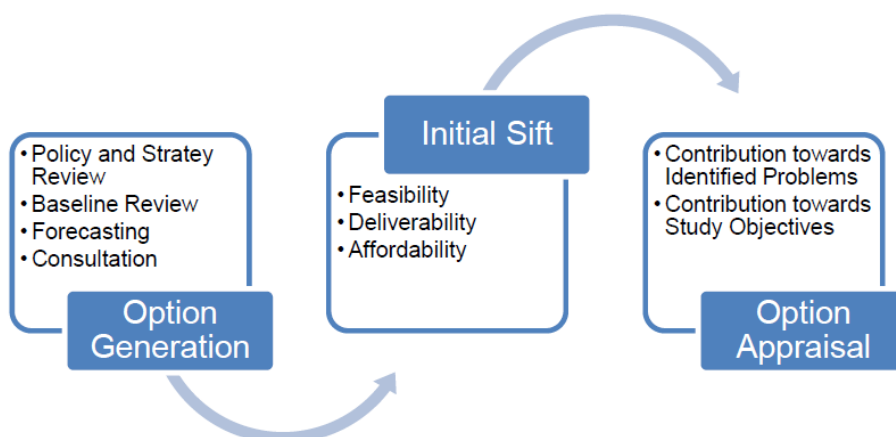


Figure 13 - Overview of Approach

Option Generation

The purpose of the option generation process was to develop a range of measures or interventions that will have the potential to achieve the objectives identified above in section 2.7. An initial set of transport improvement options were developed through a high level review, informed by the following sources and approaches:

- Relevant policy and strategy documents
- Recent studies
- Individual Studies
- Consultation and engagement exercises
- Trafficmaster
- Modelling.

The initial identified options aimed to support strategic issues, and also concerns of a more localised nature, tackling areas and facilities that could be enhanced and developed in order to improve connectivity, reduce congestion and enhance accessibility for all modes.

The options that emerged from the studies included a range of cycling, highway infrastructure, public transport and signage schemes aimed at resolving the identified network issues. The options were grouped by type and each assigned a unique code for reference.

Options Generated from Individual Studies (See Appendix L)

The individual reports identified options which are summarised below:

- Chelmsford Cycling Action Plan – 83 options, distributed throughout Chelmsford, with a range of implementation timeframes and costs. Some options have been grouped as corridor improvements, where separate options could combine to form longer connected cycling corridors. However, the individual options were also included to highlight key opportunities along a corridor, if it cannot be realised in full.
- Chelmsford Bus Corridor Improvements Study – 31 options relating to public transport improvements around Chelmsford. Some long term schemes may require funding outside of SELEP and outside the timeframe of this bid.
- Chelmsford Signage Strategy – Many individual sign related options have been grouped into three distinct categories (communications and traffic control, traffic direction management and enhanced signalisation of specific junctions) to address:-
 - upgrading of the information systems (Stratos)
 - correcting and improving erroneous signage
 - removal of existing confusing signage clutter
 - provision of new technology signage.

Individual sign options would have little positive effect on their own, when compared to other options, to score highly in the sifting process and, therefore, a grouped approach was used.

Initial Sift and Option Appraisal Methodology

The assessment of potential options was carried out using a bespoke appraisal framework tool. The framework was developed to assess options based on their ability to contribute to the following criteria:

- Scheme Deliverability, Feasibility, Affordability
- Identified Problems / Issues
- Study Objectives.

The framework aims to provide an efficient, robust and easily presentable means of identifying legitimate options to be considered further. It has been developed with consideration of the DfT's Early Assessment and Sifting Tool (EAST), and supports the 'Scale of Impact' and 'Fit with other objectives' criteria within the Tool.

The framework is spreadsheet based and each option includes a specific reference and concept scheme description. An outline cost and an indicative timeframe were also included. The categories were indicative and aimed to assist the prioritisation of the options for improvement. Estimates were based on experience of the timescales and costs associated with implementing similar schemes, but will not be used for any purpose, other than as a comparative tool for this exercise.

