



A127/A130 Fairglen Interchange Improvement Schemes

Information Leaflet
February 2017



Essex County Council



Foreword

By Councillor Kevin Bentley

Essex is continuing to grow as a vibrant economic hub and as a fantastic place to live and work. Managing and supporting this growth is Essex County Council's top priority. Investment in transport infrastructure plays a vital part in our plans to enable growth across the County. There is clear evidence that a comprehensive and efficient transport system is an important enabler of sustained economic prosperity.

Partners are working together to meet this challenge. A £1bn pipeline of infrastructure-enabling investment is in progress, within our four strategic growth corridors (the A120, A12, M11 and A13/A127). We know that the A127 is in need of improvement, particularly the A127/A130 Fairglen Interchange which is operating close to its capacity. We need to start making improvements to relieve congestion at this busy interchange and reduce the significant delays our road users are experiencing, particularly at peak times.

I am pleased to say that Essex County Council is working hard to determine options for improving the Fairglen Interchange as quickly as possible, while at the same time looking at longer term solutions for this interchange and to the A127 itself.

We feel it is essential that you, our road users and communities, are kept updated and have the opportunity to have your say as the project progresses. This leaflet will explain the short-term and long-term options that we are considering for the A127/A130 Fairglen Interchange, which we will continue to develop following your feedback in February 2017, with a view to going to public consultation on further-developed options in autumn-winter 2017/18.

Councillor Kevin Bentley

Deputy Leader and Cabinet Member
for Economic Growth, Infrastructure and Partnerships

A127/A130 Fairglen Interchange Improvement Schemes

Today, road users are experiencing unacceptable delays at this key interchange. The A127/A130 Fairglen Interchange is operating very close to its traffic capacity and in 5 to 10 years, capacity will be exceeded. This is why we have identified funding for improvements and have investigated a range of solutions. It is not an easy fix, especially with the predicted economic growth over the next 10 years and beyond, that will naturally lead to an increase in traffic on all roads in Essex.

Having examined the causes of congestion and safety issues, we are now ready to share two proposed layout options for improvements to the A127/A130 Fairglen Interchange.

At this point we have identified an improved road layout for the short-term that can be operational by 2022 – this is known as the *funded scheme option*. This design will tackle traffic issues for approximately 10 years after opening. If the region continues to grow, our technical assessments have shown that a much larger scheme will be needed by around 2031.

To make the best long-term use of the current funding available, we have developed a long-term scheme option as well, which builds on the short-term scheme.

The County Council is at present (February 2017) releasing indicative scheme layout options for both the short-term funded option and long-term option. This is so that local communities and road users can start to understand the future traffic demands on the A127/A130 Fairglen Interchange and connecting roads.

We are showing our approach for solving these issues, before they become a reality and before our road network stops working effectively. This is not the formal consultation for these improvements, but we want to hear your views now at an early stage.

We intend to progress feasibility design and assessment for the short-term *funded scheme option* over the next two years, while we continue to look at identifying funding options for the long-term solution.

Where is the interchange?

