



Medway Council

Business case for:

Strood Town Centre Local Growth Fund:

Journey time, accessibility, public realm and retail centre improvements to facilitate regeneration and growth -

for submission to Department for Transport

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Executive Summary

Background

This Business Case has been developed to provide detail of the scope and economic viability of scheme proposals for Strood Town Centre, which include proposals for journey time and accessibility enhancements and; public realm and retail centre improvements that will facilitate regeneration and growth within Strood.

During early 2014 Medway Council put together a package of schemes as part of the Local Enterprise Partnerships bid for the governments Local Growth Fund (LGF). A total of £68.1million was granted to the Kent and Medway federated area for projects that will commence in 2015/16. £28.6million was allocated for five successful Medway schemes and DfT provisionally approved an initial business case submission for Strood, with a provisional allocation of £9m.

Strood lies within the Thames Gateway, a designated area for the growth of new communities, with Medway highlighted in the Delivery Plan as a strategic location for investment.

A number of interventions are proposed within the LGF bid to address the issue of poor journey times, improvements to pedestrian accessibility, new cycle facilities and urban realm enhancement. These will form an integrated package of traffic management measures and network improvements.

The proposals also include a match funding contribution to Network Rail proposals to reconstruct Strood Station to significantly improve the customer experience.

The Strategic Case

Strood suffers from deprivation, with low weekly wages and an unemployment rate significantly higher than the regional/national average. Average house prices are below the national average, which is indicative of the economic pressures and congested network environment, which gives a poor perception of the town as a place to live and work.

The inefficient operation of the transport network around Strood town centre, along with the traffic generation and operational issues created by the nearby Medway City Estate, are a barrier to growth. There are pockets of severe congestion and very limited facilities for cyclists. In addition, pedestrians need to cross numerous side roads and links to reach main destinations within the town.

By improving the accessibility and circulation and helping bring about modal shift through the creation of better and sustainable networks, the project will help secure improved environmental conditions and act as a catalyst to help increase the potential capacity of existing development sites, as well as bringing forward new development opportunities.

A holistic scheme plan has been developed for Strood that will address the challenges of poor journey times and accessibility and a "tired" and degraded urban environment. Measures will include schemes to unlock and facilitate access to major new housing and employment sites and significant improve Strood Station. The proposals will support these goals by forming an integrated package of targeted improvements.

The Economic Case

All analysis has been undertaken using WebTAG principles in terms of economic parameters and assessment methods. The benefit calculation is considered to be a conservative total as not all benefits have been monetised. A total of £9.0m has been assumed for the works outlined with an optimism bias rate of 44%.

The scheme returns a benefit cost ratio (BCR) of 2.1. Benefit levels have been assumed at the lower ends of potential ranges in each case, hence the BCR of 2.1 to be a lower bound estimate of the potential conclusion, were more detailed modelling to be carried out.

The Financial Case

Medway Council has already put together a package of schemes as part of the Local Enterprise Partnership's LGF bid and a total of £68.1million has been granted to the Kent and Medway federated area for projects that will commence in 2015/16. Of this, £28.6million was allocated for five successful Medway schemes, including £9m for a Strood town centre scheme.

The estimated costs for the scheme include 15% preparatory costs associated with preliminary and detailed scheme design, and 15% contingency risk costs for scheme construction. There are no high-risk elements to delivery of the core scheme that have been identified as there is no need for compulsory purchase of land or major planning applications

A £1.25m match funding contribution is included within the LGF bid to enable redevelopment of Strood Station.

£2.5m of developer funding is predicted to become available in the 2017/18 financial year, subject to completion of associated land deals. Further planning, consultation and detailed design work will take place during 2015/16 and 2016/17, with initial preparatory works and early win schemes being delivered in 2016/17. The majority of construction works will be delivered in 2017/18.

The Commercial Case

Construction of this scheme is programmed for completion by June 2018. A two-stage or traditional procurement strategy will be adopted and supported by the Council's internal procurement governance arrangements, including a comprehensive Gateway reporting process, procurement support and guidance from the Council's dedicated Category Management Team.

Due diligence on all key scheme proposals and awards will be governed through the Council's Divisional Management Team (attended by senior Council officers and service heads), Procurement Board (attended by senior Council officers, service heads, and member portfolio holders), and if necessary full Cabinet. Officers have also engaged with the Council's own internal Audit Team from the first stages of this project in order to provide additional surety around the scheme management process and the project deliverability.

The Management Case

Medway Council and the South East Local Enterprise Partnership (SE LEP) has arrangements in place to effectively manage and govern the projects funded through the LGF (Local Growth Fund), , including an established project management toolkit based on PRINCE2 methodology and governance arrangements that involve both elected members and senior officers of the council.

Monitoring and evaluation proposals have been developed to align with the scheme objectives, involving baseline data collection that will be used to monitor the scheme outcomes in future years.

1.0 Introduction

1.1 Purpose of Report

This Business Case has been developed to provide detail of the scope and economic viability of scheme proposals for Strood Town Centre, which include proposals for journey time and accessibility enhancements and; public realm and retail centre improvements that will facilitate regeneration and growth within Strood. It sets out the predicted economic benefits of the proposed scheme, building on an initial South East Local Enterprise Partnership (SE LEP) business case for this project.

1.2 Background of proposals

During early 2014 Medway Council put together a package of schemes as part of the Local Enterprise Partnerships bid for the governments Local Growth Fund (LGF). A total of £68.1million was granted to the Kent and Medway federated area for projects that will commence in 2015/16.

£28.6million was allocated for five successful Medway schemes as follows:

- 1. Chatham Town Centre and Public Realm Package (£4m LGF)
- 2. A289 Four Elms Roundabout to Medway Tunnel Journey Time and Network Improvements (£11.1m LGF)
- 3. Medway City Estate Connectivity Improvement Measures (£2.0m LGF)
- 4. Medway Cycling Action Plan (£2.5m LGF)
- Strood Town Centre Journey Time and Accessibility Enhancements (£9.0m LGF
 provisional allocation)

DfT provisionally approved the initial SE LEP business case submission for Strood, and Medway Council received a provisional allocation of £9m. This allocation was subject to an understanding that additional developer contributions of up to £2.5m could be available

A further funding bid has been submitted for a package of station improvements at Strood and Chatham Stations. This bid proposes £3.9m investment in two high-speed rail stations, made up of 1.95m of LEP funding and 1.95m of match funding from Network Rail/Southeastern.

Within Strood, this funding would deliver a new station building with a new ticket hall, a better retail offer and a new forecourt to significantly improve the customer experience. Network Rail has already set aside funding for this project, subject to LEP match-funding being available. Works within Strood Town Centre will connect with and complement plans for the rail station and the total LGF funding bid includes for a sum of £1.25m match funding contribution to the Strood Station proposals.

1.3 Local context

Strood lies within the Thames Gateway, a designated area for the growth of new communities, with Medway highlighted in the Delivery Plan¹ as a strategic location for investment.

The Medway Waterfront Renaissance Strategy² and the Medway Regeneration Framework established several key development sites in and around Strood that will deliver new housing and employment opportunities.

Three of these major growth sites exist within a 10 minute walk of Strood town centre at Strood Riverside, Strood Civic Centre and Rochester Riverside (see below). In total these sites are planned to deliver 1,820 jobs and 4,160 homes. The delivery of this significant growth relies on the provision of an efficient and accessible transport network in Strood.

Medway City Estate is situated approximately 1 mile north-east of Strood town centre. It is a major employment area in Medway, with approximately 5,000 people employed across the site. A significant proportion of traffic from Medway City Estate passes through Strood town centre, particularly during the evening peak. This project seeks to discourage traffic originating from Medway City Estate passing through Strood town centre; an aspiration which integrates with the agreed round 1 Local Growth Fund projects listed in section 1.2.

Medway Council will also be investing £4m to deliver improved flood protection to the Strood Riverside development site from flooding from the River Medway. This has been funded through the Public Works Loan Board.

¹ http://www.medway.gov.uk/pdf/Thames%20Gateway%20Delivery%20Plan%202009.pdf

² http://www.medway.gov.uk/pdf/Medway%20Waterfront%20Renaissance%20Strategy%202004.pdf

Strood Town Centre



1.4 Scheme Description

The proposals seek to achieve a balance between improving local capacity to encourage growth, without encouraging trip diversion from the more strategic highway network to through Strood town centre. In addition, the network needs to maintain accessibility to promote employment in the Retail Park, High Street and local supermarkets.

Another key element for town centre growth and regeneration is the need to renew and refresh the urban realm and retail environment. This will create a feeling of place by delivering an attractive central hub for the town. By linking these improvements to a package of traffic management and accessibility measures the housing growth and employment opportunities within Strood will be underpinned by a local, sustainable retail centre.

A number of interventions are therefore proposed to address the issue of poor journey times, along with improvements to pedestrian accessibility, new cycle facilities and urban realm enhancement.

The scheme will deliver a holistic package of improvement measures within Strood that will also include measures to unlock and facilitate access to major new housing development areas within the town centre area. The types of measure proposed have been categorised as follows:

- a) Town Centre traffic management improvement measures
- b) Pedestrian accessibility throughout town centre

- c) Cyclist accessibility throughout town centre
- d) Public realm improvements
- e) Improving retail offer
- f) Unlocking development sites / sustainable access to businesses
- g) Developer funding to unlock development sites and facilitate access*

*These scheme elements will be developer funded and do not, therefore, form part of the LGF bid.

A series of interventions are proposed within these categories, forming an integrated package of traffic management measures and network improvements. **Appendix A** provides a list of all the proposed scheme elements and associated budget cost estimates.

1.4.1 Traffic Management - Improving Journey Times

The traffic management measures proposed include measures to expand and review the urban traffic management and control systems within Strood, which are currently, managed using the SCOOT UTMC system. It is proposed to expand SCOOT to cover a wider town centre network, as well as utilising the system to manage and control inbound flows to the town centre, preventing queues building and adjusting signal timings in real time to prevent more traffic being allowed to enter stationary links. This system would be supported by enhanced real-time variable message signing.

Improved congestion control and queue management in association with driver messaging will reduce congestion levels in the busy town centre area, improving journey times and air quality. In addition, this system would be linked to existing bus detection systems and bus stop information displays to provide priority to late running buses; thereby reducing journey times and improving information provision for public transport users. New and upgraded bus stops are also proposed throughout the town centre, at surrounding development sites and at key interchanges.

In addition to improved traffic signal operations, works are proposed at major junctions surrounding the town centre to maximise their operational capacity. This could include extensions to turning lanes and revised lane configurations that would deliver additional queuing capacity and more efficient timings to reduce delays for vehicles and pedestrians. Works on highway link roads would support these proposals, including the potential to make Commercial Road between High St and Knight Road two-way.

