

SMALL SCHEMES - BUSINESS CASE

for

Harlow Pinch Point Package

Please note that this proforma is designed to collect key information about the project. The scheme promoters are encouraged to attach any additional supporting information to this business case proforma.

Project type (rail, road, LSTF, integrated package, maintenance etc.): Road
Type of bid: Medium Project (total project cost is between £8m and £15m)
Project Location: Harlow, Essex
Project start date: 2015
Project complete date: 2017
Project development stage (inception, option selection, feasibility, detailed design, implementation): Feasibility
Promoting authority name: Essex County Council
Project Manager's name and position: David Sprunt
Project Manager's contact phone number: 03330 136699
Project Manager's email address: David.Sprunt@essex.gov.uk

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Version Control

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Date Authorised	May 2015
Signature	

The Strategic Case

1. Project Description

1.1. Purpose

Harlow currently suffers from severe congestion in peak periods. The A414 is the principal access route to the Enterprise Zone and is also, both the prime distributor for the town, and the major through route between Chelmsford, Hertford and beyond.

The purpose of the scheme, therefore, is to improve the reliability of access to the Enterprise Zone and alleviate the existing congestion across the town, making the Enterprise Zone and Harlow, as a whole, a more attractive place to invest, retain existing business and to allow the town to grow and regenerate. Without improvements to this main corridor through the town, economic vitality and growth will not happen and the potential of the town to support sub-regional growth and prosperity will be lost.

The long term aim is to upgrade and improve all ten junctions and links of the A414 around Harlow. Previous work has already improved the A414 between the M11 (J7) and Southern Way [CIF funded], the A414 junction with Second Avenue (Clock Tower roundabout) [PPF funded] and the A414 junction with Fifth Avenue (Burnt Mill roundabout).

1.2. Brief description

This package aims to alleviate congestion along the A414 within Harlow, with particular attention to a key section through north-eastern Harlow, which suffers from the most significant traffic flows and is in close proximity to the two Enterprise Zone sites. This package of improvements will address three further junctions of the A414 and the ones that suffer the worst congestion.

Reliable movement to / from and between the Enterprise Zones in Harlow is essential for the attraction of business investment and the creation of new high quality jobs and has been identified as a high priority for the SE LEP, and all associated authorities.

The A414 Pinchpoint package contains:

- A414 / First Avenue / Gilden Way junction improvement – addition of left turn slips and expanded carriageway
- A414 / Cambridge Road junction improvement – widened approaches and left turn slips
- Upgrading Edinburgh Way (A414) to dual carriageway with upgraded cycle and footways.

Many of these measures complement, but are not dependent upon, those identified in the M11 corridor package, which aims to improve junctions 7 and 8 of the M11, and to provide a new access to Harlow via an incremental junction 7A, which will ultimately provide network improvements across the town.

1.3. Other alternatives

As outlined above, this proposal is part of a medium term strategy to relieve congestion, improve journey reliability and provide network resilience along the key A414 corridor. In the longer term, a scheme for a northern by-pass to Harlow has been considered, but rejected, at this stage, in favour of the A414 pinch point package, and other improvements along the A414, due to the high costs and long lead times associated with the by-pass proposal. This scheme will address the three junctions on the A414 that are adjacent to the Enterprise Zone and suffer the worst congestion on the corridor.

Other sections of the A414 around Harlow are also being considered for upgrading to improve journey times and reduce congestion, but because of the proximity of the railway and the River Stort, other options would be considerably more expensive and would require much longer timeframes to deliver and are therefore considered to be outside the scope of this business case.

Harlow has, in recent years, seen investment in packages of sustainable transport improvements; for example the CIF funded First Avenue bus lane and bus priority measures, and the earlier Second Avenue multi-modal corridor aimed at improving access between the new developments and the town centre. A further package of complementary integrated transport improvements, the 'Harlow Environment and Access Scheme', has been submitted to SE LEP for future funding.

1.4. Scheme Objectives

The objectives of this scheme are to:

- Support existing jobs and the creation of new jobs

- [illegible]

Investment in the A414, within Harlow, is wholly compliant with the aims of the Essex Economic Growth Strategy

(EGS), and the Greater Essex Integrated County Strategy (ICS), which are both being incorporated into the EPfE, and it also supports the delivery of the Essex Local Transport Plan (LTP).

The package helps deliver the EGS ambition; to make Essex the location of choice for business; for those already based in Essex, and for those who may choose Essex in the future. The scheme meets the aim of the infrastructure workstream. To grow, the Essex economy depends on the efficient movement of people, goods and information, via effective, reliable transport and communications networks at competitive prices to provide access to markets and suppliers. The scheme also meets the aim of the locations for growth workstream. Essex's future economic prosperity depends on ensuring a ready supply of development land, new housing and the coordinated provision of appropriate infrastructure.

