

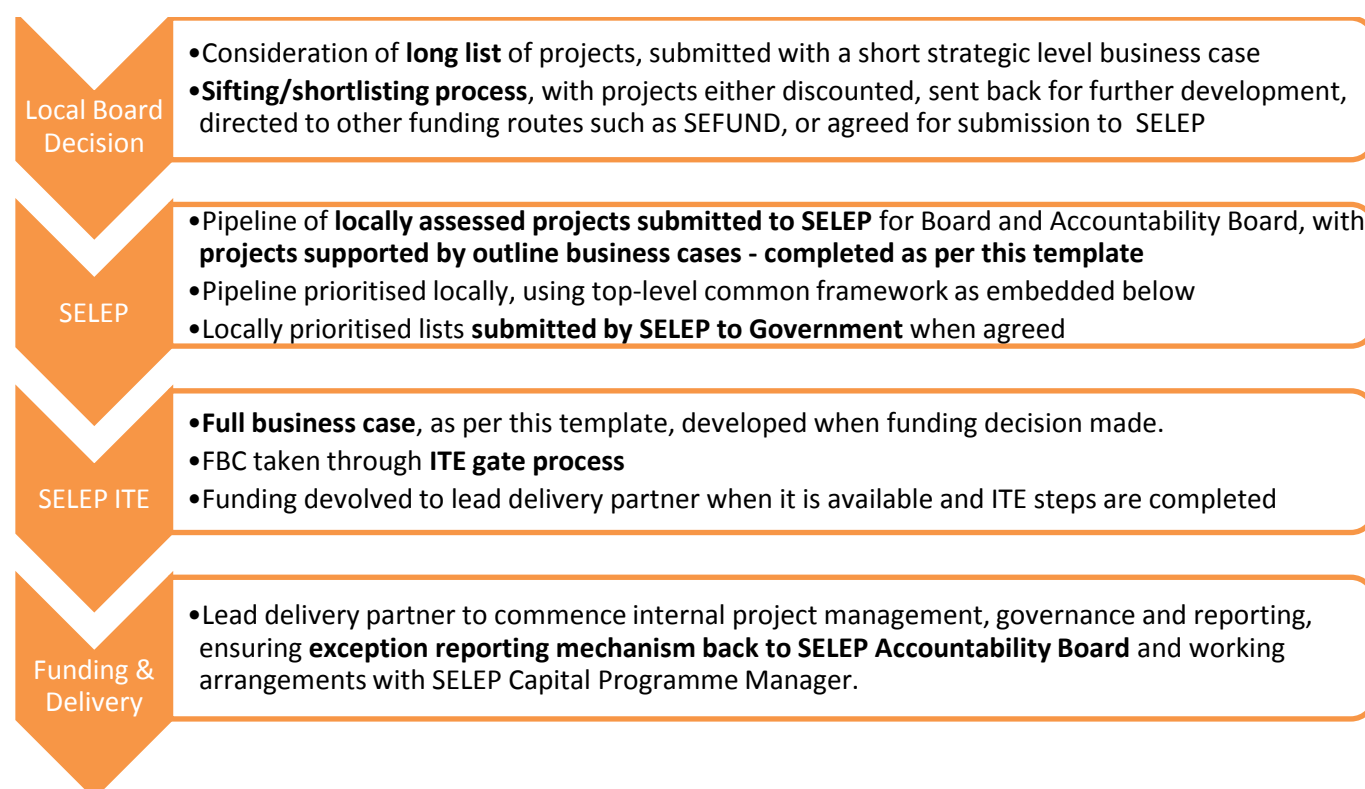
The template

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

Please note that this template is for guidance purposes only and 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>

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. 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.



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Applicants for funding for non-transport projects should complete the blue sections only

Applicants for funding for transport projects should complete both the blue and the orange sections

1. PROJECT SUMMARY

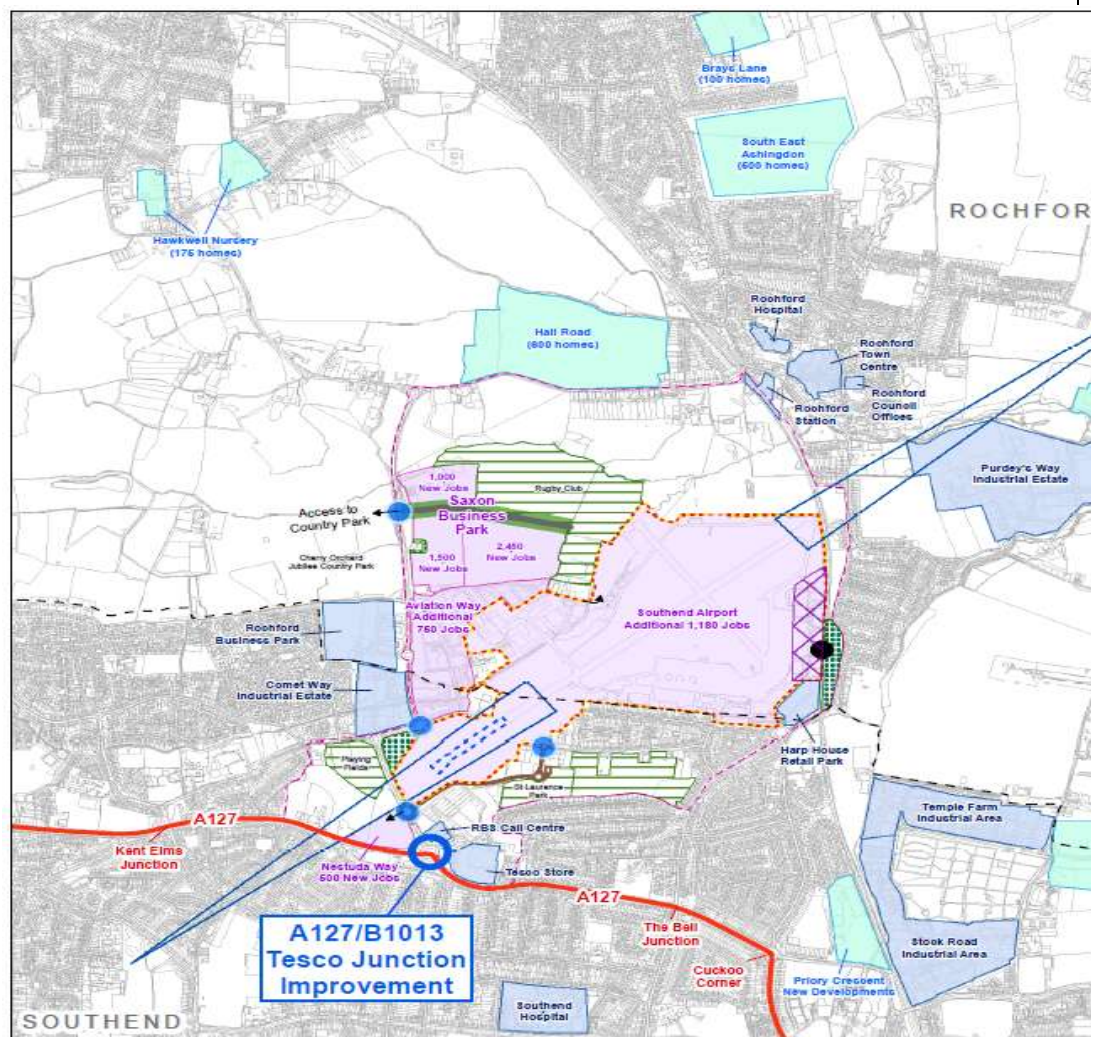
1.1. Project name A127 Kent Elms

1.2. Project type Road junction improvement

1.3. Location A127/A1015 Kent Elms Junction, Southend-on-Sea

1.4. Local authority area and postcode location
Southend-on-Sea Borough Council
 Civic Centre, Victoria Avenue, Southend-on-Sea, SS2 6ZF

1.5. Description A127/A1015 Kent Elms Junction improvements currently carrying 44,000 vehicles (between 7am - 7pm) will serve London Southend Airport, Airport Business Parks the area of proposed development adjacent to the Airport (as set out in the Rochford and Southend Joint Area Action Plan – JAAP) and the Town Centre and eastern Southend. This includes employment and housing sites in both Southend and Rochford.



Map of JAAP Area

The map above shows the proximity of the A127 corridor to the JAAP area, and therefore its importance as a key component of delivering JAAP outcomes. These outcomes are:

- Creation of sustainable, high quality and high value employment and other land uses within the JAAP area with the delivery of over 7,380 new jobs.
- Maximising the economic benefits of a thriving and growing airport and related activity. London Southend Airport has planning permission to expand services for up to 2 million passengers per annum by 2021; the low cost operator, easyJet, commenced operations in summer 2012 and has since expanded its network. Privately funded developments to underpin this growth include a new airport terminal, a new dedicated airport rail station, a new control tower, an extended runway, and current work to double the size of the terminal building.
- Furthermore demand for aircraft maintenance, repair and overhaul (MRO) has increased and the JAAP includes new facilities to be constructed in the Northern MRO extension, creating new specialist aviation industry jobs.
- Saxon Business Park – range of high tech businesses, and new start-ups will create high skilled high paid jobs including the Anglia Ruskin Medtech Campus. This has been created to drive growth in medical technology business sector. This partnership between Anglia Ruskin University, Chelmsford City Council, Harlow District Council, and SBC (the funding partners) supported by key stakeholders in the industry, local and central government and the NHS will allow the campus to exploit the considerable advantages offered by business agglomeration on the new site.
- Nestuda Way Business Park –will create up to 500 new jobs.

In order to deliver JAAP objectives the following is needed:

- Ensure good connectivity to the development area by all modes of transport, with appropriate improvements to sustainable transport and the highway network.
- Ensure a high quality public realm and environment for residents and workers.
- Maximise return on public investment through attracting inward investment.
- Ensure efficient use and upgrading existing employment land resources.
- Ensure the JAAP area is accessible by road, public transport (bus and rail), and networks of walking and cycling routes linking to the wider network, in part delivered through funding secured from Local Sustainable Transport Fund and Better Bus Area Fund.

A key requirement of the JAAP is to ensure traffic remains on the primary route network, the A127, to access the airport and business parks, rather than use local roads. To facilitate this there must be improvements to the functioning of both the local and wider highway network including key junctions on the A127 which link Southend and Rochford with the M25, and to provide internal solutions to movement and accessibility.

Furthermore the JAAP identifies the following items to be taken into account:

- The need for further capacity on the highway network as traffic flows increase, to ensure congestion will not grow further and limit the ability for economic growth.
- Environmental constraints in terms of highway improvements due to availability of land and property boundaries;
- The principal, signed route for highway access will be via the A127 to ensure that new trips in and out of Southend and Rochford do not impact significantly on the local highway network, which has limited capacity for improvement;
- The options for transport improvements within the JAAP area and on the local and wider networks, including the provision of new routes, junction improvements and key points of access to new development areas.

- The location of new development within the JAAP area, in relation to the existing and proposed transport links should be considered early in the master-planning stage to optimise accessibility.
- The need for a major effort to be focussed on managing traffic growth and encouraging greater use of alternative sustainable transport modes to reduce predicted levels of car borne traffic through traffic management and demand solutions and provision of appropriate infrastructure.

The proposed improvement is part of a package of measures that must be delivered to ensure the A127, which is a vital artery for the economic well-being of Southend, is able to cater for the demands placed on it as a driver for economic growth.

