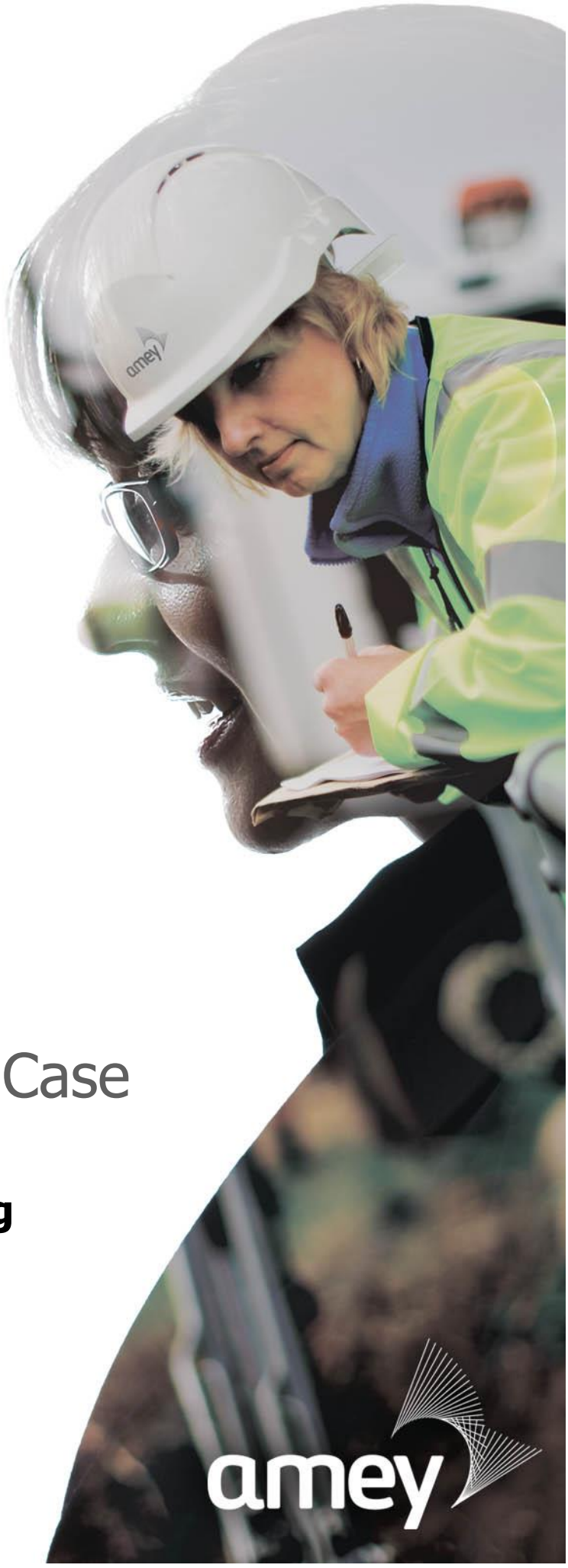


Transport Business Case Report

West Kent LSTF – Tackling Congestion

CO04300262/029 Revision 02

March 2015

Document Control Sheet

Project Name:	West Kent LSTF – Tackling Congestion
Project Number:	CO04300262
Report Title:	Transport Business Case Report
Report Number:	029

Issue Status/Amendment	**Prepared**	**Reviewed**	**Approved**
00	Name: Paul Beecham Signature: Date: 02/02/15	Name: Tim Lynn Signature: Date: 02/02/15	Name: Steve Whittaker Signature: Date: 02/02/15
01	Name: Paul Beecham Signature: Date: 20/02/15	Name: Tim Lynn Signature: Date: 20/02/15	Name: Steve Whittaker Signature: Date: 20/02/15
	Name: Signature: Date:	Name: Signature: Date:	Name: Signature: Date:
	Name: Signature: Date:	Name: Signature: Date:	Name: Signature: Date:

Contents

1 Introduction

1.1 SELEP Schemes – Business Case Preparation

Amey have been commissioned by KCC (Kent County Council) to prepare Transport Business Cases, appropriate to the size and scope of each scheme, for each of the projects which have been allocated Local Growth Fund finance.

1.2 Purpose of Report

The overall purpose of this report is to provide a Business Case covering the West Kent: Tackling Congestion scheme. In doing so it draws on the results of the earlier Gap Analysis exercise, also undertaken on behalf of KCC by Amey.

It also forms the basis of a brief to deliver the required elements in order to assist Kent County Council in delivering these or in procuring resource to deliver them.

The report broadly follows the 5-Case Model for Transport Business Case preparation, incorporating design and environmental issues as well as a summary of the overall risks in terms of project delivery and project funding approval. This includes:

- The potential for the project to be called in for review by DfT or other bodies before it is delivered
- The potential for challenge from stakeholders which may jeopardise or delay the project
- The potential that a subsequent review of the project after implementation may identify issues relating to the delivery of overall outcomes (e.g. job creation or transport modal shift)

1.3 Specific Scheme

This scheme, in the previous submission to the SELEP, is entitled:

West Kent: Tackling Congestion

This report describes the function of the proposal for 2015/16, which consists of a number of Local Sustainable Transport Fund (LSTF) capital measures for implementation in West Kent in that time period.

These measures will compliment and be introduced alongside a number of LSTF revenue measures that were successful in receiving support from the Department for Transport (DfT) in the recent 2015/16 revenue funding round. It also supports a number of other LGF capital infrastructure schemes targeted at particular pinch points in the highways network for West Kent.

Similar LSTF capital measures are envisaged for the West Kent: Tackling Congestion scheme in years 2016/17, 2017/18, 2018/19, 2019/20 and 2020/21. However, it is intended that these should draw on the experience gained from implementation of the initial measures and therefore they will be the subject of a further Business Case submission in the latter part of 2015/16, when they can be more clearly defined.

2 Scheme Summary

2.1 Introduction to Project

West Kent: Tackling Congestion is a package of measures that will address the growing connectivity problems caused in West Kent by traffic congestion hotspots and a lack of capacity in the strategic road and rail networks, which is damaging business confidence and the competitive advantage that West Kent businesses have traditionally enjoyed. It will focus in particular on addressing the peak hour congestion caused by the school run and journeys to work by increasing the attractiveness of making door to door journeys by sustainable modes. Infrastructure improvements will be delivered at stations, town centres and key interchange points to facilitate multi-modal journeys using public transport, walking and cycling and the package will offer match funding and support to schools and businesses to engage and encourage their students/employees to travel by sustainable means.

The capital package will be supported by KCC's 2015/16 LSTF revenue bid, which includes the development of an innovative website and Smartphone 'app', promotion of the transport network and future ticketing technologies and promotion to businesses of technologies such as telephone and video conferencing and connection software to allow home working. The website and 'app' will provide cost, mode and journey time comparisons, real time information throughout the journey, access to ticketing accounts and promote the use of sustainable modes and car sharing, building a profile of the user to target future publicity and promotions. Personalised journey planning will be used to promote the website and app to those who would not usually consider any means other than the car for their journey/s. There are no LSTF revenue funds currently secured beyond 2015/16 and as a result ongoing revenue support for future years will be limited to local sources, unless future rounds of LSTF revenue are made available by government.

2.2 Category of Transport Business Case

With expenditure across the full 6 year duration of the scheme expected to be just over £9m the overall scheme is categorised as 'large'. However, this business case supports only the elements of the scheme to be delivered in 2015/16. In 2015/16 the scheme has identified the need for Local Growth Funds (LGF) of £795K. In addition match funds will be provided by both private sector partners amounting to £808k. Combined, this will provide total funding for 2015/16 of £1,603m meaning the scheme for this year, alone, is categorised as 'small'.

2.3 Overall Summary of Gap Analysis Exercise

The gap analysis exercise established that whilst an overall scheme plan exists for implementation of measures in 2015/16, there is no overall plan currently in place beyond then as this will be dependent on the outcome of implementation of the initial measures. The only exceptions to this are the Station Access Improvements measure which has been specified for Maidstone East Station in 2016/17 and the Future Ticketing Technologies measure which will be rolled out across West Kent, year on year, through to 2020/21. The following table illustrates the current position for the scheme as a whole, including a summary of the specific initiatives proposed for 2015/16 within each of the overall scheme measures:

Table 1 – West Kent: Tackling Congestion (overall scheme)

Measure	15/16	16/17	17/18	18/19	19/20	20/21
Station Access Improvements and Town Centre Links	**Snodland Station Forecourt**	**Maidstone East Station**	**tbc**	**tbc**	**tbc**	**tbc**
	HS1 serving in peak times (on timetable from Jan 15) 14 cycle storage spaces retained and space preserved for additional spaces, car parking, 1 new bus stop, new pedestrian route. Station building refurbished & manned am peak.					
Cycle Parking at Stations and town centres	**Maidstone Town Centre**	**Tbc**	**tbc**	**tbc**	**tbc**	**tbc**
	Cycle parking spaces provided for Maidstone Town Centre					
Cycle Infrastructure Schemes (x2)	**Tunbridge Wells & Swanley**	**Tbc**	**tbc**	**tbc**	**tbc**	**tbc**
	1. Design of Tunbridge Wells/Tonbridge A26 cycle route 2. Design of cycle route/s between Swanley Town Centre and the Station					
Pedestrian Information	**Tunbridge Wells**	**Tbc**	**tbc**	**tbc**	**tbc**	**tbc**
	Way finding signs installed					
Future Ticketing Technologies	**Smart Ticketing**	**Roll out continues**	**Roll out continues**	**Roll out continues**	**Roll out continues**	**Roll out continues**
	Arriva pilot in Maidstone will be rolled out to 1/6th of W Kent					
Bus stop infrastructure	**Sevenoaks routes 306 and 308 to Bluewater**	**Tbc**	**tbc**	**tbc**	**tbc**	**tbc**
	20 bus stops upgraded (remainder in Thameside LSTF bid)					
Match Funding to Businesses and Hospitals	**Grants offered via bidding process**	**Grants** (tbc)	**Grants** (tbc)	**Grants** (tbc)	**Grants** (tbc)	**Grants** (tbc)
Innovative Schools Fund	**Grants offered via bidding process**	**Grants**	**Grants**	**Grants**	**Grants**	**Grants**
	18 schools funded Cycle & Scooter storage, signage, markings, etc.	(tbc)	(tbc)	(tbc)	(tbc)	(tbc)

All measures proposed for 2015/16 are well advanced. The pathway for rollout of Future Ticketing Technology has yet to be finalised but it is envisaged this will be evenly spread across West Kent over the duration of the scheme, meaning around a sixth of the roll out will occur in 2015/16. Similarly, whilst the Match funding to Businesses and Hospitals measure and the Innovative Schools measure will continue each year to 20/21 those to whom grants will be provided and what these will be used for, will not be finalised until the year they are due to allocated.

A simple options appraisal has been undertaken and design/delivery risks are limited. There are a few gaps in the scheme appraisal elements. However, these must be seen in the context that this 'small' scheme which should only require a light touch appraisal. This is generally recognised as being based on:

- A narrative argument supported where possible with existing information
- The strategic fit of the scheme, which is already well established in this case in relation to supporting housing and employment growth in the area
- Complementary support for larger schemes, which in this case includes many of the other capital schemes proposed for West Kent as well as the LSTF revenue scheme
- Design issues whereby the designs of complementary schemes must take into account the requirements of each other to ensure their development is aligned, conflicts are avoided and there is maximum scope for synergy between the schemes.

2.4 The Transport Business Case

The UK Treasury 'Green Book' sets out a process for presenting the business case for investment schemes involving public funds. This approach involves three stages:

Strategic Outline Case (SOC)

This is the scoping stage of the investment process. The purpose of the SOC is to confirm the strategic context of the investment; to make a robust case for change; and to provide stakeholders and customers with an indication of the proposed way forward, together with indicative costs.

Outline Business Case (OBC)

This is the detailed planning phase of the investment, revisiting the OBC in more detail and to identify a preferred option which demonstrably optimises value for money. It also sets out the likely approach to funding; demonstrates its affordability; and details the supporting procurement strategy, together with management arrangements for the successful rollout of the scheme.

Full Business Case (FBC)

This takes place within the procurement phase of the project, though before a formal decision to proceed has been made and prior to the formal signing of contracts and the procurement of goods and services. The purpose of the FBC is to revisit the OBC and record the findings of the subsequent procurement process. It also sets out the recommendation for an affordable solution which continues to optimise VFM, and includes detailed arrangements for the successful delivery of goods and implementation of services from the recommended supplier.

2.4.1 5-Case Model

The Transport Business Case process is designed to ensure that investments are directed at the right schemes and that these are managed and delivered in the best way. This ensures that transport investment addresses important issues in an effective way, delivering value for money.

The core of each stage of the Transport Business Case is the 5-Case Model which ensures that schemes:

- Are supported by a robust **case for change** that fits with wider public policy objectives – the 'strategic case';
- Demonstrate **value for money** – the 'economic case';
- Are **commercially viable** – the 'commercial case';
- Are **financially affordable** – the 'financial case'; and
- Are **achievable** – the 'management case'.

This document uses this 5-case model in an appropriate and proportionate way to demonstrate the merit of investing in the proposed scheme in 2015/16.

2.5 Context of the Transport Business Case

Currently promoters of all schemes involving an investment of public funds over a threshold set locally (understood to be £8m in the South East) for 'major schemes' are required to prepare and submit a Transport Business Case. Previously a Business Case would be submitted to the Department for Transport (DfT).

Recent Government policy changes have involved the devolution of decision-making for smaller major schemes to Local Enterprise Partnerships (LEPs). These bodies are designed to direct investment for an area based on economic priorities set through a partnership which is private-sector led. Kent County Council is in the South East LEP (SELEP) area.

The devolved funding arrangements were put in place in July 2014 through the Local Growth Deal announcements, including devolution of funds to the SELEP.

This Transport Business Case, which will be submitted to the SELEP, effectively forms a bid to request confirmation of the already allocated LGF funding for the scheme.

2.6 Scheme Description

The aim for West Kent: Tackling Congestion is to deliver a fully integrated sustainable transport system in West Kent, providing access to employment and services, reducing the need and desire to travel by the private car and thereby reducing congestion. The scheme will deliver substantial enhancements to pedestrian, cycle and public transport facilities and infrastructure, to make these modes more attractive when compared to the private car. The scheme will also engage heavily with schools and businesses to facilitate and promote sustainable transport.

The overall measures that make up the scheme and the specific initiatives proposed for each in 2015/16 are listed in Table 1 below. Further detail on each initiative is provided in section 2.7 below.

Scheme Measure	2015/16 Initiative
Station Access Improvements and Town Centre Links	Snodland Station forecourt improvements
Cycle Parking at Stations and town centres	Cycle parking for Maidstone Town Centre

Scheme Measure	2015/16 Initiative
Cycle Infrastructure	Design of cycle routes for Tunbridge Wells and Swanley
Pedestrian Information Displays	Tunbridge Wells – Way finding signs
Future Ticketing Technologies	Roll out of Maidstone pilot to one sixth of the remainder of West Kent
Bus Stop Infrastructure	Bus stop upgrades for the 306/308, Sevenoaks to Bluewater, service
Match Funding to Businesses and Hospitals	Sustainable transport capital grants offered to businesses via a bidding process
Innovative Schools Fund	Sustainable transport capital grants offered to schools via a bidding process
Project Management	Capital support for KCC management role

Table 2 – Overall Scheme Measures and 2015/16 Initiatives

The scheme measures and their respective initiatives will be targeted in particular at addressing congestion hot spots in West Kent. They will also support air quality management areas, local growth areas, town centre improvement areas, integrated transport package and public transport bids. The location of these target areas is illustrated in the map in figure 1 below.

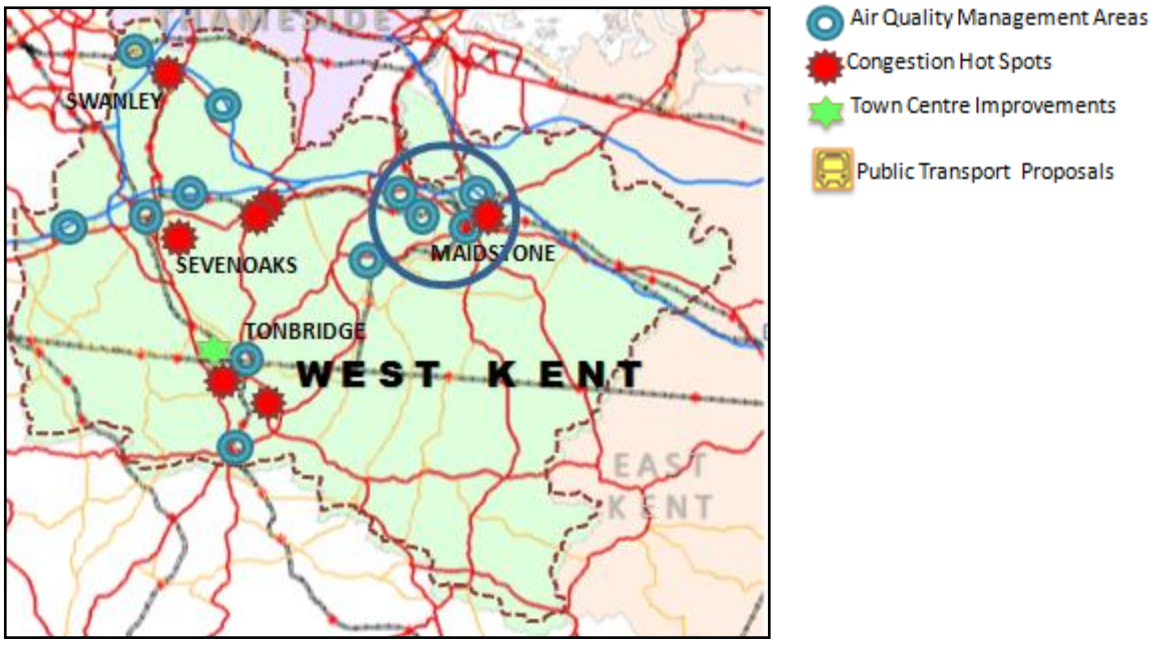


Figure 1 – Target Areas

2.7 Existing Situation and Proposed Initiatives

Station Access Improvements and Town Centre Links – Snodland Station Forecourt

Snodland railway station is on the Medway Valley Line and serves the town of Snodland which lies a little to the west. The current typical off-peak service from the station is two trains per hour to Maidstone West, with alternate trains extended to Paddock Wood and Tonbridge, and two trains an hour to Strood, for connections to London. However, from January 2015 HS1 service has been serving the station, providing a direct link to London. The station buildings are not in use currently and the station is presently unmanned.