Essex County Council has been working closely with the district, borough, city and unitary councils to agree where future growth should take place. Investment will be focused on the principal urban areas, including Harlow, as these are the main locations for growth. Improvements to the A414 are identified in the EPfE Investment Plan, and are necessary for the delivery of the Harlow Local Plan (formerly LDF) which is currently being progressed.

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

The proposed A414 improvements should significantly improve the A414 network within Harlow and support the SE LEP Vision; to 'Create the most enterprising economy in England' and the single SE LEP goal; to promote steady, sustained economic growth over the next two decades. The scheme frees congestion and releases significant commercial areas in the town, providing improved access to employment, markets and suppliers, including London, to maximise the economic benefits associated with the economic relationship between London and the SE LEP economy.

Strengthen the competitive advantage of strategic growth locations - Substantial economic growth is enabled by improvements to the A414. In Harlow alone, there will be 16,000 homes and 12,000 jobs, including those associated with the Enterprise Zones, plus development in Epping Forest and East Herts. The A414 is the main route to the Enterprise Zones, and other key economic areas of Harlow, ensuring that Harlow is an attractive location to invest, and for companies to grow, with easy access to potential employees, markets and suppliers, including London and Cambridge.

Case for Change

2. Business needs / Reasons

- *Outline the rationale for making the investment with reference to the problems with the status quo.*
- *What evidence is there of need for the project?*
- *What impact does the scheme have on releasing the growth or overcoming barriers to growth?*

Harlow currently suffers from significant congestion at peak times, which will increase as current committed major developments in the north east of Harlow (Newhall) start to progress, and future proposals are approved. The proposed schemes help alleviate this congestion and will allow better access to the two Enterprise Zone sites. Traffic Master data AM and PM peaks are shown below which illustrate congestion in the sector of the A414 under consideration in this programme.