Successful improvements to the A127 route, in terms of journey time savings and reliability, have been carried out incrementally and as funding has been applied for and granted. The next major A127 junction improvements identified is at the A127 Kent Elms corner

- The eastbound A127 currently experiences significant delays in the AM peak for vehicles turning left and also travelling towards the town centre, the seafront, London Southend Airport, Shoeburyness and for those turning right into Bridgwater Drive.
- The westbound A127 currently experiences delays in the PM peak for vehicles turning left into Bridgwater Drive and towards the Borough boundary, and for those turning right into Rayleigh Road.
- There is a significant issue of community severance at this junction. The only access across the A127 at this junction is via a footbridge which is not DDA compliant, with a library, a health centre, retail, businesses and local schools all effectively cut-off from the community on the south side of the A127.
- An at-grade improvement / approach is proposed to add additional straight ahead and extend turning lanes. This will result in the need to remove the pedestrian over-bridge and replace with a new footbridge and Toucan crossings. This would also enable the existing cycling facilities to be better connected and would allow for any future cycle improvements to be accommodated creating a continuous route linking with the JAAP developments. This junction is also a critical point on the bus network and X30 airport link route.

Early enabling works to construct a signalised pedestrian / cyclist surface crossing in advance of the main works took place during winter 2015/16 with the crossing opened on 1st December 2015. These early works support the main construction works to provide pedestrian access across the A127 during the main works and allow the removal of the existing non-DDA compliant footbridge.

Options

Highway Option 1 – Preferred Option



This option provides maximum benefit of the junction improvement with three lanes heading eastbound on the A127 and a right hand turn lane providing improved capacity through the junction. To utilise lane widths of 3.5m and to provide a 3.0m wide footway cycleway to the north, a small amount of land will be required outside the highway boundary from the Essex Auto Group front car display area. This proposal will not affect Essex Auto Group running “business as usual”. The area required for this option currently is used to display approximately 9 cars and car franchises totems. There is no proposal to compulsory purchase the land. Discussions are underway with Essex Auto Group (who lease the land) and Bestway Northern Limited (the land owner) agents on negotiations to acquire the land. A planning application for the accommodation works is about to be submitted.



Photo 1 - View of Essex Auto Group car display area

An additional lane is also provided heading westbound on the A127, again providing greater capacity through the junction. To accommodate the widening, part of the

existing verge on the south east corner (within the highway boundary) will be constructed as carriageway. However, this will have an impact on the utilities which will require diversion. The south western side of the junction will require a small amount of land outside the highway boundary from Tops Fireplaces car park. This proposal will not affect “business as usual” as the car park can remain in operation. There is no proposal to compulsory purchase the land. Discussions are underway with the land owner on negotiations to acquire the land, which are progressing well.



Photo 2 – View of Tops Fireplace car park

The existing pedestrian footbridge will require removal as the bridge supports will be within the new east and west bound running lanes.

The newly constructed surface pedestrian crossing remains in place in all the options, but will be modified to suit the new widened layout.

Highway Option 2

This option is an alternative to Option 1, it still provides three lanes heading eastbound on the A127 and a right hand turn lane, however in this option the lane widths are reduced to 3.25m and the footway / cycleway to the north is reduced to a minimum of 2.0m, which results in no land take from the Essex Auto Group front car display area.

Should it not be possible to come to an agreement within the timescale for the land negotiations for Option 1 to proceed, this option would be constructed. On the successful conclusion of the land negotiation, the footway would be widened.

The reduction in lane widths is also applied to the southern side of the junction to lessen the impact on the utilities located in the southern verge. This places the south western channel line on the same alignment within the preferred option, and will still require land from Tops Fireplaces.

The impact on the pedestrian footbridge will also remain the same, as the bridge supports will be within the east and west bound running lanes and will require the

removal of the stepped ramped footbridge.

Highway Option 3



This is a further iteration of Options 1 and 2. As with the alternative Option 2, the lane widths are reduced to 3.25m and the footway/cycleway to the north is reduced to 2.0m which results in no land take from the Essex Auto Group forecourt. This does however provide a narrow footway/cycleway.

The significant change is to the westbound carriageway, this is maintained as two lanes to remove the need to utilise land outside the highway boundary. There is also a lessened impact on utilities.

Again the footbridge will still require removal under this option as the supports to the north will be within the east bound running lane and require the removal of the stepped footbridge.

Pedestrian Routes

Any widening to the carriageway will result in the removal of the pedestrian footbridge as the bridge supports will be within the running lanes on both the east and westbound carriageways. Improvements to the existing bridge to ensure it is retained are not practical as the existing span is inadequate to traverse a widened carriageway, nor is it feasible to retain the approach ramps as the steps are not in line with DDA requirements.

Footbridge Option 1

This option provides a replacement footbridge that conforms to recommended design requirements within the current design standards. In order to meet these requirements steps and ramps at a gradient of 1 in 20 are provided.

The gradient will result in ramps that are approximately 124m in length on both sides of the junction. Due to available space the configuration on the southern side of the junction this will require the ramp to wrap around itself several times occupying the majority of the grassed area adjacent to Broomfield Avenue. This will also have a visual impact on the adjacent properties and restrict their view from the frontage. In order to accommodate the ramps on the northern side, land would be required from both Eastwood Academy and Kent Elms Health Centre car park.

There is also an environmental impact on the existing trees around the junction, as a number of trees would require removal in order to accommodate the structure.

Costs associated with a structure of this size is currently estimated to be in the region of £1.5M.

Footbridge Option 2 – Preferred Option

This option provides a replacement footbridge that conforms to the minimum requirements of current design standards of a 1:12 ramp with landings.

This gradient reduces the length of ramps, but requires landings to be provided at a much greater frequency, which contributes to the overall length. The ramps associated with this gradient are approximately 90m in length on both sides. This reduced length does enable the ramps to be accommodated fully within the highway boundary, it also has a reduced visual impact on the adjacent properties, and impacts on fewer trees.

Costs associated with a structure of this size is currently estimated to be in the region of £1.3M

Footbridge Option 3

This option provides a replacement footbridge without access ramps, served by steps on each side of the structure. The structure, therefore does not provide a route for wheelchair users or those with mobility impairments meaning that any users who are unable to use the footbridge will be required to cross via the surface crossing.

Costs associated with this structure is currently estimated to be in the region of £0.8M

Footbridge Option 4

This option does not provide a replacement footbridge.

Recommendations

Highway Option 1 is the recommended scheme option, this option maximises the junction improvement with negotiated minimum land take from the two businesses without effecting “business as usual”. With no land take from residents it will maximise the support to the delivery of the JAAP ambition for 7,380 new jobs and maximise the future Rochford and Southend growth, provide access to pedestrians, local businesses, local schools and drivers in the future and access to Kent Elms Health Centre and Library, and provide no future expectations to widen the junction in the near future.

The design will be developed further during the ongoing detailed design process as the recently installed Phase 1 works are continued to be monitored post opening, along with public consultation and engagement with local schools, businesses and local residents.

Footbridge Options

The choice as to whether a new footbridge is installed at the junction should be based on local conditions and circumstances and the outcome of the public consultation process.

However, paying regard to the special circumstances of local schools, library and health centre, along with the continued use of the existing footbridge, it is recommended that the footbridge option be considered alongside the highway options. The preferred option, therefore, includes a footbridge responding to local conditions (including the proximity of schools as well as the post monitoring of the pedestrians, which has shown a number of pedestrian still using the bridge). The footbridge option can be further refined into the three options:

- Option 1 – fully compliant with greater cost, visual impact and land required from the playing field and car park;

	<ul style="list-style-type: none"> • Option 2 - Preferred Option– is DDA compliant with a relaxation of standards, but has less impact on properties, land and less cost; • Option 3 – is not DDA compliant, but does provide an alternative route for most pedestrians and has less impact on properties than Option 1 and Option 2 and less cost. <p>The design of the footbridge will be carefully considered in terms of design and appearance to minimise as far as possible the visual intrusion to the area and residents.</p> <p>Footbridge Option 2 is the Preferred Footbridge Option.</p>
1.6. Lead applicant	Southend-on-Sea Borough Council
1.7. Total project value	£7.15m (Based on Highway Option 1 = £5.85m, Footbridge Option 2 = £1.3m) including predicted land acquisition costs.
1.8. SELEP funding request, including type (e.g. LGF, GPF etc.)	<p>LGF - £4.30m LGF A127 Kent Elms contribution.</p> <p>LGF - 10% vired from A127 Essential Bridge and Highway Maintenance package (£8m) amounting to £0.8m providing a total of £5.1m LGF.</p>
1.9. Rationale for SELEP request	<p>The South East LEP Strategic Economic Plan identifies the A127 as a key corridor for growth. The A127 links London with Basildon and Southend and Rochford. In Basildon, the A127 corridor is home to one of the largest single concentrations of advanced manufacturing companies in the South of England. It makes substantial contributions to the prosperity of the SELEP area and offers considerable growth prospects. London Southend Airport, now with scheduled air services to Europe and hub airports for onward global travel, and planned business parks, will prove attractive to a wide range of global companies and offers capacity for at least 4,200 additional jobs up to 2021 and a further 3,180 post 2021. Southend and Rochford have agreed the Joint Area Action Plan (JAAP) to unlock these opportunities and the Council has appointed Henry Boot as their development partner.</p> <p>To enable growth in Thames Gateway South Essex the A127 requires substantial improvement and a higher level of maintenance. The 'A127 Corridor for Growth Economic Plan', approved by Cabinet, sets out the rationale and supporting evidence in detail. The A127 Corridor for Growth package is a partnership project between Essex County Council and Southend-on-Sea Borough Council. The Southend element includes A127 Kent Elms and A127 The Bell junction improvements, and A127 Essential Bridge and Highway Maintenance package.</p> <p>Elements of the A127 Corridor for Growth package have been designated as a “retained” scheme which, subject to the approval of the business case, will be supported by the Local Growth Fund.</p> <p>Earlier modelling undertaken indicated significant congestion on the A127 without improvements schemes at the Kent Elms, Tesco and Bell junctions.</p> <p>The A127/A1015 Kent Elms junction improvement works are programmed to commence construction in 2016/17. Southend have improved the A127 on an incremental basis focusing on a junction one at a time</p> <p>The provision of the new pedestrian surface crossing supports the delivery of the main scheme and provides access for pedestrians during the main works. Negotiations are underway with the utility companies on the proposed junction improvement with the aim to minimise diversionary costs. The completion works will be undertaken through the Eastern Highways Alliance Framework (EHF) or Southend Borough Council Term</p>

	<p>Contract for New Works with works proposed to commence in 16/17.</p> <p>The current layout is shown in Appendix 1 including the new surface crossing completed in December 2015.</p> <p>Without the improvements, the completed improvements at A127 Progress Road, A127/B1013 Tesco Roundabout, and A127/A1159 Cuckoo Corner will not fully maximise their intended benefits. This will have ongoing consequences for securing investment in Southend.</p> <p>This intervention will demonstrate a strong commitment to provide the infrastructure needed to support the employment and housing numbers. The modelling has been based on 2021 projections of traffic growth and whilst this is predicated on full development, it is considered that this is the most credible position to adopt at present given the urgency around boosting economic growth. Whilst the development will be phased over the JAAP period, it must be recognised that in order to encourage the investment and increase the viability of the sites a clear, funded, route for infrastructure development must be put forward to support the JAAP developments and further economic growth.</p> <p>The overall programme to invest in the A127 corridor to support the delivery of growth for Southend and airport business parks is to complete the A127/A1015 Kent Elms Junction Improvement in 16/17 followed by the completion of the A127 Bell Junction Improvement in 18/19 and supported by the A127 Essential Bridge and Highway Maintenance package of measures due for completion in 20/21.</p>
1.10. Other funding sources	£2.1m – Southend-on-Sea Borough Council (£0.72 was originally profiled however the Preferred Option includes a replacement footbridge which has increased Southend-on-Sea Borough Council contribution).
1.11. Delivery partners	This scheme will be delivered by Southend-on-Sea Borough Council utilising the in house design team and supported by specialist consultants where necessary and Eastern Highways Alliance Framework Contractor and New Works Term Contractor.
1.12. Start date	<p>March 2015</p> <p>Phase 2 May 2016 – commencing with utility diversions</p>
1.13. Practical completion date	Main Works will be complete by April 2017.
1.14. Project development stage	Inception, option selection, feasibility, detailed design, implementation
1.15. Proposed completion of outputs	Main Works will be complete by April 2017
1.16. Links to other SELEP projects, if applicable	<p>A127 Corridor Package of measures (Essex).</p> <p>Within the boundary of Southend, A127 The Bell Junction and A127 Essential Bridge, Highway Maintenance package and London Southend Airport Business Park (ABP) – Phase 1 Infrastructure (Business case approved). The outline planning application for the business park site seeking detailed consent for the phase 1 infrastructure works was approved by Rochford District Council in February 2016, together with the sign off by the SELEP Accountability Board for £3.2m to unlock the new site by early development of the access infrastructure. A further application to the new round of Growth Funding for the Airport Business Park has been prepared and is being prioritised by the South Essex Growth Partnership.</p>

