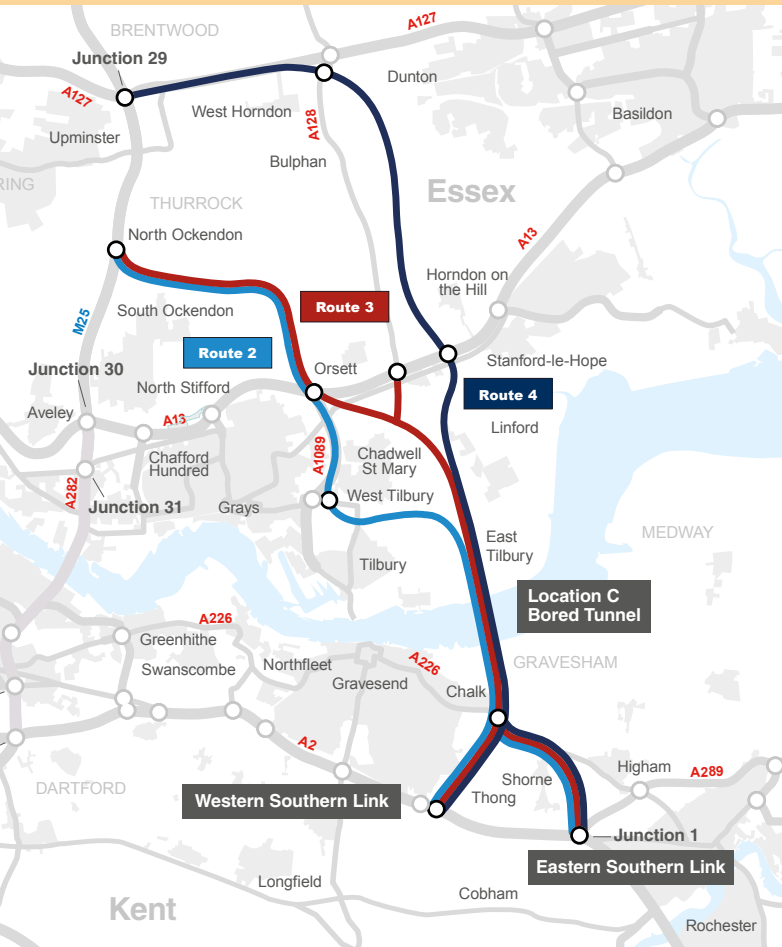


# Lower Thames Crossing Fact sheet

## Traffic modelling



Highways England is consulting on proposals for a new road crossing of the River Thames connecting Kent and Essex. There are three route options north of the river in Essex and two south of the river in Kent. Your views will help us to inform the Government prior to its decision, expected later this year, on the preferred route and crossing.

### Traffic model

We have used a computerised traffic model to analyse the impact of the different Lower Thames Crossing options on traffic flows, journey times and free-flowing performance of the road network. Forecasting future traffic flows helps us to predict the economic, social and environmental impacts of our new proposed scheme. Changes in traffic also result in changes in noise, air quality, carbon emissions and the number of accidents.

The model has a focus on the area immediately affected by the proposed new crossing, but it also covers the whole of Great Britain. It includes a representation of the road network and looks at where the demand for trips start and end, split into six user classes. Understanding patterns of travel for different user classes allows us to assess the way the scheme provides benefits to businesses and individuals.

The model produces traffic forecasts for two modelled years: 2025 (opening year) and 2041 (design year).

All our traffic model runs for the new crossing options assume the same user charges that are in place at the Dartford Crossing today, rising in line with inflation over future years.

The model is made up of:

- a demand model which forecasts trips based on the reasons for travelling, travel costs and assumptions about travellers' behavioural response to travel costs.
- an assignment model which splits the trips according to the route they take through the network and then calculates the cost of travelling via each route.

Our model represents the latest developments and highway information and includes information from Transport for London's Highway Assessment Model (LOHAM) to ensure we accurately take account of traffic in London.

## Traffic forecasts

The forecast of future traffic flows takes account of:

- National economic growth
- Planned local housing and employment developments and changes to the road network that are near certain and more than likely to proceed

As part of our appraisal process, we have looked at what the traffic situation at Dartford and on the surrounding network would be like in future years if we did nothing; the 'without scheme' scenario.

Traffic volumes at the existing crossing were on average 141,000 per day in 2014, regularly exceeding its design capacity. Our traffic model predicts that, without a new crossing, these traffic volumes will increase to 159,300 per day by 2025 and 163,000 per day by 2041. Such growth is partly due to improvements introduced by Dart Charge and by the anticipated increase in regional traffic. Our analysis of these 'without scheme' results also shows that traffic demand is being restricted, resulting in economic growth also being suppressed.

New transport schemes affect not only traffic, but also jobs, productivity and land development. They can bring wider economic and social benefits that have to be weighed up against possible impacts and changes to the environment and landscape.

Growth of traffic and development will not just increase congestion at the Dartford Crossing, it will worsen the flow of traffic on key approach roads such as the A2, M20, A13 and A127.



Our forecasts predict that a new crossing at Location C in its opening year in 2025 would carry 78,500 vehicles per day, and would reduce traffic at the Dartford Crossing by 14%. When added to the existing Dartford Crossing, total capacity across the Thames would increase by approximately 70% (as shown in the map above).

The new route would also provide substantial journey time savings for local and longer distance traffic on the M25 and between Kent and Essex. It would create new connections between previously poorly served areas.

## Network resilience

Over 300 times a year the Dartford Crossing is partially or fully closed for around 27 minutes on average, due to incidents. Local roads are badly affected and, with only one crossing of the river east of London, road users have no alternative but to:

- wait it out
- use the Blackwall Tunnel – 30 miles extra
- take the long way round the M25 – 100 extra miles

It takes typically 3-5 hours for traffic to return to normal following a closure.

Building a new crossing at Location C would provide an entirely new crossing and additional connections to local roads. As such, it would provide road users with an alternative route in the event of incidents on the M25/A282 corridor and much greater operational flexibility.





## Further consultation

As a Nationally Significant Infrastructure Project, a new Lower Thames Crossing is subject to a statutory Development Consent Order process. This means there will be further opportunities for you to have your say on more detailed aspects of the scheme.

## For more information

Visit our website

**[www.lower-thames-crossing.co.uk](http://www.lower-thames-crossing.co.uk)**

Access consultation materials and provide your views on our proposals.

Join us at one of our events

Members of our team will be on hand to answer your questions.

Phone us

If you need help accessing this or any other Highways England information, please call 0300 123 5000.

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