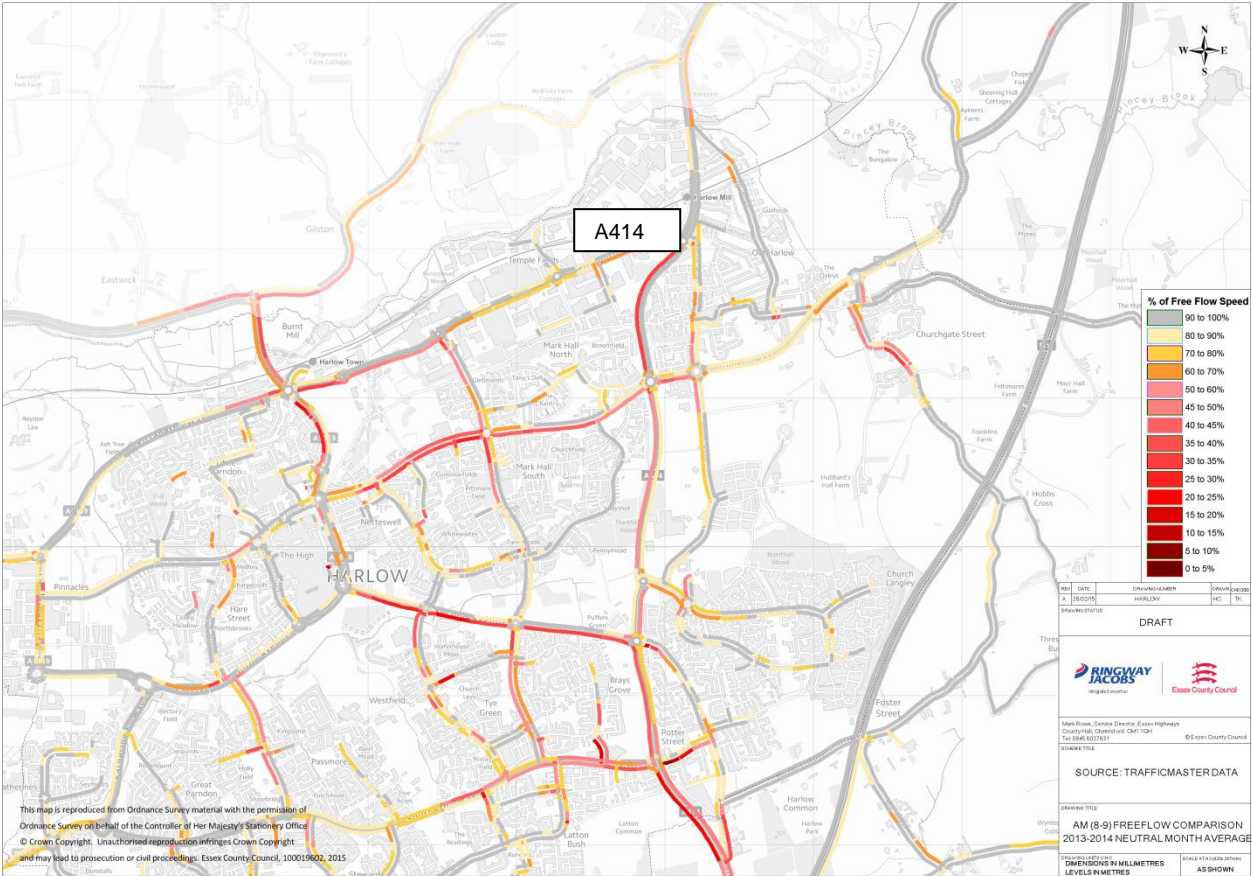


Figure 2: TrafficMaster AM Peak

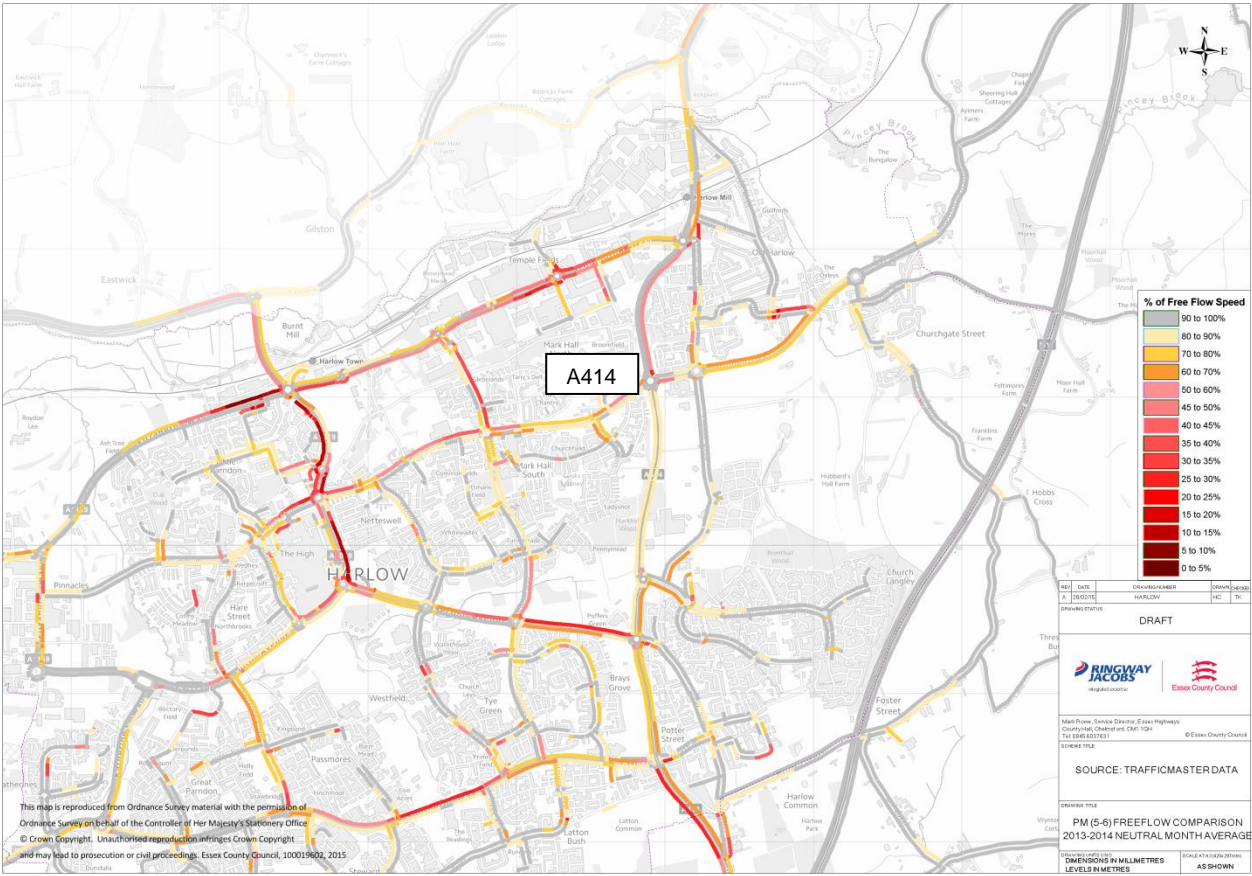


Figure 3: TrafficMaster PM Peak

Harlow has only one connection to the Strategic Road Network via M11 Junction 7. With high levels of traffic using this one route, congestion is common, with impacts, even small incidents, often causing severe congestion

across the town's wider road network. This has created a strain on the current local road network, particularly along the A414.

Therefore, a number of complementary junction improvements are proposed to ease congestion.

One addition, the provision of a new junction onto the M11, locally known as J7A, is being progressed through initial planning stages and the improvements planned in this package do support and are future-proofed for its provision, but are not dependent upon it.

A number of schemes have already been implemented, or are being implemented by ECC, and include improving the A414 from the M11 through the Southern Way junction (completed), Burnt Mill roundabout to the north of the town (currently on site) and Clock Tower roundabout (construction underway with funding previously secured from the PPF).