	The scheme supports the more effective operation of recent junction improvements at A127/A1159 Cuckoo Corner, A127 Progress Road, A127/B1013 Tesco Roundabout, and A127/A13 Victoria Gateway.
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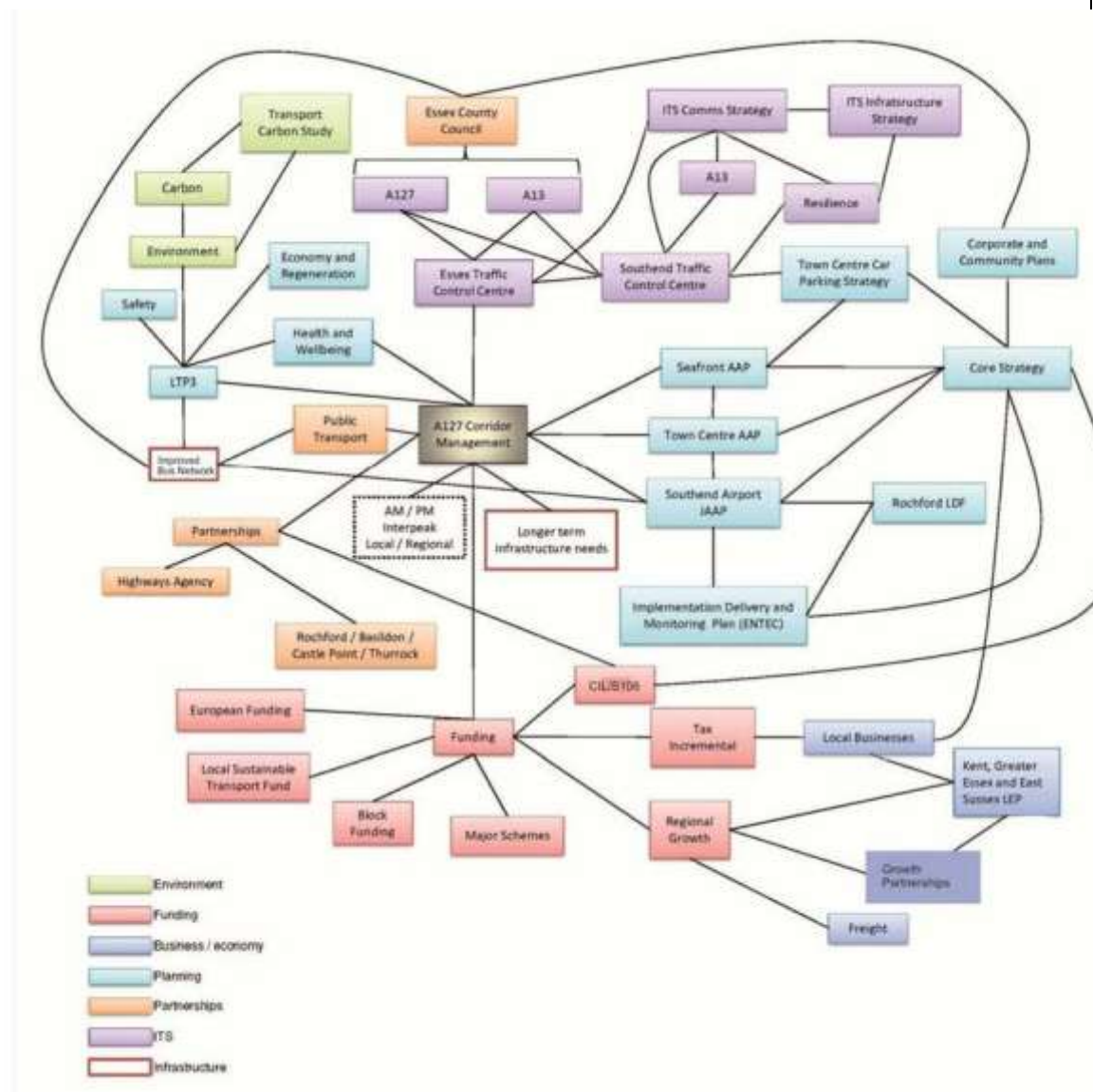
2. STRATEGIC CASE

The strategic case determines whether the scheme presents a robust case for change, and how it contributes to delivery of the SEP and SELEP's wider policy and strategic objectives.

2.1. Challenge or opportunity to be addressed

Introduction

The Council has a long standing strategic priority to address capacity issues, accessibility and journey time reliability along the A127 corridor. As identified in LTP3, the A127 is one of two routes into the Town Centre with the A127 being the strategic freight corridor into the town and principal access to London Southend Airport (LSA) and Rochford. The following figure below provides a diagrammatic representation of the importance of the A127, not just to the movement of people and goods, but to wider planning, the environment, transport planning, business and the economy, partnership working, and intelligent transport systems. It is vital to the economy and well-being of Southend.



Successful improvements to the A127 route, in terms of journey time savings and reliability, have been carried out incrementally as funding has been applied for and granted. The “Better Southend” schemes at A127 Progress Road, A127/A1159 Cuckoo Corner and A127/A13 Victoria Gateway were accepted for grant funding on the basis that they were required to support delivery of employment and housing, particularly at the A127 Progress Road Business Park, the London Southend Airport (LSA) area (Saxon Business Park), Town Centre and Shoeburyness. We recently completed improvements to A127 / B1013 Tesco Junction Improvement which was granted Pinch Point funding. The A127 Progress Road and A127/A1159 Cuckoo Corner schemes

delivered journey time savings of up to 15 minutes in the peak and significantly reduced queuing, and were a catalyst to Stobart's investment in LSA of c£150m.

Further improvements to the A127 are needed at A127/A1015 Kent Elms and The Bell Junctions, as well as maintenance improvements as an integral part of the access improvements supporting the delivery of Business Park employment in areas adjacent to LSA, and provision of new housing in Rochford.

Policy context and compliance

South East LEP Strategic Economic Plan identifies the A127 as a key corridor for growth. As the vital strategic link between London, the M25, Basildon, Southend and Rochford that carries commuters, leisure traffic, and freight it is critical to the functioning of the economy of south Essex.

London Southend Airport and the new adjacent business park developments is a key employment area with a major focus on growth in the Thames Gateway South Essex area and is heavily reliant on the efficient functioning of the A127.

Plans for LSA involve releasing further land for business development (Airport (Saxon) Business Park), providing improved access to employment, supporting development in and around the airport, and within Southend itself. LSA and planned business parks, will prove attractive to a wide range of global companies and offers capacity for at least 4,200 additional jobs up to 2021 and a further 3,180 post 2021.

Southend and Rochford Councils have adopted the London Southend Airport and Environs Joint Area Action Plan (JAAP) to unlock these opportunities. As a further boost to occupier interest, the Airport Business Park is one of the intended locations for a MedTech Campus. This is being proposed by Anglia Ruskin University in partnership with local government including SBC, central government, the NHS, private healthcare providers and the healthcare industry. The Southend Central Area (including Victoria Avenue) will be regenerated as a new quarter for offices and mixed use, including the City Deal secured Growth Hub. Comprehensive redevelopment plans for Basildon Town Centre are well advanced, including the relocation of South Essex College's Basildon Campus to the Town Centre.

Realising much of the growth depends upon resolving the key transport barrier to sustainable growth; addressing the significant reliability and resilience issues along the A127. At peak periods, the A127 carries traffic volumes which exceed those on many urban motorways elsewhere in the UK. Data shows the busiest sections of the route carried in excess of 70,000 vehicles (Average Annual Daily Flow) in 2011, which is in excess of the design capacity of a dual carriageway. With DfT's National Transport Model forecasting traffic can be expected to grow by over 40% by 2040, the adverse impact on Southend's economy could be significant if improvements are not made in the short, medium and long term.

Investment in this corridor is wholly compliant with the aspirations of the Economic Plan for Essex and the Economic Plan for Southend that will update and incorporate the Greater Essex Integrated County Strategy and the ECC Economic Growth Strategy. The package of improvement proposed supports the delivery of both the Southend and Essex Local Transport Plan, and has the support of partner authorities.

Furthermore, improving the A127 would support delivery of the growth aspirations of the South East Strategic Economic Plan, and contribute to the national economy as it recovers from the longest recession in living memory.

The improvement will support not only delivery of employment in the JAAP area, but more widely in Southend with over **16,000 new jobs** as shown by the following table:

Sector	Number of jobs
Production including manufacturing	788
Distribution, transport, accommodation and food	11,429
Financial and insurance activities	183
Public administration, education, health	183
Other services and household activities	4,108
Total	16,690

The GVA impact to Southend's economy is estimated to be **£4.51bn** over a 60 year period (ref to A127 Corridor for Growth in Appendix 4). Further details of the role of the A127 in delivering economic growth in Southend and Greater Essex can be found in *A127 – Corridor for Growth* which accompanies this submission in Appendix 4.

2.2. Description of project aims and SMART objectives

Please outline primary aims and objectives

Please present the SMART (specific, measurable, achievable, realistic and time-bound) benefits and outcomes on the local economy that will arise following delivery of the scheme in terms of numbers of jobs, new homes, GVA).

GVA impact - £4.51bn over a 60 year period.
Jobs – 13,000 across the Borough by 2021

National / Regional Objectives	Local Objectives	Scheme Objectives ✓✓✓ = high, ✓✓ = medium, ✓ = low
Releasing new investment Investing in our growth corridors and growth sites Boosting our productivity	A thriving and sustainable local economy in the Borough	✓✓✓ The scheme will enable delivery of area actions plans throughout the Borough, particularly the JAAP and development around the airport.
	Minimise environmental impact, promote sustainability for a greener Borough	✓✓✓ Freer flowing traffic along the A127 and through the busy Kent Elms junction will deliver positive environmental benefits. The provision of facilities for walking and cycling will encourage modal shift for

			local journeys.
		A safer Borough	✓✓✓ Provision of crossing points will reduce pedestrians crossing the road between traffic, improve road safety for walkers, cyclists and the less mobile. An improved junction layout will improve road safety.
	Improving our skills	Reduce inequalities in health and wellbeing, and a more accessible Borough	✓✓✓ Provision of crossing facilities will reduce the severance caused by the A127, improving residents' access to important facilities including Kent Elms Health Centre, local gym, training and education. Enable the delivery of the JAAP Business Parks including Medtech Campus.
	Building more homes	A thriving and sustainable local economy in the Borough	✓✓✓ Delivery of the JAAP is an important objective for this junction improvement, including new homes on the Southend/ Rochford Boundary, as well as more dwellings around the Borough
2.3. Strategic fit (for example, with the SEP)	<p><i>Please detail the SELEP and local objectives/strategies/work programmes/ services which the investment will support</i></p> <p>The South East LEP's Strategic Economic Plan (SEP) set the following growth objectives to 2021:</p> <ul style="list-style-type: none"> • Generate 200,000 private sector jobs, an average of 20,000 a year or an increase of 11.4% since 2011; • Complete 100,000 new homes, increasing the annual rate of completions by over 50% compared to recent years. <p>The SEP identified its key growth sectors as advanced manufacturing, logistics and life sciences / med tech. These accounted to for 5.7% of total SE LEP employment, 4.2% of SE LEP businesses and 12.2% of the LEP's total GVA.</p> <p>It recognised that delays on major routes in the LEP area had detrimental impacts on business</p>		