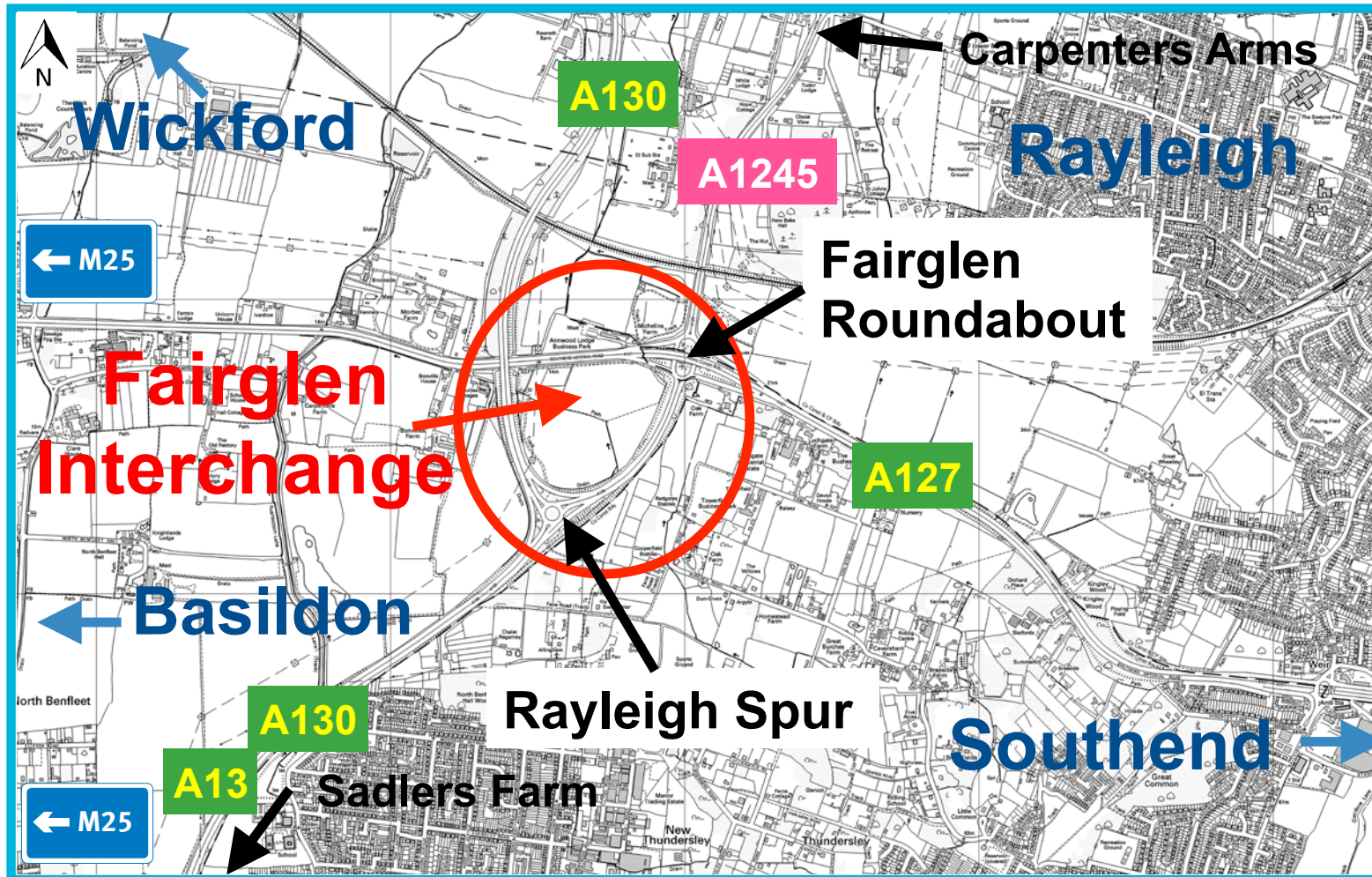
The A127/A130 Fairglen Interchange lies towards the southern part of Essex, within the administrative areas of Basildon Borough Council, Castle Point Borough Council and Rochford District Council.

The interchange is a key link in the strategic highway network for South Essex as shown opposite.

The interchange is made up of two main elements - Fairglen Roundabout and Rayleigh Spur Roundabout.

The A1245 intersects the A127 at Fairglen Roundabout while the A130 intersects the A1245 at Rayleigh Spur Roundabout. Both of the roundabouts are connected via the A1245/A130 link.

Where is the interchange?



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Who uses the interchange and how are they using it?

The Interchange is mainly used by traffic heading to/from the east, Southend and London Southend Airport, in addition to other traffic from Canvey Island, Basildon, Rochford, Thurrock and Brentwood. Regular road users travel through the junction for many reasons such as commuting, leisure, business and retail trips, and there are also seasonal trips made to and from Southend for tourism.

The Interchange currently experiences significant congestion and delays on a daily basis.

The Local Authorities across the South Essex area each have significant plans for growth in housing and jobs - estimated to be more than 25,000 houses and 25,500 jobs up to the year 2031. This will add to the number of people using the Interchange, increasing the overall congestion level.

Current traffic flow data shows that the A130 arm from the north has reached its maximum capacity while all other arms on the Rayleigh Spur and Fairglen roundabouts are nearing their maximum capacity.

The highest traffic flows are experienced on the A127 westbound towards London during the morning peak period (7am to 8am) and A127 eastbound during the afternoon peak. High flows are also noticed on the A130 travelling towards Southend. This results in higher congestion along the A1245/A130 link, which connects the two roundabouts at the A127/A130 Fairglen Interchange.



What are the problems?

There are a number of problems identified at the Interchange by previous studies undertaken in the surrounding area.

The problems identified are listed below:

- High level of congestion
- Three major roads joining at one location which creates traffic conflicts
- Due to the high volume of road users, slower speeds are experienced with unreliable journey times
- Routes for cyclists, pedestrians and horse riders are severed by the major roads
- A high proportion of rear end collisions have occurred at the Fairglen Roundabout on approaches and slip roads, potentially due to poor lane discipline, side swipe collisions and collisions in darkness

- Evidence of vehicle collisions at Rayleigh Spur caused by loss of control, possibly as a result of poor visual alignment on approaches
- The Interchange is affected by incidents on the wider road network.