To support the provision of HS1 services operating from the station and encourage increasing numbers of car users to switch to using rail services Southeastern and Network Rail intend to significantly upgrade the facilities at the station. The proposals include retaining the current 14 cycle storage spaces but relocating these closer to the station entrance, whilst also preserving space for additional cycle parking in the future. There will be improvements made to car parking facilities to encourage park and ride and enable sustainable onward journeys by rail. The station forecourt will be redesigned with the current single vehicular access route converted to an access and separate exit route enabling buses, taxis, cars, etc. to enter the station to drop off passengers and then exit by a separate route. A new bus stop will be provided for the station forecourt enabling bus routes to directly serve the station and negotiations are currently taking place with local bus operators to consider how bus services serving the station can be better co-ordinated with the arrival and departure times of trains. A new pedestrian route to/from the station will also be provided.

Alongside the above, the station buildings will be completely refurbished and a new ticket office will be provided. This will allow the station to be manned, initially for at least the morning peak. Together these improvements will not only enhance provision for current users but will also support increased use expected to result from housing growth in the area at Peter's Pitt, Halling and New Hythe.

The proposals will be supported by a total of £340,000 from LGF, which will be matched by a funding contribution from Southeastern of £588,000 from the National Station Improvements Programme and £170,000 from section 106 planning gain.

Cycle Parking at Stations and Town Centres – Maidstone Town Centre

Maidstone Town Centre currently has relatively limited provision for cycle parking, much of which is located around the top end of the main High Street. The measure proposed will significantly enhance this parking with the aim of encouraging many more people to visit the town centre using this mode.

In total 40 additional cycle parking spaces are proposed all of which will be sheltered secure spaces. These will be located around the town centre as follows:

- Town Hall (4 stands)
- Earl Street (4 stands)
- Maidstone Gateway (4 stands – inside the building, in the foyer off King Street)
- Fremlin Walk (4 stands)
- Maidstone East Station (4 stands – by station entrance)
- Maidstone West Station (4 stands)

The measure will be supported by £15,000 from LGF. No match funding will be provided.

Pedestrian Information Displays - Tunbridge Wells

KCC recently tendered a pilot scheme to improve pedestrian signage in Folkestone town centre based on the Legible London initiative. The pilot scheme is due to complete at the end of March 2015 and the learning from this will then be rolled out throughout Kent over the next 6 years, in West Kent starting in Tunbridge Wells Town Centre.

Despite walking often offering the quickest route to get around the town centre or to get to the desired end destination from a bus or rail terminal, London identified that many people are put off using this mode by inconsistent signage and confusion about distances between areas. Legible London was trialled in 2007 and introduced in 2009 to tackle these issues and help both residents and visitors walk to their destination quickly and easily. It was also integrated with other transport modes so when people are leaving a transport terminal they can quickly identify the route to their destination.

Legible London is now working successfully across London, with more than 1,300 signs erected. Research in 2013 showed that signs were used by significant numbers of pedestrians, with usage ranging from 1 an hour to over 300 an hour and nine out of ten people keen to see more Legible London signs introduced.

A typical London sign is illustrated alongside this text. The signs proposed for Tunbridge Wells will be similar to this. In addition, a number of finger post signs will also be provided.

The proposal for Tunbridge Wells will be finalised once the pilot in Folkestone is complete and following a signage audit across the town centre. Cycling and pedestrian groups have already been engaged to participate in the audit, as have disability groups, including a group representing those with sight impairments to ensure signs can be used by all. These groups will form the basis for a user group that will also involve tourist and local business organisations. It is envisaged that signs will inform both pedestrians and cyclists to encourage active travel that can replace car use. Alongside the introduction of new signs the measure will also include the removal of redundant or other signage that might confuse users.

A total of £70,000 will be provided by LGF to support the measure. No match funds are envisaged.

Cycle Infrastructure - Cycle Paths for Tunbridge Wells and Swanley

To enhance facilities for cyclists and encourage active travel it is proposed to introduce two additional cycle paths in separate parts of West Kent.

The first of these will be an off road link provided alongside the A26 London Rd/St John's Rd between its junctions with the A21 Tonbridge Bypass and Grosvenor Rd. This is a primary route between Tonbridge and Tunbridge Wells which suffers from peak congestion and is in an Air Quality Management Area.

The second path (or paths) will be provided to facilitate cycle travel between Swanley Town Centre and Swanley Rail Station. However, at this time it is not confirmed whether these will be on or off-road route/s and the specific routes to be followed have not been finalised.

It is envisaged that only the design of these cycle paths will be completed in 2015/16 due to the complexities of the projects. Delivery will therefore be in a later financial year. An LGF contribution of £45,000 will be allocated to the design work and there will be no match funding provided.

Future Ticketing Technology – Stage 1 Roll Out

The Ticketing Technology measure will ensure that sustainable door-to-door journeys can be completed easily and conveniently through the provision of intelligent ticketing solutions including Smart Ticketing and EMV (contactless bank cards). It will build on a Smart Ticketing pilot e-purse scheme provided by KCC and Arriva, already underway in Maidstone, to provide a Smart Card for use across bus services provided by all operators in Kent.

It is intended to build on this pilot, over time, to deliver a countywide e-purse, multi-operator season tickets and development of EMV. Furthermore, it will continue development towards the delivery of a multi-modal e-purse, providing access to buses, trains and other transport services (bike hire, car hire etc.).

The aim for 2015/16 is to achieve roll out of the pilot across at least one sixth of the remainder of West Kent. Capital support is required for hardware, including ticket machines for buses, top-up machines at interchange points, smart cards and IT hardware at booking offices. LGF will contribute funds of £50k for this in 2015/16. No match funds are available for the measure.

Bus stop infrastructure improvements - 306/308 Sevenoaks to Bluewater service

The 306/308 Sevenoaks to Bluewater, bus service in West Kent operates on at least an hourly basis Monday to Saturday between 05:45 and 24:54. There is also a bi-hourly service provided on Sundays. The service supports not only sustainable access to shopping and other facilities at Bluewater but also provides access to employment opportunities both at Bluewater and elsewhere along its route. In 2015/16 the proposed measure will enable improvements to be made to all 20 stops used by the 306/308 service in West Kent.

A total of £80k from LGF in 2015/16 will be used to support the improvements to bus stops for the 306/308. No match funds are available for the measure.

Innovative Schools Fund – Sustainable transport capital grants to West Kent Schools

The school run is a significant contributor to peak time congestion and to address this it is necessary to target pupils and their parents through schools in the area. To supplement the LSTF revenue measure which will provide a programme of bespoke services to schools to encourage sustainable travel for the journey to/from school, the LSTF capital measure will enable schools to bid for infrastructure improvements.

This will build on an existing programme of grant funding for schools offered by KCC that is already in place. Schools make bids for capital funds for infrastructure which will enable them to achieve the targets for sustainable travel set out in their School Travel Plan. Examples of infrastructure which may be implemented include cycle and scooter parking, shelters, security measures, and cycles to loan to students. KCC awards bids dependent on innovation and the total funds available. All schools that make a successful bid are required to complete an annual review of their Travel Plan as part of their conditions of funding and to monitor the impacts and report outcomes to KCC.

KCC hold a waiting list of schools that have made a successful funding bid and 18 schools on this list have been identified for funding in 2015/16, assuming the measure goes ahead. These schools, their location and the facilities proposed are listed below:

School	District	Facilities
Sutton Valence Primary	Maidstone	New Access Route
Oaks Academy	Maidstone	To erect two bicycle shelters on a hard standing near our pedestrian entrance.
Molehill Copse Primary	Maidstone	To improve facilities for safe storage of bikes, as well as providing additional storage for scooters.
North Borough Junior	Maidstone	New scooter and cycle pods
Five Acre Wood	Maidstone	New cycle storage, bikes and active play equipment and cycle routes
Sevenoaks Primary School	Sevenoaks	Additional and new cycle parking
Downsview Primary	Sevenoaks	Scooter storage, repair of bike storage facility and fencing, and helmets.

Snodland CEP School	Tonbridge and Malling	Foot and cycle path improvements within the school
St Stephen's	Tonbridge and Malling	Cycle storage and signage
St George's CEP School	Tonbridge & Malling	Cycle storage cover and ramp
Slade Primary School	Tonbridge & Malling	Bike and scooter storage.
Sussex Road Community..	Tonbridge & Malling	New Scooter pods, a covered bike rack and a storage unit for helmets.
St Katherine's School	Tonbridge & Malling	Cycle rack
Wrotham School	Tonbridge & Malling	Student/pedestrian safety, cycle to school for both pupils and staff, and vehicle management and safety on the school premises.
Lamberhurst St Marys	Tunbridge Wells	Footway and cycleway improvements from new drop off area in to the school
St Marks CEP School	Tunbridge Wells	Cycle & scooter storage
Skinners' School, The	Tunbridge Wells	Promotion to encourage cycling to school
St James' CEI School	Tunbridge Wells	Towards widening paths, clearing undergrowth, lighting and installation of extra scooter parking

Table 3 – Schools to be supported by Innovative Schools Fund

The programme will be supported by LGF amounting to £60,000. No match funds are available.

Match Funding for Businesses - Sustainable transport capital grants to West Kent Businesses

It is considered that in order to address congestion in West Kent, businesses need to be targeted in particular as the commute is a major contributor to peak congestion. Therefore, to complement the LSTF revenue measure to provide match funding for businesses it is proposed to provide LSTF capital funds for investment in infrastructure.

The measure will work in much the same way as the Innovative Schools Fund with businesses invited to make grant funding bids for the infrastructure they require. Those who are successful will be shortlisted by KCC and allocated funding in 2015/16 dependent on the funds requested and grant funds available. To be able to bid the businesses must demonstrate that they are proactively looking at the travel behaviour of their employees both for the commute and business mileage. As with schools the successful businesses will be required to introduce a Work place Travel Plan, monitor this and report results to KCC. However, unlike schools they will also be required to provide an element of match funding to contribute to costs.

Businesses will be invited to make bids between April and June 2015, and they will be required to demonstrate that the measures requested can be delivered by March 2016, as part of the bidding process. As a result there is currently no definitive list of the businesses that will be funded, where they are located or what initiatives are sought. Bids will be assessed on their innovation and likelihood to generate modal shift away from single occupancy car journeys for employees.

The measure will be supported by £85,000 of LGF and is expected to generate £50,000 of match funding.

Project Management

The project management measure will provide a source of capital funds to support the management of the scheme as a whole. During 2015/16 this will consist of a £50,000 contribution from LGF.

3 Strategic Case

3.1 Purpose of the Proposed Investment

Our aim is to achieve a step change in smarter travel in West Kent. To this end, the scheme is made up of a number of integrated smarter transport capital measures which together with the LSTF revenue measures will enhance the modal alternatives to travelling by car available in the West Kent area, especially at peak times. In particular the capital measures will provide new or improve existing sustainable transport infrastructure in order to increase opportunities for use of public transport, cycling and walking for the whole or part of the transport journey. By ensuring these measures are integrated with each other, the existing network and co-ordinated with the proposed revenue (soft) measures they will facilitate seamless travel by sustainable modes reducing congestion, improving air quality, impacting on health and improving quality of life as well as accessibility for West Kent residents. In turn, this will help to lock in the capacity benefits of other transport schemes targeted at improving travel time and reducing congestion in West Kent and overall will support the economic growth, in terms of the jobs and housing, sought for the area.

Figure 4 sets out these elements in a Causal Chain.

3.2 Strategic Fit – National Context

There are a number of recent national policy and guidance documents available all of which are influential in terms of the latest thinking on smarter choices and which the package of measures proposed aims to support. They include:

Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen - This White Paper (DfT, 2011) puts an emphasis on enabling choice and encouraging people to make sustainable transport choices for shorter journeys as this is where the biggest opportunity exists for people to make a change. It highlights the importance of providing targeted information, marketing and travel plans to influence peoples' travel choices. However, it also recognises that while 'nudges' are vital to ensure modal shift, equally critical is that these are complemented by sufficient and appropriate transport infrastructure.

Smarter Choices - Changing the way we travel (DfT, 2005) draws on earlier studies of the impact of soft measures, new evidence from the UK and abroad, case study interviews relating to 24 specific initiatives, and the experience of commercial, public and voluntary stakeholders involved in organising such schemes. Each of the measures is analysed separately, followed by an assessment of their combined potential impact. This suggests a benefit cost ratio (BCR) of at least 10 can be expected from an integrated package of Smarter Choice measures. One of the key considerations of the paper is the significant number of single occupancy vehicle trip savings that can be made through the adoption of smarter choices measures.

The Active Travel Strategy (DoH and DfT, 2010) highlights plans to put walking and cycling at the heart of local transport and public health strategies over the next decade. The guiding principles for the strategy are that walking and cycling should be everyday ways of getting around, not just for their own sake, but also because of what they can do to improve public health, increase participation in physical activity, tackle congestion, reduce carbon emissions and improve the local environment.

The Door to Door Strategy (DfT 2013) sets out the government's vision for integrated sustainable journeys. It focuses on four key areas to help encourage people choose greener modes of transport. These are:

- Accurate, accessible and reliable information about different transport options
- Convenient and affordable tickets for an entire journey
- Regular and straightforward connections at all stages of the journey and between different modes of transport
- Safe and comfortable transport facilities.

Walking and Cycling: local measures to promote walking and cycling as forms of travel or recreation (NICE 2012), sets out how people can be encouraged to increase the amount they walk or cycle for travel or recreation purposes. This can assist with numerous public health objectives as well as helping to reduce traffic congestion and air pollution. The guidance is for commissioners, managers and practitioners involved in physical activity promotion or who work in the environment, parks and leisure or transport planning sectors.

The transport policy documents, above, are also complemented by National Planning policy. The National Planning Policy Framework (DCLG, 2012) states that Local Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. It states that developments should be located and designed where practical to:

- Give priority to pedestrian and cycle movements and have access to high quality public transport facilities
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones
- Incorporate facilities for charging plug-in and other ultra-low emission vehicles.

The NPPF also states that a key tool to facilitate the above will be a Travel Plan and that developments which generate significant amounts of movement should be required to provide a Travel Plan.

3.3 Strategic Fit - Regional

Kent is South East England's fastest recovering region and has great potential for successful economic growth. In the last 20 years, Kent has seen 100,000 more people living in the county, housing stock increase by over 60,000 homes and 130,000 more cars on roads. This pace of change is set to accelerate further over the next 20 years with a projected 8 per cent population increase, and Maidstone in West Kent is one of the UK's identified Growth Points.

Local growth alone is predicted to result in 250,000 extra journeys on Kent's roads by 2026. Coupled with a forecast increase in international traffic this leads to tackling congestion being regarded as one of the main priorities for Kent. KCC's framework for regeneration "Unlocking Kent's Potential" defines what Kent should look like in 20 years' time and includes as 1 of its 5 priorities "delivering growth without transport gridlock" - by designing communities that will encourage walking, cycling, and healthy leisure activities. Based on this "Growth without gridlock: A transport delivery plan for Kent" establishes transport priorities for the next 20 to 30 years to support Kent's Environment Strategy target of reducing greenhouse gas emissions by 20% by 2020 and 80% by 2050.

Growth without Gridlock recognises that road transport is responsible for around 30% of Kent's greenhouse gas emissions and that the way forward is to provide low carbon transport options allied with better planning to reduce the need to travel, which in turn will support economic growth, housing growth and tackle climate change. The Plan states that: "the private car will continue to remain the most popular and dominant form of transport for our residents and these expectations and demands increase pressure on our transport network, on our environment and on us as individuals. This reliance is also the reason why our road network is congested and in response our vision is to create a high quality integrated transport network which will create opportunities for real transport choice as well as enabling economic growth and regeneration". Some of the key transport challenges identified by the Plan are:

- Transferring existing and new car trips onto public transport, walking and cycling, especially for short journeys
- Tackling congestion hotspots
- Integrating rail services and improving connectivity between stations
- Providing sufficient transport infrastructure to mitigate the impact of the planned development including walking and cycling routes

Kent's third "Local Transport Plan (LTP3), 2011-16" sets out KCC's Strategy and Implementation Plans for local transport investment in the short term. It proposes a new approach to prioritising investment in transport infrastructure in order to support housing and employment in Kent's Growth Areas and Growth Points, make Kent a safer and healthier county, improve access to jobs and services, especially in disadvantaged areas, and cut carbon emissions. Its planned measures are prioritised under five themes: Growth Without Gridlock, A Safer and Healthier County, Supporting Independence, Tackling a Changing Climate and Enjoying Life in Kent. Under each theme the Plan prioritises a range of sustainable transport initiatives, by area and by mode which have also subsequently been aligned with the local area development and regeneration plans produced or in the process of being produced by District and Borough Councils in West Kent and funding bids to support these.