	<p>costs and efficiency. The SEP focuses on the development of 12 growth corridors across the LEP area. One of these is the A127 London-Basildon-Southend Corridor and would unlock capacity to support the accelerated delivery of housing and employment. The SEP makes reference to the fact that London Southend Airport, now with scheduled air services to Europe and hub airports for onward global travel, and its neighbouring business park, is proving attractive to a wide range of global companies and offers capacity for at least 4,200 additional jobs up to 2021 and a further 3,180 post 2021. It refers to the fact that one of Anglia Ruskin University's Med Tech campuses is being developed in Southend.</p> <p>The SEP states:</p> <p><i>"The A127 Corridor is vital to the economic growth of the SELEP area, connecting London to the manufacturing hub of Basildon, and to Rochford, Southend, London Southend Airport and surrounding employment areas."</i></p> <p>The A127/A1015 Kent Elms Junction improvement scheme is highlighted in the SEP as a key component of the transport based growth plan for the A127 corridor.</p> <p>At a more local level Southend Borough Council and Essex County Council have developed a joint "A127 Corridor for Growth" economic plan to identify, plan and coordinate investment decisions and manage the asset. This is primarily to establish the conditions, in transport terms, to unlock growth in the key locations of Southend, Rochford and Basildon will see nationally significant growth in the advanced manufacturing and medical technologies sectors.</p>
<p>2.4. Planning policy context and permissions</p>	<p>Southend-on-Sea's Core Strategy (2007) states that improvements to transport infrastructure and services will be sought to secure a 'step change' in provision that will be necessary to unlock key development sites for employment led regeneration and growth of Southend. This particularly includes improving the A127/A1159 east-west strategic transport and freight corridor including junction improvements at A127 Progress Road, A127/A1015 Kent Elms, A127 The Bell, A127/A1159 Cuckoo Corner, Sutton Road, Fairfax Drive, East/West Street and A127/A13 Victoria Gateway. Some of these improvements have been delivered, but Kent Elms and The Bell junctions in particular form a key pinch point where improvements would make the A127 within the Southend boundary operate more effectively by providing increased capacity and reducing congestion and associated delays.</p> <p>The Core Strategy is supported by a suite of daughter documents, of which, two are particularly relevant: Southend Airport and Environs Joint Area Action Plan (JAAP - 2014) and the Southend Central Area Action Plan (SCAAP).</p> <p>Although the JAAP's focus in the immediate area around the airport, it recognises that the location's attractiveness for investment is partly based on its proximity to the A127 which provides a strategic link to Essex, London and beyond. However, there are issues of congestion and delays with the route that need to be addressed if it not to be seen as a barrier to investment in the area. This is particularly important for the LEP prioritised sectors that have indicated a willingness to locate in JAAP area business parks, but could conceivably be put off by concerns related o being able to access the wider labour market, and getting their products to customers.</p> <p>Similarly, the SCAAP has a focus on development on the immediate area, but it too is linked to the far end of the A127 which will be the main route for visitors to Southend arriving by road based transport. An A127 that does not work well, subjecting travellers to delays and congestion, will be a significant barrier to enticing people to Southend, irrespective of the attractiveness and inducements of the developed central area.</p> <p>A planning application for the accommodation works at Essex Auto Group has been submitted.</p>

	<p>Following completion of land negotiations for the small areas of Land at Essex Auto Group and Tops Fireplaces car park planning approval will be required for areas of land being transferred from retail use to Highway. Any new bridge does not require planning permission as it will be within the Highway.</p>
2.5. Delivery constraints	<p><i>High level constraints or other factored which may present a material risk to delivery</i></p> <p>Main constraints are:</p> <p><u>Land Purchase</u> Negotiations with two land owners are currently under way with the expectation of a positive outcome. Compulsory purchase is not being considered.</p> <p>For the Preferred Highway Option 1 - A small amount of land will be required outside the highway boundary from the Essex Auto Group front car display area. This proposal will not affect Essex Auto Group running “business as usual”. The area required for this option currently is used to display approximately 9 cars and car franchises totems. There is no proposal to compulsory purchase the land. Discussions are underway with Essex Auto Group (who lease the land) and Bestway Northern Limited (the land owner) agents on negotiations to acquire the land. A planning application for the accommodation works has been submitted.</p> <p>For the Preferred Highway Option 1 and also for Highway Option 2 - The south western side of the junction will require a small amount of land outside the highway boundary from Tops Fireplaces car park. This proposal will not affect “business as usual” as the car park can remain in operation and also throughout the construction works. There is no proposal to compulsory purchase the land. Discussions are underway with the land owner on negotiations to acquire the land, which are progressing well.</p> <p><u>Relocation of utilities</u> Discussion with Utility Undertakers are at an advanced stage and the design has been amended, where practical, to minimise diversion works. The physical works to relocate those apparatus still impacted by the scheme will commence in May in collaboration with SBC’s Lot 2 New Works Term Contractor.</p> <p><u>Traffic Regulation Orders</u></p> <p>Road space for scheme implementation has been booked. For any necessary Temporary and Traffic Regulation Orders the Chief Executive and Corporate Director for Place, have delegated authority. Traffic Regulation Orders are not deemed necessary for the options.</p> <p><u>Public Consultation</u> Public Consultation on the options commenced on 21st March 2016 until end of April. This includes an online consultation questionnaire launched via the Betersouthend website and supported with an event on 11th April held at a local Primary School (Eastwood Primary School) on 2-4pm for parents of pupils and 4-8pm for general public. The event was well attended and early indications are there is broad support for the junction improvement. Conversations are also being held with local residents affected by the options. A decision on the Scheme Option will be made following a review of the public consultation and negotiations with land owners</p>
2.6. Scheme dependencies	<p><i>Please provide details of any related or dependent activities that if not resolved to a satisfactory conclusion would mean that the full economic benefits of the scheme would not be realised.</i></p> <p>Benefits realisation will be maximised if recently improved junctions on the A127 (A127/B1013</p>

	<p>Tesco Roundabout, A127 Progress Road, A127/A1159 Cuckoo Corner and A127/A13 Victoria Gateway) can be supported through the delivery of the Kent Elms improvement followed by the A127 The Bell improvement and A127 Essential Bridge and Highway Maintenance package.</p>
<p>2.7. Scope of scheme and scalability</p>	<p><i>Please summarise what the scope of the scheme is. Provide details of whether there is the potential to reduce the projects costs but still achieve the desired outcomes.</i></p> <p>Three highway options are being consulted on as described in 1.5 above. Briefly, these are:</p> <ul style="list-style-type: none"> • Highway Option 1 – provides three lanes in both directions and requires land on the north and south side of the carriageway. • Highway Option 2 Preferred Option– as above, but with reduced lane widths. Still requires land on the south side of the carriageway. • Highway Option 3 – as Option 2, with reduced lane widths and only two lanes west bound. No land take required. <p>Additionally there are three options for a new pedestrian footbridge to replace the current footbridge which requires to be removed due to the location of the supports being located within the new carriageway in all the options.</p> <p>The Preferred Options are – Highway Option 1 £ 5.9m combined with Footbridge Option 2 £1.3m totalling £7.2m, is being put forward in this Business Case for scheme to be implemented. These provide the maximum benefits possible without CPO for business or residential land and supports the scheme objectives. Total scheme costs LGF ask going forward is £3.8 + £0.8 (vired from A127 Essential Bridge and Highway Maintenance package) with Southend contribution of £2.1m</p> <p>On completion of the review of the Public Consultation exercise and subject to the outcome of the land negotiations, the Chief Executive and Corporate Director for Place have delegated authority to agree the Option to be taken forward for implementation. Should the Option to be taken forward be less than the allocated amount, the excess contribution will be returned.</p>
<p>2.8. Options if funding is not secured</p>	<p><i>Please summarise what would happen if the funding for the scheme was not secured - would an alternative solution be implemented and if so please identify how it differs from the proposed scheme.</i></p> <p><i>Is doing nothing an option?</i></p> <p>Without this improvement, the completed improvements at A127 Progress Road, A127/B1013 Tesco Roundabout, and A127/A1159 Cuckoo Corner and A127/A13 Victoria Gateway will not fully maximise their intended benefits. This will have ongoing consequences for securing investment in Southend.</p> <p>This intervention will demonstrate a strong commitment to provide the infrastructure needed to support the employment and housing numbers. The modelling has been based on 2021 projections of traffic growth and whilst this is predicated on full development, it is considered that this is the most credible position to adopt at present given the urgency around boosting economic growth. Whilst the development will be phased over the JAAP period, it must be recognised that in order to encourage the investment and increase the viability of the sites a clear, funded, route for infrastructure development must be put forward to support the JAAP developments and further economic growth.</p> <p>The overall programme in invest in the A127 corridor to support the delivery of growth for Southend and airport business parks is to complete the A127 Kent Elms Junction Improvement in 16/17 followed by the completion of the A127 Bell Junction Improvement in 18/19 and</p>

	supported by the A127 Essential Bridge and Highway Maintenance package of measures scheduled for completion in 2020/21. Essex Schemes as part of the overall jointly developed A127 Corridor Strategy
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3. ECONOMIC CASE

The economic case determines whether the scheme demonstrates value for money. It presents evidence on the impact of the scheme on the economy as well as its environmental, social and spatial impacts. For projects requesting over £5m of SELEP directed funding, a full economic appraisal should be undertaken and supplied alongside this application form.

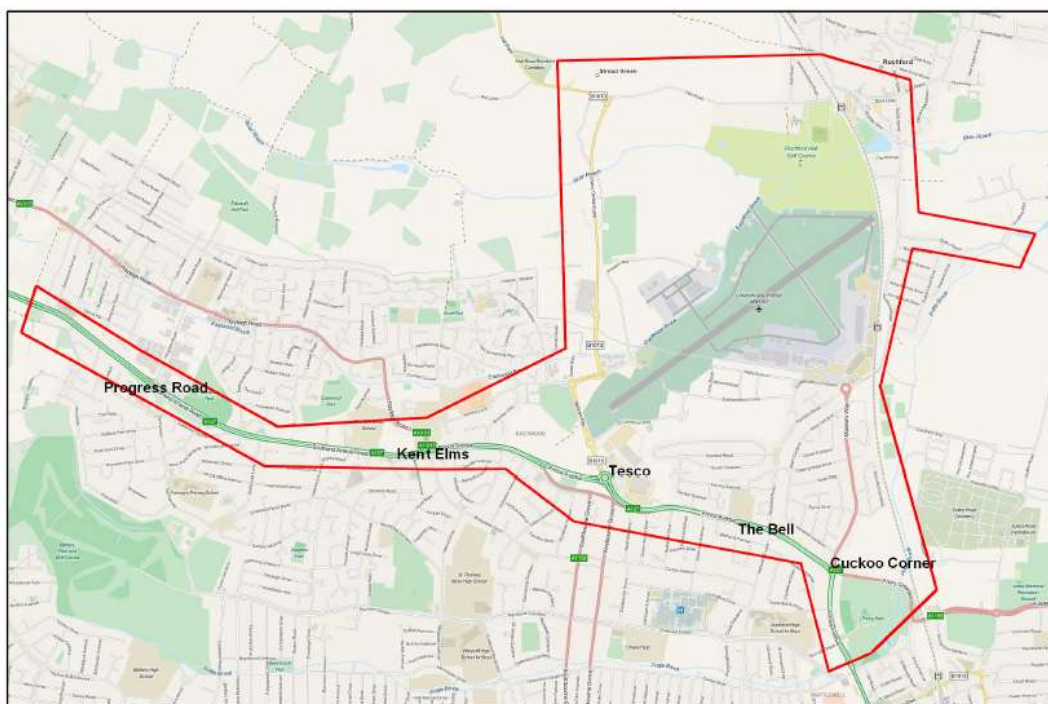
3.1. Impact Assessment

Please provide a description of the impact assessment of the scheme with some narrative as to why other options have been discounted.