Solution

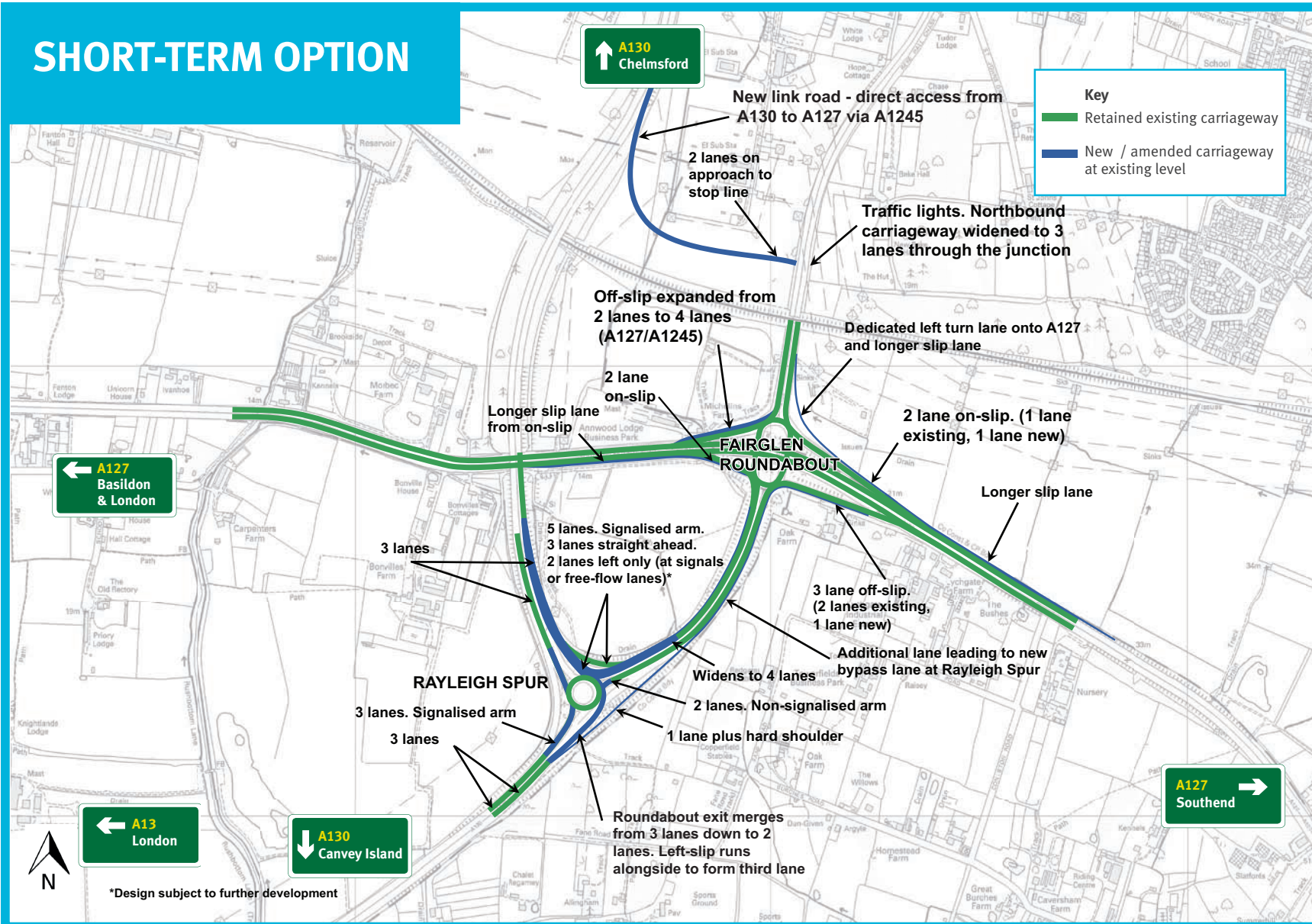
From the initial assessment, the best performing option was selected and this is shown in the Figure 'Short-Term Option' opposite. This is the highest performing option that can be delivered within the short-term and available budget.

This option is an indicative design and includes the following features:

- New 'Southend Link Road' north of railway from A130 southbound with a new junction on the A1245
- Widened slip roads on all Fairglen Roundabout arms
- Auxiliary lanes on both A127 on-slips
- Improvements at Rayleigh Spur Roundabout, including signal control.

This option is subject to further development, which will affect the overall layout and cost.