Harlow is the location of Enterprise West (Essex@Harlow), one of only two enterprise zones in the SE LEP area that has been established at two sites within the town. This will accommodate up to 6,000 jobs, especially in the medical technology industries, advanced manufacturing and ICT sectors. Traffic for the Enterprise Zone has to use the A414. New accesses (not within the scope of this business case) are being developed for both of these sites to maximise their attractiveness and encourage economic growth. Traffic from the other major business areas of the town also need to use this route, and upgrading and congestion reduction will help to support, retain and establish new employment on these sites.

Improvements to junctions along the A414 have been identified as necessary to ease peak hour congestion, improve journey time reliability, deliver the full potential of the Enterprise Zone and reduce rat-running across the town. These junctions will be designed to ensure they are future-proofed for traffic from the proposed J7A and will, therefore, aid delivery of that scheme.

The business community has for a long time been concerned about the levels of congestion in Harlow and the impacts on both existing businesses and future growth. The proposals identified support their aspirations to make Harlow more attractive for existing businesses to remain and expand, and new businesses to invest in the town. Various surveys, historical and more recent, show that road improvements figure extremely highly for the wider business community in Harlow.

- ***What will happen if the proposed project is not funded from LGF?***

If the project is not funded through the LGF, the network will continue to become more congested with accessibility across the town and business viability being negatively impacted leading to future growth and regeneration being severely restricted.

- ***Is there a potential to reduce costs and still achieve the desired outcomes?***

The package has been designed to provide the most cost effective set of solutions to the identified problems and, as such, represent the best value solutions. While project costs will be actively managed, the opportunity to further reduce costs, except at the fringes, is not possible without significantly reducing the effectiveness of the schemes.

3. Benefits

3.1.1. Estimate jobs and homes (direct, indirect, safeguarding, construction etc)

	2015/16	2016/17	2017/18	2018/19	2019/2020	Total
Jobs	1,000	1,000	1,000	1,000	2,000	6,000
Homes	500	500	500	500	500	2,500

- ***Describe the methodology of how the number of jobs and homes is estimated.***

Much of the construction of new housing is in the north-eastern sector and the forecast increase in jobs and homes has been well established through various studies, such as the Strategic Housing Land Availability Assessment, and it has been assumed that the delivery of new jobs and homes is flat-rated over the period, as per above.

4. Risks

4.1. Provide a summary of key risks to the delivery of the scheme (including financial, commercial, economic and management).

4.2. Risk Assessment

Risk	Description of Risk	Likelihood	Impact	Factor	Risk Mitigation	Risk Owner
Construction Cost Escalation	Construction costs escalate at greater than 2.7%	1	2	2	Allow a sum for inflation in the cost estimate.	Ringway Jacobs
Contaminated Material	Discovery of contaminated ground or material on site (including coal tar)	4	4	16	Undertake timely site investigation.	Ringway Jacobs
Contractor Failings	Contractor has failings in delivery resulting in programme overrun	3	4	12	Tender scheme using appropriate quality questions.	ECC
Gas Utilities	Significant gas valve compound observed on-site; cost of gas diversion exceeds estimate.	5	5	25	Timely C3 and C4 requests.	Ringway Jacobs
Invasive Species	Invasive species found on-site, additional cost for site clearance	2	3	6	Undertake Site Survey	Ringway Jacobs
Noise and Vibration	Claims from nearby residents on noise and vibration	4	4	16	Undertake pre-construction monitoring, Ensure contractor is aware of responsibilities.	ECC
Protected Species	Unforeseen discovery of protected species.	4	4	16	Undertake surveys for protected species, early site clearance	Ringway Jacobs
Statutory Undertakers Diversion Costs	C3 prices at variance with estimates and client budget leading to re-design or scheme cancellation	4	3	12	Timely C3 and C4 requests.	Ringway Jacobs
Structures	Poor ground conditions and asbestos in existing structure	3	3	9	Timely site and structural investigation	Ringway Jacobs
Tender prices	Tender prices at variance with estimates and client budget leading to re-design or scheme cancellation	4	4	16	Obtain recent tender information for use in price base.	ECC / Ringway Jacobs
Tree Preservation Orders	Mitigation for areas of BAP affected is more costly and time consuming than anticipated.	4	4	16	Early identification of impact and mitigation.	Ringway Jacobs
Tree Preservation Orders	Cost and time overrun associated with mitigating TPO's	5	3	15	Survey Trees, discuss mitigation early	Ringway Jacobs
Undeclared Utilities	Discovery of undeclared utilities apparatus during construction	4	4	16	Undertake GPR surveys and timely trial holes.	Ringway Jacobs
Unforeseen Ground Conditions	Soft spots / voids discovered during construction - re-design required	3	4	12	Undertake timely site investigation	Ringway Jacobs
Weather	Weather events hinder or delay the works	4	3	12	Programme Float	Ringway Jacobs

The Economic Case

5. Options

5.1. Please provide a description of the main **options** for investment, together with their relative advantages and disadvantages (a SWOT analysis)