Traffic management measures are also proposed to manage general traffic flows from Medway City Estate, including a combination of access constraints, signing and calming measures.

1.4.2 Accessibility

Pedestrians

Footway widening and reconstruction of footway surfaces is proposed to provide seamless and comfortable walk routes within the town centre and on links to development sites and public transport interchanges, including the nearby High-Speed rail station. Side road junctions would be provided with raised "gateway" crossings to produce at-grade walk routes on all major corridors. New and upgraded pedestrian crossings will be delivered on existing desire lines, including a combination of controlled and uncontrolled facilities. This would be supported by pedestrian way-finding signs to key destinations and public transport facilities. Footway lighting is proposed to improve security and, at the rail station, it is proposed to refurbish a pedestrian subway tunnel to the north of station with provision of cladding / LED lighting and improved security.

Cyclists

A new cycle route would be delivered from A226 Gravesend Road to National Cycle Route 1, with a further link to an existing cycle route over Rochester Bridge. Toucan crossings will be provided where routes intersect major roads, or link to town centre destinations. Works would involve provision of segregated cycle lanes on-street along with a new cycle route "boardwalk" along the banks of the River Medway, which would provide both a leisure facility and a new commuter cycle link from proposed housing development sites to the town centre area. Advance cycle stops lines, new cycle parking facilities and cycle route signing would also be provided to support this priority network.

1.4.3 Public Realm and Retail Centre

In conjunction with delivery of accessibility and journey time improvement measures, construction of a high-quality urban realm environment is proposed. This will create a sense of place and quality that will act to regenerate the town centre, thereby increasing land values and enhancing the viability of housing and employment plans.

Footways will be reconstructed with high quality materials, new street furniture will be provided and street trees will be planted to create a defined identity for Strood. In addition, carriageways will be reconstructed in high quality surfacing, potentially introducing boulevard zones with new green spaces. Street lighting will be upgraded and replaced with energy saving LED white lighting.

Medway will also work with traders to enhance the visual appeal of the town centre by improving frontages, create new seating areas and outside spaces for food and drink. In addition, new and improved parking facilities are proposed with better loading and taxi facilities.

1.4.4 Linking to new housing developments

The majority of costs to facilitate access to, and enable development of, the core development sites in Strood will be funded through Section 106 contributions, which would be in the range of £2.5m. Additional LGF funding is proposed to assist in providing the quality of finish proposed within Strood, and to deliver the linkages to pedestrian and cycling routes planned as part of the wider LGF scheme. This will include works to enhance pedestrian routes to Strood station from the Riverside and Civic centre sites along with contributions to enhance the quality of pavement surfacing on links to strategic walking and cycle routes. Some "soft measures" are also proposed in the form of a travel plan programme for groups of businesses within the Medway City Estate.

Summary of Proposals



1.5 Strood Station Proposals

In summary the package of station gateway improvements is a joint project between Network Rail, Southeastern and Medway Council. The package has matched allocated funding from Network Rail/Southeastern and works are programmed to be undertaken between 2015/16 and 2016/17.

Strood railway station was used as either the origin or destination station for approximately 1.11 million rail trips in $2011/12^3$. A positive GRIP 1-3 assessment for improvements to Strood station has been undertaken by the rail industry. This is a key driver for bringing in regeneration and growth to the town and is linked to the package of town centre improvements described within this business case. Network Rail has already invested in a new footbridge and lifts at Strood station. Southeastern currently have £1.25m earmarked for the station, but a new station will be built only if matched funding is secured.

The experience for passengers using Strood railway station is poor and this gateway into a nationally recognised regeneration area is in need of improvement. It is an important station strategically and a key interchange for Medway residents, providing access to work and school. It is a high-speed station, with quick journey times to London - direct high-speed services are provided from Strood to Stratford International station

³ Source: Office of the Rail Regulator

(27 minutes) and St Pancras International station (34 minutes), together with services to Charing Cross and Cannon Street.

Links are also provided to west Kent via the Medway Valley Line, with Strood being the end of this Community Rail line, which is supported financially by Medway Council.

Strood station is an old station with many issues including a small booking hall and poor waiting facilities; lack of quality retail facilities; tired and small toilets (and no DDA compliant toilet) and; poor waiting facilities on the island platform.

The station is undergoing accessibility improvements with new lifts and platform extensions so that all platforms can accommodate 12 car trains. Southeastern and Network Rail are seeking to earn a BREEAM accreditation of 'Excellent' for the Strood station building. The match funding will assist to provide a new station building with a new and expanded booking hall with more gates, improved ticket office and new ticket vending machines, improved waiting and toilet facilities, retail units and a re-worked forecourt, delivering a significantly improved customer experience.

Proposed New Strood Station



The recommended options do not require any land acquisition and discussions with Medway Council planning department indicates that the proposed works have Permitted Development Rights. No other known constraints have been identified at this stage (technical, environmental, archaeological). The work at both stations is programmed to be undertaken between 2015/16 and 2016/17.

The new station building has been costed in GRIP 1-3 reports⁴ for the project, with a budget estimate of £2.5m. In combination with the Strood town centre journey time and accessibility scheme, the proposals will have a positive growth impact across the town.

1.6 Structure of Report

This report broadly follows the requirements set out in the DfT Transport Business Cases guidance relating to the development of a Strategic Outline Case. The structure of this SOC is as follows:

- Section 1 Introduction Outlines the purpose and back ground of the report
- Section 2 Strategic Case Sets out the case for change and why the scheme is needed

⁴ Strood Station - New Station Building

- Section 3 Economic Case Presents an appraisal of the impacts of a range of options and the resulting value for money of the Scheme
- **Section 4** Financial Case Describes the affordability of the Scheme, including the cost and funding arrangements
- Section 5 Commercial Case Provides evidence of the commercial viability of the Scheme and an expected procurement strategy
- Section 6 Management Case Sets out how the delivery of the scheme will be managed, including programme and risk
- Section 7 Conclusions Presents a summary and conclusions of the Business Case

2.0 The Strategic Case

2.1 Strood Economy

Strood suffers from significant deprivation, with weekly wages on average 5% lower than those in the South East region and; 4% lower than the average for Kent (2001 data).

Strood's unemployment rate is significantly higher than the regional/national average, with nearly a third of Strood employees working in low skilled operative and elementary occupations, in comparison with the 20% national average.

Average house prices in Strood are significantly below the national average at £198k against a national average of £280k⁵. Average prices in nearby Rochester are £230k, and in Greater London are closer to £600k. Strood benefits from the HS1 rail link to Kings Cross St Pancras, enabling commuters to reach central London within 35 minutes. The very modest home prices within Strood are therefore indicative of the economic pressures and congested network environment, which gives a poor perception of the town as a place to live and work.

Strood lies within the Thames Gateway, a designated area for the growth of new communities, with Medway highlighted in the Delivery Plan as a strategic location for investment.

2.2 Current Transport-Related Problems

The inefficient operation of the transport network around Strood town centre, along with the traffic generation and operational issues created by the nearby Medway City Estate, are a barrier to growth.

Strood town centre is at a cross-road between the A2 and A228 and as a result a significant amount of through traffic passes through the town centre. The town centre road layout is a one-way gyratory arrangement, resulting in additional trips around parts of the local road network with aggravated pockets of congestion around Knight Road, A2 High Street, Station Road and North Street. During peak times the network can lock-up. In addition, there is a recognised lack of legibility between the original High Street and the adjacent new retail parks to the south that are now providing much of the retail offer in the town.

There are very limited facilities for cyclists, with no existing cycle lanes on the main routes through the town and no cycle routing plan or signing in place. Pedestrian routes lack coherence and consistency and the key route linking to the rail station has no sense of corridor or place, with pedestrians needing to cross numerous side roads and links to reach main destinations within the town.

Network management improvements need to balance improving capacity to encourage growth, without encouraging trip diversion from the strategic highway network through Strood town centre. In addition, the network needs to maintain accessibility to promote retail employment in the Retail Park, High Street and local supermarkets.

Travel to work 2011 census data and accident data shows Strood and the Medway towns as a whole have high levels of car usage and a poor collision record, particularly those involving pedestrians and cyclists.

⁵ http://www.zoopla.co.uk/house-prices/england/

In Strood town centre 44% of the population travel to work by driving a car or van, 8% by train, bus, minibus or coach, 6% travel on foot and 1% cycle to work⁶. This reflects that a very large proportion of people in the Strood area travel to work by car or van, with low numbers using public transport, walking or cycling.

With regard to distances travelled to work, 72% of people in Strood travel less than 20km to work. This figure is similar to the percentage for Medway, which shows 71% of the population travelling less than 20km. These figures highlight the fact that a large percentage of the working population in the area live close to their place of employment and thus could potentially utilise non-vehicular or public modes of transport to a greater extent than indicated. This suggests a current over-dependence on the car in the Strood and broader Medway area, and a need to encourage other modes of transport such as cycling and walking.

2.2.1 Impacts of Doing Nothing

The impact of doing nothing in Strood would be as follows:

- An increase in traffic volumes could be expected with a corresponding reduction in speeds resulting in:
 - Poor accessibility between this and other urban centres in Medway;
 - o Increased congestion and worsening journey time reliability;
 - Severance and further degradation of the public realm and environmental quality;
 - Increased noise and reduced air quality;
- Further reduction in Strood's attractiveness as a retail destination and local centre;
- Less people taking up cycling or walking as their preferred mode, with consequent impacts on health and limited modal shift;
- Low land values constraining the feasibility, quantity and quality of development plans for housing and employment;
- No attraction for external home buyers, constraining the local economy and housing market.

Section 2.4 describes how the scheme proposals would introduce specific measures to mitigate the issues set out above and address the likely impacts of "doing nothing" within Strood.

2.3 Policy Context

1. The Medway Local Transport Plan 3 came into effect on 1 April 2011 following approval of Full Council.

This scheme links closely to all the five priorities set out in Medway's Local Transport Plan 2011/2026:

⁶ http://www.medway.gov.uk/pdf/Census%20Report%20Final.pdf

- Regeneration, economic competitiveness and growth by providing a more reliable and efficient local transport network. Key actions include more efficient management of the highway network, improvements to the strategic road network and encouraging walking and cycling for short journeys.
- Connectivity by ensuring Medway has good quality transport connections to key markets and major conurbations in Kent and London. Key actions include the reconstruction of Strood railway station and encouraging commuters to cycle to railway stations.
- Natural environment by contributing to tackling climate change and improving air quality. Key actions include encouraging walking and cycling for short journeys, and a more efficient management of the highway network.
- Equality of opportunity by supporting equality of opportunity to access employment, education, goods and services for all residents of Medway. Key actions include improving pedestrian crossing facilities and accessibility to bus services for people with mobility difficulties.
- Safety, security and public health by promoting active lifestyles and reducing the risk of death, injury or ill health or being the victim of crime. Key actions include road safety interventions, improved pedestrian access to local facilities and encouraging cycling.