3.4 Strategic Fit – West Kent

West Kent is a very attractive area to live and work and is generally more prosperous than other parts of Kent, thanks to its close proximity to London. However, economic growth in West Kent has increasingly lagged behind many other areas in the South East in recent years with poor transport connectivity often cited as one of the main reasons for this.

West Kent is characterised by a largely affluent population, and rural geography centred around the main urban centres of Sevenoaks, Tonbridge, Tunbridge Wells and Maidstone. These provide employment, shopping and leisure and tourist destinations. It is well served by rail to London, including HS1, which allows for large scale commuting to and from the capital. The area has a thriving business culture, the number of businesses in West Kent's growing economy has increased by over 1,000 since 2000, and it is still growing with the development of the Kings Hill site in Tonbridge and Malling, and a £320m investment programme for Maidstone. However, West Kent suffers from extensive congestion on the road network, which is strangling access to employment, education and services. This bid is about reducing congestion and safeguarding the economic vitality of the area, ensuring that West Kent is a quality place to live and to work, and encouraging the economy to continue to grow.

The key developments planned for the area are Eclipse Business Park in Maidstone (110,000 sq ft of office space), Aylesford Commercial Park in Maidstone (40,000 – 340,000 sq ft of industrial/distribution space), Proposed housing in Maidstone Urban Area (11,484 residential units), Proposed housing in Lenham (1782 residential units), Peters Village, Wouldham (a new village with 1000 residential units), regeneration of Tonbridge Town Centre, redevelopment of Swanley Town Centre, redevelopment of Royal Tunbridge Wells town centre (mixed use development with 2445 residential units and 45,000 sqm of retail space), Paddock Wood (mixed use development with 650 residential units and additional employment space) and Kings Hill in West Malling (mixed use with 210,000 of employment floor space and approx. 3900 residential units).

West Kent is home to the three busiest stations in Kent; Tonbridge, Sevenoaks and Tunbridge Wells. Tonbridge and Sevenoaks have in excess of 2 million visitors a year (2011-2012, Office of Rail Regulation). This highlights the dominance of rail travel in the area and the importance of improving sustainable access. West Kent is home to a large number of private education institutions. It is generally more common for such schools to have a higher rate of private car trips for the journey to school, which significantly contributes to peak congestion.

The scheme will tackle peak congestion caused by the journey to work and to school, increasing the capacity of the transport network through less space intensive modes. This will allow more local people to reach their destinations using the existing network, and encourage those living in the more deprived areas of Kent to travel to West Kent for increased employment opportunities. This will be achieved through targeted measures to reduce single occupancy car journeys in the peak and achieving greater walking, cycling, public transport use and car sharing. This means more people can reach their destinations in these peak periods, releasing West Kent from the stranglehold of congestion. As the destinations within this area are primarily workplace and education, this will facilitate further economic growth.

The SE LEP's Strategic Economic Plan refers to the need to support sustainable transport projects throughout the document. In addition to the delivery of the direct benefits attributable to the scheme, the delivery of the LSTF capital measures will support the other LGF capital schemes in the region, locking in their benefits and ensuring that additional highway capacity created is not immediately filled.

3.5 Strategic Fit – Integration

The scheme will address the following congestion hot spots in West Kent:

<u>Maidstone</u>

- Town centre
- All 'A' roads into Maidstone

<u>Sevenoaks</u>

- Sevenoaks town centre
- Swanley town centre
- The A25
- The A225

<u>Tonbridge and Malling</u>

- Tonbridge town centre,
- The A20,

- The A26
- The A25 corridor through Platt, Borough Green and Ightham
- Junction 4 of M20
- All A roads to/from junction 4 of M20

Tunbridge Wells

- The A21 between Tonbridge and Tunbridge Wells
- Pembury Road
- A26 within Tunbridge Wells
- Southborough town centre
- Royal Tunbridge Wells town centre

CONGESTION HOTSPOTS	Station Access improvements and town centre links		Cycle Parking at Stations		Local Cycle Path improvements		Future Ticketing Technology		Bus infrastructure Improvements		Funding for Businesses		Funding for school measures		Pedestrian Information	
Maidstone Town Centre																
All 'A' roads into Maidstone																
Sevenoaks Town Centre																
Swanley Town Center																
A25 in Sevenoaks																
A225 in Sevenoaks																
Tonbridge Town Centre																
A20 in Tonbridge																
A26 in Tonbridge																
A25 corridor through Platt, Borough Green and Ightham																
Junction 4 of M20																
All A roads to/from junction 4 of M20																
The A21 between Tonbridge and Tunbridge Wells																
Pembury Road																
A26 within Tunbridge Wells																
Southborough town centre																
Royal Tunbridge Wells town centre																

Figure 2 – Links to Congestion Hot Spots

Figure 2, above, highlights which individual scheme measures in 2015/16 will impact on which congestion hot spots in particular.

The proposed links between the scheme LSTF capital measures and the proposed LSTF revenue measures are illustrated in figure 3 below:

LSTF Revenue Measures		Key	
Website and App		Marketing and Branding	
Business Support		Schools Support	
Interchange Audits		Smart Ticketing	
Discount Schemes		Car Drivers	

West Kent LSTF Capital Schemes	Links to Capital Schemes
Station Access Improvements and Town Centre Links	
Cycle Parking at Stations and town centres	
Cycle Infrastructure Schemes	
Pedestrian Information Displays	
Future Ticketing Technologies	
Bus Stop Infrastructure	
Match Funding to Businesses and Hospitals	
Innovative Schools Fund	

Figure 3 – Links to LSTF Revenue Measures

The scheme will also compliment the following proposed developments and LGF schemes in West Kent:

- Kings Hill
- Maidstone Town Centre
- Maidstone sustainable access route to employment
- Kent PROWIP
- Kent Strategic Congestion Management Programme
- North Farm Pinch Point fund
- M20 Junction 4 Eastern Overbridge
- A26 London Rd, Speldhurst and Yew Tree Rd, Tunbridge Wells
- Maidstone Gyratory By-pass

3.6 Strategic Fit – Individual Measures

Bus Service Improvements

Bus Infrastructure Improvements

Approximately 80% of bus services in Kent are operated on a wholly commercial basis by private bus companies; principally Arriva in the West and Stagecoach in the East. KCC currently subsidises the remaining 20% of services and this has been formalised through the signing of voluntary Quality Bus Partnership (QBP) agreements in a number of areas.

The QBPs include commitments by the principal bus operator, the County Council and the relevant district council to work collectively to improve all aspects of bus travel and to increase passenger numbers. The success of Kent's bus partnership arrangements is reflected in the significant patronage growth recorded by the County's bus operators over the past 10 years, which has bucked the national trend outside London. Total passenger journeys increased from 38.3 million in 2000/01 to 58.8 million in 2009/10, representing growth of 65%. The County Council plans to work with bus operators and district councils, through Quality Bus Partnerships, to introduce more low emission vehicles and invest in new and improved bus stop infrastructure, including raised kerbs to provide easy access for parents with buggies and the disabled, bus shelters and clearways, improved integration between bus and rail services and new ticketing options.

Future Ticketing Technology

KCC has invested heavily in Smart Ticketing since 2008 and now plans to extend the benefits of this investment. It is proposed to develop a new Travel Smartcard for use on bus and rail services across Kent and Medway. The Vision is to provide a convenient and cost-effective way to access transport services, making it easy to travel on different routes, with multiple operators, across both bus and rail.

The Smartcard will comprise Pay-As-You-Go (credit stored on card) and Period Pass tickets (unlimited day, weekly and 4 weekly travel). The scheme will be developed in the longer term to offer the following benefits:

- Multi-operator day, weekly and monthly tickets.
- Allow automatic fare capping - never pay more than the equivalent Period Pass ticket, regardless of distance or number of trips.
- Allow use on the rail network, which will deliver bus and rail integration with seamless journeys and no need for multiple tickets and payments.
- Introduce payment by contactless bank card (EMV) and Mobile Phone (NFC) to attract new customers to bus travel.
- Move away from cash fares on bus to speed up boarding times.
- Include cycle hire (such as Brompton Docks) and access to car club schemes (such as Zipcar.)

Cycling Improvements

Kent has approximately 415 miles (670 km) of cycle routes, of which 96 miles (155 km) are off road. The percentage of West Kent residents who use cycle as a means of transport are listed in the following table.

Table 4 - Cycle Usage in West Kent

	DfT data for the % of residents who cycle (any length or purpose) Oct 2011- Oct 12			2011 Census Data for the percentage of adults who cycle to work
	Once a month (at least)	Once a week (at least)	Five times a week (at least)	
Maidstone	12	8	2	1
Sevenoaks	16	10	1	1
Tonbridge and Malling	15	10	1	1
Tunbridge Wells	15	10	1	1

A survey conducted by Kent County Council of new residential sites in Kent has identified that there is a strong negative correlation between cycling to the station and a lack of destination facilities. Hence, an increase in cycle parking provision will encourage more people to cycle more often. Approximately 60% of the population live within a fifteen minute cycle ride of a railway station, making cycling a viable means of transport.

A 15 minute cycle ride to and from work would meet the Government's recommended daily level of physical activity. Approximately 2% of children currently cycle to school in Kent; however evidence from surveys suggests that some 30% would like to. Cycling is supported as a means of, amongst other things, cutting congestion, improving health, reducing carbon emissions and improving accessibility in key national, county-wide and local policy documents. The White Paper published by DfT in 2011 outlines its support for the development of cycling at the local level. It notes that "a substantial proportion of drivers would be willing to drive less, particularly for shorter trips, if practical alternatives were available" and that "the biggest opportunity for encouraging sustainable travel lie in short, local journeys".

The Vision for Kent (the Community Strategy for the County) produced by The Kent Forum, a partnership of the councils that provide services to the people of Kent also talks about widening the choice of transport available, developing public transport, walking and cycling. The approach to LTP 3 states that KCC is committed to the provision of a comprehensive cycle network for residents and visitors in Kent with priority given to routes which enable people to cycle continuously to schools, work places, shops and leisure opportunities.

Interchange Improvements

LTP-3 envisages KCC working closely with partners to deliver physical improvements to aid interchange at rail stations and encourage people to travel to the station by sustainable modes. This will include improvements to bus access and infrastructure, cycle parking, walking and cycling routes and signage. The Council has recently worked with Network Rail and Southeastern to deliver significant interchange improvements at Sevenoaks station, Canterbury West and Margate Station. It has also won awards for its work with Southeastern trains and Network Rail at Ashford International Station where cyclists have benefited from a more co-ordinated approach to their commuting experience, with increased cycle parking and security, improved cycle and walking routes and better links with the local cycle network. The interchange improvements planned for Snodland Station will continue to build on this successful partnership, and increase the attractiveness of travelling by rail in Kent, particularly using the excellent and expanding HS1 service.

Pedestrian Information Displays

Research has shown that one of the biggest barriers to walking is the lack of reliable and targeted information. As part of the Supporting Independence and Enjoying Life in Kent theme of LTP-3, the council proposes to upgrade the street furniture, in order to improve pedestrian movements. This includes new monoliths and finger post signs as well as providing information leaflets for walks and tourist signs.

The County Council will also continue to develop web-based resources through the LSTF revenue bid, to improve the availability of information relating to cycling in Kent. This will include information about cycle routes, tips for safe cycling and the development of an online Cycle Journey Planner. The journey planner delivered by Kent Connected will promote cycle routes to both new and returning cyclists, as well as tourists unfamiliar with cycle routes in the area. Users will be able to choose the quietest, quickest, or most recreational route depending on their journey purpose. The information displays to be provided will then facilitate the use of these routes.

Business and School Capital Grants

LTP-3 details the County Council's policy of using alternatives to car based travel as part of its work to improve the safety, sustainability and efficiency of the highway network. The council part funds and manages the highly successful English National Concessionary Travel and Kent Freedom Pass schemes and works with the County's schools and businesses to develop Travel Plans aimed at reducing the number of single occupancy car journeys.

The County Council promotes the use video conferencing and audio conferencing, which enable staff to interact without the need to make a long business journey. In the present economic climate, businesses are increasingly concerned with avoiding the overheads associated with accommodation and staff travel; therefore methods of enabling employees to work remotely are likely to increase in relevance and attract investment. The County Council aims to develop partnerships with public and private bodies, initially on a voluntary and informal basis, with a view to a formal partnership as work becomes more established. The Partnership will aim to assist employers to deliver quality workplace Travel Plans that are good for businesses, good for their employees and good for the environment through practical solutions, aimed at resolving the real and perceived obstacles to sustainable commuting. One such scheme listed in LTP-3 is "Take a Stand" Cycle Parking where the Council will match fund grants to businesses and other organisations. A range of walking initiatives, including Walk on Wednesday, the Walking Bug and the Walking Bus have also proved effective in encouraging healthy, active travel to school.

3.7 Case for Change - Rationale for the Scheme

The SELEP, Growth Deal and Strategic Economic Plan identifies that the overall LSTF capital scheme will support 405 jobs and 443 houses. This represents around 6% of all jobs and 5% of all housing envisaged as a result of transport investments in West Kent by 2020/21.

3.8 Options Considered

A simple Options Appraisal was undertaken by the Transport Innovations Team of KCC prior to submission of the scheme to SELEP. The key elements identified in the Options Appraisal have been analysed against the scheme objectives and critical success factors and have been incorporated into a table at the end of the summary analysis.

Option A - Do nothing

The option of taking no action was explored, which would maintain the status quo with regards to travel options in West Kent. This would retain the excellent bus and rail services in the area but would not add to the sustainable transport choices available.

If no action is taken then business confidence and the competitive advantage businesses in West Kent have traditionally enjoyed will continue to be damaged. Congestion levels in West Kent will continue to increase as new housing is created, which will constrain economic growth. The status quo would be maintained with regards to travel options, with the region having access to strong rail links to London and in some areas good local bus services, but they would remain uncoordinated, and therefore not be an attractive alternative to travelling by the private car. Those residents who have no access to employment or education, and do not own a car would remain disadvantaged. The opportunity to develop a fully integrated transport network and strong culture of considering means other than the private car would be lost.

Option B - Do something

This is the preferred option as, supported by the KCC LSTF revenue bid, it will lead to a fully integrated and accessible transport network in West Kent, delivering a real alternative to the private car and ensuring that sustainable growth in the region can be achieved. The option will deliver substantial enhancements to the transport network in a cost effective way, with a focus on working with businesses and schools to reduce traffic congestion in peak periods. The option will deliver a reduction in car journeys, leading to reduced congestion, improved air quality and improved health and wellbeing for West Kent's residents. The increased transport choices it will offer will also address accessibility issues, especially amongst the disabled and socially excluded groups in the community.

Option C - Do maximum

This option comprises a full upgrade of the transport network in West Kent to give formal priority to sustainable modes over the private car. However, the capital costs of the scheme are likely to be unaffordable and there will be a requirement for a significant amount of revenue to pump prime new services. The long term sustainability of this option also carries more risk and it also has the potential to adversely affect economic growth in the region, by penalising those using the single occupancy car.

The table below summarises this analysis against the objectives and success factors of the scheme:

Table 5 - Summary of Scoping Options

Reference to:	Option A	Option B	Option C
Option:	**Do Nothing**	**Do Something**	**Do Maximum**
Investment Objectives			
1. Reduce Car Usage	×	✓	✓
2. Deliver a sustainable scheme	×	✓	×
3. Deliver an attractive, effective and safe scheme	✓	✓	×
4. Improve health and well being through increased active travel	×	✓	✓
5. Improve seamless travel, accessibility and quality of life for West Kent residents	×	✓	✓
6. Compliment the LSTF revenue scheme, other LGF capital schemes and development plans	×	✓	✓
Critical Success Factors			
Strategic Fit	×	✓	✓
Value for Money	**N/A**	✓	×
Potential Achievability	✓	✓	×
Potential Affordability	✓	✓	×
Timescale for Implementation	✓	✓	×
Summary	**Discounted**	**Preferred**	**Discounted**

3.9 Causal Chain

In order to present the scheme and its objectives in its overall context, a Causal Chain has been prepared.