<p>Strengths:</p> <ul style="list-style-type: none"> Major employment location Close proximity to London Stansted Airport Well-established partnership working with HDC and other partners Strong and unique connectivity to the markets of London and the south-east, with onward connections to Europe and other international markets High employment rate in key sectors New Enterprise Zone established in the town Served by major railway line with good connectivity to London and Cambridge Good fit with emerging Local Plans Major growth location 	<p>Weaknesses:</p> <ul style="list-style-type: none"> Major road congestion at peak times for traffic heading to and leaving Harlow on the principal roads Some restricted land availability for development within Harlow District Significant pockets of deprivation
<p>Opportunities:</p> <ul style="list-style-type: none"> Fully utilise the land, labour and capital assets to achieve Harlow's economic and growth potential Large pockets of land available for housing development within the greater Harlow area Important location for major housing development Make transport links more resilient to incidents and congestion Fully realise the potential of economic links with London, including capacity to accommodate growth to the East of London Scope for Increased economic activity 	<p>Threats:</p> <ul style="list-style-type: none"> Global challenge - increasing the region's competitiveness in the face of intensifying international competition Economic conditions discourage private sector investment, including bringing forward key development sites Public concern that growth will lead to increased congestion as a result of failure to invest in adequate infrastructure improvement

Do Nothing

Without investment along the A414, the existing congestion in Harlow will deteriorate further as committed development moves forward. This will suppress future growth in the town and make existing developments less attractive and the Enterprise zone, in particular, less attractive as a business location.

Do Minimum

There is no practical 'Do Minimum' option without losing the benefit of the other improvements. For the economic assessment, only maintenance costs have been included in the Do Minimum Case.

Do Something

Both key junctions as identified to be delivered, First Avenue / A414, Cambridge Road A414 and the dualling of Edinburgh Way.

5.2. Recommended Option: What is the preferred option – and why?

The preferred option is the 'Do Something' which provides the best cost benefit, meets development pressures, and is therefore recommended.

5.3. Provide key information on transport performance indicators, where applicable*

*** The scheme promoters are encouraged to use the existing datasets and model outputs to provide this information. The preference would be to use a spreadsheet type of analysis to provide information in the above table.**

5.4 Transport scheme assessment approach

5.4.1 Provide a brief description of a (spreadsheet-based) modelling and appraisal methodology as well as detail of data source used

5.4.2 List all assumptions made for transport modelling and appraisal

For a detailed explanation of the methodology used to develop the economic assessment, please refer to Appendix B1.

5.4.3 Provide key positive and negative impacts of the schemes in the table below as described in the Appraisal Summary Table and Social Distribution Impact analysis, where it is appropriate, supported by evidence.

Category of impacts	Quantified/Qualitative impact	Large Beneficial to Large Adverse
Economy	Business users and providers Reliability Regeneration Wider Impacts	Medium Beneficial Medium Beneficial Medium Beneficial Small Beneficial
Environment	Noise Air Quality Greenhouse gas Landscape Townscape Heritage Biodiversity Water Environment	Small Beneficial Small Beneficial Small Beneficial Neutral Neutral Neutral Neutral Neutral
Social	Commuting & Other users Accidents Physical Activity Journey Quality Reliability Option and non-use values Security Access to Services Affordability Severance	Medium Beneficial Small Beneficial Neutral Small Beneficial Small Beneficial Neutral Neutral Small Beneficial Neutral
Public Accounts	Cost to broad transport budget Indirect tax	Neutral

The scheme promoters are NOT required to use Tuba type appraisal analysis. If any scheme promoter is interested in estimating value for money then a spreadsheet based analysis should be undertaken.

Value for Money Statement

	Present Values in 2010 prices and values
PVB	£ 74,200,003
PVC	£ 17,523,367
NPV = PVB – PVC	£ 56,676,636

Initial BCR = PVB/PVC	4.23
Adjusted BCR	Not adjusted
Qualitative Assessment	Qualitative assessment – see 5.4.3 above, VfM category was not adjusted
Key Risks, Sensitivities	High growth: Capacities under pressure even after scheme Low growth: Benefits takes longer to realise
VfM Category	Very High

Commercial Case

6. Procurement Route

Briefly describe the procurement strategy. Set out timescale involved in the procurement process to show that delivery can proceed quickly.

Procurement Strategy

The Eastern Highways Alliance, SMARTe and the Highways Agency Framework have all been used extensively in other major projects in Essex including eg A414 / Southern Way, Harlow; the Clock Tower junction with the A414, Harlow and the Army and Navy Roundabout Improvements, Chelmsford. Using lessons learned from prior projects, extra attention will be given to identifying all necessary Stats work and allowing sufficient time to relocate services prior to major construction work commencing.

The design and site survey works will be delivered via the existing Ringway Jacobs Essex County Council contract utilising the same team who have successfully delivered the recent Pinch Point schemes.

To mitigate risk related to utilities diversions, it is proposed that any diversionary works that can be completed ahead of the main works will be done so under the aforementioned contract.