The South East Local Enterprise Partnership's bid for Local Growth Funding reflected the aspirations set out in Medway's LTP3, with the proposed funding and delivery plan defined within the shorter-term implementation plan.

The need for the project is supported by the national and regional regeneration agenda. It supports the growth agenda in the Thames Gateway Growth Area, with Strood being identified in the Thames Gateway Delivery Plan as a strategic location.

National Planning Policy Framework - In March 2012, the Department for Communities and Local Government published the 'National Planning Policy Framework (NPPF)⁷', which sets out the Government's economic, environmental and social planning policies. The NPPF aims to reform the planning system and is underpinned by a presumption in favour of sustainable development. There is a focus on planning for prosperity, people and places, promoting increased levels of development and supporting infrastructure, whilst also protecting and enhancing the natural and historic environment.

Localism Act - The Coalition Government's Localism Act⁸ provides the legislative foundation for this change. The Act decentralises power, giving local government new freedom and flexibilities; provides new rights and powers for communities and individuals; reforms the planning system; and enables decisions to be taken locally.

*Department for Transport's Business Plan*⁹ - The Coalition Government's vision for transport is also one that encourages growth but is greener, safer and improves

⁷ http://www.communities.qov.uk/documents/planningandbuildinq/pdf/2116950.pdf

⁸ http://www.communities.qov.uk/documents/localqovernmenUpdf/1793908.pdf

⁹ Business Plan 2013-15 http://transparency.number10.gov.uk/business-plan/11

the quality of life in our communities. The Government's transport priorities and key actions in order to deliver this national vision are set out within the Department for Transport's Business Plan.

2.4 Scheme Objectives & Success Criteria

By improving the accessibility and circulation within the town centre and helping bring about modal shift through the creation of better and sustainable networks, the project will help secure improved environmental conditions and act as a catalyst to help increase the potential capacity of existing development sites, as well as bringing forward new development opportunities.

It is anticipated that the introduction of new residents and the creation of new jobs will create an economic impact which will help address the deprivation within Strood's immediate environs, where four Lower Super Output Areas fall within the 20% most deprived nationally in terms of living environment, reflecting poor housing conditions and low levels of environmental quality relating to air quality and traffic in Strood.

The creation of new jobs in the area will also help to alleviate the issues in Strood relating to higher than average unemployment which stands at 2% above the national level, and lower than average wages which are 5% below the average in the South East region. These factors are also interlinked with the relatively low skill levels found in Strood which show very few people are qualified to level 4/5 (12%) compared to 22% in the South East. Diversifying the area's economy and increasing levels of investment will help to improve this.

The Project is also expected to help diversify the town's employment base, which is currently characterised by nearly a third of Strood's workforce being engaged in Operative and Elementary occupations, in comparison with 17% for the South East as a whole.

The objective setting and infrastructure prioritisation process began with the development of a bespoke Infrastructure Appraisal Tool which was used to assess, and filter approximately 70 schemes across the County against DfT, BTVLEP and BCC objectives.

The transport improvements associated with the interventions would result in a range of measurable impacts on traffic and travel conditions within the town centre.

The primary objectives of the Scheme relate to the improvement in transport conditions which support travel by all modes and contribute to the regeneration of the urban environment and economic potential of Strood. Measurable objectives are set out in Table 2a below:

Table 2a – Scheme Objectives

Objective	How will the scheme contribute?	How will success be measured?
Improve journey times	 Urban traffic control improvements Highway layout improvements Junction upgrades 	Reduced journey times and congestion levels on network.
Improve journey time reliability	As above	Variance in journey times reduced throughout day.
Increase levels of walking	 New pedestrian crossings. Improved footways. Better links to station and town centre. Improved pedestrian safety and security. 	Footfall increases on key routes.
Increase levels of cycling	 New strategic cycle route. New local cycle routes. Cycle priority at junctions. Cycle parking facilities. New cycle route signing. 	Cycle flow increases on key routes. Cycle parking increase.
Increase use of buses	 New and improved bus waiting facilities. More passenger information. Improved interchange at rail station. 	Passenger increases and more passengers using stops. Greater passenger satisfaction.
Increase use of rail station and improve customer experience	 Contribution to rail station replacement and upgrade scheme with Network Rail. 	Passenger increases and greater passenger satisfaction.
Increase economic prosperity and activity	 Provide high quality urban realm in town centre. Make town centre more accessible. Create new public spaces. Improve parking and loading facilities. 	More footfall, fewer vacant retail premises and increased land values.

The primary objectives of the Scheme are not comparable with traditional road schemes, where highway journey time improvements and increased travel speeds may be sought with the provision of new routes. However, this scheme will deliver journey time and accessibility improvements within the town by improving existing routes and control systems.

It will also bring about major improvements to the public realm and retail provision that will act as catalysts for significant new housing provision and employment growth.

2.5 Scheme Definition & Options Appraisal

2.5.1 Definition of Scope

This business case sets out and justifies a holistic scheme plan for Strood that will address the challenges of poor journey times and accessibility and a "tired" and degraded urban environment. Measures will include schemes to unlock and facilitate access to major new housing and employment sites. The proposals will support these goals by forming an integrated package of targeted improvements.

2.5.2 Options Considered

The options considered included, but were not limited to:

- Do nothing
- Do minimum
- New ring road
- Revert all one-way roads to two-way to 'Reclaim the High Street'
- Park and Ride and Knight Road extension
- Do something (including other LGF projects)
- Do maximum

Option A – Do nothing

The option to do nothing was considered by Kent County Council (KCC) and Medway Council in 2003, revisited in 2007 and 2009 and presented in the "Shape-up Strood" Report. On all three occasions it was concluded that the future development and growth would bring greater burden on a struggling network.

As discussed in 2.2.1, doing nothing would maintain a poor existing economy and environment and is not a viable solution to support the regeneration of the town.

Option B – Do minimum

Consideration has been given to introducing a low-cost collection of minor improvements to the existing highway layout in Strood including:

- Minor alterations to kerb alignments where footways are severely substandard;
- De-cluttering the High Street by removing long lengths of pedestrian guard railing; and
- Additional pedestrian crossing facilities.

Whilst these measures would improve pedestrian accessibility, they would not improve journey times or notably enhance the environment. Benefits would therefore be extremely limited.

Option C – Ring Road

This option was originally conceived by KCC and reviewed by Medway Council in 2003. It includes the construction of a ring road which skirts to the east of Strood, following the line of the existing railway embankment. This option relied on the creation of a relief road to take vehicles off the High Street but was rejected in the 2003 study. This was revisited as an option in 2009 and a subsequent review concurred with these findings. The situation remains comparable today and the option of a ring road is still not viable. The reasons for this conclusion include:

- A new ring road is not necessary as the network has sufficient scope to be revised within the existing physical constraints to support the proposed traffic volumes.
- A new by-pass would be an expensive and unnecessarily heavy-handed engineering solution.
- Creating a larger highway would only support a greater volume of cars, encouraging more vehicles through Strood, rather than encouraging through traffic to use the strategic routes of the M2 and A289 (Medway Tunnel).
- Permitting fast flowing vehicles to bypass Strood removes potential customers from Strood itself, reducing the potential for economic growth in the town.
- The proposal transfers a greater number of vehicles on to the Station Road/High Street junction which is already the pinch point in the network.
- The proposal is unsustainable and conflicts with local and national policies for resolving congestion.
- It will not improve connectivity for pedestrians and will only therefore reduce further the potential for a modal shift, resulting in greater decline in Strood High Street.
- The proposal creates greater severance between the town centre and the residential areas to the North of the viaduct. Large by-passes and ring-roads with their low permeability have proven to limit a town's potential to expand and grow with time and many Councils now find themselves faced with trying to un-pick these interventions.
- Permitting fast-flowing vehicles to bypass Strood will only intensify congestion in Rochester, as it arrives on Corporation Street which itself has already been recognised as creating severance between Rochester Town Centre and the proposed development area of Rochester Riverside.

Option D - Revert one-way to two-way to 'Reclaim the High Street'

This option was initially conceived as part of the "Shape-up Strood "study and then developed further to form the basis of the SPAG appraisal that secured funding for the environmental improvements for Strood. It permits a low speed-high volume of continuous traffic to flow along Commercial Road in both directions to relieve the traffic burden on the High Street, returning civility and quality to the town centre.

However, without measures to discourage through traffic through Strood town centre, this concept could cause additional severance, by creating a disconnect between the newer commercial sector to the east of the town centre and the more traditional high street section to the west of the town centre.

Option E – Park and Ride, and Knight Road Extension

This option looked to go a step further than Option D and included a Park and Ride scheme and also an extension of Knight Road through the industrial area to the west of Strood to permit access for HGV's and other industrial vehicles from the M2 and away from High Street. It also included for the introduction of an "early warning" signage network that would advise drivers of most efficient routes and real-time car park vacancies etc. within the Strood to reduce unnecessary journeys through the High Street etc.

Initial analysis of this option concluded that this would not be a viable option, due to the lack of Council control on car parking in the area. With the ease of car parking in Strood town centre, and in particular the new commercial area to the east of the high street, a park and ride bus service would not be a commercially viable service to operate.

Option F – Do something (including other LGF projects)

This option proposes an integrated a package of traffic management measures and network improvements to encourage drivers to use the A289, which would result in improvement to journey times through Strood. These interventions would have potential benefits for reducing congestion; facilitating new housing; encouraging businesses; improving the retail offer / environment; encouraging sustainable transport and; improving air quality. The works would include:

- A package of Town Centre traffic management improvement measures in the centre of Strood and town centre connections, taking into account constraints presented by existing railway arches that circle the town;
- Access improvements for vehicles, pedestrians and cyclists to regeneration sites at Strood Riverside and the former Civic Centre site, to facilitate the development of these sites;
- Package of pedestrian accessibility, de-cluttering and public realm improvements in the town centre, expanding on the principles detailed in option B;
- A package of cyclist accessibility improvements throughout town centre;
- Associated urban realm and environmental improvements;
- Measures to unlock and support housing and employment development sites;
- A289 Four Elms to Medway Tunnel journey time and network improvements to improve vehicular access from Medway City Estate (funded through DfT agreed LGF project);
- Medway City Estate connectivity improvements including sustainable transport measures (funded through DfT agreed LGF project); and
- New railway station at Strood and improved connectivity between the station and the town centre (Round 2 LGF bid submitted).

Option G – Do maximum

Combination of option F with additional measures in option E. Concerns have already been detailed regarding the Park & Ride option in Option E.

2.5.3 Option Assessment

All the options considered were tested against the five objectives of Medway's Local Transport Plan.

Table 2b provides a summary of the scheme options listed above in terms of the objectives and critical success factors for the scheme.