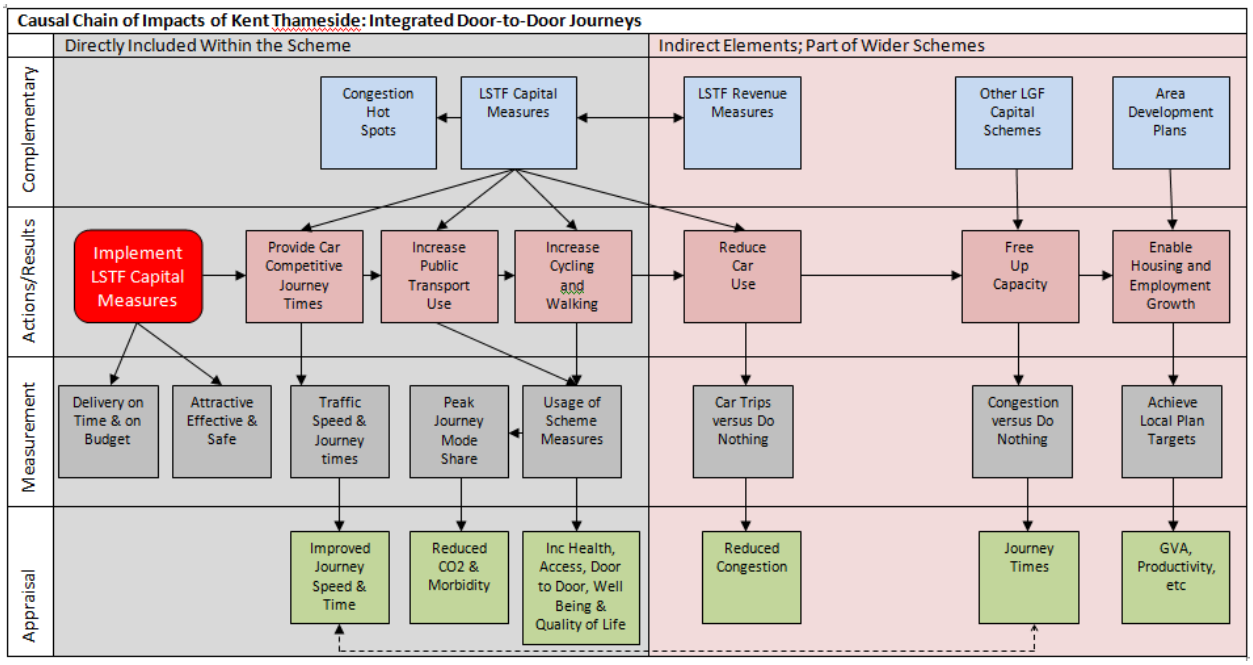


Figure 4 – Scheme Causal Chain

3.10 Summary of Scheme Objectives

The main objective of all scheme measures is to reduce the use of cars in favour of the use of sustainable modes, especially at peak times and in relation to the local congestion hot spots. As a consequence it is expected that the scheme will also address air quality concerns and improve health and well-being. The expected outcome in relation to all 3 of these objectives is quantified in the economic appraisal with the impact on congestion measured in terms of reduced vehicle kilometres, the impact on air quality measured in terms of reduced CO2 and the impact on heath measured in terms of reduced morbidity. Information on qualitative benefits such as the impact on health and well-being of encouraging active travel or the financial opportunities extended to operators of sustainable modes, is also provided.

There are also a number of secondary scheme objectives, none of which can be quantified but which are all illustrated qualitatively. These further objectives are:

- To provide seamless travel between modes for the whole journey, from door to door.
- To improve accessibility to jobs, education and training for all West Kent residents, especially those living in areas of deprivation or who are often socially excluded such as older people, disabled people, young people, unemployed people, people on low incomes, people in households with no access to a car, etc.
- To improve the quality of life for West Kent residents

In addition there are some further objectives sought as a result of the scheme complementing the LSTF revenue scheme, other LGF capital schemes and development plans in West Kent. The main objective in this respect is to lock in the benefits of other LGF capital schemes seeking to alleviate congestion at hot spots in the area. There is also the overall objective to support economic growth in terms of the jobs and housing required and the objective to support local development plans. Finally there is the objective to support the specific targets set for the LSTF revenue scheme, which would be far more difficult to achieve without LSTF capital supporting the infrastructure improvements for this to promote (and vice versa).

The above objectives are set out in the Causal Chain (see Figure 4) and are summarised in the table below:

Table 6 - Scheme Objectives

Primary Objectives	**1. Reduce Car Usage through the introduction of a number of smarter choice measures** • Reduce car use at congestion hot spots at peak times • Increase journey to work/education by cycle/walk • Increase journey to work/education by public transport (bus & rail) • Increase sustainable transport use for other trips, including health, shopping and leisure • Improve journey time/speed at hot spots at peak times • Reduce morbidity • Reduce CO2
Secondary Objectives (scheme delivery)	**2. Deliver a sustainable scheme** • Limit long-term maintenance liabilities **3. Deliver an attractive, effective and safe scheme** • Provide a scheme that is well used • Provide safety and security for all users

Secondary Objectives (direct)	**4. Improve health and well-being through increased active travel** • Increase cycle/walk journeys **5. Improve seamless travel, accessibility and quality of life for West Kent residents** • Increase bus journeys • Increase use of transport interchange facilities
Secondary Objectives (Indirect)	**6. Compliment the LSTF revenue scheme, other LGF capital schemes and development plans** **7. To lock in the capacity benefits of other initiatives** **8. To support the LSTF revenue targets** 9. **To support economic development targets**

3.11 Scheme Scope

- The scheme will deliver all smarter choice capital measures and complement all LSTF revenue measures in West Kent in 2015/16.
- The planning of the scheme is encompassed within the Places for Growth: West Kent, Transport Investments programme, within the SELEP strategy.
- The scheme links into a range of economic development and regeneration initiatives in West Kent
- The selection of measures has been undertaken in part to optimise maintainability. However, maintenance is not included in the scheme costs. Maintenance will be undertaken through established processes and budgets of scheme partners.

3.12 Critical Success Factors (CSFs)

The key CSFs for the West Kent: Tackling Congestion scheme, using the 5-Case Model headings are as follows:

- **CSF1: Strategic Fit (Strategic Case)**
  - Reduced car use and increased active travel;
  - Enables sustainable development (housing; employment) to take place;
  - Locks in benefits of other transport investments in West Kent;
  - Improved public health through active travel;

- Reduces CO_2 emissions;

- **CSF 2: Value for Money (Economic Case)**
  - Maximises return on investment, striking a balance between the cost of delivery and the cost to the economy of non-delivery.
- **CSF 3: Achievability (Commercial Case)**
  - Deliverable utilising current engineering and technology solutions
  - Limits long-term maintenance liabilities
- **CSF 4: Affordability (Financial Case)**
  - Deliverable within the likely capital funding available;
  - Revenue liabilities are affordable within current budgets.
- **CRF 5: Timescale for Implementation (Management Case)**
  - Deliverable within the timescale during which funding is likely to be available.

3.13 Stakeholders

All potential stakeholders have been defined and analysed in relation to:

- All stakeholders, categorised in terms of their interest in the scheme how they will be engaged with and consulted through the design and delivery process
- Further analysis of stakeholders benefitting from the scheme. These scheme beneficiaries have been mapped against the scheme objectives, enabling consultation to be targeted effectively and assisting in framing the Benefits Realisation Plan for the scheme.

3.13.1 Stakeholder Categorisation

Table 7 – Stakeholder Categorisation

Category	Detail
Beneficiary	Stakeholders which will receive some direct or indirect benefit from the scheme. For details see separate table
Affected	Stakeholders which are directly affected by the scheme in terms of its construction or operation
Interest	Stakeholders with some interest in the scheme though not affected directly by its construction or operation
Statutory	Stakeholders with a statutory interest in the scheme, its construction, operation or wider impacts
Funding	Stakeholders involved in the funding of the construction or operation of the scheme

3.13.2 Engagement Categories

Table 8 – Stakeholder Engagement

Category	Detail
Intensive consultation	Stakeholders who are directly affected by the scheme and whose agreement is required in order for the scheme to progress. Consultation throughout the design and implementation.
Consultation	Stakeholders who are affected by the scheme and can contribute to the success of its design, construction or operation. Consultation at key stages
Information	Stakeholders with some interest in the scheme or its use. Information to be provided at appropriate stages

3.13.3 Stakeholder Matrix

The following table summarises the engagement envisaged with individual stakeholders.

Table 9 – Stakeholder Engagement Matrix

Stakeholder	Categories	Engagement and Consultation	Comments
Scheme users	Beneficiary	Consultation Information	Through established mechanisms. Focus on scheme design, construction and operation
Other road users	Beneficiary	Information	
Transport Operators	Beneficiary Affected	Intensive Consultation Information	
Transport user groups (Bus & Rail)	Beneficiary	Consultation Information	
Cycling & Pedestrian groups	Beneficiary	Consultation Information	
Disabled access groups and individuals	Beneficiary	Consultation Information	
Socially excluded groups	Beneficiary	Information	

Stakeholder	Categories	Engagement and Consultation	Comments
Elected Members	Interest	Consultation	Specific Consultation dependent on measure
Local authorities	Beneficiary Affected Statutory	Intensive consultation	
Schools	Beneficiary Affected	Intensive Consultation Information	
Developers & Employers	Beneficiary Affected	Intensive Consultation Information	
Wider business community	Beneficiary	Information	As part of wider LGF consultation
Wider community	Beneficiary	Information	As part of wider LGF consultation
Local taxpayers	Beneficiary	Information	Through established channels
Tourists and visitors	Beneficiary	Information	

3.13.4 Stakeholder Benefits

The table below identifies the key qualitative benefits that will be provided for individual stakeholders.

Table 10 – Stakeholder Benefits

Stakeholders	Bus Service Improvements	Cycling Improvements	Interchange Improvements	Way Finding Improvements
Scheme users & User Groups	Safety Well Being Quality of Life Accessibility Financial	Safety Health Well Being Accessibility Financial	Accessibility Door to Door Financial	Health Well Being Accessibility Door to Door Financial
Other road users	Congestion Well Being	Congestion Well Being	Congestion Well Being	Congestion Well Being
Transport Operators	Congestion Financial	Congestion	Congestion Financial	Congestion
Disabled access groups and individuals	Well Being Accessibility	Accessibility	Accessibility	Accessibility
Socially excluded groups	Accessibility Financial	Accessibility Financial	Accessibility Financial	Accessibility Financial
Elected Members & Local authorities	Economic Congestion Air Quality Quality of Life	Economic Congestion Air Quality Health Quality of Life	Economic Congestion Air Quality Health Quality of Life	Economic Congestion Air Quality Health Quality of Life
Developers & Employers	Economic Congestion Financial	Economic Congestion Financial	Economic Congestion Financial	Economic Congestion Financial
Wider business community	Congestion Well Being Financial	Congestion Well Being Financial	Congestion Well Being Financial	Congestion Well Being Financial
Wider community & Taxpayers	Air Quality Financial	Air Quality Financial	Air Quality Financial	Air Quality Financial

Stakeholders	Bus Service Improvements	Cycling Improvements	Interchange Improvements	Way Finding Improvements
Tourists and visitors	Safety Well Being Quality of Life Accessibility Financial	Safety Health Well Being Accessibility Financial	Accessibility Door to Door Financial	Health Well Being Accessibility Door to Door Financial

3.13.5 Key Stakeholders

In addition to the above, the following key stakeholders and methods to engage with these have been identified in relation to each individual scheme measure.

Theme	Scheme Title	Key Stakeholders Identified	Methods of Engagement
Station Access Improvements and Town Centre Links:	Snodland Station Forecourt Scheme	Nina Peak - Southeastern Matthew Arnold (Arriva) Mike O'Brien - TMBC Snodland Town Council County Members District Councillors NuVenture Local Residents/Station users	Monthly steering group meetings Email consultation Plans displayed at Station Letter drop for residents JTB meetings
Cycle Parking at Stations and town centres	Maidstone Town Centre	Nina Peak - Southeastern Martin Hale - MBC Sustrans Tay Arnold - KCC cycling officer	Monthly steering group meetings Email consultation
Cycle Infrastructure	Tunbridge Wells/Tonbridge A26 route design	TWBC - Hilary Smith, Paul Lulham, Bartholemew Wren TMBC - Mike O'Brien County Members District Councillors Sustrans	Monthly steering group meetings Email consultation
	Cycle access to Swanley Station design	SDC - Lesley Bowes and Simon Taylor Nina Peak - Southeastern Swanley Town Council County Members District Councillors Sustrans	Monthly steering group meetings Email consultation
Pedestrian Information Displays	Tunbridge Wells Town Centre	TWBC - Hilary Smith, Paul Lulham, Bartholemew Wren County Members District Councillors Kent Association for the Blind Sustrans	Monthly steering group meetings Email consultation
Future Ticketing Technologies	West Kent roll out of smart card scheme	Colin Clemmence - Arriva David Bond - Medway Council Mike O'Brien - TMBC Lesley Bowes - SDC Hilary Smith - TWBC Martin Hale - MBC	Monthly steering group meetings Public launch event
Bus stop infrastructure	Sevenoaks routes 306 and 308 to Gravesend	Simon Taylor - SDC Matthew Arnold (Arriva) County Members District Councillors Shane Hymers - KCC Public Transport	Monthly steering group meetings Letter drop for residents Email consultation
Match Funding to Businesses and Hospitals	Grants to be offered via bidding process	Janet Hodgkinson - website development (Jambusters) Jo James - Invicta Chambers of Commerce Jenny Culville - KCC's Sustainable Business Team Kas Hardy - Public Health (Healthy Business lead) Sirina Blankson - NHS carbon management coordinator	E-bulletin to businesses Attendance at business events Monthly steering group meetings
Innovative Schools Fund	Grants to be offered via bidding process	Janet Hodgkinson - website development (Jambusters) School Head Teachers in West Kent KCC Planning Team	E-bulletin to schools Monthly steering group meetings

Table 11 – Key Stakeholders

3.13.6 Communications Strategy

Aim: To raise awareness among residents of West Kent of the alternatives to using a private car to travel to work and/or school, achieving a step change towards smarter travel.

Objectives:

- For parents of children attending schools in West Kent to change the way they think about getting their children to school, and to use an alternative to the car once a week.
- For businesses in West Kent to adopt a travel plan and actively encourage their employees to consider alternatives to the private car for both the commute and business travel.
- For existing and new rail users who live within 3 miles of a railway station in West Kent to consider walking or cycling to the station once a week.

There are 4 key audiences within West Kent who need to be reached to ensure the success of the programme:

- Businesses in West Kent who do not have a travel plan or do not promote their existing plan to employees.
- Parents of school children
- Adults aged 17-64 travelling to work by car
- Adults aged 17-64 travelling to railway stations by car

To engage with these groups KCC will work with District Councils, Transport Providers, schools and employers, who have the ability to engage with their users/pupils/employees on mass. Each audience group will be targeted with a different approach in order to appeal to their individual needs and requirements. For example, it is widely accepted based on previous successful projects that in order to achieve a change in the way parents take their children to school, it is necessary to first communicate the message to the pupils and gain their enthusiasm.

There are several key messages that need to be communicated to the target audience:

- That infrastructure is being implemented to provide alternatives to the private car.
- The health benefits of travelling by alternative modes.

- The carbon benefits of travelling by alternative modes.
- The financial benefits of travelling by alternative modes.

These messages will be communicated using a number of different media channels, including:

- Email newsletter (existing e-bulletins to schools and businesses)
- Online presence (Kent Connected, Kent.gov)
- Presentations at other people's events (Business events, EduKent, Modeshift etc.)
- Printed materials
- Officer engagement with schools and businesses

The LSTF 2015/16 revenue programme, Kent Connected, provides a marketing budget which can be utilised to promote the messages that need to be communicated, with £5k of this being 'ring fenced' for West Kent.

3.14 Scheme Risks

Three low and one moderate risk relating directly to the delivery of the scheme measures has been identified. These risks are captured, together with the mitigation proposed, in the LEP Scheme Board, Risk Register (see Management Case, section 7.5), as illustrated below.

RISK REGISTER

Project Title: West Kent LSTF - Tackling Congestion
Project Manager: Kerry Prescott
Date of Last Review: 1/12/14

H High
M Medium
L Low

Total Risk Allowance: 0

Risk Number	Risk Description	Date Logged	Initial Impact	Initial Probability	Initial Priority	Nature of Impact (Commercial/Programme/H&S)	Action to be taken (Mitigation)	By Whom	By When	Residual Impact	Residual Probability	Residual Priority	Progress	Residual Cost Allowance in Project Estimate	Risk amended this review ?
01	Planning permission is not granted in time to allow Maidstone East scheme to be delivered in 16/17	01/12/2014	M	M	M	Delay to project and whole programme	Plannign application has been submitted and awaiting results of plannign committee in December. Scheme will be value engineered to allow the station improvements to be delivered ahead of the planned development	KCC/Southeastern	01/04/2016	M	M	M	Southeastern are currently commissioning a consultant to devise a "plan B" scheme in case the planning application is unsuccessful.		
02	A large proportion of the programme is contributions to partners to deliver 3rd party schemes. There is therefore a risk that the partners do not deliver 3rd party schemes by agreed deadlines	01/12/2014	L	L	L	Programme would be delayed, could impact on scheme costs.	Close partnership working including regular update meetings to ensure delivery is on target	KCC	ongoing	L	L	L			
03	District partners do not give support to scheme elements due for delivery in 15/16	01/12/2014	L	L	L	Schemes would need to be altered at the last minute resulting in delays to delivery	Districts to be engaged with to gain support, and to be asked to submit scheme proposals for 16/17 onwards and to accept that the programme is set for 15/16.	KCC	ongoing	L	L	L	Districts have been informed that the programme for 15/16 is set and they can only influence the programme for 16/17 onwards.		
04	Match funding is not secured from partners	01/12/2014	L	L	L	Will impact the scope of indivdual schemes in the programme and could set back delivery.	Early engagement with partners has ensured 15/16 match funding is identified and secured. Focus is now on 16/17 onwards.	KCC	31/03/2016	L	L	L	Full match funding requirement for 15/16 is secure		

Table 12 – Key Risks

In addition, some further moderate risks have been identified in relation to the complimentary measures with mitigation approaches again defined to address these:

Risk	Likelihood	Impact	Mitigation
Complimentary schemes do not progress at the rate expected	Medium	Take up of the proposed scheme measures may be reduced	Liaison with other scheme promoters to track overall progress
Reduced take up will reduce quality of life benefits	Medium	Scheme benefits will not be recognised by the wider community	Significant marketing and promotional activities
Website and App supported by LSTF revenue funds may take longer to implement than envisaged	Medium	Scheme take up may be reduced	Significant other marketing and promotional activities

Table 13 – Risks, Complementary Measures

3.15 Required Powers and Consents

Those elements of the scheme that will be delivered by KCC are anticipated to be all within the existing public highway boundary and KCC represent the local highway authority. As such those elements are designated as permitted development and, therefore, all required powers and consents are in place.