The two schemes are intended to be delivered separately due to the need to minimise traffic management on the sensitive A414 corridor. Therefore, two separate contracts for the main works will be procured by 'mini' competition under the Eastern Highways Alliance contract, which has been used to successfully deliver the recent Pinch Point schemes.

Construction of the schemes will be delivered through the proven Essex Highways Service Direct Delivery Framework using supply chain partners.

The benefits via 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.

Risk Allocation

ECC will bear all risk for the project as part of its role as Highways Authority. The QRAs are shown in Appendices D1 and D2.

Maintenance

All highway improvement works implemented will be inspected annually and maintained by the Highway Authority - ECC.

Financial Case

• Total cost of the project

List here the elements of gross costs, excluding optimisation bias.

Please provide the date the prices for the cost estimate is based on (e.g. Q1 2014)

	Total Detailed Cost Estimate (D) £000	2014/15 £000	2015/16 £000	2016/17 £000	2017/18 £000	2018/19 £000	2019/20 £000	2020/21 £000
Procurement Cost								
Feasibility Cost								
Detail Design Cost								
Management Cost								
Construction Cost								
QRA								
Other - Stats								
Other - Inflation								
VAT (if appropriate)								
Sub-total Non-Works								
Sub-total Works								
TOTAL COST					0	0	0	0

*E = Broad estimate, D = Detailed estimate, T = Tender price, F= Feasibility estimate

○ Source of funding

List here the amount of funding sought

Funding Source	2014/15 £000	2015/16 £000	2016/17 £000	2017/18 £000	2018/19 £000	2019/20 £000	2020/21 £000
LGF	0	7,200	3,000				
Private Developers							
Borrowing							
Income							
Other (insert as many rows as required)							
Local Contribution Total (leverage)	660	1,244	2,820				
Other Funding							

TOTAL FUNDING							
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Please note that the totals for funding should match with the total for project cost.

Type of Funding	Funding Source	Please identify how secure the funds are	When will the money be available
Public	LGF	Allocated in Growth Deal subject to this business case	2015/16
	Borrowing		
	Income		
	Other (insert as many rows as required)		
	Local Contribution Total (leverage)	£4,724,000 - ECC funding contribution has S151 approval and has been allocated within the 2015/16 and 2016/17 Capital Programmes	2015/16
Private	Please list all developers		
	Private Developers Total		
	Other Funding ECC Capital Funding	Secure - Allocated in ECC Capital Programmes 2015/16 and 2016/17	2015/16

6.1. Affordability gap

- *Is there an affordability gap?*

No. SE LEP LGF funding subject to draw down following approval of this business case.

ECC funding for schemes allocated LGF funding within the SELEP Growth Deal was approved by the Capital Programme Member Board and Section 151 Officer in October 2014, with funds allocated to an Economic Transport block, held within the ECC Capital Programme for 2015/16 and subsequent years, and available for draw down following SE LEP funding approval for specific schemes.

Management Case – Delivery

7. Delivery

7.1. Provide high level information about arrangements that will ensure delivery of this project

- *Project plan*

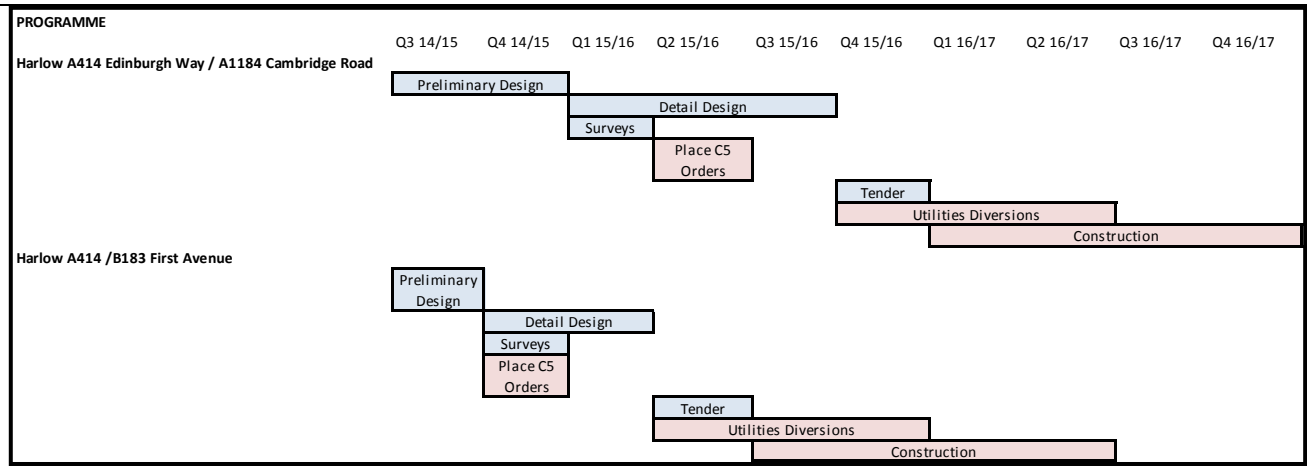


Figure 4: Simplified ‘Gantt’ chart

Project Management Arrangement

Background

This plan outlines the project structures and processes that will be used to govern activities.