Each option was subject to an initial sift against a series of supporting analysis to ensure it was appropriate for further appraisal as part of the strategy development. The broad criteria on which this sifting process focused included deliverability, feasibility and affordability, descriptions of which are set out in Table 3 below, with outcomes classified as 'likely' 'likely (with challenges)' and 'unlikely'.

Table 3 - Supporting Analysis Sifting Criteria

Supporting Analysis	Description
Deliverability	Consideration of issues around deliverability e.g. in terms of political, planning, timescale or third party issues
Feasibility	Consideration of practicalities which may present issues in delivery (e.g. physical constraint, land availability and design standards)
Affordability	Assessing the extent of additional funding that would be required to deliver the scheme and whether this is likely to be available through existing funding sources

Options which satisfied all the criteria were progressed to the next stage of the option appraisal tool. Where an option had a mixed score against one or more of the criteria, a judgement decision was made and justification given as to whether or not there was merit in appraising that option further. Any options which clearly did not achieve one or more of the above criteria were discounted from future consideration within this study. Adequate justification for this decision was recorded to provide a robust audit trail of the process.

Key problems and study objectives are set out as above. Each remaining option was scored on a five point scale against these elements, using the scoring system outlined in Table 4, which was then combined to produce an overall score for each. The scoring process was based on existing evidence, where available, and judgements based on experience to allow a qualitative approach to be adopted. The simple numerical basis aimed to provide consistency in the approach to appraising each option.

Table 4 - Qualitative Assessment Scoring System

2	Large beneficial impact
1	Beneficial impact
0	Neutral / marginal impact
-1	Adverse impact
-2	Large adverse impact

The appraisal results for each of the options put forward were used as the basis for selecting and prioritising the most appropriate solutions.

Chelmsford City Growth Area Scheme

The Chelmsford City Growth Area Scheme is an output of the appraisal process. The qualitative appraisal process examined the extent to which each option would address the identified issues and contribute to the study objectives. The scores for each category were combined to produce an overall score for each option, which allowed options to be ranked and prioritised. The better performing options were taken forward for further consideration and development as part of the Package. Both costs and timeframes were presented as broad ranges for comparative purposes and to assist phasing recommendations with final costs depending on a range of detailed design and programme factors.

The Package is phased into three discrete time periods;

- Phase 1 (short-term 2017-2018) £1 million budget,
- Phase 2 (medium term 2018-2019) £3 million budget,
- Phase 3 (long term 2019-2021) £11 million budget.

The options were coded and labelled by mode as highway infrastructure improvements, public transport, cycling measures and signage. Due to the large number of options, some schemes and modes are complimentary and have already been considered during option generation e.g. public transport and cycling. Further combinations of all options for the strategic routes which are experiencing the greatest challenges have also been considered.

Bus corridor engineering improvements:

- C1 Park & Ride Boreham Interchange – to be brought online in conjunction with the opening up of the area through highway improvements for the new train station and new housing development
- C2 Bus priority schemes on Springfield Road / Chelmer Valley Road – these should developed when required as new development in North Chelmsford, in particular, comes forward
- C6 Park & Ride site Rainsford Road A1060 – complete loop of Park & Ride sites around Chelmsford.
- C7 Rainsford Road / Duke Street contra-flow – bring online when bus demand along the Rainsford Road corridor and from Parkway on to Rainsford Lane (A1016) increases sufficiently for additional bus priority
- C8 Bus / cycling corridor between Broomfield Hospital and Chelmer Valley Park & Ride – direct link will increase sustainable mode demand to the hospital.

Longer Term

The following were regarded as longer term strategic and service development improvements which will be considered outside of the scope of Chelmsford City Growth Area Scheme work:

- C3 Removal of long term car parking from Chelmsford is advocated by CCC and has the ability to open up valuable land in Chelmsford city centre. Park & Ride proposals, in particular, need to be developed with the extraction of long term parking from Chelmsford as a key aim
- C4 Workplace parking levy – this can both support the costs of implementing more sustainable modes, whilst also managing the use of car parking spaces outside the control of both ECC and CCC. This could lead to more economically viable uses of existing car parking spaces
- C5 Implementation of the ChART network strategy from SELEP quick win process, incorporating existing Park & Ride, as well as other strategic bus routes in Chelmsford, into a single network with branding, bus priority measures, common ticketing, and easily accessible real time information
- C6 Light Rail – where the mass transit bus corridors have shown to be a success, plans can be incorporated to convert them into higher capacity light rail corridors, which in turn will make more land available for sustainable development

- C7 Road pricing – at the point where sustainable mode capacity is high, and existing road demand needs to be dampened, road pricing can be used. It would give ECC and CCC additional funding for sustainable mode proposals.