SHORT-TERM OPTION



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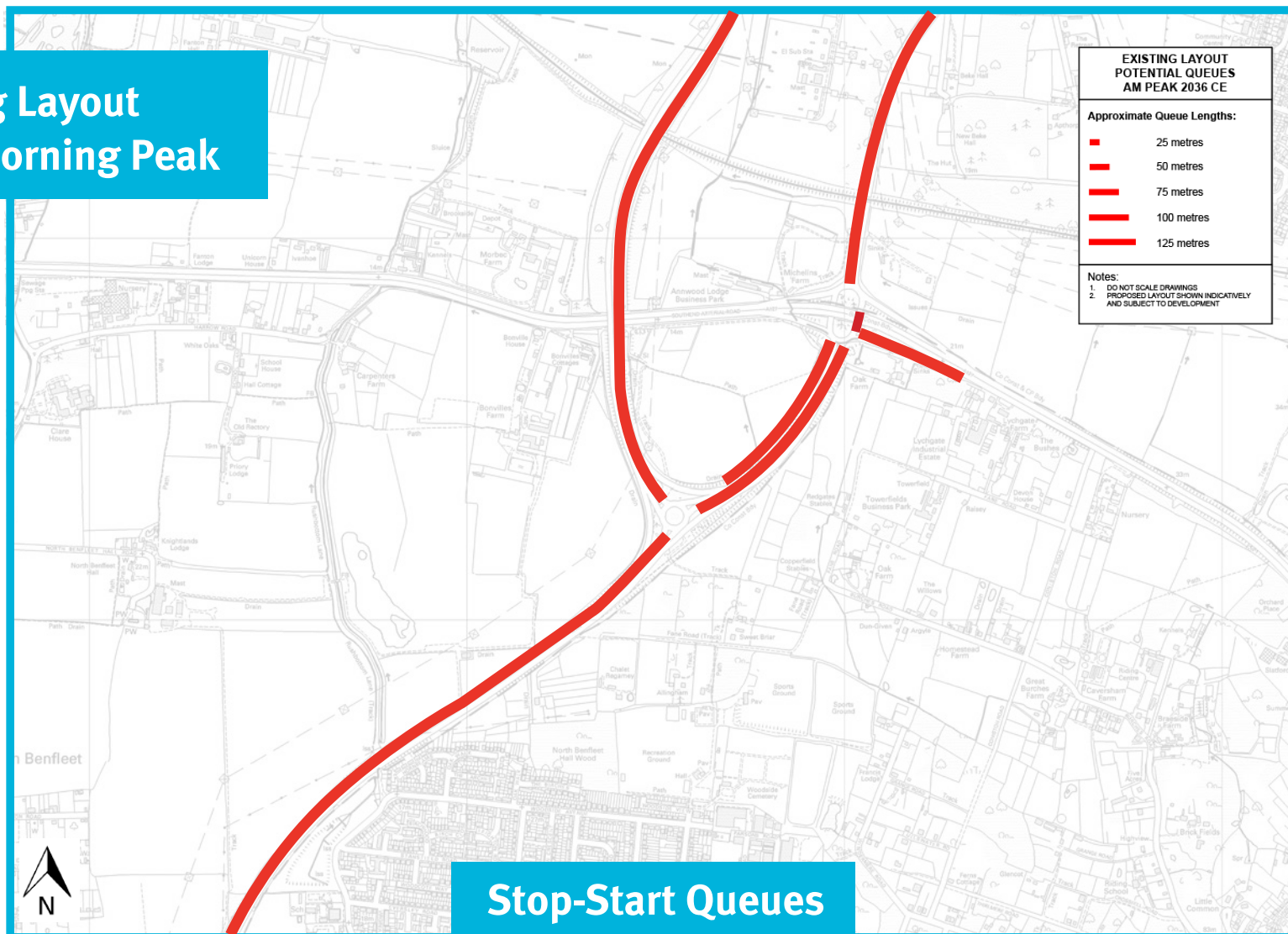
Road alignment is indicative and is subject to further design development

