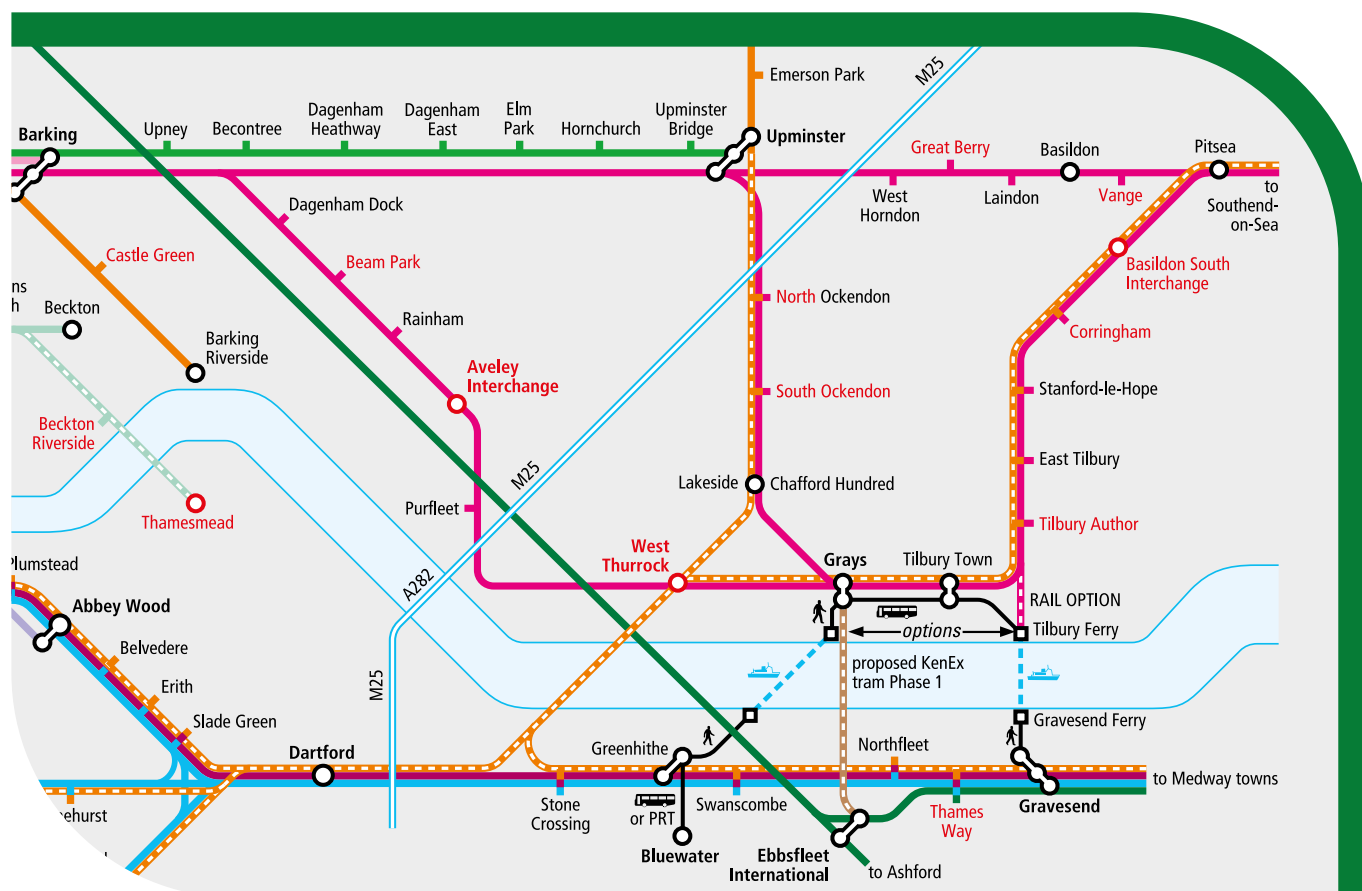




Call to action by Transport Action Network
to the UK Government



Essex-Kent Superlinks

- smarter, cheaper alternatives
to the Lower Thames Crossing to
turbocharge Essex and Kent

Transport Action Network (TAN) helps communities press for better and more sustainable transport through investment in bus and rail services and active travel. We also seek better maintenance of existing roads, especially tackling the scourge of potholes. We have consistently sounded the alarm on the damaging consequences of the previous Conservative Government's outdated obsession with road building.