3.2. Preferred option:

The sifting process, together with the consultation results, provided the following results:-

Table 5 – Proposed Schemes

Chelmsford City Growth Area Scheme - Proposed Schemes				
Scheme Title	Consultation Document Volume	RAG Status		
		Achievement of Objectives	Consultation Feedback (Public)	Consultation Feedback (Stakeholders)
Baddow Road Bus Gate (inc. mitigation measures)	V5 - South-Eastern	Green	Red	Red
Broomfield Road	V1 - North	Green	Yellow	Yellow
Chelmer Valley Road	V1 - North	Green	Green	Green
Chelmer Village Way	V1 - North	Green	Green	Green
City Centre Cycle Connectivity	V3 - City Centre	Green	Green	Green
City Centre Cycle Parking	V3 - City Centre	Green	Green	Green
Citywide Signage & Technology	City-wide	Green	Green	Green
Essex Regiment Way Pegasus Crossing	V1 - North	Green	Green	Yellow
Great Baddow to City Centre	V5 - South-Eastern	Green	Yellow	Yellow
Gt Waltham to City Centre	V1 - North	Green	Green	Green
New London Road Bus lane	V2 - West	Green	Green	Yellow
New Street	V3 - City Centre	Green	Green	Green
Parkway - Bus Lane & 3 Lane Running Parkway - Permanent Left Turn Segregation Manor Road Parkway - New London Rd Junction Enhancement New London Road - Left Turn Widen to Parkway	V4 - Parkway	Green	Green	Yellow
Pump Lane / Springfield Road Toucan Crossing	V1 - North	Yellow	Green	Green
Tindal Square Pedestrianisation	V3 - City Centre	Green	Green	Green
Writtle to City Centre Cycling Improvements (NCN1)	V2 - West	Green	Green	Green

3.3. Assessment approach:

See Note on Economic Appraisal at Appendix M.

3.4. Economic appraisal inputs:

See Note on Economic Appraisal at Appendix M and Table below

3.5. Economic appraisal assumptions and results

The LMVR for the Vissim model that was used can be found at Appendix N.

Appraisal Assumptions	Details
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Appraisal Assumptions	Details
WebTAG version	Cycling Schemes: TAG Databook July 2017 Highway and Bus Schemes TUBA 1.9.9
Opening Year, Final Modelled Year and Appraisal Duration	Opening Year – Parkway 2020, Baddow Road Bus Gate 2019, Broomfield Road 2021, Signage / Technology Improvements 2020, Cycling (various) 2020, Bus Lanes (various) 2020. Modelling year assumed to be opening year + 5 years. Duration – Highway Schemes 60 years, Cycling, Signals, Signing & Bus Schemes 20 years. 5 year forecast growth factors obtained from 2016 to 2021 TEMPro 7.2 with NTM correction for Chelmsford AM 1.0641 PM 1.0633. Sensitivity test for highway schemes included no-growth scenarios For cycle scheme growth and mode switch Sustrans' Infrastructure tool was used. Sensitivity tests used very low TAG 5.1 elasticity approach for growth.
Price Base / GDP Deflator	GDP deflation values for 2017 prices (111.72) from WebTAG Databook July 2017 For the purposes of economic appraisal for highway, signals, signing and bus schemes 44% optimism bias was added to the scheme costs and 15% added for the cycle schemes. It was considered that cycle schemes comprise better known and less intrusive construction and therefore less subject to uncertainty. For the Broomfield scheme, consisting of both cycle and highway works, a weighted average % OB was applied. 44% optimism bias for cycling schemes was included in the sensitivity tests
Real Growth (i.e. above CPI or below)	Inflation was applied to 2017 Cost Estimates for the Financial Case. For the Economic Case, prices including inflation were deflated and discounted to 2010 values.
Discounting	Per WebTAG and Standard TUBA Economics File discounting at a rate of 3.5% per year for 30 years and 3.0% thereafter.