Existing Layout 2036 Morning Peak

How the scheme will reduce congestion

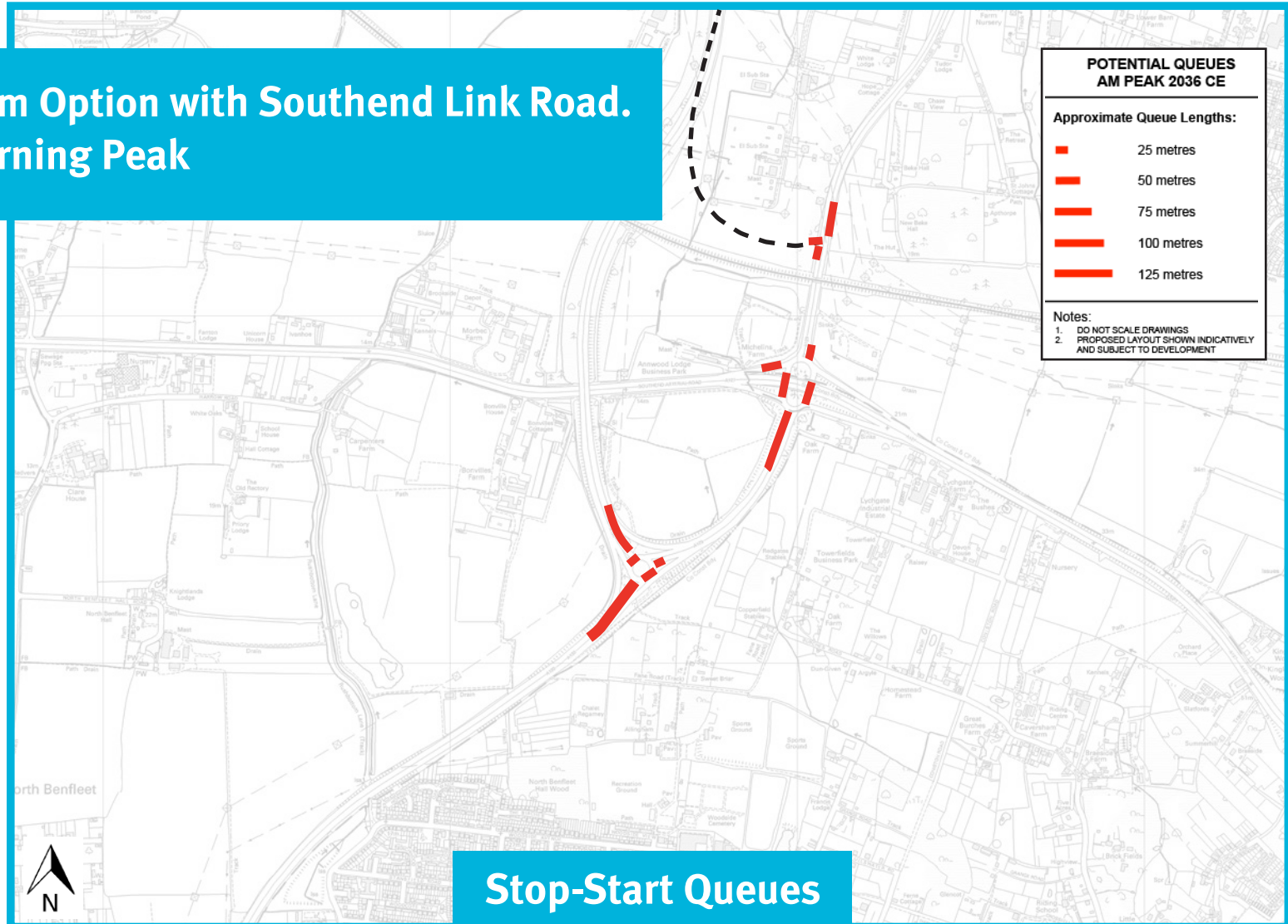
Congestion at the A127/
A130 Fairglen Interchange
is already significant in the
morning peak; with predicted
growth, this will only get worse.

The following images
show the average length of
stop-start queues that are
forecast for 2036 in the
morning peak hours, and the
predicted average length of
queues once the funded
scheme option is operational.



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Short-Term Option with Southend Link Road. 2036 Morning Peak



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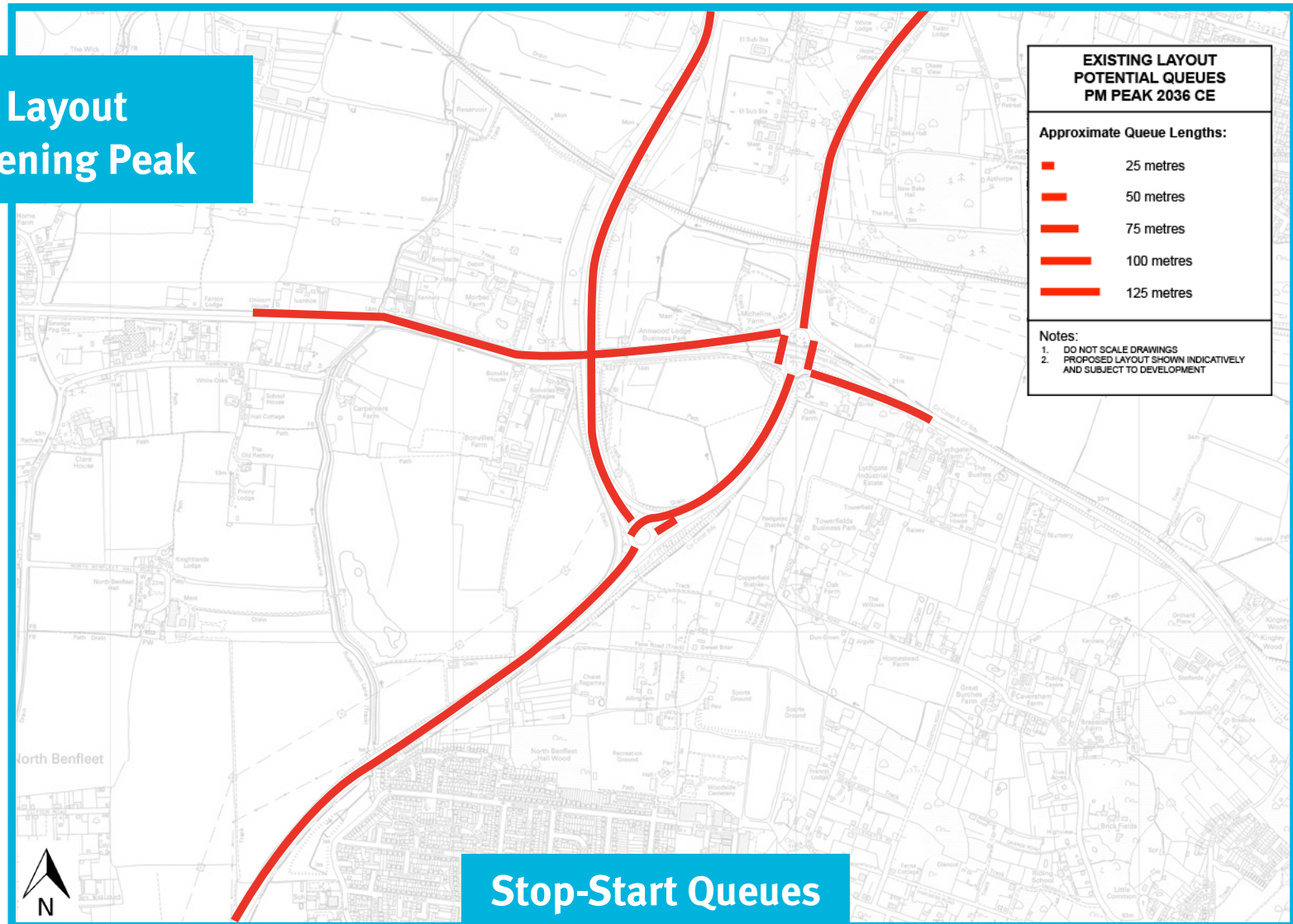
— — Road alignment is indicative and is subject to further design development