4 Economic Case

4.1 General KCC Approach to Scheme Economic Case

4.1.1 General Overview of Approach to Economic Case

The economic case is one of five strands of evidence required to support the scheme transport business case. Kent County Council's general approach to the economic case has been determined by the need for it to be proportionate to the scale, scope and cost of the proposed scheme and the preparation time available. This approach is fully consistent with Department for Transport advice to scheme promoters (KCC) and adjudicators (SELEP). This advice recurs in the following DfT guidelines:

- Transport Analysis Guidance (WebTAG) (The Proportionate Update Process January 2014);
- Value For Money advice note, December 2013 (sections 1.4, 1.17, 5.3);
- The Transport Business Cases, January 2013 (Sections, 1.4, 2.7, 6.2);
- LEP Assurance Framework, December 2014 (Sections 5.6, 5.7, Annex A); and
- HM Treasury The Green Book, July 2011 (Appraisal and Evaluation in Central Government).

However, none of the above guidance specifies the parameters of what constitutes a proportionate approach to appraisal. Therefore, KCC has applied best judgement to decide how much rigour there should be in the scheme economic case.

4.1.2 Quantitative and Qualitative Economic Appraisal

In line with the proportionate approach, KCC has prepared partly quantitative and partly qualitative evidence to support the scheme economic case. Generally, for a scheme with relatively large cost (>£5m), the economic appraisal has been substantiated with quantified outcomes. Conversely for a scheme with relatively small cost (<£5m), mainly qualitative evidence has been assembled.

It has also been inappropriate to calculate monetised economic impacts for certain KCC schemes for which the LGF bid is not primarily aimed at achieving transport user benefits. Here, the main scheme objective has been, for example, to enable a more prosperous economy and community by improving public realm, or to save unnecessary future expense by maintaining existing transport assets more effectively.

4.1.3 Components of Economic Case

The economic case has initially considered all aspects of scheme performance and likely impacts, in line with the TAG criteria outlined in the Appraisal Summary Table (AST), broadly:

- Economic prosperity and efficiency –
  - User travel costs; congestion; reliability; regeneration and wider economy;
- Environment –
  - Noise; air quality; greenhouse gases; landscape; townscape; heritage; biodiversity; water;
- Social well-being –
  - Accidents; physical activity; journey quality; value for non-users; affordable travel; security; access to opportunities and door-to-door options; severance;
- Public accounts –
  - Cost to transport budget; indirect tax; value for money (VfM).

However, many of these aspects are insignificant, or not easily assessed, in the context of the KCC scheme in question. Therefore, the economic case has finally focussed on economic efficiency for transport users, decongestion, reliability, greenhouse gases (carbon), safety, capital cost and VfM, as the core aspects for appraisal.

4.1.4 Quantitative Evidence for Economic Case

Where the predicted economic outcomes from the scheme have been quantified and monetised, the appraisal method used in the economic case has largely followed the non-modelling approach identified in TAG. This is centred on a 2010, present value (PV), cost and benefit analysis, which weighs up the net economic savings to scheme users, against the net economic costs to public accounts, of the investment. Here, the net impacts are derived by subtracting the with-scheme outcomes from the without-scheme outcomes.

Generally, transport model outputs and economic appraisal software has not been used to assess the schemes, because of the disproportionate costs, resources and data inputs that would be entailed. This has precluded use of TUBA, COBALT, INCA, QUADRO and TfL Urban Design Toolkit.

The time period for the economic appraisal is matched to the context of the scheme, ranging from a 60-year horizon for a longer-term one-off investment, to a 1-year horizon for a shorter-term, staged or packaged investment. Intermediate appraisal terms have been used to suit the likely duration of a particular scheme's impacts.

In the quantified economic approach, manual calculations, or the TAG Marginal External Costs technique, have been used to assess the following scheme impacts: travel time and delay savings for transport users; vehicle kilometre and decongestion savings for society; journey time reliability improvements for users; accident savings for users; health benefits for active mode users; carbon emission savings for society; and the capital cost to public accounts of preparing and constructing the scheme.

Standard TAG economic appraisal summary tables have not largely been produced, owing to the limited scope of the KCC schemes and because neither the required breakdown of benefits, by user-type and journey-purpose, nor segmentation of costs by investment item, have been available. This has ruled out inclusion of Transport Economic Efficiency (TEE) and Public Accounts (PA) tables. However, a summary table for Analysis of Monetised Costs and Benefits (AMCB) has generally been included in the quantified economic case.

A recommended TAG and 'Green Book' method has been followed to convert monetised scheme economic costs and benefits from their year of occurrence to 2010 PV equivalents. In essence, this entailed the following steps:

Converting year-of-estimate capital costs to a 'base cost', by adjusting for real construction cost increase between estimate year and year of cost occurrence;

Converting base cost to 2010 prices, by adjusting for GDP deflation;

Discounting year-on-year costs and benefits to 2010 at 3.5% per annum; and

Adjusting 2010 PV costs and benefits from 'factor cost' to 'market prices', by allowing for indirect taxation (+19% increment).

Final summation of the scheme PV outcomes gives a quantified value for PV Benefit (PVB), PV Cost (PVC), Net Present Value PVB-PVC (NPV) and Benefit to Cost ratio PVB/PVC (BCR).

4.1.5 Qualitative Evidence for Economic Case

Where the potential economic outcomes from the scheme have been not been quantified and monetised, they have been assessed by aligning with a qualitative scale. This appraisal method for the economic case has largely followed the steps outlined in the DfT 'Value for Money' approach. The qualitative method is considered to be appropriate for schemes of modest cost and scope, which do not merit an elaborate, quantified economic case.

A sequence of six steps has been traced, to attribute a qualitative scale to the scheme's economic impacts, as follows:

- Define an initial BCR (for usually monetised impacts); and
- Work out an adjustment to the BCR (for sometimes monetised impacts);
  - Both against a 5-point scale (poor/low/medium/high/very high);
- Undertake a qualitative assessment (for rarely monetised impacts), against a 7-point scale (slight/moderate/large beneficial, neutral, slight/moderate/large adverse);
- Combine items above, to give initial an VfM, against a 4-point scale (low/medium/high/very high);
- Make a risk assessment, to derive a further adjustment to the initial VfM, using the 7-point scale; and
- Finalise the overall VfM, by adjusting the initial VfM for risk, using the 4-point scale.

Qualitative evidence used to support the economic case is based around applying an order of magnitude to a likely scheme outcome, rather than by calculating a precise, quantified, impact value.

4.2 Background

The objectives set out in the Strategic Case, along with the expression of stakeholder benefits, provide a framework for what the scheme must achieve. These Critical Success Factors (CSFs) in turn provide the basis for the appraisal of the scheme. In line with HM Treasure guidance these CSFs are categorised according to Strategic Fit, Value for Money, Achievability, Affordability and Timescale. These effectively map onto the 5-case model, enabling the scheme to be appraised and the most effective option identified.

The following subsections describe the scheme options, their advantages and disadvantages and whether they have shown sufficient merit to take forward for more detailed economic appraisal. A summary of the options, mapped against the scheme objectives and CSFs is provided.

Following this, the approach towards more detailed economic appraisal is described, followed by the scheme option appraisal itself.

An Appraisal Summary Table, setting out the key issues relevant to this scheme is provided.

Whilst the scheme is expected to contribute to the wider economic development of the area, it is focused on addressing congestion by reducing the number of car trips and increasing the use of sustainable modes, in particular at peak times. As set out in **Error! Reference source not found.**, this will also provide morbidity benefits, reductions in CO_2 emissions and (in conjunction with complementary schemes) will contribute to health and well-being, accessibility, quality of life and enable seamless door to door travel across West Kent. Together these benefits will all facilitate economic growth in the area, in terms of jobs and housing. Consequently the Economic Case is focused on these specific benefits.

4.3 Appraisal Process

With devolution of major scheme approval to Local Enterprise Partnerships, it is important that an approach to appraisal is used which gives regard to local priorities (especially in enabling investment, job creation and housing construction). This must be done with due regard to standard practice, which in transport terms means the use of WebTAG guidance. Discussions with the Department for Transport have indicated that a 'proportionate' approach to WebTAG should be used. Kent County Council, has held discussions with the South East Local Enterprise Partnership, in the light of Government Guidance[1], on how the appraisal of devolved small major schemes should be handled.

As a result of this the following approach has been applied:

[1] Growth Deals: Initial Guidance for Local Enterprise Partnerships. HM Government July 2013

- The scheme measures are appraised in their current form; i.e. as they are envisaged at the time of producing the business case. This has changed a little since the scheme was first submitted to SELEP and it is possible they will evolve further, within acceptable parameters, as implementation progresses. Any changes will only seek to enhance the impact of the scheme;
- All anticipated scheme design and delivery costs have been calculated as accurately as possible, given the relatively early stage of the design of most measures (The source for the costs used is identified in the scheme budget provided in section 5);
- The scheme outputs identified relate directly to what the funds available for each measure can procure (ie these are the outputs used in the cost calculations);
- Scheme impacts (quantitative and qualitative) are based on the experience of similar schemes elsewhere, locally, nationally and internationally, including data obtained from Web Tags and recognised research studies in the field of sustainable transport;
- The scheme impacts, used to calculate the quantitative scheme benefits, are applied only to peak traffic flows at the congestion hot spots as this is the issue measures are directly targeted at addressing and for which data is most readily available to support quantification and monetisation;
- Quantitative analysis is undertaken on each scheme measure apart from the two Cycle Infrastructure measures as only the design stage for each is due to be delivered in 2015/16 and the Pedestrian Information Display measure as pedestrian flows are not available for the traffic counts at congestion hot spots.
- Further benefits are identified as qualitative benefits

Traffic Estimation

DfT count sites on/near the congestion hotspots were identified.

DfT annual average daily classified vehicle counts for 2013 were extracted for the above sites.

The AADF was converted to peak period flows i.e., flows during the AM period of 0700 to 1000 and PM period of 1600 to 1900. The peak period factors were calculated from the National Travel Survey.

The peak period vehicular flows were converted to peak period person trips using the following occupancy factors:

- Cars: 1.23
- Buses: 24
- Other Vehicles: 1

The congestion, morbidity and Co2 impact of various schemes on the modes was calculated on the person trips identified.

Congestion Impact

The impact on congestion on the roads due to introduction of various LSTF schemes was calculated using the Marginal External Cost (MEC) Technique. The MEC technique is the monetised valuation of various transport user 'external impacts', on the basis of predicted travel distance changes, by car, which would result from a scheme. The impacts are classified as external when they may not be perceived by a user, namely: Congestion delay, infrastructure maintenance, accidents, local air quality, noise, greenhouse gas and indirect tax (fuel). The MEC approach is useful when a multi-modal model is not available to provide quantified evidence of likely scheme impacts.

MEC decongestion benefits associated with the West Kent LSTF schemes have been calculated only in terms of delay savings for cars, resulting from mode transfer, not in terms of infrastructure maintenance, accidents, local air quality, noise, greenhouse gas and indirect tax (fuel). This has ensured that there is no double-counting of benefits from reducing CO_2 emissions, which have been calculated using the DfT Carbon Tool.

The following steps were followed in order to arrive at the congestion impact:

Step 1: The change in car kilometres with and without scheme was calculated for the AM and PM peak periods (using the impacts identified in 4.6.1)

Step 2: The MEC monetary valuation was extracted from WebTAG Data Book November 2014, (A5.4.4), for the relevant time period. The values for 2016 were estimated by interpolation of values extracted for 2015 and 2020. The calculated values were them estimated for the whole year

Step 3: The annualised and monetised car km benefits, were then discounted back to 2010 present value (PV) based on a 3.5% p.a. factor cost.

Step 4: The discounted benefits were then converted from factor cost to market prices (MP), (i.e. allowing for indirect taxation adjustment).

Morbidity Impact

The impact on morbidity on the roads due to the introduction of LSTF schemes was calculated where there was a change in cycle kilometres identified that was sufficient to obtain a result from inputting this to the World Health Organisation's (WHO), HEAT model. This was possible in the case of the Innovative Schools and Business Support measures.

The following steps were followed in order to arrive at the morbidity impact:

Step 1: The change in cycle kilometres with and without scheme was calculated for the AM and PM peak periods (using the impacts identified in 4.6.1)

Step 2: The outputs were fed directly into the HEAT model currently available from the WHO website and the monetary valuation provided by this for 2016 was extracted.

Step 3: The annualised and monetised cycle km benefits, were then discounted back to 2010 present value (PV) based on a 3.5% p.a. factor cost.

Step 4: The discounted benefits were then converted from factor cost to market prices (MP), (i.e. allowing for indirect taxation adjustment).

Co2 Impact

The impact on Co2 on the roads due to the introduction of LSTF schemes was calculated where there was a change in car kilometres identified that was sufficient to obtain a result from inputting this to DfT Carbon Calculation model. This was possible in the case of all but the Cycle Parking measure.

The following steps were followed in order to arrive at the Co2 impact:

Step 1: The change in car kilometres with and without scheme was calculated for the AM and PM peak periods (using the impacts identified in 4.6.1)

Step 2: The outputs were fed directly into the Co2 model currently available from the DfT website and the monetary valuation provided by this for 2016 was extracted.

Step 3: The annualised and monetised car km benefits, were then discounted back to 2010 present value (PV) based on a 3.5% p.a. factor cost.

Step 4: The discounted benefits were then converted from factor cost to market prices (MP), (i.e. allowing for indirect taxation adjustment).

4.4 Economic Overview

As set out in the Strategic Case, this scheme represents an important complementary measure in supporting the development of jobs and housing in West Kent. It provides a means to reduce congestion by offering both commuters and those undertaking the school run attractive sustainable alternatives that are integrated with the wider public, cycle and pedestrian transport networks, enabling seamless travel to employment and schools in the area.

At around £1.6m, it is in itself a relatively low-value scheme which does not justify a fully WebTAG compliant economic appraisal as required for schemes above £8m, in the South East. In addition, the complementary nature of the scheme does not lend itself to such an appraisal in isolation. Consequently the Economic Case for this scheme is focused on:

- The direct benefits of the scheme, including congestion savings, health economic benefits and greenhouse gas emission savings stemming from usage of the scheme measures, especially usage involving transfer from car.
- Qualitative appraisal of other direct and also the wider benefits in the context of the planned developments in the area, major transport schemes in the area and complementary sustainable transport revenue schemes. These benefits include decongestion benefits which are impossible to attribute to individual scheme measures.
- Direct scheme construction costs, not taking into account any additional measures such as those supported by the LSTF revenue bid or any ongoing maintenance costs, as these are incorporated in existing maintenance budgets and have not been separately defined.

For the purposes of this 'small' scheme, the direct employment benefits (i.e. people employed in constructing the scheme) have not been calculated, though these may be aggregated into the direct employment generated by the LGF programme as a whole.

As detailed in the Causal Chain, the benefits of the scheme and the overall approach to the appraisal of these are as follows:

Table 14 - Key Appraisal Elements

Appraisal Item	Direct/ Indirect	Approach to Appraisal

Appraisal Item	Direct/ Indirect	Approach to Appraisal
Social - Health benefits from active travel	Direct	Use of World Health Organisation HEAT tool to calculate health economic benefits, based on projected usage and peak time, impacts on congestion hot spots
Environmental - Carbon emission savings from transfer from car	Direct	Use of DfT Carbon Tool to calculate CO2 savings from transfer from car, based on projected usage and peak time, impacts on congestion hot spots
Economy – Car kilometres reduction on highway network (decongestion)	Direct	Estimates of car kilometre savings based on peak time projected usage and peak time, impacts on congestion hot spots
Wider Economic, Social and Environmental benefits (GVA, productivity etc.)	Indirect	Estimates based on projected usage, in conjunction with LSTF revenue and other LGF capital schemes

In addition to these, a number of other key benefits have been taken into account and included in the Appraisal Summary Table alongside less detailed commentary on all relevant aspects:

Table 15 - Additional Appraisal Elements

Appraisal Item	Direct/ Indirect	Approach to Appraisal
Economy - Regeneration	Indirect	Narrative approach based on enabling development of the area, linked to other initiatives. Includes tourism.
Environmental – Air Quality	Direct	Narrative approach based on the wider benefits generated by the increased use of sustainable transport
Social – Health & Well Being	Direct	Narrative approach based on the wider benefits generated by the increased use of active travel modes
Social – Accessibility & Inclusion	Direct	Narrative approach based on provision of improved access to employment, training and education without the need for a car
Social – Quality of Life	Direct	Narrative approach based on improvements to the travel environment and reductions traffic impacts
Economic – Door to Door	Direct	Narrative approach based seamless travel benefits
Economic – Financial	Direct	Narrative approach based on increased patronage for providers of sustainable transport

4.4.1 Appraisal Flowchart

The approach to economic appraisal, using WebTAG principles is illustrated below.