	£m PV (2010)
Costs*	
Capital Costs	14.010
Renewal Costs	included
Operating Costs	-1.047
Journey Time Benefits	76.685
Highway Externalities	2.418
Revenue	-
Indirect Tax	-1.806
Appraisal	
Present Value of Costs (PVC)	14.010
Present Value of Benefits (PVB)	77.298
Net Present Value (NPV)	63.288
Benefit Cost Ratio (BCR)	5.52 (adjusted to 5.60)

3.6. Sensitivity tests:

The combined result of a series of sensitivity tests, concentrating on those that could provide lower Value for Money indications, rather than higher, essentially no-growth scenarios for highway schemes and using the 0.01 elasticity suggested by WebTAG for cycling mode choice, 44% cost optimism bias for cycling schemes, lower benefits of signing strategy and reverting to VoT Method 3 in TUBA assessments, yielded the result as summarised below.

	£m PV (2010)
Sensitivity Test 1	
Present Value of Costs (PVC)	15.274
Present Value of Benefits (PVB)	29.920
Net Present Value (NPV)	14.646
Benefit Cost Ratio (BCR)	1.96 (adjusted to 1.99)

3.7. Environmental impacts:

Environmental Impact	Assessment
Noise	Slight Beneficial
Air Quality	Slight Beneficial
Greenhouse Gases	Slight Beneficial
Landscape	Slight Beneficial
Townscape	Slight Beneficial
Heritage	Neutral
Biodiversity	Neutral
Water Environment	Neutral

3.8. Social impacts:

A report on the Social and Distributional Impacts can be found at Appendix P.

Social Impact	Assessment
Accidents	Slight Beneficial
Physical Activity	Moderate Beneficial
Security	Neutral
Severance	Neutral
Journey Quality	Moderate Beneficial
Option values and non-use values	Slight Beneficial
Accessibility	Moderate Beneficial
Personal Affordability	Slight Beneficial
Accidents	Slight Beneficial

3.9. Distributional impacts:

A report on the Social and Distributional Impacts can be found at Appendix P.

3.10. Wider impacts:

Wider impacts only assessed as 10% of Business Consumer Benefits = £1.161m

3.11. Value for money:

Details can be found in Appendix M: Note on Economic Appraisal, while the Appraisal Summary Table can be found at Appendix R. Supporting TUBA files and spreadsheets will be provided in a compressed folder separately provided. (Please note the TEE table included for the Gate 1 Review was erroneously that after the sensitivity tests)

Analysis of Monetised Costs and Benefits	£'000
Other Benefits (for Cycling: Noise, Local Air Quality, Accidents and Decongestion)	1,813
Greenhouse Gases	605
Economic Efficiency: Consumer Users (Commuting)	16,520
Economic Efficiency: Consumer Users (Other)	48,552
Economic Efficiency: Business Users and Providers	11,613
Wider Public Finances (Indirect Taxation Revenues)	-1,806
Present Value of Benefits (PVB)	77,298
Broad Transport Budget	
Present Value of Costs (PVC)	14,010
OVERALL IMPACTS	
Net Present Value (NPV)	63,288
Benefit to Cost Ratio (BCR)	5.52
Adjusted BCR (10% of Business User Benefits added)	5.60

Economic Efficiency of the Transport System(TEE)	£'000
All Modes	
Consumer - Commuting user benefits	
Travel Time	15,823
Vehicle operating costs	698
User charges	
Construction maintenance delays	
NET CONSUMER - COMMUTING BENEFITS	16,520
Consumer - Other user benefits	
Travel Time	14,802
Vehicle operating costs	1,066
User charges	
Construction maintenance delays	
NET CONSUMER - OTHER BENEFITS	50,143
Business user benefits	
Travel Time	9,951
Vehicle operating costs	1,662
User charges	
Construction maintenance delays	
Subtotal	11,613
Other business Impacts	
Developer contributions	
NET BUSINESS IMPACT	11,613
TOTAL	
Present Value of Transport Economic Efficiency Benefits (TEE)	78,276

Public Accounts	£'000
Local Government Funding	
Revenue	
Operating Costs	-1,047
Investment Costs	10,194
Developer Contributions	
Grant/Subsidy	
NET IMPACT	9,145
Central Government Funding: Non-Transport	
Indirect tax revenues	1,806
TOTALS	
Broad Transport Budget	14,010
Wider Public Finances	1,806

4. COMMERCIAL CASE

4.1. Procurement options:

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.