Reference to:	Option A/B	Option C	Option D	Option E	Option F	Option G		
Description of Option:	Do Nothing / Do Minimum	New ring road	Revert 1- way streets to 2-way	Park & Ride / Knight Rd extension	Do something	Do Maximum		
	Investment objectives linked to Medway LTP Priorities							
Economic growth	×	×	partial	×	\checkmark	partial		
Connectivity	×	×	×	×	\checkmark	partial		
Natural Environ.	×	×	×	x	\checkmark	\checkmark		
Equality	×/partial	x	partial	×	\checkmark	\checkmark		
Safety & health	×/partial	partial	×	x	\checkmark	\checkmark		
		Critical S	Success Facto	ors				
1 Strategic Fit	×	x	partial	\checkmark	\checkmark	\checkmark		
2 Economic Prosperity/ Value for Money	×	x	×	x	✓	×		

This assessment demonstrates that option F scores most favourably and is therefore the preferred option that forms the basis of this business case. Appendix A contains a detailed breakdown of the scheme elements proposed within the preferred option.

2.6 Risks

A summary of the key risks which may influence the cost and programme for the preferred scheme are shown in Table 2c below.

Table 2c – Risk Assessment

		Impact		Liko		
Ref	Risk	Cost	Prog.	lihood	Mitigation	
RR1	Need for Compulsory Purchase Orders	Moderate	High	Low	No land acquisition envisaged at present time. Risk low as all works planned in public highway	
RR2	Changes in preliminary, detailed and then preferred designs due to change in requirements of Project Board, e.g. changes in material selection, or design features.	Moderate	Moderate	Moderate	Manage at Board level. Communicate implications of major changes on cost and programme. Implement change management processes from outset	
RR3	Some schemes will be funded in part through S106. Delays associated with developers bringing forward planning applications may result in delay to funding sources to particular schemes.	Low	Moderate	Moderate	Majority of works planned do not rely on developer funding being made available. Projects that are linked to development sites could be delivered in advance, with benefits for road users realised whether development proceeds or not.	
RR4	Planning applications may result in delay to funding sources to particular schemes.	Moderate	Moderate	Low	No planning applications should be required for majority of high-benefit highway works	
RR5	Required utility diversion works have long lead-in times and delay construction.	Moderate	High	Moderate	Early engagement with contractors and utility companies plus realistic detailed design lead-in times will ensure realistic time frames set and adequate advance notice given.	

For the Strood Station upgrade element of the scheme, the recommended options do not require any land acquisition and discussions with Medway Council planning department indicates that the proposed works have Permitted Development Rights. No other known constraints have been identified at this stage (technical, environmental, archaeological).

There are also no high-risk elements to delivery of the core scheme that have been identified as there is no need for compulsory purchase of land or major planning applications.

3.0 The Economic Case

3.1 Overview of Appraisal Process

The proposed measures as set out in Appendix A are designed to enhance the townscape of Strood and encourage the uptake of housing and employment development land. They are broadly focussed around transport and highway infrastructure initiatives and are designed to impact on:

- Traffic delays in the town centre;
- Amenity of walking;
- Amenity of cycling;
- Road safety; and
- Bus and train user amenity.

In the absence of a detailed traffic model, alternative data sources have been used for analysis, utilising conservative estimates of potential benefits to ensure a robust assessment.

All analysis has been undertaken using WebTAG principles in terms of economic parameters and assessment methods.

Benefits have been estimated by reviewing interventions within each of the scheme categories described in Appendix A and these have then been divided into groups:

- Interventions that will deliver highway journey time saving benefits;
- Those that will deliver pedestrian and cycling health benefits (grouped together in the benefits table); and
- Interventions that would have a positive impact on numbers of collisions.

Proposals that could be expected to contribute towards one or more of these benefit streams have been combined together, as indicated in the analysis model.

In the case of bus and train user amenity, a conservative assumption has been made in terms of the benefit calculation. There are clear benefits in the scheme elements related to bus and train stop and station improvements. However, without sufficient data being available, a quantitative benefit calculation has not been calculated for these items for inclusion to the net scheme benefits. A qualitative description is included.

All benefit calculation analysis has been undertaken using WebTAG principles in terms of economic parameters and assessment methods.

3.2 Assumptions

For assessment of benefits, default proportions for trip purposes from WebTAG Table A1.3.4 have been assumed. Monetisation of benefits have been conducted on a daily basis (not by time period) and annualised for each year across their lifespan.

All calculations have been carried out assuming a common opening year of 2018 for all elements of the scheme. For traffic benefits a forecasting year of 2033 has been assumed. Beyond this point no further growth in demand is modelled. Appraisal for highway schemes has been conducted for the 60 year period 2018-2077 and for walking and cycling for the 30 year period 2018-2047.

All calculations have been carried out using a spreadsheet model based on WebTAG processes and values. The model assesses benefits for each year of the evaluation period and discounts results to 2010 values and prices.

3.2.1 Existing Delays

A key element of the proposals is updating and improving the traffic control system within Strood and redesigning junctions to improve traffic flow.

Consumer and business benefits, derived from delay savings, traditionally form a large element of traffic benefits, and with a transport model can be assessed using TUBA. Without a traffic model for this scheme, the TUBA analysis has been replaced with a spreadsheet carrying out the same processes.

Data on current travel times and relative flows on links within the network have been obtained from Trafficmaster via the DfT. The Trafficmaster dataset uses in-vehicle GIS information for a large number of vehicles, to record travel times along road links. This enables estimates of peak period delay to be calculated for the network by comparison of peak and off-peak travel times.

The dataset is provided on a 15-minute basis and a weighted average has been used to calculate average travel times on links on an hourly basis. The dataset took average values from weekdays during a neutral month, March 2014.

As the Trafficmaster dataset is only a sample of total vehicles, ATC data was used to factor the sample up to the total vehicle numbers across an average day. The ATC data was obtained from the DfT website for March 2014 and cross checked against additional count data collected by Medway Council. The factoring process was carried out by determining the average Trafficmaster to ATC daily total vehicle count ratios and applying the average ratio across the network. Prior to applying the factor globally, checks were conducted to confirm that there was no variance bias for link type - no such bias was clearly apparent.

A comparison was undertaken on a link by link basis, using the link definitions defined within the Trafficmaster dataset. The average peak hour delay per vehicle was estimated as the difference between the peak period travel time and the average off peak travel time.

This was calculated on an hourly basis during the daytime period, between 7a.m. and 8p.m. after analysis of the travel times across the day to observe when congestion began and ended for most links.

Total daily delay was then calculated as a sum of the average delay multiplied by the synthesised traffic count on a link-by-link basis.

An assumption in this process is that there is no delay outside the weekday periods considered. This would suggest that the values used in the calculation are a conservative estimate of total network delay.

An image of the Trafficmaster analysed links and location of ATC data is shown below, included is a key which shows where the most congested areas are in the evening peak hour as an example;

Congestion Sites



3.2.2 Estimate of Delay Saving

The traffic management measures included within the scheme bid include:

- Improvements to UTMS;
- Junction geometry improvements at key junctions; and
- Real time delay monitoring and provision of VMS.

An optimised SCOOT system can reportedly generate savings of 12% on average compared to TRANSYT based fixed cycle arrangements¹⁰. Central Strood currently has a SCOOT system which is split into three separate components. The current system is operating sub optimally and could be enhanced through reconfiguration. Discussions with the Council have also highlighted problem junctions within the centre which the system is struggling to cope with at busy periods.

Given that the majority of junctions within Strood are already operating under a SCOOT controlled system, albeit old and in need of recalibration, we would not expect a 12% saving to be achieved from SCOOT modifications alone. However, with the SCOOT systems recalibration, there will also be an upgrade to the system as a whole through the introduction of VMS and identified road network capacity improvements made in addition. The combined impact of these elements, is therefore considered to have an impact similar to introducing SCOOT to a fixed signal environment, reducing delay overall for the locality by in the region of 5 to 12%.

¹⁰ <u>http://www.scoot-utc.com/GeneralResults.php? menu=Results</u>

Benefits have been calculated on the conservative assumption of a 5% reduction in overall traffic delay. The assessment showed 2,307 vehicle/hours delay per weekday (AM, PM Peaks and Inter-Peak) within Strood. Using the conservative assumption that a reduction in delays of 5% will be delivered through enhanced UTC and network / junction improvements implies a saving of 115 vehicle/hours per day.

The calculations have been carried out making use of values included in the WebTAG databook (Autumn 2014 version) for the following assumptions:

- Traffic composition by purpose; and
- Value of time.

Benefits have been calculated over a 60 year period, and values discounted to 2010 prices and values. Traffic growth has been applied for the first 15 years of the assessment period, based on TEMPRO growth levels for Strood with appropriate fuel and income adjustments applied. This equates to a growth rate of approximately 0.8% per annum over 15 years.

Traffic growth would clearly lead to increasing congestion in the base network. However, without a model to examine the growth in delay per vehicle, it has been assumed that delay per vehicle remains constant. We consider that this underestimates the benefits of the scheme resulting in a conservative total delay value.

There are clearly other factors that would affect traffic volumes in Strood as a result of the proposed schemes;

- Improvements to public transport and active modes are anticipated to reduce car use, which would lead to lower levels of growth within the town centre.
- Reductions in delay and improvements to circulation may potentially increase levels of traffic in the town centre.

Without access to a model the relative impacts of these two effects on flow levels through the signalised network could not be calculated. The impact of different scheme elements in terms of travel time by purpose, health benefits, accident savings and non monetised qualitative benefits have however been categorised, as shown in the final TEE table.

For the purpose of the delay analysis it has been assumed that overall the effect is neutral. This also avoids any requirement to implement a TUBA style rule of a half methodology, to assess benefits in cases of changes in overall demand. Sensitivity tests were carried out to test the impact of lower growth rates on the overall benefits, which showed that the level of benefits was not significantly sensitive to growth levels. A growth rate of half that assumed reduces delay benefits by 9%.

Using the above assumptions, the model estimates an overall cost saving over the 60 year assessment period due to reduced delay of £16.54 million in 2010 prices and values.

This value is made up of time savings to vehicle occupants. It is acknowledged that there would be additional savings in terms of reduced fuel consumption; however this could not be quantified from the information available. This indicates that benefits reported represent a lower bound of a realistic anticipated outcome.

The breakdown in benefits by trip purpose are shown below:

Purpose	£m (2010 values and prices)
In work	7.00
Commute	4.40
Other	4.23
Goods vehicles	0.91
Total	16.54

The methodology provides a similar time saving to all trip purposes, vehicle types and journey distances. There is no evidence on the breakdown of journey characteristics through Strood and thus the spread in the benefit scale could not be calculated.

Congestion reduction would be expected to have a negative impact on indirect tax receipts which would reduce PVB. However, since benefits in fuel costs to users have not been included in the calculation it may be assumed that this omission would not impact negatively on the PVB reported.