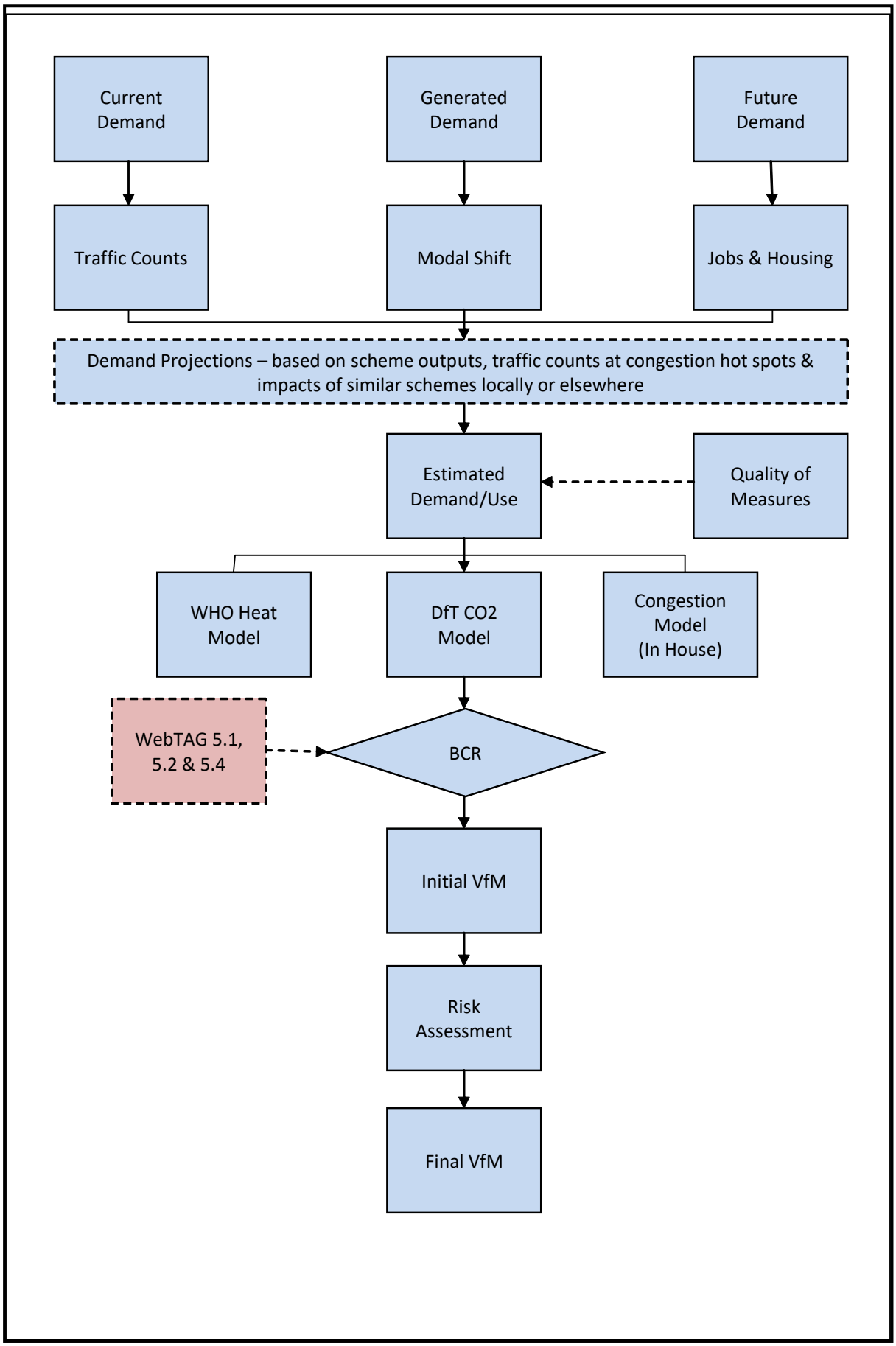


Figure 5 - Appraisal Flowchart

4.4.2 Appraisal Scenarios

The Preferred Option has been identified through an appraisal process, taking into account the long-term maintainability of the scheme as well as its effectiveness against the core objectives.

In view of this, with only one option demonstrating overall cost-effectiveness, the appraisal has been undertaken against two options:

- Do Nothing, with the scheme not delivered – No change
- Do Something, with delivery of Option B

4.5 Projected Scheme Usage – Demand Projections

The scheme provides significant improvements in terms of the provision of additional, high quality, sustainable transport measures and improving the quality and attractiveness of existing measures. Each measure is targeted at a number of congestion hot spots with the aim of reducing car trips and increasing use of sustainable modes or potentially removing users altogether by encouraging them to take a different route. The impact of measures, in this context, is based on the experience of the introduction of similar measures elsewhere.

Together the improvements will:

- Retain existing users. All measures intended to build on existing provision will rely on counts of current users to provide a baseline demand level against which to monitor future development. Such counts exist for all bus measures, in terms of patronage data obtained from ticket machines, although this data is not normally published because of its commercial nature. Baseline counts are required for all other measures. Pedestrian Information Displays and Match Funding to Businesses and Hospitals, as the new measures, will utilise a baseline of zero. This will also be the case for the two cycle paths, the design for which is to be delivered by the Cycle Infrastructure measure, once they are implemented;
- Attract new users travelling between existing housing, employment and education locations. Future user counts will seek to differentiate between existing, new and future (see below) users.
- Attract further new users as new housing and employment locations are developed.

- Attract additional retail, leisure users and tourists.

The baseline traffic counts for congestion hot spots impacted by each measure for which quantitative appraisal is undertaken are identified in the following table. The only measures not appraised in this way are the Cycle path and Wayfinding information measures. The former because only the design stage is to be considered in 2015/16 and the latter primarily because the traffic counts available for congestion hot spots do not include pedestrians.

Table 16 - Peak Vehicle Counts

NAME	PedalCycles	Motorcycles	CarsTaxis	BusesCoaches	LightGoodsVehicles	AllHGVs
MAIDSTONE TOWN CENTRE	187	758	64151	1045	8095	1578
ALL 'A' ROADS TO MAIDSTONE	118	379	37387	396	5120	1097
SEVENOAKS TOWN CENTRE	77	139	15301	228	2082	251
SWANLEY TOWN CENTRE	1	298	15013	43	2964	726
A25 IN SEVENOAKS	70	254	29672	218	4726	1571
A225 IN SEVENOAKS	72	159	16673	193	2307	362
TONBRIDGE TOWN CENTRE	74	259	22710	315	3758	952
A20 in Tonbridge	89	180	15000	182	1939	536
A26 IN TONBRIDGE	148	276	20762	374	3234	653
A25 corridor through Platt, Borough Green and Ightham	19	141	8504	33	1681	431
Junction 4 of M20	0	513	55207	227	12110	9401
All A roads to/from junction 4 of M20	6	89	11940	28	1905	1030
The A21 between Tonbridge and Tunbridge Wells	7	161	10306	46	1867	498
Pembury Road	8	64	5840	100	874	162
A26 within Tunbridge Wells	154	315	29435	531	4043	1178
Southborough town centre	40	72	5186	99	863	198
Royal Tunbridge Wells town centre	233	378	32844	766	4643	1161

In all cases, it is assumed that effective complementary schemes, in particular the LSTF revenue measures, will be undertaken to accompany the delivery of all measures. These are incorporated into the Benefits Realisation Plan and include:

- Adequate maintenance of each measure;
- Attractive, direct; connections (with signage and markings) to the measure;
- Marketing and promotion of each measure to ensure its availability is continually presented to potential users;
- Integration with other transport modes, especially at local rail stations;
- Complementary 'soft' measures, including web site and app, residential, employment and education travel plans, personal travel plans, bikeability schemes, cycle training, etc.;
- Complementary infrastructure schemes to address congestion pinch points.

4.5.1 Assumptions Used in Demand Projections

The expected impact of measures is identified from the experience of similar schemes elsewhere. Considering each measure in turn, for which quantitative benefits have been calculated, the table below identifies the impact applied and the research source/s from which this has been obtained.

Table 17 – Impacts of Measures

Measure	2015/16 Impact	Source
Station Access improvements - Snodland	Bus Use +3.38% Cycle Use +0.6% Car Use -1.04%	ITS, Leeds University, 2009 & Association of Train Operating Companies Cycle Access Study for SE England Rail Users, 2013
Cycle Parking at Town Centre - Maidstone	Cycle Use +0.6% (70% from cars, 30% from bus)	Association of Train Operating Companies Cycle Access Study for SE England Rail Users, 2013
Future Ticketing Technology	Bus Use +3.83%	White 2004, Fitzroy & Smith, 1998
Bus Infrastructure Improvements	Bus Use +1.63% Car Use -0.13%	The Role of Soft Measures in Influencing Patronage Growth and Modal Split in the Bus Market in England, CPT 2010
Match Funding to Businesses	Cycle Mode Share + 1.2% Car Use – 3.7%	Cycling to School, SDG 2012 & 2013 KCC Data on outcomes of previous grant support schemes
Innovative Schools Fund	Cycle Mode Share + 1.2% Car Use – 3.7%	Cycling to School, SDG 2012 & 2013 KCC Data on outcomes of previous grant support schemes

Predicted reductions in vehicle kilometres that would result from the West Kent LSTF initiatives, have been calculated by applying the above case study percentage decreases in car use to the recorded vehicle flows at the congestion hotspots, during the appropriate time periods, multiplied by the average car trip length for vehicles at the hotspots. These reductions in vehicle kilometres have been used to calculate decongestion benefits achievable through the LSTF schemes.

Similarly, carbon and health impacts from the LSTF initiatives have also been estimated by applying the above case study percentage changes in mode share to the recorded traffic flows at the congestion hotspots.

4.5.2 Economic Benefit Calculations

The approach summarised in Figure 5 details the key components of the 2010 present value economic appraisal of the scheme in isolation. The main components of the economic appraisal are as follows:

- Inclusion of scheme capital costs, only, in the public accounts calculations and not operating or maintenance costs, as these latter costs are handled separately through an LSTF revenue funding bid and supporting economic case; furthermore, net change in operating and maintenance costs with the scheme, compared with the no scheme situation, is expected to be negligible;
- Inclusion of optimism bias in the 2010 present value scheme capital cost calculation; this assumes a cost adjustment of +3%, in line with WebTAG Unit A1.2 (November 2014), for cycle and pedestrian facilities at full transport business case stage;
- Quantified congestion benefits as a result of the reductions in vehicle kilometres through congestion hot spots at peak times;
- Quantified health benefits from increased active travel through congestion hot spots, based on reduced mortality benefits and calculated using the World Health Organisation HEAT tool;
- Quantified greenhouse gas emission benefits arising from the reduction of car kilometres through congestion hot spots, calculated using the DfT Carbon Toolkit
- Journey quality benefits, stemming from the increase in sustainable transport opportunities and the benefit derived by users from this.

An economic appraisal spreadsheet, showing how the 2010 present value costs and benefits have been calculated for the West Kent LSTF, is provided in Appendix C.

The economic contribution of the scheme, in terms of the quantified benefits of reduced congestion, CO_2 and morbidity, is delivered in conjunction with the complementary LSTF revenue scheme measures and alongside the capacity improvements stemming from complementary infrastructure schemes in West Kent.

Additional qualitative benefits are considered after the calculation of a BCR, in order to support the assessment of overall Value for Money. The quantitative and qualitative assessments of impacts have been input to the Appraisal Summary Table (AST) for the LSTF scheme package at 2015/16, as provided below.

Table 18 – Appraisal Summary Table

West Kent LSTF Scheme Appraisal Summary Table (AST)											
Impact Category	**Monetised / Non-Monetised Impact?**	**Specific Impact**	**Quantitative Outcome (Monetised) 2010 Present Value**	**Qualitative Outcome (✓) (Non-Monetised)**						
				Beneficial			**Neutral**	**Adverse**		
				Large	**Moderate**	**Slight**		**Slight**	**Moderate**	**Large**
Economy	Usually Monetised	Travel Costs to Business Users and Providers –	Included with commuter & other users		✓					
	Sometimes Monetised	Reliability for Business Users – Regeneration – Wider Impacts –			✓	✓ ✓				
	Rarely Monetised	None								
Environment	Usually Monetised	Noise – Air Quality – Greenhouse Gases –		✓ ✓ ✓						
	Sometimes Monetised	Landscape –					✓			
	Rarely Monetised	Townscape – Heritage / Historic Environment – Biodiversity – Water Environment –					✓ ✓ ✓ ✓			
Social	Usually Monetised	Travel Costs to Commuter & Other Users – Accidents – Physical Activity – Journey Quality –	£38,937m	✓	✓ ✓	✓				
	Sometimes Monetised	Reliability for Commuter & Other Users – Non-User Option/Non-Use Values –		✓		✓				

	Rarely Monetised	Security – Access to Services – Affordability – Severance –			✓ ✓		✓ ✓			
Public Accounts	Usually Monetised	Cost to Broad Transport Budget – Indirect Tax Revenue –	£1,448m					✓ ✓		
	Sometimes Monetised	None								
	Rarely Monetised	None								
Sustainability (non-AST e.g. LSTF)	Usually Monetised	None								
	Sometimes Monetised	None								
	Rarely Monetised	Co-ordinated Door-to-Door Journeys – Traffic Congestion – Active Travel –		✓ ✓ ✓						

4.6 Detailed Appraisal

The table below summarises the results of the quantified appraisal for the impacts of the individual scheme measures over a 6 year period; ie the duration of the LSTF capital scheme as a whole.

Table 19 – Quantified Appraisal (Present Values in 2010 prices and values)

Measure	Outputs	Quantitative Benefits (£000s)			Cost (£000s)	BCR
		Congestion	CO2	Morbidity		
Station Access Improvements – Snodland	Cycle parking 1 Bus Stop Pedestrian Path Station Refurbished	£2,588	£139	£0	£998	2.73
Cycle Parking - Maidstone Town Centre	40 additional cycle parking	£9	£0	£0	£19	0.49
Cycle Infrastructure – Swanley, Tonbridge / Tunbridge Wells	Design of 2 cycle routes	N/A	N/A	N/A	£46	N/A
Pedestrian Information – Tunbridge Wells	Pedestrian signs Redundant signs removed	N/A	N/A	N/A	£69	N/A
Future Ticketing Technology – West Kent	Ticket machines Top up machines Smart cards IT	£13,255	£640	N/A	£51	273.42
Bus Infrastructure Improvements – 306/308	20 bus stops	£295	£12	N/A	£78	3.94

Measure	Outputs	Quantitative Benefits (£000s)			Cost (£000s)	BCR
Match Funding for Businesses – West Kent	Circa 25 Businesses	£8,619	£480	£1,901	£128	86.19
Innovative Schools Fund – West Kent	18 Schools	£8,619	£480	£1,901	£60	183.77
All Measures		£38,937			£1,448	26.89

The overall BCR obtained from all 2015/16 measures appraised is 26.89, indicating a very high level of overall benefit will be obtained from the scheme. This comes about as a result of the particularly high level of benefits generated by the Future Ticketing Technology, Match Funding for Businesses and Innovative Schools measures. It is tempered by substantially lower, but still significant, benefits from the Station Access Improvements, Cycle Parking and Bus Infrastructure measures, as well as it not being possible to identify the impact of the Pedestrian Information measure (due to the lack of data from similar schemes) and because it was considered inappropriate to appraise the Cycle infrastructure measures at the design stage.

Extrapolating from the benefits identified it is possible to arrive at an estimate for the BCR of the LSTF capital scheme as a whole, assuming similar measures are applied in future years and taking account of projected costs. As costs are due to increase in later years this estimate suggests the overall BCR will reduce over time to around 15, a more realistic figure for an integrated package of smarter choice measures.

It should be noted that until the locations of future measures are decided and as a result, the congestion hot spots these will impact on can be identified, this estimate cannot be confirmed. However, it will be the subject of the appraisal undertaken for the business case to be submitted for the remainder of the LSTF capital scheme towards the end of 2015/16.

As the scheme is also complementary to and to some extent inter-dependent on, the LSTF revenue scheme it will also support this scheme in achieving its projected BCR of 10.0.

4.7 Value for Money Statement

4.7.1 Present Value of Benefits (Initial VfM Category)

The anticipated net present value of the recommended Option B, net of all procurement, construction and implementation costs, has been calculated as £37,488m.

4.7.2 Risk adjustment

As risks for the scheme are considered minimal then there is no need to adjust the net present value to take account of these.

4.7.3 Final VfM Category

A quantified economic appraisal of the capital costs and user benefits for the duration of the LSTF scheme, for the West Kent LSTF 2015/16 package, shows the positive monetised and qualitative outcomes below, at 2010 present value and market prices.

Table 20 – Value for Money, 2015/16

	Present Values in 2010 prices and values
PVB	£38,937m
PVC	£1,448m
NPV = PVB – PVC	£37,488m
Initial BCR = PVB/PVC	26.89 (Very High)
Adjusted BCR	No adjustment made for non-quantified items
Qualitative Assessment	Improved Health and Well Being, Quality of Life, Accessibility and Seamless Door to Door Journeys. Also financial benefits to sustainable transport operators and environmental benefits.
VfM Category	Very High

4.7.4 Summary of Benefits and Costs

The immediate benefit from the scheme will be the provision of a range of integrated smarter choice measures which will facilitate a large increase in the use of sustainable transport modes for journeys, in full or in part, between residential areas and employment and education facilities across West Kent.

In combination with the complementary LSTF revenue scheme and other LGF capital measures, the scheme will help 'lock in' the benefits of transport investment and will facilitate the sustainable growth of housing and employment set out in the SELEP Strategic Economic Plan and the Local Plans for the area. This in turn will encourage inward investment and enable commercial and employment growth in the area.

The primary financial benefits that have been used to calculate the value of the scheme are:

- The health benefits of cycling in terms of reduced mortality
- A reduction in greenhouse gas emissions as a result of a reduction in car trips
- Decongestion benefits

In addition, there are a number of further benefits which have not been monetised, the most important of which are:

Economy – Regeneration

The scheme will support the sustainable development of employment, housing and retail throughout West Kent and within this contribute directly to the creation of 405 jobs and 443 housing.

Economy – Congestion

The scheme will reduce journey times and increase journey speed for travel through each of the key congestion hot spots in West Kent.

Economy – Financial

There are significant benefits available to the local economy from changes in the travel behaviour of West Kent residents and visitors. These include:

- Benefits to retailers from improved access to their facilities;
- Benefits to operators of sustainable modes from increased patronage;
- Benefits to employers from improved attendance at work and productivity.

Environmental – Air Quality

As well as reducing CO2, the scheme will contribute to improvements in Nitrous Oxide and Particulates levels at each of the air quality management areas in West Kent, in turn improving the air to breathe for the general public and those undertaking active travel.