Existing Layout 2036 Evening Peak

How the scheme will reduce congestion

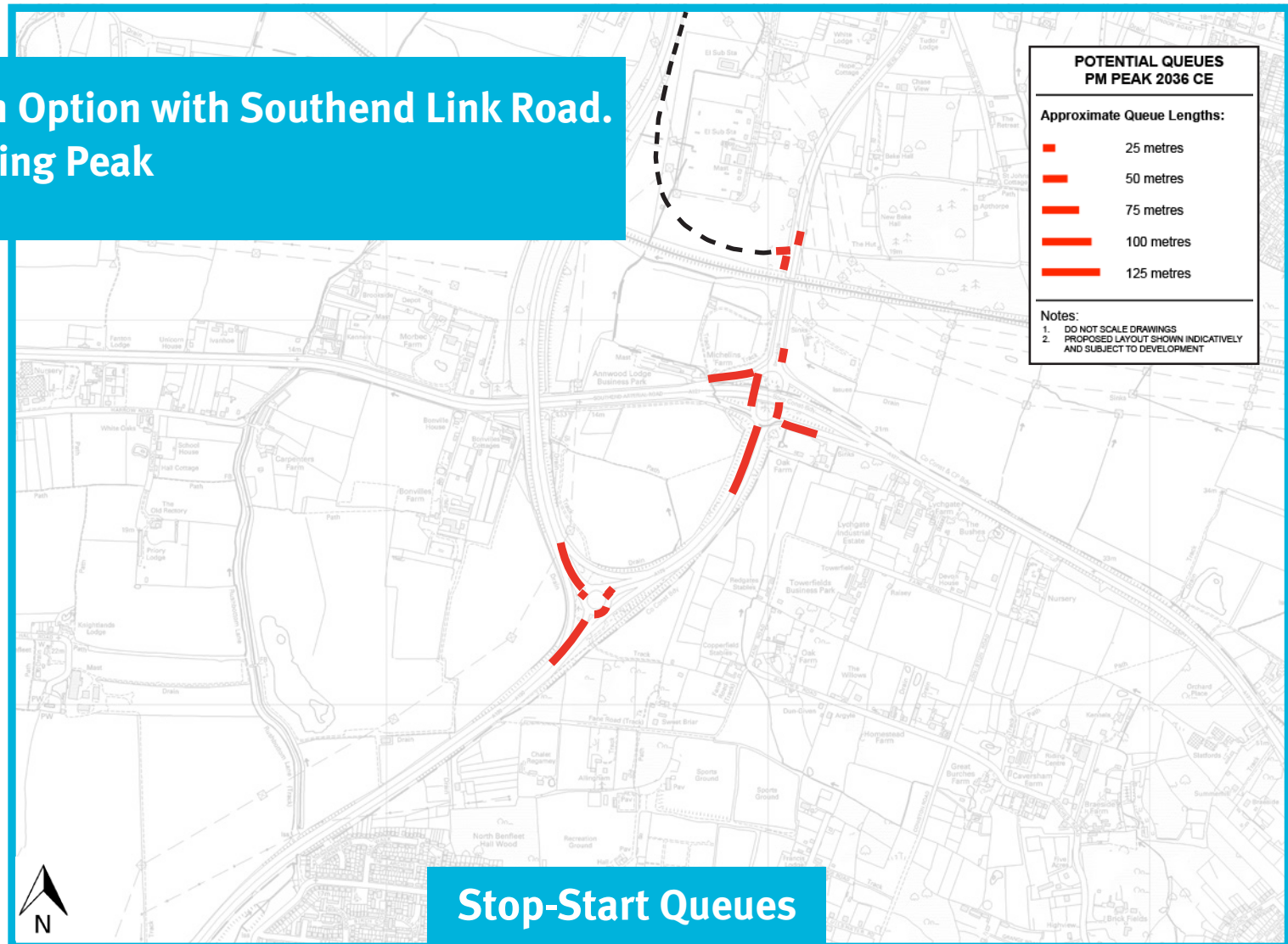
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Short-Term Option with Southend Link Road. 2036 Evening Peak