- Essex Highways will be the delivery partner for design of the scheme
- The construction will be subject to tender process through the Eastern Highway Alliance (EHA)
- ECC have a good track record of scheme delivery through this process
- Use of the EHA ensures a ready supply chain / Contractors.

4.2. Preferred procurement and contracting strategy:

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.

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.

4.3. Procurement experience:

Essex Highways / Ringway Jacobs have been responsible for delivering all non-HE highway schemes in Essex since April 2012. All schemes are run to tight budgets and timing constraints and this programme would be managed in the same way.

Since 2014, Essex County Council has, or is, in the process of delivering nearly £100m of transport improvement schemes through SELEP LGF funding.

The following schemes are operational and were delivered on programme and to budget:

- A414 Maldon to Chelmsford RBS - £3.9m
- Colchester Integrated Transport Package (ITP) - £12.7m
- Colchester LSTF - £2.0m
- Colchester Town Centre - £5.0m
- South-East LSTF - £3.0m
- Colchester Park and Ride - £7.2m
- Basildon ITP (Phase 1) - £2.0m

Under construction:

- A127 Resilience Package - £9.1m
- Mill Yard, Chelmsford - £3.0m
- A414 Harlow Pinch Point Package - £14.9m

Construction about to commence:

- Basildon ITP (Phase 2) - £8.7m
- Chelmsford to Braintree RBS - £7.3m

Approved at the November Accountability Board:

- Chelmsford to Harlow RBS - £4.3m
- Colchester to Clacton RBS - £5.5m
- M11 J8 - £9.1m

4.4. Competition issues:

The construction will be subject to tender process through the Eastern Highway Alliance (EHA).

4.5. Human resources issues:

None identified.

4.6. Risks and mitigation:

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.

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.

4.7. Maximising social value:

During the development of the package, public consultations were held which allowed all interested parties and stakeholders to share their views on the specific schemes. This ensured that any action proposed was considered against the economic, social and environmental well-being of all the residents or persons affected.

Letters of support can be found at Appendix X.

5. FINANCIAL CASE

5.1. Total project value and funding sources:

The total value of the project is £14.913m.

5.2. SELEP funding request, including type (LGF, GPF, etc.):

This bid requests £9.913m of capital funding from SELEP.

5.3. Costs by type:

Cost type (£m)	Expenditure Forecast				
	17/18	18/19	19/20	20/21	Total
Capital	0.775	2.471	4.530	4.699	12.475
Non-capital					
QRA	0.125	0.349	0.850	0.614	1.938
Monitoring and Evaluation	0.100	0.180	0.120	0.100	0.500
Total funding requirement	1.000	3.000	5.500	5.413	14.913
Inflation (%)	3.0	3.0	3.5	3.5	

NB: Optimism Bias has not been applied to the costs in the Financial Case.

Detailed cost summaries, including a spend profile by quarter can be found at Appendix T.

5.4. Quantitative risk assessment (QRA):

The Quantitative Risk Assessment used can be seen at Appendix B2.

5.5. Funding profile (capital and non-capital):

Funding source (£m)	Expenditure Forecast				
	17/18	18/19	19/20	20/21	Total
SELEP	0.500	3.000	4.000	2.413	9.913
ECC	0.500	0.000	1.500	3.000	5.000
Total funding requirement	1.000	3.000	5.500	5.413	14.913

There is some flexibility within the funding profile, but construction will need to be timed to avoid undue congestion as a consequence of the traffic management required.

5.6. Funding commitment:

ECC funding has already been approved by Cabinet.

Section 151 Officer sign-off is included at Appendix A.