Social – Health

The active travel measures in the scheme will assist in improving the general health of all those that take these up, including:

- Help to lower blood pressure and improve heart health;
- Help with weight loss and improved fitness;
- In congested areas cyclists and pedestrians breathe in less fumes than drivers;
- Help reduce the number of days of illness each year.

Social – Well Being

The scheme as a whole will reduce traffic and traffic noise, improving the environment around congestion hot spots for those living in close proximity to these areas and those travelling through them. The active travel measures will also

enhance the well being of those that use them. Together this will lead to benefits of:

- Improved mental health;
- Reduced stress.

Social – Quality of Life

By increasing the transport options available in West Kent the scheme will help to extend the journey opportunities of residents and visitors, increasing access to greater range of facilities and in the process improving their sustainability. The stress free nature of sustainable travel will also enhance the journey quality of users, relative to car use.

Social – Accessibility

Involving users in the design and implementation of measures will help to ensure they are appropriate and accessible to all. Increasing the sustainable transport options available in West Kent will also help to extend travel horizons and opportunities for those without access to a car, commonly including the more vulnerable and socially excluded members of the community; i.e. older people, young people, disabled people, job seekers, low income families, etc.

Social – Door to Door

The aim to integrate measures with each other, complimentary schemes and the wider transport network is in line with the Government's Door-to-Door strategy and will increase opportunities for seamless journeys to be undertaken by sustainable modes. This will encourage greater use of all sustainable modes rather than the scheme measures in isolation. It will also improve the safety, security and reliability of journeys made this way and increased usage will enhance this further.

Social – Safety

Reduced congestion at key pinch points in the road network will improve road safety for both those living close to these and road users.

5 Commercial Case

5.1 Introduction

KCC has well established procedures for project management and partnership working and has frequently worked in partnership with transport providers, schools, businesses, District and Borough Councils, health services and charity organisations to deliver joint schemes in the sustainable transport sector. In recent years, successful projects have been delivered with Southeastern (LSTF-funded Station Forecourt Enhancements), Arriva, Stagecoach and other bus operators (Bus corridor and route upgrades), Schools (Walking and Cycling Behaviour change initiatives and infrastructure enhancements), Businesses (schemes aimed at reducing business transport costs) and Sustrans and British Cycling (Skyride and other related activities). Electric Vehicle Charging Points have also been delivered with District and Borough Councils. Therefore the relationships required to deliver the elements within the scheme are well established, reducing risk and helping to ensure project completion.

5.2 Scheme Procurement

The scheme procurement process will vary according to whether the measure under consideration is to be delivered in house or through partnership working with an external delivery agent. The details of how this will be managed are outlined in section 7. The following provides a summary of the proposed specification, delivery and procurement arrangements for each measure:

Measure	Specification & Delivery lead	Procurement
Station Access improvements and town centre links	Southeastern	Separate public tenders for the: - Cycle parking - Station refurbishment & pedestrian path
Cycle Parking at Stations and town centres	Maidstone Borough Council	Cycle stands and installation purchased by public tender based on existing protocols.
Cycle Infrastructure	KCC	Design to be completed either in house or using the existing contract with Amey
Pedestrian Information Displays	KCC	Procurement for the entire project to be carried out in line with public spending in April 2015.
Future Ticketing Technology	Arriva	Using existing procurement arrangements established for the pilot.

Measure	Specification & Delivery lead	Procurement
Bus Infrastructure Improvements	KCC	In house staff team to carry out both audit and upgrades to stops
Match funding for Businesses	Businesses	Tender for the design and procurement to be completed by the businesses themselves, in line with procurement rules for spending public money.
Innovative Schools Fund	Schools	Tender for the design and procurement to be completed by the schools in line with procurement rules for spending public money.

Table 21 – Procurement

NB - Delivery through existing Amey Highways Term Maintenance Contract (HTMC)

This option is strictly not procurement as the HTMC is an existing contract. The HTMC is based on a Schedule of Rates agreed at the inception of the contract. The price for each individual scheme is determined by identifying the quantities of each required item into a Bill of Quantities. Amey may price 'star' items if no rate already exists for the required item.

If the scope of a specific scheme is different from the item coverage within the HTMC contract a new rate can be negotiated. The HTMC contains an upper limit in terms of scheme value which is £100,000; however, this can potentially be increased with agreement from KCC procurement.

5.3 Required Services

The implementation of all measures will be overseen by the KCC scheme promoter with support from the KCC Transport Innovations team of which they are the lead officer. The scope of the works required for project management of each measure is outlined below. KCC management costs will be met by the Project Management measure incorporated within the LSTF revenue scheme.

1. Design/specification
2. Procurement
3. Construction
4. Maintenance
5. Monitoring

5.4 Potential for Risk Transfer

There are limited opportunities for the transfer of some risks through the procurement process for the following measures (risks to transfer are adjoined):

- Station Access improvements and town centre links – construction & timeframe
- Cycle Path – design complications
- Pedestrian information – design & timeframe
- Match funding for Businesses (dependent on measures sought) - construction & timeframe
- Innovative Schools Fund (dependent on measures sought) - construction & timeframe

6 Financial Case

The following budget has been identified for the scheme as a whole in 2015/16. Costs are broken down between LGF contributions to the design/procurement process and the construction process, with the latter including both the costs of capital items and any works required to locate these. Where match funding is to be provided this is identified separately. The source of the financial estimates established for each measure, which together make up the overall budget, is listed in the final column of the table.

West Kent Capital (£000) 15/16	Design/Procurement	Construction	Total LGF contribution	Match funding	Total Scheme Cost	Cost estimate source
Station Access Improvements and Town Centre Links	£0	£340	£340	£758	£1,098	Southeastern (WSS)
	Snodland Station HS1 upgrade with Station Building and Forecourt Interchange Improvements - Delivered by Southeastern					
Cycle Parking at Stations and town centres	£4	£11	£15	£0	£15	Amey
	New cycle parking in Maidstone Town Centre					
Cycle Infrastructure	£45	£0	£45	£0	£45	DHA Planning
	Design of new cycle routes for 1) Tunbridge Wells/Tonbridge A26 route and 2) Cycle access to Swanley Station					
Pedestrian Information Displays	£4	£66	£70	£0	£70	KCC
	Way finding totums and finger posts for Tunbridge Wells Town Centre					
Future Ticketing Technologies	£4	£46	£50	£0	£50	KCC
	Delivery of Infrastructure to enable the roll out of Smart Ticketing/EMV in West Kent					
Bus stop infrastructure	£4	£76	£80	£0	£80	KCC
	Bus stop infrastructure upgrades for Route 306/308 Sevenoaks to Bluewater					
Match Funding to Businesses and Hospitals	£0	£85	£85	£50	£135	KCC
	Capital match funding for large employers, NHS and business parks complemented by soft measures and support resource					
Innovative Schools Fund	£0	£60	£60	£0	£60	KCC
	Capital match funding for 18 schools complemented by soft measures and support resource					
Project Management	£50	n/a	£50	£0	£50	KCC
Total	**£111**	**£684**	**£795**	**£808**	**£1,603**	

Table 22 – Scheme Costs

6.1.1 Overall Affordability

The major proportion of the 2015/16 budget is made up of a match funding contribution from South Eastern Trains of £758k. This funding is secure and the design process is already underway. There is also a match funding contribution required from businesses that receive grant funds through the Match Funding to Businesses measure. This will be built into the criteria for the grant bidding process. However, it will only be secure once the bidding process has been completed. The continuation of the scheme design, procurement and eventual construction of all other measures is entirely dependent on LGF funding.

The budget will be further refined as the design process proceeds with the bulk of costs expected to contribute to the purchase and installation of infrastructure. Maintenance costs for all measures delivered by external partners will be met by their existing maintenance budgets, as the improvements will be the asset of the delivery partner. All measures delivered on the highway will be maintained by KCC, the lead Partner, from their existing maintenance budget.

7 Management Case

7.1 Overview

The Management Case outlines how the proposed scheme and its intended outcomes will be delivered successfully. It gives assurances that the scheme content, programme, resources, impacts, problems, affected groups and decision makers, will all be handled appropriately, to ensure that the scheme is ultimately successful.

7.2 Project Plan

The project plan for the scheme is still at a relatively early stage and will be refined as the design/procurement and construction processes evolve. Assuming that funding for the scheme measures is made available the following chart indicates the schedule for 2015/16:

Task	Milestones				2014/15		2015/16			
	Duration	Start	Finish	% complete	Q3	Q4	Q1	Q2	Q3	Q4
Snodland Station Forecourt Scheme (Delivered by Southeastern)		01/08/2014	14/03/2016							
Outline Design	8 weeks	01/08/2014	26/09/2014	100						
Detailed Design	8 weeks	02/03/2015	27/04/2015	0						
Consultation	5 weeks	27/04/2015	01/06/2015	0						
Procurement										
PQQ	4 weeks	01/06/2015	29/06/2015	0						
Tender Documents	4 weeks	29/06/2015	27/07/2015	0						
Tender Period	12 weeks	27/07/2015	19/10/2015	0						
Contract Award	0	19/10/2015	19/10/2015	0						
Implementation										
Mobilisation	6 weeks	19/10/2015	23/11/2015	0						
Construction	16 weeks	24/11/2015	14/03/2016	0						
Cycle Parking in Maidstone Town Centre		12/01/2015	29/07/2015							
Outline Design	2 weeks	12/01/2015	26/01/2015	100						
Detailed Design	2 weeks	13/04/2015	27/04/2015	0						
Order placed	1 week	28/04/2015	05/05/2015	0						
Implementation										
Mobilisation	6 weeks	06/05/2015	16/06/2015	0						
Construction	4 weeks	17/06/2015	29/07/2015	0						
Cycle Infrastructure - Design of 2 routes		05/01/2015	17/12/2015							
Tunbridge Wells/Tonbridge A26 Route										
Outline Design	4 weeks	05/01/2015	02/02/2015	100						
Detailed Design	12 weeks	27/04/2015	20/07/2015	0						
Consultation	4 weeks	21/07/2015	18/08/2015	0						
Swanley Station Access										
Outline Design	4 weeks	21/07/2015	18/08/2015	0						
Detailed Design	12 weeks	19/08/2015	18/11/2015	0						
Consultation	4 weeks	19/11/2015	17/12/2015	0						
Pedestrian Information Displays		01/10/2014	23/03/2016							
Pilot study	26 weeks	01/10/2014	31/03/2015	75						
Procurement										
PQQ	12 weeks	01/12/2014	03/03/2015	75						
Tender Documents	6 weeks	03/03/2015	14/04/2015	0						
Tender Period	20 weeks	14/04/2015	08/09/2015	0						
Contract Award	0	08/09/2015	08/09/2015	0						
Implementation										
Mobilisation	12 weeks	08/09/2015	25/11/2015	0						
Construction	16 weeks	25/11/2015	23/03/2016	0						
Future Ticketing Technologies		01/04/2015	16/01/2016							
Outline Design	4 weeks	01/04/2015	29/04/2015	0						
Detailed Design	8 weeks	30/04/2015	25/06/2015	0						
Order placed	2 weeks	26/06/2015	10/07/2015	0						
Implementation										
Mobilisation	12 weeks	10/07/2015	02/10/2015	0						
Construction	16 weeks	02/10/2015	16/01/2016	0						
Bus Stop Infrastructure		30/04/2015	17/03/2016							
Feasibility report and site surveys	8 weeks	30/04/2015	25/06/2015	0						
Outline Design	8 weeks	25/06/2015	20/08/2015	0						
Scheme cost estimate	2 weeks	20/08/2015	03/09/2015	0						
Detailed Design	8 weeks	03/09/2015	29/10/2015	0						
Detailed Cost Estimate	2 weeks	29/10/2015	12/11/2015	0						
Amey TMC task Order and mobilisation	8 weeks	12/11/2015	07/01/2016	0						
Construction	10 weeks	07/01/2016	17/03/2016	0						
Match funding to Businesses and Hospitals		04/05/2015	21/03/2016							
Businesses bid for funding	8 weeks	04/05/2015	29/06/2015	0						
Assess bids and award funding	4 weeks	29/06/2015	27/07/2015	0						
Raise purchase orders	2 weeks	27/07/2015	10/07/2015	0						
Businesses submit evidence of delivery of schemes with invoices	28 weeks	10/07/2015	22/02/2016	0						
Pay invoices	4 weeks	22/02/2016	21/03/2016							
Innovative Schools Fund		04/05/2014	03/02/2016							
Schools bid for funding	8 weeks	03/05/2014	28/06/2014	100						
Assess bids and award funding	4 weeks	28/06/2014	26/07/2014	100						
Raise purchase orders	2 weeks	01/04/2015	15/04/2015	0						
Schools submit evidence of delivery of schemes with invoices	38 weeks	15/04/2015	06/01/2016							
Pay invoices	4 weeks	06/01/2016	03/02/2016							

Figure 6 – Project Plan

7.3 Project Governance, Roles and Responsibilities

KCC have set up a clear and robust structure to provide accountability and an effective decision making process for the management of the LEP funded schemes. Each scheme will have a designated project manager who will be an appropriately trained and experienced member of KCC staff.

Figure 7 below provides an outline of the overall governance structure implemented to manage the delivery of each scheme.

A detailed breakdown of the meetings (along with the attendees, scope and output of each) which make up the established governance process is set out below.

Project Steering Group (PSG) Meetings

PSG meetings are held fortnightly to discuss individual progress on each scheme and are chaired by KCC Project Managers (PMs). Attendees include representatives from each stage of the LEP scheme (i.e. KCC Bid Team, KCC sponsor, KCC PMs, Amey design team and construction manager). Progress is discussed in technical detail raising any issues or concerns for all to action. A progress report, minutes of meeting and an update on programme dates are provided ahead of the Programme Board (PB) meeting for collation and production of the Highlight Report.

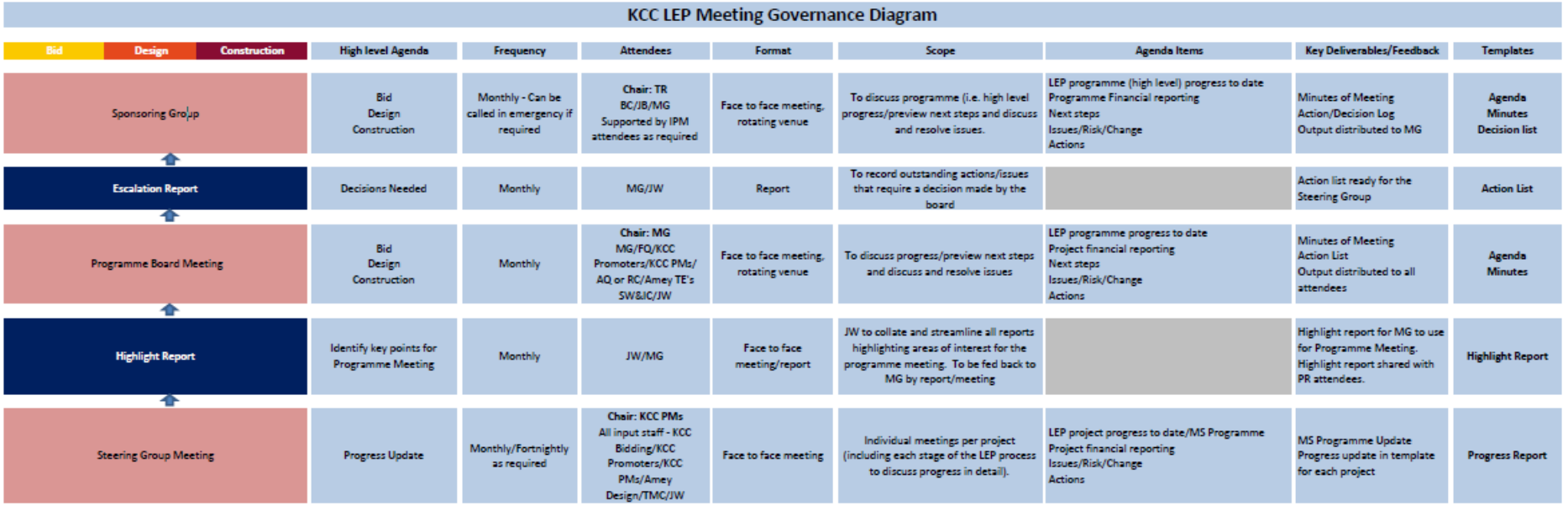
Highlight Report

The Progress Reports sent by the KCC PMs comprise of the following updates; general progress, project finances, issues, risks and governance meeting dates. The Highlight Report identifies any areas of concern or where decisions are required by the PB meeting or higher to the KCC LEP Programme Manager. An agreed version of the Highlight Report is issued to the PB meeting attendees during the meeting.

Programme Board (PB) Meeting

The PB meeting is held monthly and is chaired by the KCC LEP Programme Manager. Attendees include representatives from all three stages of the schemes (i.e. KCC LEP Management, KCC LEP Bidding, KCC Sponsors, KCC PMs, Amey Account Manager, Amey Technical Advisors, Amey Construction representatives). This meeting discusses project progress to date, drilling into detail if there is an issue or action (as identified in the PSG meeting), financial progress, next steps and actions. Outputs of this meeting are the Highlight Report and the minutes of meeting.