This should include a list of significant positive and negative impacts and a short description of the modelling approach used to forecast the impact of the scheme and the checks that have been undertaken to ensure that the approach taken is fit for purpose.

The assessment makes use of an existing VISSIM micro-simulation model originally developed by Atkins validated to a 2012 base. Further details of the existing model development and revalidation can be found in the Atkins 'A127 Corridor Study – Proposed Junction Option Testing Technical Note' issued in May 2013 contained within Appendix 5.

A future modelling year of 2021 will be used as with the previous modelling with the traffic flows revised to accommodate subsequent changes. The network extents of the VISSIM model are shown in Figure below. The key junctions along the A127 have also been identified.



Comparisons will be provided for a 2021 Do Minimum scenario and the three 2021 Do Something scenarios.

2021 Forecast Method

A consistent forecast methodology has been used as per the previous studies undertaken by Atkins.

The methodology involves using the Southend-on-Sea Multi Modal Model (SoSMMM) as follows:

- A revised base model was prepared in the SATURN model that contained the

	<p>Eastwoodbury Lane diversion and associated changes to Nestuda Way and the signalisation of the Tesco roundabout (A127/Nestuda Way/Tesco);</p> <ul style="list-style-type: none"> • The existing base model demand was then assigned onto the current layout to form the new base model assignment; • 2021 SATURN absolute differences calculated (Future year – base); • SATURN differences then divided by 4 (to get 15 min equivalent) and profiled to VISSIM flows based on a modified version of the existing flow profile (with a flatter flow profile to allow all forecast growth to be accommodated within the peak period); • If negative values resulted then percentage difference used instead; and, • Resulting VISSIM 2021 interim flows manually balanced. <p>The resulting flows for the 2021 DM and DS for all hours assessed are provided in Appendix A.</p> <p>2021 Do Minimum</p> <p>The existing Atkins model has been updated with as-built changes to the network to create a Do Minimum scenario. The changes include the following:</p> <ul style="list-style-type: none"> • The Tesco junction (A127/Nestuda Way/Tesco) roundabout signalisation scheme that has now been built; and, • Nestuda Way/Eastwoodbury Lane junction improvements linked to the above Tesco scheme. PinchPoint fund submission and completed in March 2015. <p>2021 Do Something Scheme Options</p> <p>The Do Something options include changes to the A127 Kent Elms junction and changes to the Bell junction (which is part of the proposed package of measures but to be funded separately), the rest of the network is identical to the Do Minimum network.</p> <p>Summary</p> <p>A consistent forecast methodology has been used as per the previous studies undertaken by Atkins. The methodology involves using the SoSMMM to derive the forecast flows based on the differences between the SoSMMM forecast and base model flows applied to the VISSIM base model flows. This method retains the operational flows from the base whilst still applying the WebTAG compliant forecast from the SoSMMM.</p> <p>The results show that DS1 is the optimal performer for the majority of measures in terms of the overall network performance in both peaks closely followed by DS3 in the AM peak and DS2 in the PM peak.</p>
<p>3.2. Outputs/wider benefits</p>	<p><i>Identify jobs, floor space and housing starts connected to the intervention, quantify the outputs in tabular format and provide a short narrative for each theme (i.e. jobs/homes/floorspace) explaining how the project will support the number identified. Please describe the methodology used for calculating jobs and homes numbers.</i></p> <p><i>Homes</i></p>

Potential Housing Supply in Southend on Sea

The NPPF requires planning authorities to be able to demonstrate a five year supply of housing plus an additional 5%.

The Core Strategy phased housing requirement for the next 5 year period (2013 to 2018) is 1,570. An additional 5% would equate to 1,649.

The implementation of all outstanding residential planning permissions would result in an additional 2,033 net additional dwellings, of which 1,608 are predicted to be delivered in the next five years, which falls slightly short of the 5 year housing supply target + 5% of 1,649. However, past performance and delivery of windfall sites indicates that a windfall allowance of 402 can be applied to the housing delivery in Southend for the next 5 year period, resulting in a supply of 2,010 net additional dwellings, providing sufficient supply of housing to meet the targets. This information demonstrates that Southend has a good supply of readily available housing sites to meet a five year housing supply and beyond.

According to the above results a 6.4 year housing land supply can be demonstrated for Southend. $[2,010 / (1570/5) = 6.4]$.

Applying the 5% buffer to the housing target results in a 6.09 year housing land supply $[2,010 / (1649/5) = 6.09]$

Summary of 15-year Dwelling Provision

	To date 2001/2014	5 Year Supply 2014/2019	10 Year Supply 2014/2024	15 Year Supply 2014/2029
Completions	4,237			
Outstanding Planning Permissions		553	582	582
SHLAA Sites with Planning Permission		1055	1451	1451
SHLAA Sites without Planning Permission		0	966	2106
Windfall (small sites)		402	892	1807
Total Completions/Projection for period	4,237	2010	4304	6359
Target for period*	4310	1570	3090	4590
minus overprovision 2001/2013	N/A	-73	-73	-73
Number of dwellings left to achieve phased target		1643	3163	4663
Cumulative overprovision/ shortfall	-73	367	1141	1696

Southend Core Strategy states:

Policy CP1: Employment Generating Development

Provision is made for not less than 6,500 net additional jobs by 2011, and not less than 13,000 net additional jobs by 2021, distributed⁶ as follows:

	2001-2021	Per Annum
Town Centre and Central Area	6,500	325
Shoeburyness*	1,500	75
Seafrost**	750	37.5
Priority Urban Areas***	2,750	137.5
Intensification****	1,500	75
TOTAL	13,000	650

* Further detailed guidance into development in Shoeburyness will be provided in the "Shoeburyness SPD".

** 'Seafrost': subject to the safeguarding of the biodiversity importance of the foreshore

*** Priority Urban Areas these comprise the District Centres of Westcliff and Leigh, the Southchurch Road shopping area and the West Road/Ness Road shopping area in Shoebury, together with the town's main industrial estates/employment areas as identified on the Key Diagram and listed at paragraph 2.4. Those Priority Areas falling within the boundaries of proposed Area Action Plans and Supplementary Planning Documents provide a jobs contribution towards these areas rather than the 'Priority Urban Areas' category.

**** In broad terms, intensification takes into account the modern forms of working such as home working and 'hot desking' as well as small scale employment generating mixed use development within the community.

The proposed Junction Improvement works will support the JAAP and in the short term support unlocking Phase 1 of the development scheme for the Airport Business Park which could deliver the following outputs (as reported within the Southend Airport Business Park Phase 1 Business case):

	16/17	17/18	18/19	19/20	20/21	Totals
Commercial floorspace (sqm)		2,348	10,268	3,852	5,943	22,410
Gross Jobs (non-construction) (with 10% running void)		141	356	231	357	1,084
Net Additional Jobs (non-construction)		98	237	160	247	742
Net Additional GVA (non-construction) (discounted over 10 year period)						£372m

3.3. Standards

Provide details of anticipated standards (such as BREEAM) that the project will achieve.

TD 9/93 Highway Link Design,
 TD 27/05 Cross Sections and Headrooms
 TD 50/04 The Geometric Layout of Signal Controlled Junctions and Signalised Roundabouts
 TA 57/87 Roadside Features
 TA 90/05 The Geometric Design of Pedestrian, Cycle and Equestrian Routes
 HD 33/06 Surface and Sub-surface Drainage Systems for Highways
 HA 102/00 Spacing of Road Gullies
 HA 40/01 Determination of Pipe Bedding Combinations for Drainage Works
 BD 29/04 Design Criteria for Footbridges
 HD 24/06 Traffic Assessment
 IAN 73/06 Rev 1
 HD 26/06 Pavement Design
 HD 39/16 Footway and Cycleway Design
 HD 19/15 Road Safety Audit
 LTN 1/95
 LTN 2/95
 The SuDS Manual

3.4. Value for money assessment

The following table above shows a summary of scheme costs and benefits over a 60 year appraisal period; all Do Something scenarios show a “very high” BCR based on the DfT definition of the term. The BCR range is 4.1 to 4.5.

	Option / Variant	Construction Cost (£m)	Discounted Benefit (£m)	Discounted Cost (£m)	BCR
	Option / DS1 Preferred Option	7,604,461	51,549,419	11,497,482	4.5
	Option / DS2	6,372,364	42,487,118	10,375,374	4.1
	Option / DS3	4,382,979	38,829,384	8,563,580	4.5
<p>This is based on:</p> <ul style="list-style-type: none"> • 60 year appraisal period; • Includes 44% Optimism Bias; and • Is in 2010 prices. <p>The results show that DS1 is the optimal performer for the majority of measures in terms of the overall network performance in both peaks closely followed by DS3 in the AM peak and DS2 in the PM peak.</p> <p>In terms of junction performance the AM peak results comparison shows that DS1 is the optimal performer for the number of processed vehicles and delay over the three hour peak. The DS1 is also the optimal performer in terms of average queue length and delay over the three hour period. All the options result in an overall LOS of E (i.e. the network is operating at capacity). For the A127 Kent Elms junction, all the scenarios have the same LOS in each hour with the DM only differing in the final hour with a better LOS of E compared to F in the DS scenarios.</p> <p>The PM peak junction performance results comparison shows that DS1 is the optimal performer for the number of processed vehicles and delay over the three hour peak. The DS1 is also the optimal performer in terms of average queue length and delay over the three hour period. All the options result in an overall LOS of E. For the Kent Elms junction, all the scenarios have the same LOS in each hour with the DM only differing in the final hour with a better LOS of E compared to F in the DS scenarios (which appears to be a result of additional congestion in the WB direction from A127 Progress Road blocking back to A127 Kent Elms).</p> <p>Economically DS1 and DS3 provide the greatest return on investment with a BCR of 4.5 for each, with DS2 also providing a high BCR of 4.1. DS1, however, provides greater overall benefits, as shown by the discounted benefit, that DS3 which has the same BCR.</p>					
3.5. Transport scheme assessment	<p><i>Provide a brief description of a modelling and appraisal methodology – including details of data source (supported by LMVR, forecasting report, data collection and analysis reports following the Major Schemes Business Case checklist)</i></p> <p><i>Show sufficient information to demonstrate the analysis supporting the economic case fitness for purpose.</i></p> <p><i>The level of detail in the appraisal summary table should be proportionate to the scale of expected impact with particular emphasis placed on the assessment of carbon, air quality, bus usage, sustainability modes, accessibility and road safety.</i></p> <p><i>Please include information on wider economic benefits</i></p>				