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Scheme objectives

Based on the problems identified, we have set a number of scheme specific objectives to enable us to assess the options and help us to select the best performing option to progress.

The objectives set for the A127/A130 Fairglen Interchange are:

Connectivity

- Accommodate/manage future travel demands to facilitate proposed growth in South Essex
- Ensure good connectivity to South Essex via key transport corridors.

Environment

- Improve opportunities for residents and employees in South Essex to access alternative sustainable modes and encourage their use
- Protect and enhance the natural, built and historic environment.

***Non-motorised users:**
pedestrians, cyclists and horse riders

Sustainability

- Improve connectivity for non-motorised users* at the A127/A130 Fairglen Interchange.

Safety

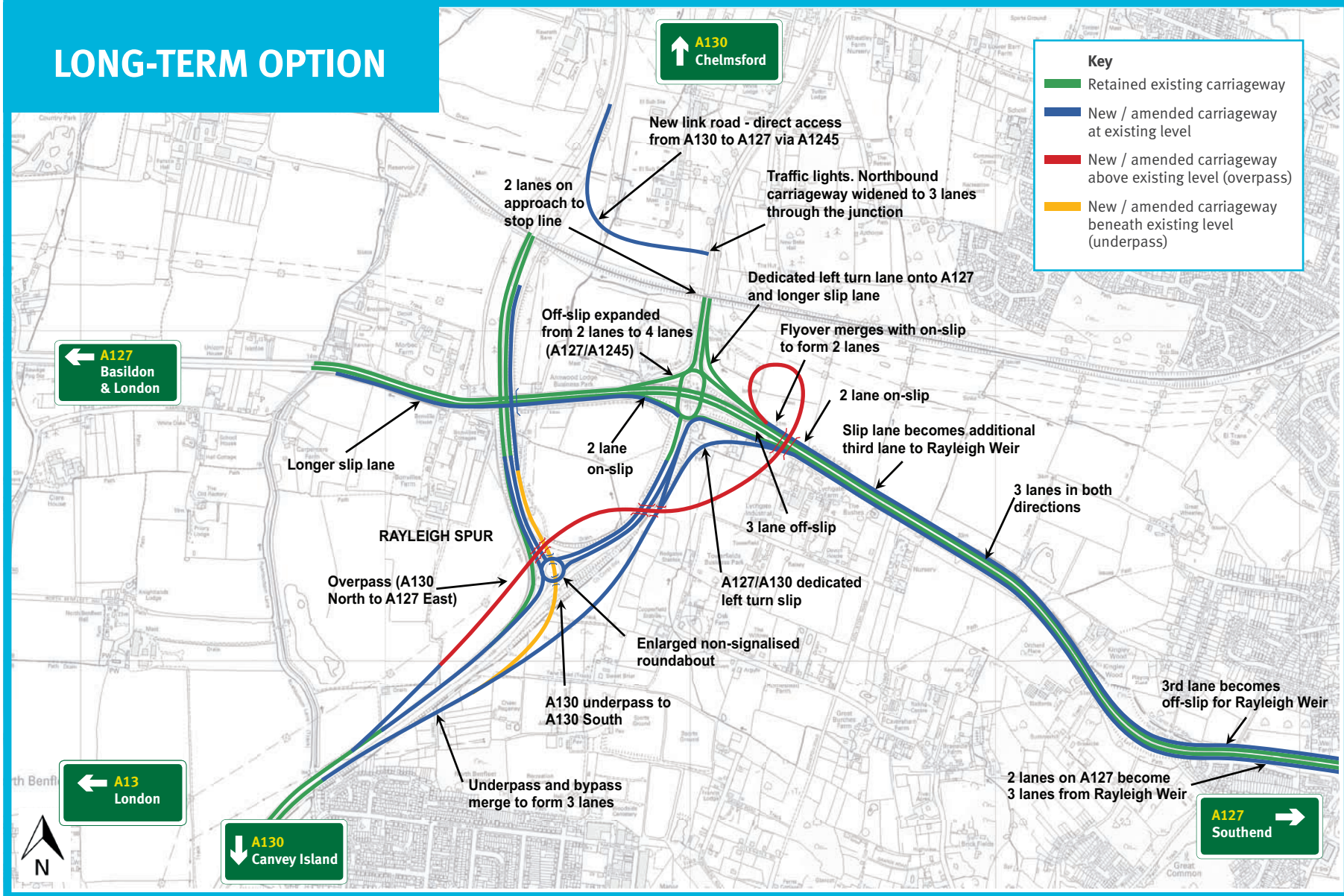
- Improve safety at A127/A130 Fairglen Interchange through appropriate geometric design, signage, speed limits and visibility.