3.2.3 Walking & Cycling

Many of the improvements identified in Appendix A are aimed at improving the walking and cycling networks, thereby encouraging increased use of these modes. Schemes include:

- Improvements to the cycle network, including the completion of a main cycle route through the town;
- Widening footpaths;
- Provision of additional lighting on walking routes;
- Provision of improved crossing facilities; and
- Provision of improved walk/cycle links to the station.

WebTAG Unit A5.1 sets out an approach to the monetisation of the health benefits from increased walking and cycling activity, and the approach identified in that document has been used for this analysis.

Analysis of the journey to work census data as shown in Table 3a shows that rates of walking and cycling in Strood are lower than in neighbouring Rochester and lower than in Medway as a whole and significantly lower than the South-East average.

	Total travelling to work	Modal Splits (other modes not included here)						
Area		Bicycle	Bus, minibus or coach	Driving a car or van	On foot	Train		
South East	3,758,139	3.3%	4.9%	70.4%	11.1%	8.0%		
Medway	116,767	1.2%	5.0%	72.2%	10.0%	9.4%		
Rochester	14,829	1.3%	4.7%	69.0%	10.9%	11.9%		
Strood	19,189	1.0%	4.9%	76.9%	7.7%	7.4%		

Table 3a – Rates of Walking & Cycling

The assumption for the core scenario reported here has been that walking and cycling levels for work trips would be increased to the proportions observed in Medway as a whole. This is the lowest value of the comparators available, and thus provides a conservative estimate of the impacts of the range of schemes proposed.

An annual multiplier of 240 days has been assumed, given that the census data represents a neutral day in March, it is to be expected that there would be increases and decreases on a day-by-day and month-by-month basis. It is noted that non work benefits would also be accrued, but are not generated in this travel to work data based analysis.

Benefits from this change have been assessed using the Social Impacts Appraisal Methodology set out in Unit A4-1 of WebTAG, which sets out an approach to calculating economic impacts of increased activity. Benefits have been calculated using a five year ramp up period to allow for the gradual impact of these benefits and assessed over a 30 year period from the opening year. No additional growth has been allowed for in terms of numbers of additional pedestrians or cyclists over time. Such growth might be expected and would increase the levels of forecast benefit if applied.

All values have been discounted to 2010 values and prices.

3.2.4 Road Safety

An investigation of pedestrian and cycle accidents within Strood town centre has been undertaken. Anecdotally there are high levels of pedestrian accidents in the town centre. The figure below shows recorded casualties over a three year period between 2011 and 2014 (3 year period), indicating whether they involved road vehicles only, or whether there were pedestrian or cyclist casualties. This dataset originates from police incident reports.



A summary of the number of the Strood accident/collision related casualties between 2011 and 2014 is provided in Table 3b.

Pedestrian and Pedal Cyclist Casualties 2011-2014						
Severity	Pedestrians	Cyclists	Total			
Serious	2	1	3			
Slight	21	10	31			

Table 3b – Summary of Collision History

There are a number of scheme elements which are designed to make the pedestrian and cycling environment safer, specifically improved lighting and signalised crossing facilities for problem areas.

For cyclists the scheme includes ASLs at key junctions and a defined cycle link which will help to bridge the current gap in the national cycle highway (shown below);

Existing National Cycle Highway



Source: http://www.openstreetmap.org

The scheme as a whole is anticipated to increase the number of pedestrians and cyclists overall and WebTAG provides a formula which estimates the potential increase in accidents as a result of user, applying a power factor of 0.4 to the proportional increase. However, WebTAG states below the equation;

"2.3.27 Where facilities are being introduced which are expected to have a significant impact on the accident rate for cyclists and pedestrians; such mitigation is likely to have a more significant local impact than any increase in these modes."¹¹

¹¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/386743/TAG_Unit_A4.1_-_Social_Impact_Appraisal_November2014.pdf

As the scheme includes elements specific towards improving cycling and pedestrian safety the above statement is considered applicable. In the absence of similar case studies, a 10% accident saving for these modes is considered a conservative value, which is used.

Average accident saving benefit values have been taken from the WebTAG guidance, specifically the COBALT spreadsheet tables, Nov 2014 release v1.3b. Which provide the costs per casualty as follows:

Cost per Casualty			
Severity	Cost £		
Fatal	1,640,134		
Serious	184,305		
Slight	14,208		

The accident benefits have been annualised over a 60 year period and discounted as described above to determine the net accident saving benefits.

3.2.5 Additional Non Quantified Travel Benefits

The benefit calculation described above is considered a conservative total as not all benefits have been monetised. Other non quantified benefits include;

- **Bus user delay savings** conditional priority for buses at junctions means that late buses are given priority and early buses are not. This scheme is a method of operational control that improves service quality by keeping buses on schedule. It achieves a strong improvement in schedule adherence compared with a no-priority situation. Conditional bus priority has been shown to have almost no impact on traffic delays12. Delay savings have been calculated on a vehicle basis and do not include bus users, who represent a significant number of commuters. To maintain the simplicity and transparency of the analysis, specific bus passenger delay savings have not been included.
- Bus real time information up-to-date RTI will enable more efficient service management and provide users to reduce unproductive waiting time. In the absence of waiting time and delay data, such a benefit is not easily quantified, though Passenger Focus user surveys suggest that this is an area where there is scope for improvement.
- **Bus stop improvements** the scheme includes provisions for bus stop improvements, including a bus / rail station interchange. Such improvements would reduce the waiting cost parameters and be expected to increase bus numbers. However, additional data analysis is required for such benefit estimation.
- Strood train station user benefits the scheme includes provision for improvements to Strood train station. It is anticipated that users of the station would experience waiting cost benefits and there would likely be a positive shift in the proportion of commuters using train. 2011 census data shows approximately 7.4% of commuters in Strood travel by train, compared to the Medway average of 9.4% and neighbouring Rochester value of 11.9%.
- Non-work pedestrian and cyclist health benefits currently health benefits have been applied to Census based pedestrian and cyclist numbers. It would be expected

¹² Transportation Research Laboratory, Delft University of Technology

that non work travellers would also benefit, estimates of these numbers may be possible for inclusion, but have been omitted here for simplicity and transparency.

- Ambiance Case studies for urban centre cycle schemes suggest that approximately 15% of benefits on average arise from ambiance improvements¹³. The scheme includes a number of elements which are targeted towards improved lighting, safety, the perception of safety, ease of navigation and attractiveness / comfort of the local environment. As such, a similar proportion would be realistically expected for the walking and cycling related scheme elements, but has not been included within this benefit calculation total for simplicity and transparency.
- Noise and Air Quality These aspects have not been quantified, but the scheme would be expected to have a positive impact overall.

3.3 Summary of Impact Appraisal

3.3.1 Revenue

Census data shows that Strood bus patronage levels as a proportion of overall traffic is similar to that of Medway as a whole. The scheme is expected to have a positive impact in terms of bus patronage, but in the absence of a multi-modal model, the quantitative impact is difficult to forecast. The bus stop and route improvement components of the scheme would be expected to have a benefit to existing users as discussed above by making it more attractive, some increase in patronage would be expected.

A conservative assumption has been adopted in treating bus revenue change as being neutral overall. This being the case, calculations relating to revenue forecast (including derivation, fares growth, implied yield, public/private allocations and operator response) are not applicable, as the demand change multiplier is zero.

Improvements to the train station would be expected to have a positive impact in terms of passenger numbers and revenue. However, given the absence of a suitable model, a conservative assumption has again been adopted in assuming a neutral impact.

3.3.2 Scheme Cost and Funding

Scheme costs have been provided by Medway Council for the analysis. A total of £9.0m has been assumed for the works outlined. Further to this value, optimism bias has been added at a rate of 44%, and costs converted to market prices using a fixed multiplier of 1.19 and to a 2010 price base using the GDP deflator.

An annual maintenance and renewal cost of £33,000 (2010 prices) has been assumed to be required over the 60 year assessment period (see Section 4.2.2); this includes assumed maintenance during early years, though such maintenance requirements would be expected to be limited in reality. Maintenance costs have been assumed to increase over time using the GDP deflator parameters. Since there is an existing UTMC system operating within the area no additional operating costs have been assumed.

3.3.3 Transport Benefits Appraisal

The results of the analysis are presented in the following:

- **Table 3c** Transport Economics Efficiency Table (TEE)
- Table 3d Analysis of Monetised Costs and Benefits Table (AMCB)

¹³ <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/348943/vfm-assessment-of-cycling-grants.pdf</u>

Table 3c – Transport Economics Efficiency

Economic Efficiency of the Transport	System (TEE)			£ millions				
Non-business: Commuting	ALL MODES		ROAD		BUS and COACH	RAIL	-	OTHER
User benefits	TOTAL		Private Cars and LGVs P		Passengers	Passengers		
Travel time	4.49		4.49					
Vehicle operating costs								
User charges								
During Construction & Maintenance								
NET NON-BUSINESS BENEFITS: COMMUTING	4.49	(1a)	4.53					
Non-business: Other	ALL MODES		ROAD		BUS and COACH	RAIL		OTHER
User benefits	TOTAL		Private Cars and LGVs		Passengers	Passengers		
Travel time	4.34		4.34		-			
Vehicle operating costs								
User charges								
During Construction & Maintenance								
NET NON-BUSINESS BENEFITS: OTHER	4.34	(1b)	4.53					
Business								
User benefits			Goods Vehicles	Business Cars & LGVs	Passengers	Freight	Passengers	
Travel time	8.08			8.08	,		3	
Vehicle operating costs								
User charges								
During Construction & Maintenance								
Subtotal	8.08	(2)	0.00	8.08				
Private sector provider impacts						Freight	Passengers	
Revenue								
Operating costs								
Investment costs								
Grant/subsidy								
Subtotal	0.00	(3)						
Other business impacts								
Developer contributions		(4)						
NET BUSINESS IMPACT	8.08	(5) = (2	(2) + (3) + (4)					
TOTAL								
Present Value of Transport Economic Efficiency		1						
Benefits (TEE)	16.91	(6) = (1	1a) + (1b) + (5)					
Notes: Benefits appear as positive numbers, while costs appear as negative numbers.								
All entries are discounted present values, in 2010 prices and values								

Table 3d - Monetised Costs and Benefits

Analysis of Monetised Costs and Benefits						
	£ millions					
Noise	(12)					
Local Air Quality	(13)					
Greenhouse Gases	(14)					
Journey Quality	(15)					
Physical Activity	5.56 (16)					
Accidents	1.58 (17)					
Economic Efficiency: Consumer Users (Commuting)	4.49 <i>(1a)</i>					
Economic Efficiency: Consumer Users (Other)	4.34 (1b)					
Economic Efficiency: Business Users and Providers	8.08 (5)					
Wider Public Finances (Indirect Taxation Revenues)	- (11) - sign changed from PA table, as PA table represents costs, not benefits					
Present Value of Benefits (see notes) (PVB)	24.04 (PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)					
Broad Transport Budget	11.72 (10)					
Present Value of Costs (see notes) (PVC)	11.72 (PVC) = (10)					
OVERALL IMPACTS						
Net Present Value (NPV)	12.32 NPV=PVB-PVC					
Benefit to Cost Ratio (BCR)	2.05 BCR=PVB/PVC					

Note : This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Table 3d (AMCB Table) demonstrates that the scheme assessed returns a benefit cost ratio (BCR) of 2.1.