	<p>The performance of three potential junction improvement schemes at the A127 Kent Elms junction on the A127 using the microsimulation software VISSIM and traffic flow inputs from the strategic Southend-on-Sea Multi Modal Model (SoSMMM). An existing model created by Atkins was updated with as built network improvements to create a Do Minimum network. Three Do Something models were created from the Do Minimum with changes only to the A127 Kent Elms junction and a committed scheme at A127 The Bell. A future year of 2021 was used for all assessments.</p> <p>A consistent forecast methodology has been used as per the previous studies undertaken by Atkins. The methodology involves using the SoSMMM to derive the forecast flows based on the differences between the SoSMMM forecast and base model flows applied to the VISSIM base model flows. This method retains the operational flows from the base whilst still applying the WebTAG compliant forecast from the SoSMMM.</p> <p>The full details of the scenario testing can be found in the <i>A127 Kent Elms VISSIM Modelling Assessment</i> technical note which accompanies this submission in Appendix 5 .</p>												
3.6. Options assessed	<p>1. Assessment of options considered- including do nothing, do minimum etc</p> <p>2. Recommended option. How do its impacts compare with the other options considered?</p> <p>Transport assessment of options</p> <p>Please provide a description of at least 4 options (or choices) for investment, together with their relative advantages and disadvantages (a SWOT analysis):</p> <ul style="list-style-type: none">Do nothingDo minimumDo somethingDo optimum <p>Please bear in mind that:</p> <ul style="list-style-type: none">these options may differ in potential business scope, service solution, service delivery, implementation and funding, depending on the nature of the investmentthe investment appraisal for each option should be contained as an appendix and prepared in accordance with the tools and techniques set out in the WebTAG, Capital Investment Manual and HM Treasury Green Book. <p>The economic summary for the three options is provided below:</p> <table><tr><th>Criteria</th><th>Option / DS1 Preferred Option</th><th>Option / DS2</th><th>Option / DS3</th></tr><tr><td>Journey time benefits over assessment period (2010 market prices)</td><td>£ 150,318,373</td><td>£123,892,65803,3</td><td>£113,226,685</td></tr><tr><td>Journey time benefits over assessment period discounted</td><td>£ 51,549,419</td><td>£42,487,118</td><td>£38,829,384</td></tr></table>	Criteria	Option / DS1 Preferred Option	Option / DS2	Option / DS3	Journey time benefits over assessment period (2010 market prices)	£ 150,318,373	£123,892,65803,3	£113,226,685	Journey time benefits over assessment period discounted	£ 51,549,419	£42,487,118	£38,829,384
Criteria	Option / DS1 Preferred Option	Option / DS2	Option / DS3										
Journey time benefits over assessment period (2010 market prices)	£ 150,318,373	£123,892,65803,3	£113,226,685										
Journey time benefits over assessment period discounted	£ 51,549,419	£42,487,118	£38,829,384										

	to 2010 (2010 market prices)			
	DM Constructio n Cost	£5,020,000	£5,020,000	£5,020,000
	DS1 Constructio n Cost (2016 Q1)	£7,604,461	£6,372,364	£4,382,979
	Net Constructio n Cost	£12,624,461	£11,392,364	£9,402,979
	PRI Factor to 2010	0.835188762	0.835188762	0.835188762
	Net Constructio n Cost (2010 Prices)	£10,543,808	£9,514,775	£7,853,263
	Market Price Factor	1.209	1.209	1.209
	Net Market Cost (2010 value at Market Prices)	£12,747,464	£11,503,363	£9,494,595
	Discounted Benefit (2010 market prices discounted to 2010)	£51,549,419	£42,487,118	£38,829,384
	Discounted Cost (2010 market prices discounted to 2010)	£11,497,482	£10,375,374	£8,563,580
	BCR	4.5	4.1	4.5
	<p>All the options have very high BCRs of between 4.1 – 4.5. It should be noted that these are based on a single assessment year and as such the benefits could be overstated.</p> <p>Whilst the BCR for DS1 and DS3 are the same, the DS1 scheme provides greater benefits for the wider A127 package of improvements as it provides greater capacity than the DS3 scheme and therefore represents a more resilient scheme going forward.</p>			
3.7. Assumptions	<p><i>List all assumptions made for transport modelling and approach. WebTAG sets out assumptions that should be used in the conduct of transport studies.</i></p> <p><i>In addition, please list any further assumptions supporting the analysis.</i></p> <p>See 3.5 and 3.6, and the <i>A127 Kent Elms VISSIM Modelling Assessment</i> technical note which accompanies this submission in Appendix 5.</p>			

3.8. Sensitivity tests

Set out your sensitivity tests considering risks, uncertainties and sensitivities associated with the project

Refer to A127 Kent Elms VISSIM Modelling Assessment technical note which accompanies this submission in Appendix 5.

The results of the sensitivity testing for the Preferred Option (DS1) are as follows:

Impact of reducing PM Peak Journey Time Saving on BCR

JT Saving/Veh (s)		BCR
AM	PM	
2.7	33.1	4.5
2.7	25.0	3.5
2.7	20.0	2.8
2.7	15.0	2.2
2.7	10.0	1.6
2.7	5.0	1.0

Impact of Cost increase on BCR

Cost	BCR
£7,604,461	4.5
£10,604,461	3.6
£13,604,461	3.0
£16,604,461	2.6
£19, 604,461	2.3
£22, 604,461	2.0
£25, 604,461	1.8

The above show that the journey time savings would have to reduce or costs increase significantly before the BCR drops below 2.

3.9. Appraisal summary – see AST in Appendix 6

3.10. Transport value for money statement – See guidance

	Present values in 2010 prices and values
PVB	£51,549,419
PVC	£11,497,482
NPV = PVB – PVC	£40,051,937
Initial BCR = PVB/PVC	4.5

3.11. Value for money summary - Preferred Option - Highway Option 1 and Footbridge Option 2 worked example

Please identify the category of VfM based on Benefit Cost Ratio (BCR) of the scheme using monetised impacts in line with WebTAG guidance.

VfM assessment should take into account qualitative and quantitative impacts in 2 stages:

- I) Construct 'adjusted' BCR
- II) Take into account all impacts that could not be monetised

VfM statement report should include:

- I) VfM category
- II) PV of benefits, costs and range around BCR
- III) Summary of assessed benefits and costs, including assumptions that influenced the results
- IV) Assessment of non-monetised impact
- V) Key risks, sensitivities and uncertainties

	Assessment	Detail
Initial BCR	4.5	Preferred Option – Highway Option 1 and Footbridge Option 2 gives a BCR of 4.5 which is very high. BCR range of 4.1 to 4.5 for the three options. Option 3 gives the same BCR as Option 1 because it is lower cost, however the preferred scheme's BCR has much higher benefits than Option 3.
Adjusted BCR	N/A	N/A
Qualitative Assessment		
Key risks, sensitivities	Medium	Land acquisition through negotiation which will allow the preferred option to be delivered. Public consultation – currently in progress.
VfM category	Very High	For all three options the BCR exceeds four and thus fits the DfT category of 'very high'.

4. COMMERCIAL CASE

The commercial case determines whether the scheme is commercially viable. It presents evidence on risk allocation and transfer, contract timescales, implementation timescales and details of the capability and skills of the team delivering the project.

4.1. Procurement

Please provide details of the procurement route and strategy that will be used for the project. This should include details of the procurement mechanism to be used, details of whether it is an existing framework and contract, the timescales associated with the procurements and details of other routes that were considered for delivery and reasons why these were rejected.

Southend-on-Sea re-let the Highways contracts into five “Lots” which divide the work into distinct areas; Planned and Reactive Maintenance; New Works; Traffic system Control, Traffic system Maintenance, and Resurfacing. The procurement process has complied with OJEU with the new contracts based on the HMEP/NEC3 Term Service Contract commencing on 1st April 2015 for initially 7 years.

Early Enabling Works

Early enabling works to construct a new pedestrian/cyclist surface crossing in advance of the main works were completed in the 2015/2016 winter by our New Works Term Framework contractor Eurovia. The new crossing is being monitored in terms of types of users and behaviours of pedestrians and vehicles.

Main Works

The procurement for the completion of the project will be made through existing framework the Eastern Highways Alliance Framework and Southend Borough Council Term Contract for New Works.

Southend-on-Sea Borough Council joined The Eastern Highway Alliance Framework (EHF1) in order to carry out major projects such as the Local Pinch Point scheme A127/B1013 Tesco Junction Improvement, recently completed on time and to budget.

The EHF1 is an unincorporated Association by Agreement involving nine local authorities engaged in developing ways to provide highway services in a cost effective and efficient way. The EHF1 commenced on 18th June 2012 and will expire on 17th June 2016. Due to the success of EHF1 the local authorities agreed to engage contractors for EHF2. EHF2 contractors have been appointed with the Inter-authority agreement being finalised, allowing for an overlap of frameworks. The Council joined the Framework due to the underlying EHA ethos which is that of collaboration and encapsulates:

- A flexible approach to the procurement of highway services and goods based on an inter-authority strategy;
- The further development of Best Value, VfM and construction best practice using the partnering approach for the procurement of private sector partners involving the whole of the relevant supply chains;
- The rationalisation of systems and procedures enabling duplication of effort and administrative and support costs to be reduced for the EHA Members;
- The opportunity to foster innovation within the EHA and to make financial savings;
- The creation of more open processes and performance benchmarking

	<p>partnerships through regional initiatives and with other highway authorities; and</p> <ul style="list-style-type: none"> • The development of skills to help implement and deliver best practices across the EHA. <p>The EHA is lead by the Highways and Transport (H&T) Board comprising chief officers or their nominees. A Framework Steering Group (FSG) comprising senior officers of each member authority is responsible to the H&T Board for setting up and running the EHF1/2. A Framework User Group (FUG) comprising of officers and contractors deals with all matters related to the use of EHF1/2 within parameters set by the FSG.</p> <p>The Framework is based on the NEC3 Framework Contract June 2005. Each authority commissioning work can use either direct award or mini competition to award work to the framework contractors.</p> <p>The Principle contractor will be appointed via the mini competition route under NEC3 2013 Option B. The Principle contractor will be the Senior Supplier on the Project Board and the Project Manager will be the NEC3 Project Manager for the construction works which has worked well on the A127/B1013 Tesco Junction Improvement works.</p>
4.2. Commercial dependencies	<i>None</i>
4.3. Commercial sustainability	<p><i>Please can you identify how the project will be commercially sustainable? Will the project require on going revenue support? If so how will this be funded?</i></p> <p><i>None</i></p>
4.4. Compatibility with State Aid rules	<i>State aid declaration – N/A</i>
4.5. Commercial viability	<p><i>Please provide:</i></p> <ol style="list-style-type: none"> 1. <i>Evidence to show the risk allocation and transfer between the promoter and contractor and timescales identified in procurement and/or contract management strategy</i> <p>The contract will be in accordance with Eastern Highways Alliance Framework 2 NEC3 2013 Option B.</p>

5. FINANCIAL CASE

*To be completed in conjunction with the spreadsheet in **Part B***

5.1. Total project cost and basis for estimates

£7.15m

The total project cost have been produced from

- Works estimates using 2016 prices from the Eastern Highways Alliance Framework (EHA),
- costs Management Fees, Design Fees and Supervision costs
- C4 estimates from Statutory Undertakers for plant diversions,
- Estimate of land values from land agents,
- calculation of risk utilising @risk software (Appendix 11)
- the provision of a 15% Optimism Bias (WebTAG Unit A1.2 scheme costs Table 8) has been included.

The Works costs are based on 2016 prices within the EHA. As the works will be tendered within this period there has been no inflation included within the financial case.

5.2. Total SELEP funding request

£4.30m + £0.8 vired from A127 Essential Bridge and Highway Maintenance package

5.3. Other sources of funding

£2.05m from Southend-on-Sea Borough Council.

Cost for the Preferred Option is estimated at £7.15m which includes the completed Phase 1 new crossing works. The 2015/16 (£500k) funding has been received. The contribution from the LGF is £4.3m with the remaining £2.05m contribution from the Council capital programme. SELEP has confirmed that it is possible to vire up to 10% within the combined project envelope between individual schemes. Therefore it is possible to increase the Kent Elms £4.3m LGF contribution by £0.8m from the A127 Essential Bridge and Highway Maintenance package funding profile will support the £7.15m preferred scheme.