Resilience

- Manage congestion at peak times to ensure reliable journey times through the A127/A130 Fairglen Interchange
- Ensure Essex County Council assets are appropriate for the future highway network
- Keep the A127/A130 Fairglen Interchange operational through improved maintenance provision and incident management.



LONG-TERM OPTION



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Road alignment is indicative and is subject to further design development

Why is the short-term option being progressed?

The preferred funded scheme option was chosen based on the following reasons:

- Improved reliability over other options by reducing the level of conflicting movements at the interchange
- Very high value for money
- Satisfies majority of the scheme objectives

- Has the ability to accommodate growth at this key location in South Essex to around 2031.

Future-proofing and need for a long-term solution

With the forecast growth of over 25,000 homes and 25,500 jobs up to 2031, and proposed developments such as the Lower Thames Crossing, we need to be prepared. In order to make sure that this scheme has a lasting legacy and will not obstruct future improvements to the highway

network at this key interchange, we have looked at a long-term solution.

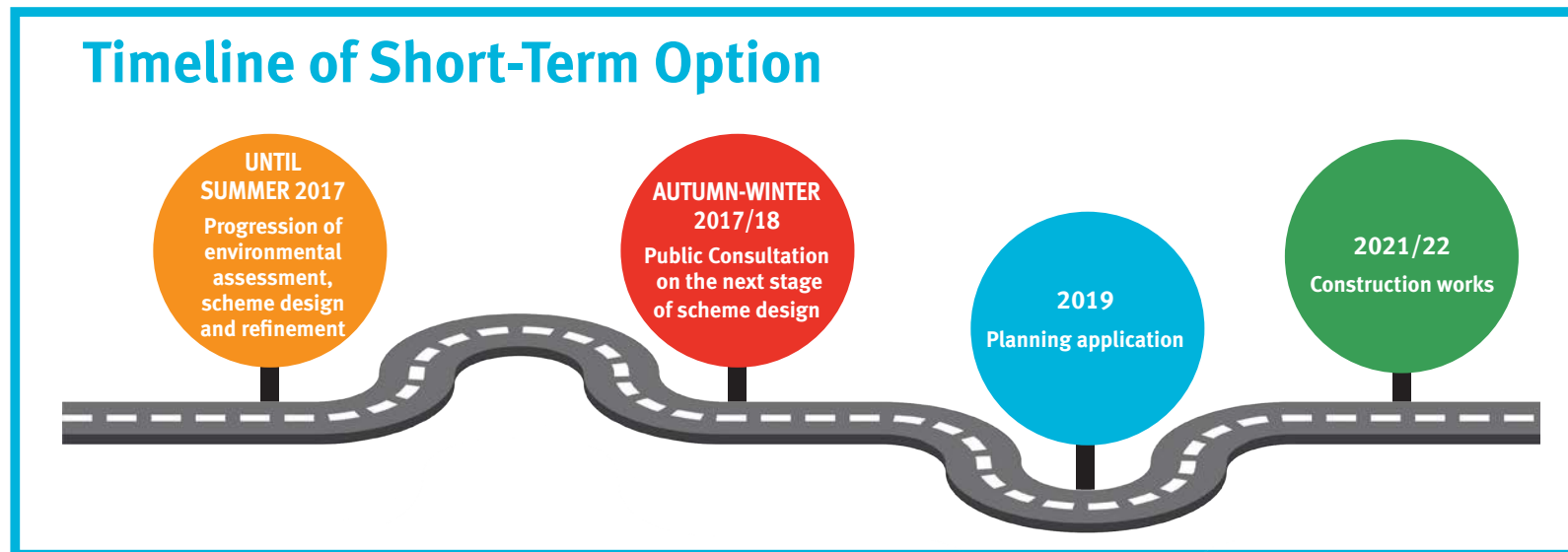
There is extensive design work to be undertaken, but we wanted to share the current indicative long-term scheme layout to show what might be needed in the future.

The indicative long-term solution is shown in the Figure 'Long-Term Option' on page 13. The recommended long-term solution has greater value for money and a lower cost in comparison to other assessed long-term options.

It also enhances and builds on the Short-Term Option.

Next steps

This is the start of our engagement on this scheme and over the coming months we will continue to speak with local councillors, community representatives and property owners. Once the next stage of technical development – feasibility design – is progressed, we plan to hold a public consultation in autumn-winter 2017/18 to share more detail on the short-term funded scheme.



If you have any questions about the scheme now or in the future you can contact us at Fairglen.Interchange@jacobs.com

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Published February 2017