5.7. Risk and constraints:

The Quantitative Risk Assessment used can be seen at Appendix B2.

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.

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.

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.

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 B2.

6. MANAGEMENT CASE

6.1. Governance:

The organisation to deliver the scheme is indicated in Figure 14 below. The roles and responsibilities of the parties indicated in the figure are described in the following paragraphs.

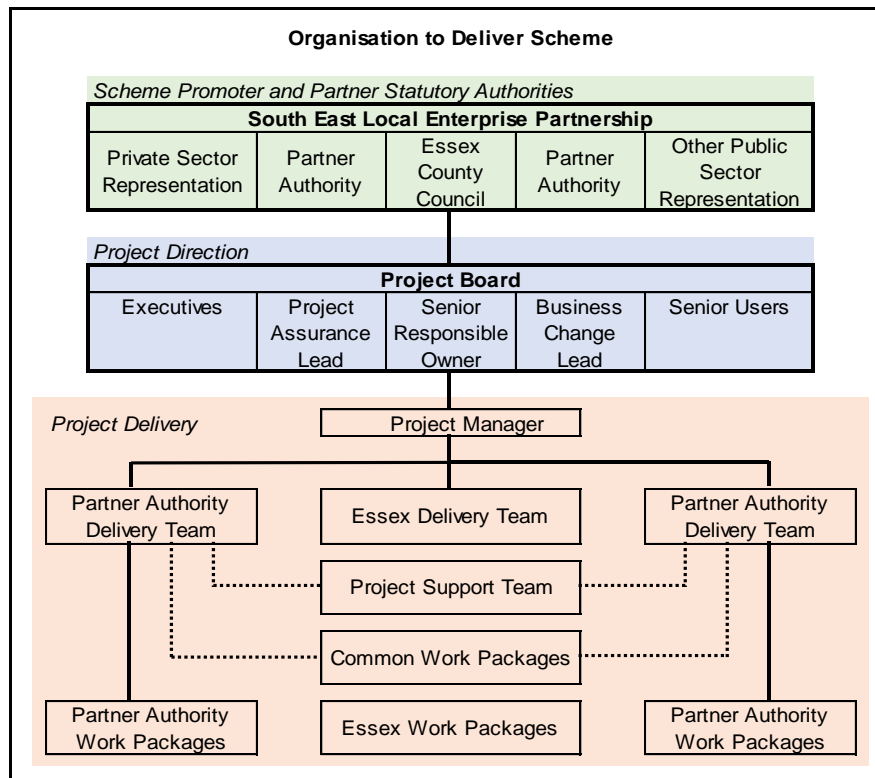


Figure 14: Arrangements for Scheme Delivery

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

Executives – represent the group in each partner statutory authority with responsibility for obtaining funding for the scheme (Chris Stevenson, Head of Connected Essex Integrated Transport, ECC) and securing resources to deliver it (Ben Finlayson, Head of Infrastructure Delivery, ECC).

Sponsor – the role of major sponsor is coordinated through the Transportation Strategy and Engagement Group (Hannah Neve and Mark Robinson, 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) – 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. Approvals and escalation procedures:

See above

6.3. Contract management:

A Benefits Realisation Plan has been produced (see Appendix W) 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.

6.4. Key stakeholders:

Partner	Nature and / or value of involvement (financial, operational etc)
Chelmsford City Council	Registered support for schemes, including improvements for Park and Ride buses, aligned with CCC Local Plan
Bus Operator	First – Registered support for schemes
Taxi Operators	Registered support for schemes
Cycling Organisations	Sustrans, Cycling UK, Chelmsford Cycling Action Group – registered support for schemes

6.5. Equality Impact:

See Appendix V.

6.6. Risk management strategy:

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 S151 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.

6.7. Work programme:

See Appendix C.

6.8. Previous project experience:

Essex Highways / Ringway Jacobs have been responsible for delivering all non-HE highway schemes in Essex since April 2012. All schemes are run to tight budgets and timing constraints and this programme would be managed in the same way.

Since 2014, Essex County Council has, or is, in the process of delivering nearly £100m of transport improvement schemes through SELEP LGF funding.