5.4. Summary financial profile

(£m)		15/16	16/17	17/18	18/19	19/20	Total
Source of funding – List here the amount of funding sought							
SELEP request		0.5	3.8 + 0.8	0.0	0.0	0.0	5.1
Southend-on –Sea contribution		0.0	1.0	1.05			2.05
Third party & other contributions (specify per row)							
Borrowing							
Local contribution total (leverage)							
Total		0.5	5.6	1.05			7.15
(£m)	Cost estimate status	15/16	16/17	17/18	18/19	19/20	Total
Costs - List here the elements of gross costs, excluding optimism bias.							
e.g.							
Procurement							
Feasibility							
Detailed design							
Management including contract supervision costs							
Construction							
Other cost elements. (utility and land costs)							
Risk							
OB							
VAT							
Total		0.5	5.6	1.05			7.15
5.5. Viability: How secure are the external sources of funding?	<p><i>Please provide evidence of the security of the specified third party contributions</i></p> <p>In addition to LGF, Southend-on-Sea Borough Council has committed £2.05m to the scheme. Cabinet approved SBC capital funding for this project has been allocated within the capital programme</p>						
5.6. Is any of the SELEP contribution recoverable?	No						
5.7. Cost overruns	<p><i>Please describe how cost overruns will be met by other funding sources given that SELEP contributions will be capped at the offer awarded</i></p> <p>Southend-on-Sea Borough Council has a track record in delivering projects on time and within budget. The “Better Southend” projects governance arrangements are being mirrored to ensure the delivery of A127 Kent Elms Junction improvement. However should cost overruns be incurred these will be met by Southend-on-Sea Capital Programme.</p>						
5.8. Delivery timescales	<p><i>What are the main risks associated with the delivery timescales of the project? Please identify how this will impact on the cost of the project</i></p>						

	See Risk Register in Appendix 7
5.9. Financial risk management	<p><i>Identify key risks to the scheme funding and any mitigations</i></p> <p>See Risk Register in Appendix 7 and Risk Analysis in Appendix 11</p>
5.10. Alternative funding mechanisms	<p><i>If loan funding is requested how will it be repaid?</i></p> <p><i>Do you anticipate that the total value of the investment will be repaid? If not, how much will be repaid?</i></p> <p>N/A</p>

6. DELIVERY/MANAGEMENT CASE

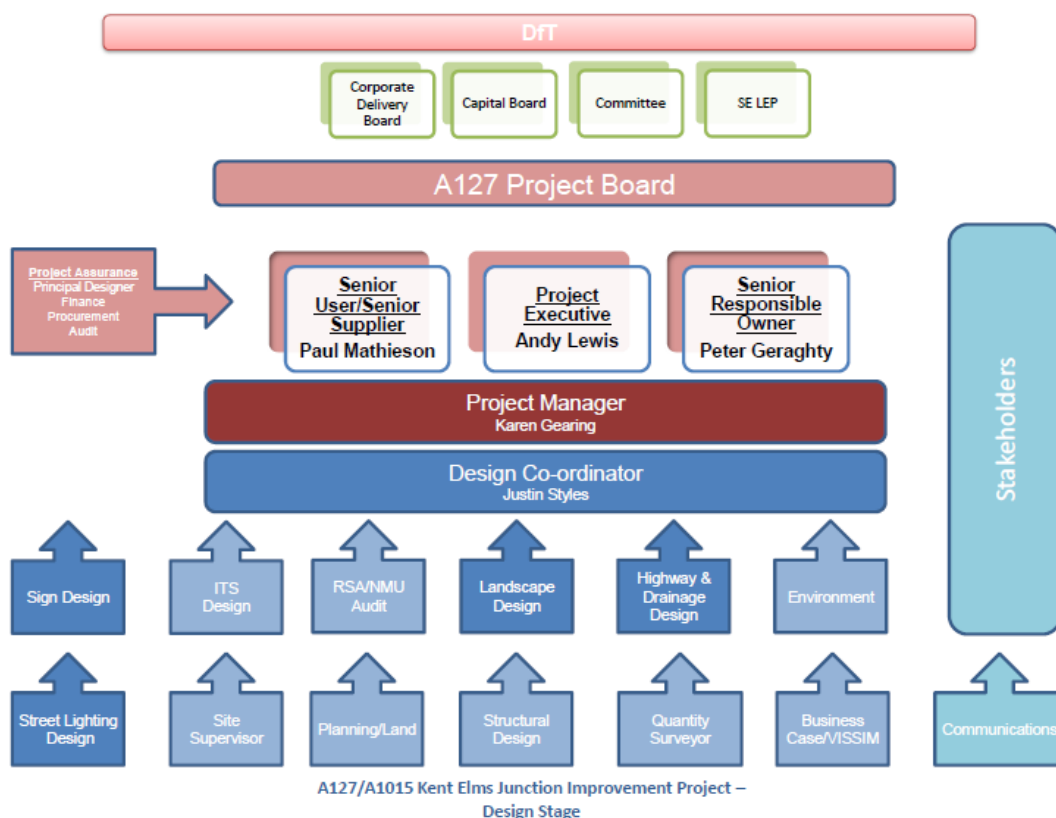
The management case determines whether the scheme is achievable. It provides evidence of project planning, governance structure, risk management, communications and stakeholder management, benefits realisation and assurance.

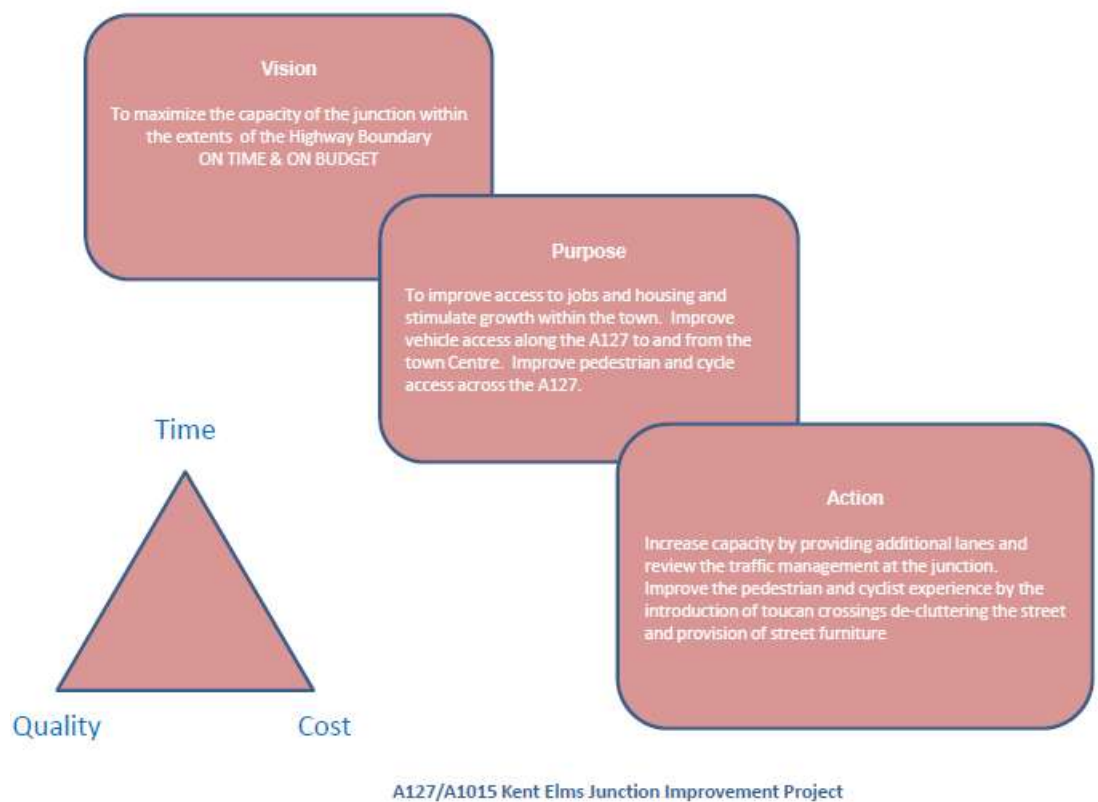
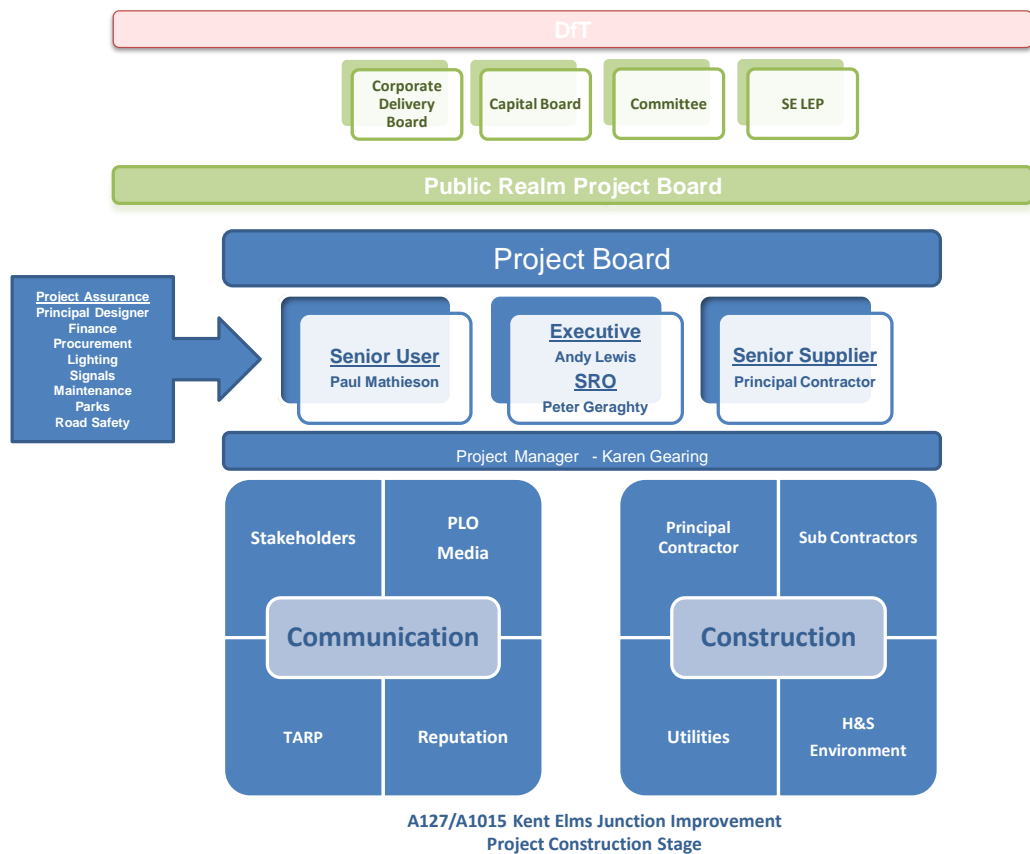
6.1. Project management

Please provide details of who will be responsible for delivering the scheme and the different roles and responsibilities they will play. Please also detail the governance structure for the project identifying how key decisions have or will be made, how the scheme will be monitored and details of the contract management arrangements. Please provide an organogram if available.

The A127 A127/A1015 Kent Elms Junction Improvement will build upon the delivery of the "Better Southend" Major Schemes (£25m package of CIF2 and DfT funded project and £5m Local Pinch Point Fund), LTP3 and LSTF projects. The project will be based upon PRINCE2 methodology with the Project Manager and Senior User PRINCE2 Practitioners. The following organisation chart shows the governance structure that is already in place and ensured the delivery of Phase 1 works.

The design shall be carried out in house and engage specialist support services i.e. geotechnical, environmental, Road Safety Audit, surveys, from consultants/contractors through existing frameworks.