Project Organisation

The organisation to deliver the scheme is indicated in Figure 5 below. The roles and responsibilities of the parties indicated in the figure are described in the following paragraphs.

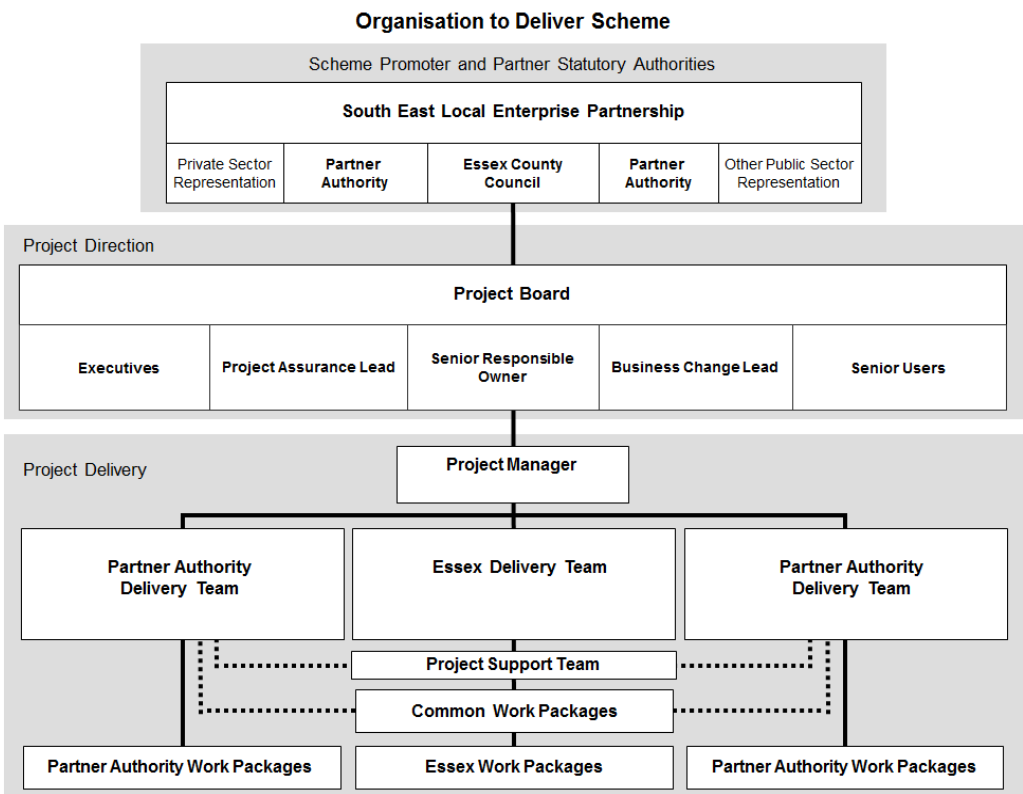


Figure 5: Arrangements for Scheme Delivery

Roles of Key Interested Parties:

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

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

Project Board – is responsible for the direction and overall management of the scheme. The Project Board is chaired by the Senior Responsible Owner and made up of the Executive and Senior User for each of the partner statutory authorities, the Project Assurance Lead and the Business Change Lead. These roles are defined below. Project Board meetings are normally held every six weeks. The Project Manager reports regularly to the Project Board, keeping members informed of progress and highlighting any issues or concerns.

- The responsibilities of the Project Board include:
- Setting the strategic direction of the project, in the context of local policies and the work of the SE LEP
- Defining the scope and setting the timescales for major project milestones
- Approving the appointment of the Project Manager
- Providing the Project Manager with the strategy and decisions required to enable the 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
- Monitoring project risks and taking any appropriate action to mitigate risks.

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 (Paul Bird, ECC) – has ultimate responsibility and delegated authority for ensuring effective delivery of the scheme on time and on budget.

Project Manager (David Sprunt, 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. He also is assigned the task of running and updating the risk register and organising the monitoring of the delivery of the programme objectives including journey times, accident data etc as outlined in the Monitoring spreadsheet previously submitted to the LEP.

Executives – represent the group in each partner statutory authority with responsibility for obtaining funding for the scheme (Chris Stevenson, ECC) and securing resources to deliver it (Danny Stanesby, ECC). In Essex County Council, this is the Transportation Strategy and Engagement Group (Alan Lindsay, ECC).

Senior Users (David Forkin, ECC) – represent the group in each partner statutory authority who will oversee the future day-to-day operation of the scheme.

Project Assurance Lead (Erwin Deppe, 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).

Resources – Resources to support this project will be reassigned from the Burnt Mill scheme work, nearly completed, and will be prioritized to ensure efficient delivery of the A414 schemes at the earliest opportunity.