The following schemes are operational and were delivered on programme and to budget:

- A414 Maldon to Chelmsford RBS - £3.9m
- Colchester Integrated Transport Package (ITP) - £12.7m
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- Colchester Town Centre - £5.0m
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- Colchester Park and Ride - £7.2m
- Basildon ITP (Phase 1) - £2.0m

Under construction:

- A127 Resilience Package - £9.1m
- Mill Yard, Chelmsford - £3.0m
- A414 Harlow Pinch Point Package - £14.9m

Construction about to commence:

- Basildon ITP (Phase 2) - £8.7m
- Chelmsford to Braintree RBS - £7.3m

Approved at the November Accountability Board:

- Chelmsford to Harlow RBS - £4.3m
- Colchester to Clacton RBS - £5.5m
- M11 J8 - £9.1m

6.9. Monitoring and evaluation:

Inputs

Construction equipment and materials with appropriate management and supervision based on years of experience of delivering similar schemes throughout Essex.

Outputs

Trafficmaster plots to show delay, speeds and flows together with collision statistics and bus utilisation from bus operator statistics. Additionally, cycle counts will be used, along with discussions with local cycling groups, to validate the improvements in cycling.

Traffic flows will be monitored (as above). Also levels of new housing and businesses will be recorded. See Appendix D1. As described above, traffic flows will be monitored on a regular basis and levels of new housing and businesses will be recorded on an annual basis. Cycle counts and bus utilisation will be recorded at one year and five years later.

Other SELEP funded schemes such as Chelmsford to Harlow RBS and Chelmsford to Braintree RBS will both have an effect on the traffic flows into Chelmsford.

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.

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.

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.

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. Benefits realisation plan:

A Benefits Realisation Plan has been produced (see Appendix W) 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.

7. DECLARATIONS

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
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
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

I am content for information supplied here to be stored electronically, shared with the South East Local Enterprise Partnerships Independent Technical Evaluator, Steer Davies Gleave, and other public sector bodies who may be involved in considering the business case.

I understand that a copy of the main Business Case document will be made available on the South East Local Enterprise Partnership website one month in advance of the funding decision by SELEP Accountability Board. The Business Case supporting appendices will not be uploaded onto the website. Redactions to the main Business Case document will only be acceptable where they fall within a category for exemption, as stated in Appendix E.

Where scheme promoters consider information to fall within the categories for exemption (stated in Appendix E) they should provide a separate version of the main Business Case document to SELEP 6 weeks in advance of the SELEP Accountability Board meeting at which the funding decision is being taken, which highlights the proposed Business Case redactions.

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. Any expenditure defrayed in advance of project approval is at risk of not being reimbursed and all spend of Local Growth Fund must be compliant with the Grant Conditions.

I understand that any offer may be publicised by means of a press release giving brief details of the project and the grant amount.

Signature of applicant	
Print full name	
Designation	

8. APPENDIX A - FUNDING COMMITMENT

Dear Colleague,

In submitting this project Business Case, I confirm on behalf of Essex County Council that:

- The information presented in this Business Case is accurate and correct as at the time of writing.
- The funding has been identified to deliver the project and project benefits, as specified within the Business Case. Where sufficient funding has not been identified to deliver the project, this risk has been identified within the Business Case and brought to the attention of the SELEP Secretariat through the SELEP quarterly reporting process.
- The risk assessment included in the project Business Case identifies all substantial project risks known at the time of Business Case submission.
- The delivery body has considered the public-sector equality duty and has had regard to the requirements under s.149 of the Equality Act 2010 throughout their decision-making process. This should include the development of an Equality Impact Assessment which will remain as a live document through the projects development and delivery stages.
- The delivery body has access to the skills, expertise and resource to support the delivery of the project
- Adequate revenue budget has been or will be allocated to support the post scheme completion monitoring and benefit realisation reporting
- The project will be delivered under the conditions in the signed LGF Service Level Agreement with the SELEP Accountable Body.

I note that the Business Case will be made available on the SELEP website one month in advance of the funding decision being taken, subject to the removal of those parts of the Business Case which are commercially sensitive and confidential as agreed with the SELEP Accountable Body.

Yours Sincerely,

SRO (Director Level)

S151 Officer