Southend-on-Sea Borough Council has a track record in delivering projects on time and within budget. The “Better Southend” projects, including the A127 Progress Road Junction Improvement, the A127/A1159 Cuckoo Corner Junction Improvement, A127/A13 Victoria

	<p>Gateway and City Beach improvements and more recently the A127/B1013 Tesco Junction Improvement were all completed on time and within budget.</p> <p>Andy Lewis – Corporate Director Enterprise, Tourism and the Environment – Executive Andy will be ultimately responsible for the programme and ensure that all elements are correctly focussed on achieving their aims, objectives and outcomes, and reports to the Corporate Delivery Board. Andy has been the Corporate Director and Executive for all previous “Better Southend” projects. Andy’s strong Executive support for this project and his experience will ensure A127 Kent Elms is completed on time and to budget</p> <p>Dr Peter Geraghty – Head of Planning and Transport – Senior Responsible Owner Peter is the Head of Service responsible for managing the strategic planning and transport functions. Peter will oversee the budgetary requirements and approve the resourcing and investment. Peter undertook the SRO role for the A127/B1013 Tesco Junction Improvement.</p> <p>Paul Mathieson – Senior User/Senior Supplier – Chartered Civil Engineer and PRINCE2 Practitioner Paul is responsible for the quality of the elements as delivered by the Project Manager and the team. Paul is responsible for ensuring alignment with strategic transport and planning policy and scheme objectives, co-ordination with other authorities and achieving value for money and delivering the benefits.</p> <p>Principle Contractor – TBA - Senior Supplier During the construction stage the Principle Contractor will undertake the Senior Supplier Role and attend Project Board meetings.</p> <p>Justin Styles – Design Coordinator & Principal Designer (CDM) Justin will be responsible directing design resources to ensure the Design stage and Tender Stage is completed on time and to quality. Provide Project Assurance support and undertake the role of Principle Designer under the CDM 2015 regulations. Justin will also provide supervision in Chief support during the Construction Stage.</p> <p>Karen Gearing – Project Manager – Chartered Civil Engineer and PRINCE2 Practitioner Karen will be responsible for the project management of the Project, ensuring that the project is aligned with the project objectives, and that the appropriate monitoring is implemented to assess progress on the outputs and monitor the outcomes. Karen was responsible for delivering three of the “Better Southend” major schemes valued at £15m. Project Board meetings will be held regularly, which will consider project status against deliverables and cost, as well as reviewing the Risk Register and any exception reports and necessary actions.</p> <p>Other Key Staff – The Council’s Community Engagement officer, Ashley Dalton, is the stakeholder Team Leader. Ashley lead on the 2013 consultation process for the A127 corridor and is leading on the consultation process for A127 Kent Elms along with the support of Michael Sargood from our Media Department.</p>						
6.2. How will outputs be monitored?	<p>The table below provides a summary of the proposed measurement and thresholds of acceptability that will be used to evaluate the benefits of the scheme.</p> <table><tr><th>Monitoring Indicator</th><th>Measurement</th><th>Threshold</th></tr><tr><td>Journey times</td><td>Improved Journey times</td><td>Reduction in journey time within 3 year period</td></tr></table>	Monitoring Indicator	Measurement	Threshold	Journey times	Improved Journey times	Reduction in journey time within 3 year period
Monitoring Indicator	Measurement	Threshold					
Journey times	Improved Journey times	Reduction in journey time within 3 year period					

			compared with pre implementation												
	Safety benefits	Recorded no. of accidents	Reduction in accidents within the junction 3 year period post implementation of scheme compared with existing 3 years previously.												
	Integration and accessibility- Pedestrian/cycle/disability impaired modal split	Combined % of pedestrian /cyclist/disability impaired trips within the junction	Increased number within 3 year period post implementation of scheme compared with existing data												
	Scheme delivery	Main works completion date	By April 17												
	Southend Borough Council will conduct a full evaluation of the impact of the scheme in the period after it is completed. The Council will prepare evaluation reports one year and five years after scheme opening, using the information to be collected as set out above to gauge the impact of the scheme, and assess the success in meeting the scheme objectives. Unexpected effects of the scheme will be reported upon and, where appropriate, remedial measures identified.														
6.3. Milestones	<p>Please identify the key milestones and projects stages relating to the delivery of this project in the table below. Please ensure a Gantt chart has been attached to this application form, clearly identifying the milestones for the project, the key construction stages, the critical path and all interdependencies.</p> <p>Refer to programme in Appendix 9</p> <table><tr><td>Project milestone</td><td></td><td>Indicative date</td></tr><tr><td>Issue Tender Documents</td><td></td><td>June 2016</td></tr><tr><td>Commencement of Main works</td><td></td><td>September 2016</td></tr><tr><td>Completion of Main Works</td><td></td><td>April 2017</td></tr></table>			Project milestone		Indicative date	Issue Tender Documents		June 2016	Commencement of Main works		September 2016	Completion of Main Works		April 2017
Project milestone		Indicative date													
Issue Tender Documents		June 2016													
Commencement of Main works		September 2016													
Completion of Main Works		April 2017													
6.4. Stakeholder management & governance	<p>Please provide a summary of the stakeholder management plan for the scheme. Include any governance arrangements which will materially impact on the delivery of the scheme.</p> <p>Provide brief description of how key statutory stakeholders will be managed and engaged, in line with Communication and Stakeholder Management Strategy.</p> <p>In broad terms consider: supplier, owner, customer, competitor, employee, regulator, partner and management. Specifically consider: local authorities, the Highways Agency, statutory consultees, landowners, transport operators, local residents, utility companies, train operating companies, external campaigns, etc.</p> <p>Identify champion, supporter, neutral, critic, opponent and blocker</p> <p>Define stakeholder’s involvement (response, accountable, consulted, support, informed)</p> <p>The consultation process for this project is based on the “Southend Together” toolkit which</p>														

seeks to engage and inform residents businesses and key stakeholders throughout the life of the project.

Stakeholder engagement commenced in spring 2012 for the A127 Kent Elms Junction Improvement. The live engagement and consultation plan contained in Appendix 8 identifies stakeholder mapping, stakeholder analysis matrix, engagement types, strategies and action plan and was further developed to take on board lessons learnt from recently completed A127/B1013 Tesco Junction Improvement.

The A127 Kent Elms scheme is one of three A127 schemes that was reported to Cabinet on 8th January 2013 with cross party support towards developing the schemes. Proposals for consultation were contained within that report. The consultation process commenced focusing on community engagement conversations to explore the issues and problems around the junctions to hear the views of residents, businesses, key stakeholders and drivers.

The engagement consultation exercise for the three A127 schemes commenced in February 2013, with all Councillors given the opportunity to attend a discussion, focus group or feedback session to consider and offer input about potential improvements to the junctions, together with Opposition Group Transport Leads briefings. This was followed by a focused business group session in March 2013 and on site engagement and an online questionnaire. Further member engagement workshops were held with more recently a value engineering workshop with Councillors was undertaken on 4th February 2016. This focused on A127 Kent Elms site constraints and the design proposals and provided an opportunity to offer input into the improvements at Kent Elms Junction. A number of additional options were put forward by Councillors.

Engagement with local schools, residents and businesses were carried out during Phase 1 advance new crossing works, during the public consultation. The A127 Kent Elms consultation process will continue throughout the life of the project and those principles of the Better Southend communications plan will be adopted. The Better Southend website will inform residents, businesses and visitors of the progress of the works throughout the design and construction.

Public Consultation on the Highway and Footbridge options commenced on 21st March 2016 until end of April. This includes an online consultation questionnaire launched via the Bettersouthend website <http://www.bettersouthend.com/> and supported with an event on 11th April held at a local Primary School (Eastwood Primary School) at 2-4pm for parents of pupils and 4-8pm for general public. The event was well attended and early indications are there is broad support for the junction improvement. 124 responses to the online survey were received. An early draft of the report is contained within Appendix 8. Around two thirds of respondents (66%) felt that it is important to improve the junction to some extent with over a third also stating that they believe the junction will need to handle significantly more traffic in the future.

Conversations are also being held with local residents affected by the options. A decision on the Scheme Option will be made following a review of the public consultation and negotiations with land owners.

Consultation with the local schools will continue during the detailed design and construction process. As with the A127/B1013 Tesco Junction Improvement a dedicated Public Liaison Officer will be appointed via the contractor to ensure residents, businesses, schools, members and drivers are kept up-to-date and engaged on the progression of the works.

Negotiation to appropriate a small area of land to the north is underway with Essex Auto Group (who lease the land) and Bestway Northern Limited (the land owner) agents. And a

	<p>small area of car park from outside Tops Fireplaces to the south. These areas of land increase in highway in this location and allow provision to maximise the scheme benefits, improve on the capacity enhancements and provide improved journey time benefits in the Preferred Option. With negotiations going well.</p> <p>The principles of the Better Southend Transport Access Routeing Plan (TARP) will also be adopted, which seeks to minimise disruption and delay to road users. Investigation and consultation will continue during the design and construction process to determine the best way to maintain access to the businesses, residents and the town during the construction of the works.</p>						
6.5. Organisation track record	<p><i>Please briefly describe the track record of the organisation in delivering schemes of this type, including whether they were completed to time and budget.</i></p> <p>The Council has successfully delivered the following DfT / government funded projects:</p> <ul style="list-style-type: none">• A127 Progress Road Junction Improvement £4.7m (HCA & SBC funded) A127/A1159 Cuckoo Corner Junction Improvement £5m (DfT & SBC funded) A127/A13 Victoria Gateway £6.7m (HCA & SBC funded) City Beach £6.7m (HCA & SBC funded). Collectively they were winners of the RTPI National Awards in 2011 for the Public Realm category.• The Council carried out Better Bus Area schemes during 2012/13 – 2013/14 funded by DfT. The main lesson learned was to consult the bus user groups, particularly elderly and disabled users, other road users and the bus companies before implementing any changes. Public involvement enabled participants to rightly claim that their contribution made a positive difference. Other lessons learned were; the need to monitor and evaluate progress throughout the implementation period. On completion, annually report on outcomes highlighting any key outcomes.• DfT's Local Pinch Point Fund for Southend's £4.7m A127/B1013 Tesco Junction Improvement scheme was completed on time and to budget. It has been a success as the Communications Plan included early contractor involvement and early public consultations. This project utilised PRINCE2 methodology, which has ensured good time management, control and organisation of the project.						
6.6. Assurance	<p><i>Please provide s151 Officer confirmation that adequate assurance systems are in place</i></p> <p><i>Specify where the business case is subject to ITE assessment</i></p> <p>Refer to 15th March report to Cabinet in Appendix 10</p>						
6.7. Monitoring and evaluation	<p><i>Please explain how you will monitor and evaluate the project, referring to the use of key performance indicators as appropriate.</i></p> <p>The table below provides a summary of the proposed measurement and thresholds of acceptability that will be used to evaluate the benefits of the scheme.</p> <table><tr><th>Monitoring Indicator</th><th>Measurement</th><th>Threshold</th></tr><tr><td>Journey times</td><td>Improved Journey times</td><td>Reduction in journey time within 3 year period compared with pre</td></tr></table>	Monitoring Indicator	Measurement	Threshold	Journey times	Improved Journey times	Reduction in journey time within 3 year period compared with pre
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	Scheme delivery	Main works completion date	By April 2017
<p>Southend Borough Council will conduct a full evaluation of the impact of the scheme in the period after it is completed. The Council will prepare evaluation reports one year and five years after scheme opening, using the information to be collected as set out above to gauge the impact of the scheme, and assess the success in meeting the scheme objectives. Unexpected effects of the scheme will be reported upon and, where appropriate, remedial measures identified.</p>			

7. RISK ANALYSIS

See Risk Register in Appendix 7

8. DECLARATIONS

8.1.	Has any director/partner ever been disqualified from being a company director under the Company Directors Disqualification Act (1986) or ever been the proprietor, partner or director of a business that has been subject to an investigation (completed, current or pending) undertaken under the Companies, Financial Services or Banking Acts?	N/A
8.2.	Has any director/partner ever been bankrupt or subject to an arrangement with creditors or ever been the proprietor, partner or director of a business subject to any formal insolvency procedure such as receivership, liquidation, or administration, or subject to an arrangement with its creditors	N/A
8.3.	Has any director/partner ever been the proprietor, partner or director of a business that has been requested to repay a grant under any government scheme?	N/A

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

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

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

8.4. Signature of Applicant	Paul Mathieson
8.5. Print Full Name	Paul Mathieson
8.6. Designation	Group Manager Major Projects and Strategic Transport Policy
8.7. Date	16.5.16