The BCR value for the project falls within the High Value for Money band. As indicated in the sections above, benefit levels have been assumed at the lower ends of potential ranges in each case, hence we consider the BCR of 2.1 to be a lower bound estimate of the potential conclusion were more detailed modelling to be carried out.

The main contributions to the benefits are derived from the delay savings resulting from the traffic management which return a benefit of £16.6m (69% of total benefit) over the 60 year assessment period (as per WebTAG guidance).

The analysis of health impacts produces a total benefit of £5.7m (24% of total benefit) over a 30 year analysis period (as per WebTAG guidance).

The accident related savings return a benefit of £1.6m (7% of total benefit) over the 60 year assessment period (as per WebTAG guidance)

3.3.4 Gross Value Added

GVA has not been included within the economic appraisal. However, one of the primary targets of the scheme is to enhance the perception of the area for development, and a number of public realm improvements are included within the programme. GVA impacts of development are calculated for the local economy. These are not additional values, but represent the value to the local Medway economy of the interventions.

The project will significantly contribute to the delivery of the following growth sites:

- Strood Riverside delivering 600 homes. Status: Adopted development brief, site owned by Medway Council, planning consent granted for river wall adjacent to the site to reduce flooding risk;
- Former Civic Centre site, Strood delivering 600 homes. Status: Site owned by Medway Council, site being vacated by Medway Council by 2016;
- Rochester Riverside delivering 1,500 homes (over a 15 year period) and 300 jobs. Status: Site owned by Medway Council, planning consent granted and phased development under construction;
- Former Alloy Wheels site, Strood 4 ha site delivering between 550 to 715 FTE jobs across B1, B2 and B8 uses. Status: planning consent granted, site vacant and being marketed.

Medway Council have estimated that there is development potential for 1,820 new jobs and 3,260 new houses within the immediate area of the scheme and that this project will contribute in the region of 20-25% to enabling these jobs and houses, thus the scheme would enable 360-450 jobs and 650 to 815 houses

The current average house price in Medway is £198,000 (Apr – Jun 2013) (<u>http://news.bbc.co.uk/2/shared/spl/hi/in_depth/uk_house_prices/regions/html/region9.st</u> <u>m?se#table</u>). The estimated impact therefore of the improvement programme on GVA is estimated at £126-158m.

The current average salary in Medway is £26,260 (2013) <u>http://www.neighbourhood.statistics.gov.uk/</u>), thus the additional impact of 360-450 jobs would be £9.5 – 11.8 million per annum.

3.3.5 Monitoring and Evaluation & Benefits Realisation

Section 6.3 describes the proposed KPIs and monitoring plan that will be adopted to determine whether the benefits of this scheme will be realised. It is proposed that annual walking and cycling counts be conducted prior and post scheme implementation (1 and 5 years after) and traffic counts, bus usage and rail usage data collected for the same periods.

These counts will be aligned with the scheme objectives and outcomes set out in Table 2a and 6d. Changes in demand will be used to estimate network-wide changes in relative modal usage.

This data will be used to validate the outturn benefit generators for quantified aspects of the scheme. Routine bus and rail passenger surveys will also be used to assess the qualitative amenity aspects related to bus and train stop and station improvements.

3.3.6 Sunk costs

Sunk costs are generally written off as part of the day to day business of the transport planning responsibilities of Medway Council. However, costs associated with the preparation of the Outline Business Case will be charged to the project, which amount to approximately £20,000.

3.3.7 Local contribution

The local contribution of £2.5m relates to anticipated S106 funds secured through the development of major regeneration sites in Strood, including:

- Strood Riverside delivering 600 homes. Status: Adopted development brief, site owned by Medway Council, planning consent granted for river wall adjacent to the site to reduce flooding risk;
- Former Civic Centre site, Strood delivering 600 homes. Status: Site owned by Medway Council, site being vacated by Medway Council by 2016;
- Former Alloy Wheels site, Strood 4 ha site delivering between 550 to 715 FTE jobs across B1, B2 and B8 uses. Status: planning consent granted, site vacant and being marketed.

Other funding of £1.25m has been secured from Network Rail, which represents a 50% contribution to the reconstruction cost of Strood station.

4.0 The Financial Case

This section describes the approach to assess the affordability of the scheme. The current estimate of project cost is provided along with a profile broken down by financial year for the period of the fund.

The financial case described in this section is for scheme Option F, as described in Section 1 and 2 of this document.

4.1 Overview of Affordability Assessment

In September 2012 the DfT set out firm proposals for the devolution of funding for local major transport schemes from 2015 from a national pot of £2bn. The Government's response further confirmed the commitment to delegate funding decisions and negotiate a Growth Deal with every Local Transport Body (LTB) in order to deliver local growth and infrastructure priorities.

Medway Council has already put together a package of schemes as part of the Local Enterprise Partnership's LGF bid and a total of £68.1million has been granted to the Kent and Medway federated area for projects that will commence in 2015/16. Of this, £28.6million was allocated for five successful Medway schemes, including £9m for a Strood town centre scheme.

The Strood town centre proposals are a strong fit to both local and national policy relating to roads investment and growth. Funding is available through the LGF and has been provisionally allocated to this project.

4.2 Project Costs

4.2.1 Capital Expenditure

The costs for the scheme are set out in Table 4a below. The cost estimate includes preparatory costs associated with preliminary and detailed scheme design, and scheme construction.

A scheme risk budget of 30% is included within the cost estimates to broadly reflect design costs and risk, construction risk, employer change risk and employer other risks.

An Optimism Bias adjustment of 44% has been applied (as advised in WebTAG Unit A1-2). The cost rates are assumed to reflect current day prices (4th Quarter 2014). Tender Inflation, Construction Inflation and VAT are excluded and the estimate produced at this stage is assumed to have an accuracy level of -20% to +30%.

Cost estimates are based on knowledge, understanding and experience of the quantum of costs required to deliver the various measures proposed. They will be refined based on detailed design studies. The level of optimism bias and risks will be reviewed and refined to reflect more detailed work and improved levels of confidence with regard to scheme cost.

Table 4a - Scheme Costs

Works Ref.	Description	Estimated construction costs (£)	Plus 30% uplift design and contingency (£)
ТА	Works - Town Centre traffic management	2,384,000	£3,099,200
PA	Works - Pedestrian accessibility	822,600	£1,069,380
CA	Works - Cyclist accessibility	436,000	£566,800
PR	Works - Public realm improvements	1,553,300	£2,019,290
ТС	Works - Town centre environment	1,190,000	£1,547,000
DEV	Works - Development site links	537,500	£698,750
	Sub-Totals	6,923,400	9,000,420
	3,960,185		
		Total	12,960,605

4.2.2 Maintenance Expenditure

There is already maintenance costs associated with the existing highway infrastructure in Strood, which have been provided by Medway Council's asset management team. They have confirmed that the proposed replacement and refurbishment with new surfacing will reduce maintenance costs due to the increased life-cycle of replacement surfacing. It should also be noted that the preferred solution for Strood does not include major new infrastructure works i.e. new roads and therefore maintenance of the existing network is all ready budgeted for. That said there may be additional maintenance costs accrued in future due to the use of more expensive surfacing materials in certain areas, or through the delivery of new cycle routes and lanes etc. The total additional costs for maintenance of this infrastructure can only be estimated by making assumptions regarding the likely additional costs. A figure of 2.5% has therefore been applied to the sum of the budget estimates for delivery of new infrastructure, or new high-quality urban realm. Note that costs for resurfacing or refurbishment of existing surfacing are not included for the reasons described above.

In addition, extra costs for new ITS and traffic signal infrastructure maintenance plus associated power requirements have been estimated, as set out in **Table 4b** below:

Table 4b – Estimated additional maintenance costs	Proposed additional infrastructure	Existing cost per Unit	Estimated additional costs
Traffic signals	2	£499.53	£999.06
CCTV traffic monitoring only	5	£133.87	£669.35
VMS	5	£278.53	£1,392.65
Communications	13	£26.69	£346.97
ATC	3	£145.53	£436.59
VAS	5	£456.65	£2,283.25
Environment Monitoring Unit	4	£467.61	£1,870.44
Energy estimates - new signals	3	£170.00	£510.00
Energy estimates - other assets	-	Est Sum	£1,200.00
Energy estimates - UTC costs	-	Est Sum	£1,200.00
Costs for maintaining new infrastructure	£911,300.00 ¹⁴	2.5% ¹⁵	£22,782.50
Total estimated additional	£33,690.81		

Additional costs of £33,000 per annum are therefore estimated and these costs have been included within the business case assessment to determine impact on the overall value for money of the scheme.

4.2.3 Cost Profile

Table 4c presents the scheme costs profiled by financial year for the duration of the funding period.

£2.5m of developer funding is predicted to become available in the 2017/18 financial year, subject to completion of associated land deals. £1.25m of LGF funding contribution towards reconstruction of Strood Station will be released during 2016/17.

Planning, consultation and detailed design work for the core town centre scheme will take place during 2015/16 and 2016/17, with initial preparatory works and early win schemes being delivered in 2016/17. The majority of construction works will be delivered in 2017/18.

¹⁴ Sum of construction costs for proposed new surfacing, street furniture and cycle infrastructure

¹⁵ Assumed rate for annual maintenance costs for new urban realm and cycle facilities

Table 4c – Cost Profile

Expenditure	*Est. type	2014/ 15 £000	2015/ 16 £000	2016/ 17 £000	2017/ 18 £000	2018/ 19 £000	2019/ 20 £000
Procurement	Ε			50			
Feasibility	Е		50				
Detail Design	Ε		100	200			
Engineering	Ε			100			
Equipment	Ε		50	50			
Construction LGF (excluding Strood stn)	Е				6650	450	
Construction LGF (Strood Stn)	Е			1250			
Construction NR (Strood stn)	Е		250	1000			
Construction (developer)	Ε				2,500		
Audit Cost	Ε					50	
VAT							
TOTAL COST			450	2650	9,150	500	

*E= estimate D = Detailed estimate, T = Tender price.