Figure 7 – Governance Diagram



KCC LEP Meeting Governance Diagram

Bid / Design / Construction	High level Agenda	Frequency	Attendees	Format	Scope	Agenda Items	Key Deliverables/Feedback	Templates
Sponsoring Group	Bid Design Construction	Monthly - Can be called in emergency if required	**Chair: TR** BC/JB/MG Supported by IPM attendees as required	Face to face meeting, rotating venue	To discuss programme (i.e. high level progress/preview next steps and discuss and resolve issues.	LEP programme (high level) progress to date Programme Financial reporting Next steps Issues/Risk/Change Actions	Minutes of Meeting Action/Decision Log Output distributed to MG	**Agenda** **Minutes** **Decision list**
Escalation Report	Decisions Needed	Monthly	MG/JW	Report	To record outstanding actions/issues that require a decision made by the board		Action list ready for the Steering Group	**Action List**
Programme Board Meeting	Bid Design Construction	Monthly	**Chair: MG** MG/FQ/KCC Promoters/KCC PMs/ AQ or RC/Amey TE's SW&IC/JW	Face to face meeting, rotating venue	To discuss progress/preview next steps and discuss and resolve issues	LEP programme progress to date Project financial reporting Next steps Issues/Risk/Change Actions	Minutes of Meeting Action List Output distributed to all attendees	**Agenda** **Minutes**
Highlight Report	Identify key points for Programme Meeting	Monthly	JW/MG	Face to face meeting/report	JW to collate and streamline all reports highlighting areas of interest for the programme meeting. To be fed back to MG by report/meeting		Highlight report for MG to use for Programme Meeting. Highlight report shared with PR attendees.	**Highlight Report**
Steering Group Meeting	Progress Update	Monthly/Fortnightly as required	**Chair: KCC PMs** All input staff - KCC Bidding/KCC Promoters/KCC PMs/Amey Design/TMC/JW	Face to face meeting	Individual meetings per project (including each stage of the LEP process to discuss progress in detail).	LEP project progress to date/MS Programme Project financial reporting Issues/Risk/Change Actions	MS Programme Update Progress update in template for each project	**Progress Report**

List of Initials:

BC	Barbara Cooper
JB	John Burr
TR	Tim Read
MG	Mary Gillett
FQ	Fayyaz Qadir
AQ	Andrew Quilter
CM	Chris Morris
RC	Richard Cowling
SW	Steve Whittaker
IC	Ian Cook
JW	Joanne Whittaker

Escalation Report

A list of actions and decisions that the PB meeting was unable to resolve is prepared ready for the Sponsoring Group (SG) meeting to discuss and ultimately resolve.

Sponsoring Group (SG) Meeting

The SG is held monthly and will be chaired by Tim Read (KCC Head of Transportation). Attendees are Barbara Cooper (Corporate Director), John Burr (Director of Highways, Transportation and Waste), Tim Read and Mary Gillett (KCC Major Projects Planning Manager). This meeting discusses high-level programme progress to date, financial progress, next steps and closes out any actions from the escalation report. Output is sent to Mary Gillett for distribution. Technical advisors are invited if necessary to expand upon an issue. All actions from the start of this meeting cycle are to be closed out by the SG when they meet (i.e. no actions roll over to subsequent meetings).

Project Roles and Responsibilities

Role	Name
KCC SELEP Schemes Delivery Manager	Mary Gillett
Project Sponsor	Kerry Prescott

7.4 Availability and Suitability of Resources

The scheme is intended to be delivered using a collaborative approach between KCC staff and their appointed support organisation Amey. KCC have identified appropriately trained and experienced staff that will be the responsible for the delivery of the scheme. The identified staff fulfilling the Project Sponsor role for the scheme has been ring-fenced to support the scheme throughout its duration and will have more junior staff available to support them.

Furthermore, the Project Sponsor and Project Manager will utilise appropriate staff from two existing contracts with Amey. Design and technical services support will be provided through the Technical and Environmental Services Contract (TESC) which is active until at least 2018. Amey have a dedicated multi-discipline team located in Maidstone to support the LGF funded schemes. KCC will also utilise dedicated Amey resource through the existing HTMC contract to undertake the construction of the scheme and also to provide early contractor involvement (ECI), where appropriate, to the design process to ensure best value.

7.5 Evidence of Previously Successful Scheme Management Strategy

KCC have a successful track record of delivering major transport schemes within the county. The most recent of which were the East Kent Access Phase 2 (EKA2) and Sittingbourne Northern Relief Road schemes (SNRR).

The EKA2 scheme, completed in May 2012, was designed to support economic development, job creation and social regeneration, improving access with high quality connections between the urban centres, transport hubs and development sites in East Kent. The overall objectives of the scheme were to unlock the development potential of the area, attract inward investment and maximise job opportunities for local people. The extent of the scheme is shown in the Figure below.

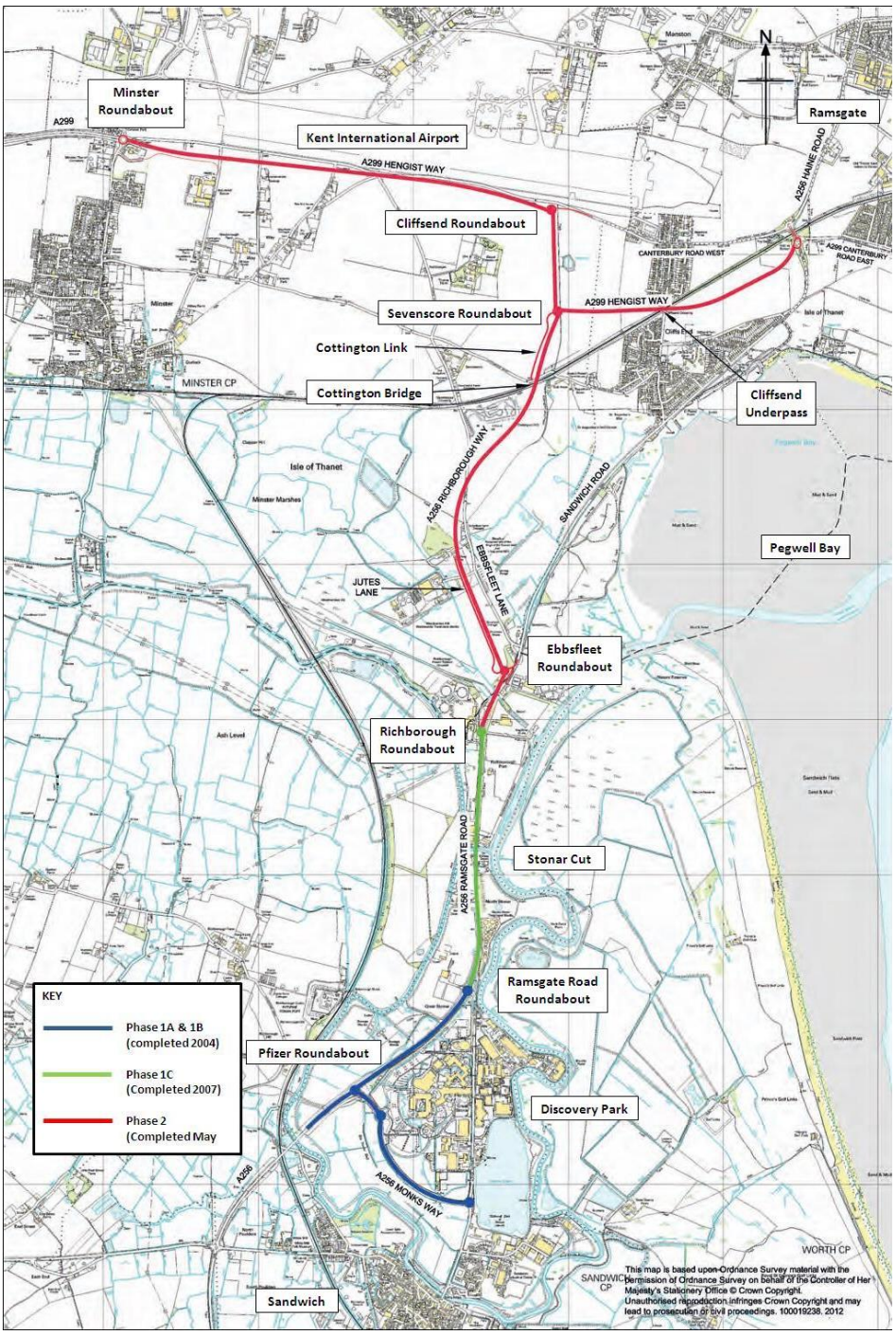


Figure 8 – EKA2 Scheme Layout

The scheme was successfully delivered within budget and ahead of programme through the adoption of a robust management approach similar to that set out above to deliver the West Kent LSTF scheme. The total value of the scheme was £87.0m of which £81.25m was funded by Central Government.

The intended scheme outcomes are currently being monitored but the intended benefits of the scheme are anticipated to be realised.

The SNRR scheme, completed in December 2011, was designed to remove the severance caused by Milton Creek and give direct access to the A249 trunk road for existing and new development areas, thereby relieving Sittingbourne town centre.

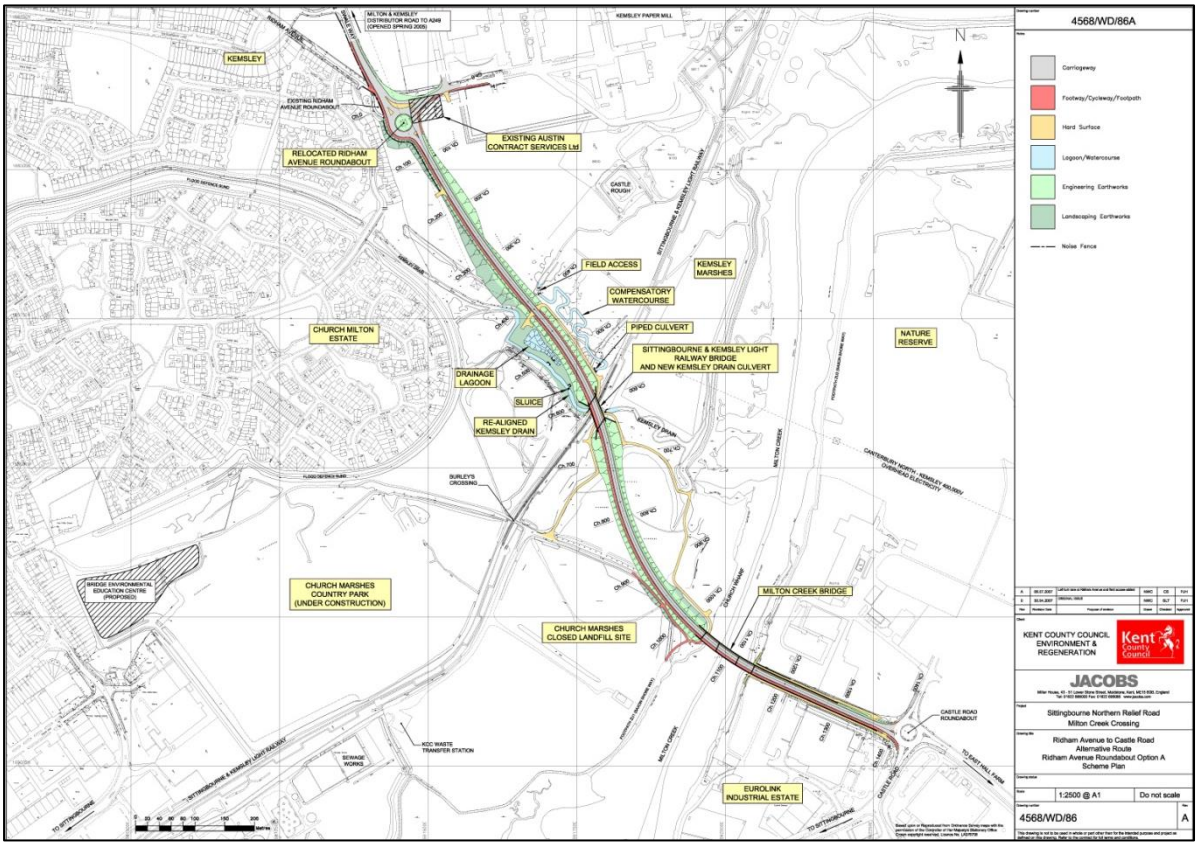


Figure 9 – SNRR Scheme Layout

The project is an excellent example of multi agencies working towards a common aim. The scheme was funded by the Homes & Communities Agency in its West Kent regeneration role, by the Department of Transport in its support of local major schemes and by private sector S106 contributions. The scheme was delivered under budget and to programme.

Both the EKA2 and SNRR schemes have since been awarded regional Institute of Civil Engineers (ICE) Excellence Awards.

7.6 Project Risk Management

Project risk is managed as an on-going process as part of the scheme governance structure, set out above. A scheme risk register is maintained and updated at each of the two-weekly Project Steering Group meetings. Responsibility for the risk register being maintained is held by the KCC PM and is reported as part of the monthly Progress Reports.

Any high residual impact risks are then identified on the highlight report for discussion at the Programme Board (PB) meeting. Required mitigation measures are discussed and agreed at the PB meeting and actioned by the KCC PM as appropriate.

The scheme risk register is contained within **Appendix A** of this report.

7.7 Gateway Review Arrangements

Since this scheme is being funded through a completely new arrangement of devolved major scheme funding, the Gateway Review arrangements are as yet undefined. As the Transport Business Case progresses, these will be fully defined and reported, in consultation with the LEP and other stakeholders.

7.8 Project Assurance

A signed letter by KCC's Section 151 officer providing appropriate project assurances is contained as **Appendix B**.

7.9 Monitoring, Evaluation and Reporting

Overall Scheme

The overall impact of the scheme will be monitored using the traffic counts at congestion hot spots as defined in the scheme appraisal process. This will be undertaken by the scheme promoter examining the traffic counts at 6 and 12 months into 2015/16. Results will be compared with the projections for reduced cars and increases in bus and cycle use at each hot spot and once analysed will form part of the scheme promoters report to the overall management group for LGF schemes. Together with the data obtained on individual measures (below) outcomes will also be used to inform the development of scheme measures in future years.

Station Access Improvements and Town Centre Links

The Snodland Station improvements will be monitored by Southeastern undertaking regular (monthly or bimonthly) counts of the cycles and cars using it. They will also undertake an initial passenger survey and then further surveys at 6 months and then annually to establish the modal split and satisfaction of all station users. Results will be evaluated by them and used to inform further development. They will also be passed to the scheme promoter for them to monitor overall progress with the measure with the results of this forming part of the scheme promoters report to the overall management group for LGF schemes.

Cycle Parking at Stations and town centres

Cycle parking at Maidstone Town Centre will be monitored using regular (monthly or bi-monthly) cycle counts. These will be undertaken and evaluated by Maidstone Council. The Council will also undertake occasional satisfaction surveys. Results will be passed to the scheme promoter for them to monitor overall progress with the measure with the results of this forming part of the scheme promoters report to the overall management group for LGF schemes.

Pedestrian Information Displays

Pedestrian information Displays will be monitored by KCC using counts of those using signs and satisfaction surveys. Results will be compared with a baseline of zero and included in the scheme promoters report to the overall management group for LGF schemes.

Cycle Path Improvements

As only the design stage for this measure is due to take place in 2015/16 monitoring will consist of regular examinations of the design reports produced. This will be undertaken by the scheme promoter on behalf of KCC and subsequently form part of their report to the overall management group for LGF schemes.

Future Ticketing Technology

The roll out of future ticketing technology will be managed by Arriva and monitored by them, based on the number of services improved and passenger counts on these. They will also include questions on the technology introduced in the passenger satisfaction surveys they regularly undertake on their services. Results will subsequently be reported directly to the scheme promoter for inclusion in their report to the overall management group for LGF schemes.

Bus Infrastructure Improvements

KCC will monitor the results of infrastructure audits undertaken to establish the number of these, the shortcomings in infrastructure identified and the improvements made. Subsequently Arriva will be asked to include questions on the infrastructure introduced in the passenger satisfaction surveys they regularly undertake on their services. The responses obtained to these will be reported back to the scheme promoter for inclusion in their report to the overall management group for LGF schemes.

Match Funding for Businesses and Innovative Schools Fund

All businesses and schools receiving grant support will be expected to establish a Travel Plan. As part of this they will undertake a user survey to establish the modal split and satisfaction levels of users and counts of the use of cycle and car parking facilities. These surveys will be repeated at 6 months and then annually. Results will be reported to the scheme promoter for inclusion in their report to the overall management group for LGF schemes.

8 Conclusions and Recommendation

8.1 Conclusions

The proposed 2015/16 LSTF scheme demonstrates a clear benefit in terms of reducing congestion for those currently and in the future, that travel through the key congestion hot spots in West Kent. This has been subjected to an economic appraisal using WebTAG principles and has demonstrated a very high CBR over the life of the overall scheme.

The CBR identified is underestimated as a result of the Pedestrian Information Display measure not being included in the quantitative economic appraisal and also because it is likely considering the impacts of measures on congestion hot spots alone underestimates their overall economic benefits.

8.2 Recommended Approach and Next Steps

Following submission of this Strategic Outline Case to the South East Local Enterprise Partnership and the agreement to allocate funds, it is recommended that the specification for the measures be taken forward for further detailed assessment and implementation.

It is also recommended that KCC seek to improve their collation of data sources in the area of pedestrian and cycle movements to ensure measures to address these can be included in future economic appraisal or appraised more comprehensively. This will be assisted by the monitoring of the LSTF pedestrian and cycling measures to be implemented in both West Kent and Kent Thameside in 2015/16.

8.3 Value for Money Statement

An outline Value for Money Statement has been prepared and will be refined as the Transport Business Case is developed.

8.4 Recommendation

It is recommended that a total of £795k LGF funding be allocated to support the Option B LSTF measures proposed for 2015/16.

In addition, it is recommended that KCC continue to fund the scheme preparation costs, including the design and specification of measures in order that implementation can commence as soon as possible in 2015/16.

Appendix A Scheme Risk Register

Appendix B Section 151 Officer Letter

Appendix C Economic Appraisal Calculations