Stakeholders/ Stakeholder Engagement

- Public consultation to secure public engagement and buy-in will be required and any outcomes of these consultations will need to be taken into account in the design and construction process.
- Liaison with key stakeholders (such as bus operators, nearby schools, developers, land owners, Harlow District Council) will be essential to ensure engagement and buy-in and also to ensure work programmes are suitably aligned.
- The objectives for the Stakeholder Engagement Plan are that it:

- Communicates and reinforces the branding of the overall plan;
 - Improves awareness and understanding of the proposals;
 - Allows the Project Board to obtain timely feedback on proposals;
 - Helps gauge the level and nature of any opposition that may arise to the proposals and address these appropriately; and
 - Enables the Project Team to explore the opportunities to establish a consensus, as the basis for successful implementation of the proposals.
- The overall aim is to involve key stakeholders as much as possible. We aim to actively involve key stakeholders in delivery and decision making through an effective stakeholder engagement process.

Risk Management

A pro-active 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 / service providers);
- Statutory Processes; and
- Financial and funding risks.

Benefits Realisation Plan Summary

	Benefits	Performance Indicator	Type*	When Delivered	Responsibility for Delivery	How Measured	Success Management
1.	Economy: Improve the economic efficiency and reliability of the local road network by reducing congestion on the main arterial roads.	SEP	DFB	Completion of full scheme	ECC / HDC Scheme Project Managers	Measure pre-scheme peak period traffic flows, journey times baseline figures compared to post-opening. After surveys within 3 months and then 1 year after scheme opening. Surveys on existing & new network.	Based on PRINCE II Project Management principles. Project team will use established best practices for this type of scheme.
2.	Economy: Encourage more people to use sustainable travel with improved pedestrian access and upgraded cycleway connections.	SEP	DFB	Completion of full scheme	ECC / HDC Scheme Project Managers	Measure pre-scheme peak period traffic flows, journey time baseline figures compared to post-opening – 3 months and 1 year after.	Based on PRINCE II Project Management principles. Project team will use established best practices for this type of scheme.
3.	Sustainability: Improve sustainability by providing improved cycleway and pedestrian connections.	SEP	DFB	Completion of full scheme	ECC / HDC Scheme Project Managers	Measure cycleway usage pre and post-scheme – 3 months and 1 year after. Conduct cycle surveys to measure levels of satisfaction – 3 months after. Similarly, conduct pedestrian surveys – 3 months after.	Based on PRINCE II Project Management principles. Project team will use established best practices for this type of scheme.
4.	Economy: Provide improved and cost effective access to town centre.	SEP	DFB	Completion of full scheme	ECC / HDC Scheme Project Managers	Measure car peak period traffic flows, journey time baseline figures. Surveys within 3 months and then 1 year after scheme opening.	Based on PRINCE II Project Management principles. Project team will use established best practices for this type of scheme.
5.	Accessibility: Facilitates access to town centre.	SEP	DFB	Completion of full scheme	ECC / HDC Scheme Project Managers	Conduct specific journey time surveys once scheme is complete – 3 months after.	Based on PRINCE II Project Management principles. Project team will use established best practices for this type of scheme.
6.	Safety: Address congestion and capacity issues to the town centre for residential, commuter and commercial traffic.	SEP	DNFB	Completion of scheme	ECC / HDC Scheme Project Managers	Pre-scheme accident baseline figures compared to post opening. After data collection within 1 year after scheme opening. Figures from ECC accident data base to be supplied by Essex Police.	Based on PRINCE II Project Management principles. Project team will use established best practices for this type of scheme.

7.	Safety: Flows will be improved as traffic is taken out of the network.	SEP	DNFB	Completion of scheme	ECC / HDC Scheme Project Managers	Pre-scheme accident baseline figures compared to post opening. After data collection within 3 months and then 1 year after scheme opening. Figures from ECC accident data base to be supplied by Essex Police.	Based on PRINCE II Project Management principles. Project team will use established best practices for this type of scheme.
8.	Environment: Ensure compliance with international, national, regional and local plans, policy and legislation.	ECC / HDC Locally Defined	IB	During design and on completion of full scheme	ECC / HDC Scheme Project Managers	All current and proposed legislation & policies will be adhered to. Full consultation with all key local stakeholders during process.	Project team will use established best practices for this type of scheme.
9.	Environment: Minimise project programme slippages and delays through the early identification of environmental / topographical issues.	ECC / HDC Locally Defined	DFB	During design and on completion of full scheme	ECC / HDC Scheme Project Managers	Monitor progress regularly (weekly) against programme until completion of scheme.	Undertake early Environmental and Topographical checks to avoid later issues. Project team will use established best practices for this type of scheme.

As well as the above table, it is worth noting that ECC has significant experience in monitoring key network routes in and around towns to show trends on vehicle usage. Pre-surveys will be undertaken to determine existing traffic volumes and journey times. After scheme completion surveys will then be carried out to show how activity may have increased as a result of the works.

- *Contingency plans (if applicable) - N/A*