4.3 Budget provision

Table 4d sets out an estimated funding package for the forecast scheme costs. The table includes the level of funding requirement as part of the Local Growth Fund, other public funding from Network Rail and private contributions in the form of S106 planning agreements. The table does not account for possible increases in land value from expanded land use development sites.

Table 4d – Cost Profile by Expenditure Item

Funding Source	2014/15 £000	2015/16 £000	2016/17 £000	2017/18 £000	2018/19 £000	2019/20 £000
SE LEP		200	400	6650	500	
SE LEP Strood Stn			1250			
Network Rail – Strood Stn (split of allocation across years to be finalised)		250	1000			
Developer S106				2500		
TOTAL FUNDING		450	2650	9150	500	

The primary source of local contribution funding for the Scheme is from S106.The Section 106 estimate has been developed and provided by Medway Council's development control department. It is based on estimated costs for associated accommodation and access works for the proposed housing and employment sites within Strood and Rochester.

4.4 Funding Risks

All of the proposed project funding will be public money aside from S106 availability and a contribution of £1.25m from Network Rail for reconstruction of Strood Station.

Network Rail has confirmed that funding is available for 2015 to 2017 for the reconstruction of Strood Station. Medway Council has confirmed that the proposed works have Permitted Development Rights. No other known constraints have been identified at this stage (technical, environmental, archaeological). The work is programmed to be undertaken between 2015/16 and 2016/17, with the LGF funding contribution being required in 2016/17.

Section 106 availability will depend on developers coming forward to develop key sites described within this business case. However, this funding is not critical to achieve the high benefit elements of the scheme, although those benefits will act to encourage and sponsor the development plans to proceed.

There are no major identified risks to delivery of the core scheme elements (see Table Section 2.6 Table 2c) therefore the high benefit elements of this project have no significant funding risks associated with them.

5.0 The Commercial Case

This business case is consistent, and has linkages with, a number of other business cases being promoted by Medway Council, including:

- 1. A289 Four Elms to Medway Tunnel, which provides additional capacity to encourage drivers to use the dual carriageway by-pass rather than travel through the centre of Strood;
- 2. Medway City Estate, which improves connectivity and encourages more sustainable forms of travel from Medway City Estate, a major business area employing approximately 5,000 people; and
- 3. Medway Cycling Action Plan, which improves cycle routes in the vicinity of Strood.

The programmes and milestones for this and other associated projects in the Strood and wider Medway area will be developed in parallel to ensure a joined up approach to project development and delivery planning.

5.1 **Programme & Milestones**

The following diagram and table sets out the outline programme and milestones for development and delivery of this scheme. This programme will be refined following full scheme approval, and subject to detailed design of specific scheme elements.



Table 5a - Delivery programme

Table 5b - Milestones

Initial scheme design and business case	Feasibility / detailed business case review	Detailed design	Procurement	Start of construction	Completion of construction
31/03/2015	01/01/2016	30/09/2016	31/03/2017	01/04/2017	30/06/2018

5.2 Approach taken to assess commercial viability

Officers have engaged with the Council's Category Management Team in order to carry out the necessary market assessment on the commercial viability of this project. This included:

- An appraisal of the current market conditions for the delivery of all aspects of the scheme;
- Consultation with project and performance management consultants for additional guidance on scheme procurement and best contracting methods; and
- An examination of the cost benefits of the scheme (please refer to Section 4 for outcomes of assessment).

The results of the commercial viability assessment showed an appropriately buoyant market for the procurement and contracting of the necessary elements of the scheme. Table 2b provides further details as to the benefits of the scheme options considered and the advantages of each option. As stated above, this project provides a consistency of approach and joined-up strategy by linking with other LGF funded projects that increases the commercial viability of this project and the linked LGF projects. In particular the A289/Four Elms project and Medway City Estate Connectivity Improvements will compliment this project, with access to the Estate through Strood as a main traffic tributary being one of the issues partly addressed by this scheme.

Medway Council's Category Management Team has a proven track record of successful project delivery, both in terms of quality and value for money, recognised in March 2014 at the Excellence In Public Procurement Awards 14/15 where the Team achieved the Highly Commended Award for Innovation or Initiative, and in August 2014 being shortlisted for two major award categories in the CIPS Supply Management Awards 2014.

The Team will provide support to the Project Group throughout the life of the scheme, including pre and post delivery phases. The Governance Arrangements set out in Appendix B provides additional detail on the Team's role in the project management structure.

Key Performance Indicators will be assessed to monitor the success and viability of the project. These KPIs have been described in Section 6.3.

5.3 Procurement strategy

In order to achieve the best outcome for the project officers are currently considering two procurement strategies; the two-stage approach and; the traditional approach. The proposed timescale and process for the two stage is set out in Table 5c below:

Table 5c – Two-Stage Procurement Strategy

·		
Pre Tender	1. In House	The Client prepares a business case for its proposed
Stage	Preparation /	project and develops this into a project brief that
	Appointment	forms the basis for selection of a Designer and Cost
	of Consultants	Consultant (either in-house or pursuant to a new EU-
		compliant procedure or under an existing framework
		/ alliance / long-term contract);
	2. Consultant	The selected designer creates a concept design and
	Preparation	the selected cost Consultant creates a Project
	•	Budget, in each case for Client approval;
Stage 1	3. Market	The Client issues the project brief, approved concept
(Tender)	Engagement /	design and Project Budget to the market, and invites
(1911-191)	Appointment	proposals that will form the basis for their
	of Main	appointment under Conditional Contracts (pursuant
	Contractor	to new EU-compliant procedures or under existing
	Contractor	frameworks / alliances / long-term contracts):
		Ridder submissions will include appropriate design
		and other project properties for evaluation, as well as
		Consultant food and Contractor food / profit/
		consultant lees and contractor lees / promit
		overheads – and, where appropriate, the costing of
		Subsentrestere and Supplieres
	4 Dra	Subcontractors and Suppliers;
Stage 2 (Pre	4. Pre-	The successful Contractor and Consultant team are
Construction	Construction	appointed to then work up a proposal on the basis of
Agreement)	Phase	an Open Book cost that meets the Client's stated
		outcomes and cost benchmark as a second stage;
		The selected integrated Team, comprising the Client,
		Consultants and Contractor (together with any
		provisionally approved Subcontractors and
		Suppliers), carries out agreed Preconstruction Phase
		activities under the terms of their Conditional
		Contracts and in accordance with a Preconstruction
		Phase Timetable, including build-up of developed
		design in respect of the project and each work/supply
		package, together with Project Budget reconciliations
		for Client approval;
		As developed design is approved, subject to review
		and value engineering as appropriate, the Integrated
		Team then builds up the technical design in respect
		of the project and each work / supply package for
		Client approval;
	5. Supply	Contractor issues approved developed design or
	Chain	technical design (dependent on the extent of design
	Engagement	proposals invited) to any provisionally approved
		Subcontractors and Suppliers for particular work /
		supply packages and creates a business case for
		review / development / finalisation of their work /
		supply package and costs and for Client approval:

		Contractor issues approved developed design or technical design (dependent on the extent of design proposals invited) with an Enquiry Document approved by the Client to prospective Subcontractors and Suppliers for each remaining work / supply package and invites them to submit tenders comprising proposals and costs for that work / supply package;
	6. Finalisation of Design and Cost	As successive Subcontractors and Suppliers are selected, the expanded Integrated Team finalises the technical design, confirms the components of the agreed costs for the project, and develops a
		Construction Phase programme; The expanded Integrated Team undertakes joint risk management activities so as to minimise any risk contingencies quoted by the Contractor and so as to establish a robust and acceptable basis for the Construction Phase of the project to proceed; If required, the Client authorises Early Works Orders to be undertaken by agreed Integrated Team members for agreed costs in advance of the Construction Phase of the project:
Construction Phase	7. Construction Phase	When technical design and costs and a Construction Phase programme have been sufficiently developed, supported by acceptable conclusion to agreed risk management activities, the Client confirms that the conditions set out in the Conditional Contracts have been satisfied and authorises the Integrated Team to undertake the Construction Phase of the project on the basis of:
		Technical design compliant with the project brief and agreed by the Integrated Team; Fixed price or target cost within the Project Budget and agreed by the Integrated Team; A risk management position agreed by the Integrated Team; A Construction Phase programme agreed by the Integrated Team.

The traditional approach if taken forward will include a more independent design stage, with the market approached subsequently for the procurement of scheme construction. Officers are continuing with the necessary due diligence on the appropriateness of the approach for this project and will finalise the specific procurement strategy by March 2015. Officers will ensure that the final strategy:

- Enables full project mobilisation within the funding period
- Has clearly defined financial implications
- Has clearly defined risk allocations
- Specific project timescales, including implementation timeframe.

In order to minimise overrun and contingency arrangements, officers are also considering the appropriateness of either a fixed price or target price contract, and how risk and contingency will be best managed in order to maximise deliverable outcomes for the project. Specific contracts being considered for the project are:

- JCT Constructing Excellence (Construction phase need adapting for pre construction phase)
- NEC3 Option C (Construction phase need adapting for pre construction phase)
- PPC2000
- Public Sector Partnership Contract Option 6 (Option 10 is the preconstruction phase)
- TPC2005 (Includes 2 stage open book mobilization phase)

The chosen procurement strategy will be fully supported by the Council's own internal procurement governance arrangements (public details of which can be found here <u>http://www.medway.gov.uk/businessandinvestment/procurement.aspx</u>), including a comprehensive Gateway reporting process, procurement support and guidance from the Council's dedicated Category Management Team, and additional due diligence on all key scheme proposals and awards through the Council's Divisional Management Team (attended by senior Council officers and service heads), Procurement Board (attended by senior Council officers, service heads, and member portfolio holders), and if necessary full Cabinet. Officers have also engaged with the Council's own internal Audit Team from the first stages of this project in order to provide additional surety around the scheme management process and the project deliverability.

In terms of the appropriate contracting strategy for the scale and size of this project, Medway as part of its commitment to superior delivery of all projects, will contract manage the delivery of this project by utilising the Councils electronic Contract management tool. This tool is suitable for projects of all sizes and can be specifically tailored to suit the scale of the project involved. In addition, there will be regular project meetings with the Project Management team, the contractor and the Procurement team to ensure that there all possible issues are anticipated and addressed appropriately, and that the project is progressing effectively, to budget and to timetable. PRINCE2 methodology will also be scaled to suit the project in order to ensure the most effective contracting approach is taken.

With regard to procurement strategy for a project of this scale, Medway Council is committed to supporting SMEs, local business, local employment and training opportunities through all of its projects. These objectives are incorporated into the Councils standard tender documentation in the form of questions and method statement requests that test bidders experience of delivering social value through local supply chain, employment and apprenticeship opportunities. These questions are separated by testing a bidder's previous experience of delivery through specific questions at the pre-qualification stage in order to shortlist those bidders who have demonstrated experience and commitment to these objectives on previous projects. These shortlisted bidders are then tested again with specific delivery questions that ask them to detail how, on the project they are bidding for, will they be able to support the economic, social and environmental factors outlined in the project requirements. The answers given will be scored and will contribute to the overall price / quality score for the bidder, which will provide a ranking based on scores highest to lowest.

Ensuring quality contractors are delivering this project will be of paramount importance. As a result there will be a stronger emphasis on quality at the award stage of the tender. Capital Projects that are in excess of £4.3m are subject to the EU Procurement Regulations which state that an advert must be place in the Official Journal of the European Union (OJEU) and depending on what procedure is chosen, the necessary prescribed timelines are to be adhered to. Medway Council uses the E-tendering system 'ProContract' which is available to all bidders and is known as the Kent Business Portal. All opportunities that the Council has are advertised through the portal, whether they are in excess of the EU thresholds or not. Not only does this ensure that there is a complete audit trail which protects the Council and individual officers in the event of a challenge, it also gives bidders confidence that they will be treated equitably and that the process is transparent and without discrimination.

Regarding previous procurement experience, Medway Council's Procurement & Category Management Team procure the full range of requirements for the Council ranging from social services to capital projects. All members of the Team are members of the Chartered institute of Purchasing and Supply (CIPS) which sets standards for procurement professionals globally. One of the key lessons learnt from previous procurement projects is that the right team needs to be in place to ensure that the project can deliver the objectives and outcomes within time and budget.

Medway Council also has a wide range of experience successfully tendering and contract managing traditional build contracts utilising JCT Design and Build as well as other forms of contracts such as NEC3 and PSPC.

The tender process undertaken will look to ensure that the client side technical support has the correct ethos to deliver the projects and the contractors have experience of delivering these projects working collaboratively rather than adversarial approach.

6.0 The Management Case

6.1 Governance & Resources

Medway Council and the South East Local Enterprise Partnership (SE LEP) has arrangements in place to effectively manage and govern the projects funded through the LGF (Local Growth Fund).

There are effective management and governance arrangements in place to ensure delivery of LGF projects, including an established project management toolkit based on PRINCE2 methodology and governance arrangements that involve both elected members and senior officers of the council.

The organogram at **Appendix B** summarises the structure of the LGF management and governance arrangements. Table 6a details the resources that Medway Council has in place to deliver LGF projects. In-house resources will lead on the key activities of the programme, individual projects and workstreams and will be supplemented by consultant support as required.

Responsible group or officer	Responsibility		
Cabinet	Member group that manages council business including high value/high risk procurement and projects including LGF projects. Cabinet meets every three weeks.		
Member Advisory Project Board	Member overview of project development and delivery. The Board reviews, analyses and scrutinizes progress on the directorate's capital programme and, where relevant, specific large/complex projects. Board is chaired by Frontline Services Portfolio Holder. LGF reports are regularly considered by this Board.		
Procurement Board	Member board that agrees and scrutinises procurement activity. This Board will consider the procurement strategy for each LGF project, consider submitted tenders and scrutinise outcomes.		
Officer Project Group for Regeneration Community & Culture Directorate (RCC)	Senior officer project management of all LGF projects. The Group is responsible for the strategic management of the project and has authority to commit resources to the project in accordance with the Council's Constitution. General tasks include: • appointing the project manager; • signing off the project brief and business case; • approving the PID; • agreeing project controls; • authorising project start; • authorising variations to expenditure; • managing key risks in the highlighted risk log; and • authorising project closure. An LGF update report is a standing item on the agenda. The Group meets every four weeks.		
Project Sponsor	Independent of the project and provides challenge to ensure project is delivered on time, within budget and achieving the anticipated benefits		

Table 6a - Medway Council key management and governance arrangements

Head of Local Growth Fund Projects	Lead on managing and being responsible for Medway's LGF programme of projects. Includes operating at a high level with government, SE LEP and the Independent Technical Evaluator. This post filled and operational.
Project Owner	Ensures governance arrangements and Medway project management principles are adhered to. Ensures the project is technically and financially viable and compliant with the organisation's corporate standards and strategic business plans. Owns the Business Case, funding and cost allocation for the project. Provides leadership and direction throughout the project. Is responsible and accountable for ensuring the project remains focussed on achieving its objectives and that the anticipated benefits can be achieved. Attend the directorate Officer Project Board to lead discussions on the project. Provides sufficient induction for the Project Manager to ensure s/he has the best understanding of the project. Chair implementation board if required.
Project Manager	Responsible for delivering the project on behalf of the project owner and officer project board. Leads and manages the Project Team with the Authority and responsibility to run the project on a day-to-day basis. Delivers the right outputs, to the required level of quality and within the specified constraints of time, cost, resources and risk. Prepare project information, including PID, Project Plan and Business Case. Identify and evaluate risks, determine and manage actions, and maintain the risk log. Manage and control changes to scope, requirements, personnel etc. Ensure project's resource plans and costs include sufficient, properly skilled support. Monitor and report progress against plans, quality and costs. Liaise with the Project Owner and Officer Project Board for their approval and decisions at key project stages.
Head of Place, Category Management service	Lead on providing procurement advice.
Head of Internal Audit	Lead on providing financial governance advice. Involved in the programme from an early stage.

Table 6b details the key activities and responsibilities of the SE LEP to manage the LGF.

Activity	Responsible body	Responsibility
Project approval and overarching	SE LEP Board	Approval of projects and release of funding to Transport Authorities. Monitoring delivery and project outcomes.
project management and review	Independent Technical Evaluator (Appointed by the SE LEP)	Appraise business cases prepared by Local Transport Authorities and provide guidance to the SE LEP Board

Table 6b – SE LEP key management and governance arrangements

6.2 Communication and Stakeholder Management Strategy

The figure below shows the engagement approach to be used for various different stakeholders and interest groups.

Stakeholder Management Plan

ltemi matr	ised stakeholde ix	rs to be handled in acco	ordance with interest / influence	
Hig	gh Stakeholder	To be passively monitored:	To be actively engaged and managed: SELEP/DfT Local elected members; Network Rail/Southeastern Bus Operators through established partnerships; Sustrans	
Lo	Influence w	To be passively conciliated: Local population	To be actively informed: Parish Councils; Strood town centre partnership; Local businesses, including those based in Strood; Physical Disability Board; Traffic Commissioner	
		Stakeholder Interest		
		Low	High	

Key political stakeholders are fully aware of the scope and nature of the scheme being developed and are fully supportive of investment in Strood to improve the highway conditions, encourage sustainable transport and enhance the urban realm.

Formal consultation will be commenced as soon as funding is confirmed and secured. The Portfolio Holder for Frontline Services will take an active part in this work. All consultation activities will be managed through Medway Council and will be closely coordinated with the project delivery programme.

6.3 Monitoring & Evaluation

The Council are seeking agreement to the following **Key Performance Indicators** to monitor the delivery and success of this project:

Table 6c – Key Performance Indicators

1. Core Metrics				
Inputs:	Expenditure			
	Funding Breakdown			
	In-Kind resources provided			
Outcomes:	Jobs connected to the intervention			
	Commercial floor space constructed			
	Housing unit starts			
	Housing units completed			
2. Project Speci	fic Outputs and Outcomes			
Outputs:	Total length of resurfaced roads			
	Total length of newly built roads			
	Total length of new cycle ways			
	Type of infrastructure			
	Type of service improvement			
Outcomes:	Follow on investment at site			
	Commercial floor space occupied			
	Commercial rental values			
3. Additional Mo	pnitoring			
Average daily traffic and by peak/non peak periods				
Average AM and PM peak journey time per mile on key routes (journey time				
measurement)				
Average AM and PM peak journey time on key routes (journey time measurement)				
Day-to-day travel time variability				
Average annual CO2 emissions				

As set out in Section 2.0, the transport improvements associated with the interventions would result in a range of measurable impacts on traffic and travel conditions within the town centre. The primary objectives of the Scheme relate to the improvement in transport conditions which support travel by all modes and contribute to the regeneration of the urban environment and economic potential of Strood.

Data will be collected during 2015 to provide "before" data regarding baseline conditions. This data will be recollected after substantial scheme completion to provide measurable information regarding the outcomes and success of the scheme. Data to be collected will include, but not restricted to:

Table 6d - Data Collection

Objective	How will success be measured?	Data Collection Proposed
Improve journey times	Reduction in total journey times through network.	Us of trafficmaster data and/or ANPR origin and destination surveys over minimum two week period to gauge
Improve journey time reliability	Variance in journey times reduced throughout day.	time of day and key congestion areas on a network of defined routes and links.
Increase levels of walking	Footfall increases on key routes.	CCTV surveys to provide pedestrian counts on footways and at crossings and on routes to key destinations (rail station etc.)
Increase levels of cycling	Cycle flow increases on key routes. Cycle parking increase.	CCTV surveys or existing survey data sources to be used to provide cycle counts on a network of defined routes and links.
Increase use of buses	Passenger increases and more passengers using stops. Greater passenger satisfaction.	Operator data regarding customer satisfaction and passenger numbers. Counts of passenger numbers at stops to be collected. Waiting time data to be sought or obtained.
Increase use of rail station	Passenger increases and greater passenger satisfaction.	Customer satisfaction data from Network Rail and passenger growth data to be obtained.
Increase economic prosperity and activity	More footfall, fewer vacant retail premises and increased land values.	Footfall counts and baseline assessment of vacancy and land value levels to be obtained.

7.0 Conclusions

A number of interventions are proposed within the Strood LGF bid to address the issue of poor journey times, improvements to pedestrian accessibility, new cycle facilities and urban realm enhancement. These will form an integrated package of traffic management measures and network improvements.

The scheme returns a benefit cost ratio (BCR) of 2.1. Benefit levels have been assumed at the lower ends of potential ranges in each case, hence the BCR of 2.1 to be a lower bound estimate of the potential conclusion, were more detailed modelling to be carried out.

A provisional allocation of £9m has already been allocated for a Strood town centre scheme, plus £1.25m match funding for reconstruction of Strood Station from Network Rail and an additional £2.5m of developer funding. If approved, the majority of construction works will be delivered in 2016/17 and 2017/18 and there are no high-risk elements to finances or physical delivery of the core scheme.

Medway Council has arrangements in place to effectively procure, manage and govern the projects funded through the LGF, with an established project management toolkit and governance arrangements that involve both elected members and senior officers of the council. There will be sufficient resources in place to deliver this and other LGF projects within Medway.

The objectives of the scheme will be met through delivery of the package of measures proposed, and outcomes will be measured through a planned process of baseline data collection "before and after" substantial scheme delivery.

Appendix A – Details of Preferred Scheme

Provisional information removed. Currently being updated.

APPENDIX B - LOCAL GROWTH FUND – GOVERNANCE ARRANGEMENTS FOR LGF PROJECTS