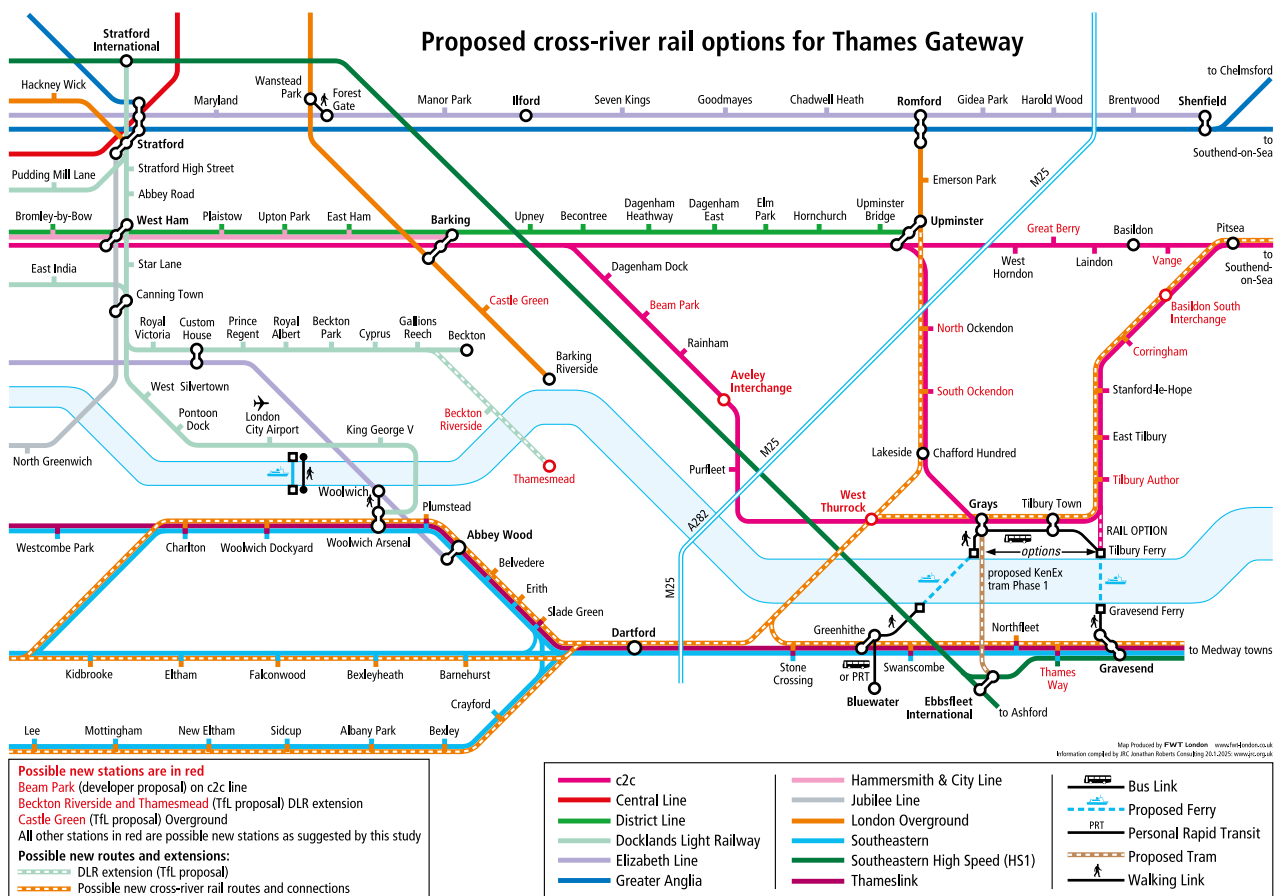
Essex-Kent Superlinks

Transport Action Network commissioned Jonathan Roberts Consulting to produce a report after learning that other options for crossing the Thames near Dartford had never been properly explored and were dismissed on the flimsiest of reasons in 2009. The Roberts Report proposes alternative solutions to spending £10bn on the Lower Thames Crossing (LTC), that will bring longer lasting results than the 5 years relief predicted at the Dartford Crossing, at a fraction of the cost.

The Roberts Report sets out measures to transform transport in the south and east of England, to:

- Unleash rail freight
- Transform public transport
- Kickstart growth in the Thames Gateway

These proposals will deliver more bang for buck than the LTC, at lower cost, and with the new planning reforms could be delivered faster. They could be delivered without compromising investment in the rest of the UK as the LTC would do.



Essex-Kent Superlinks at a glance



50 – 100 million passenger journeys on rail



Removing **550,000 – 1,100,000** HGVs off our roads every year



Delivered for around **1/4 of the cost** of the LTC



Safer roads – protecting the NHS (and emergency services)



Increase opportunities for **220,000** households that the LTC won't benefit



Credit David Anstiss. This file is licensed under the Creative Commons Attribution 2.0 Generic license.

Our Vision

We're calling on the UK Government to smash the cosy consensus on how to connect Essex with Kent and the Channel Ports with the Midlands and beyond.

Every time this subject comes up, the bureaucracy of the British state produces the same tired old answer – a massive and vastly expensive new road. It's time for the new Government to put that nonsense in the shredder and promote solutions addressing the needs of working people in the twenty-first century rather than forcing upon them a scheme rooted in the thinking of the 1970s.

In the face of yet another road crossing of the Lower Thames, with costs likely well over £10bn yet only a marginal relief to the Dartford Crossings while choking the M25, Transport Action Network commissioned Jonathan Roberts Consulting to see if there are better and cheaper ways of tackling this problem. The results are set out in the Roberts Report.

It's a scandal that, for one of the most important transport connections in the UK, no serious exploration of alternatives has ever been undertaken until now. What have the civil servants been doing?

When the road-building zealots at the Department for Transport first drew up their plans in 2009, they too readily dismissed a rail-based solution for Thames Gateway. They barely acknowledge the existence of rail and lazily relied on there being no prior existence of rail crossings with documented passenger volumes to dismiss it as an option. National Highways has continued in the same vein, also refusing to support bus services.

The report shows that there is the potential to create a new heavy rail crossing in the Dartford area alongside other improvements to service a potential demand of up to 50-100 million passenger journeys annually for a capital cost of £1.5-£2bn.

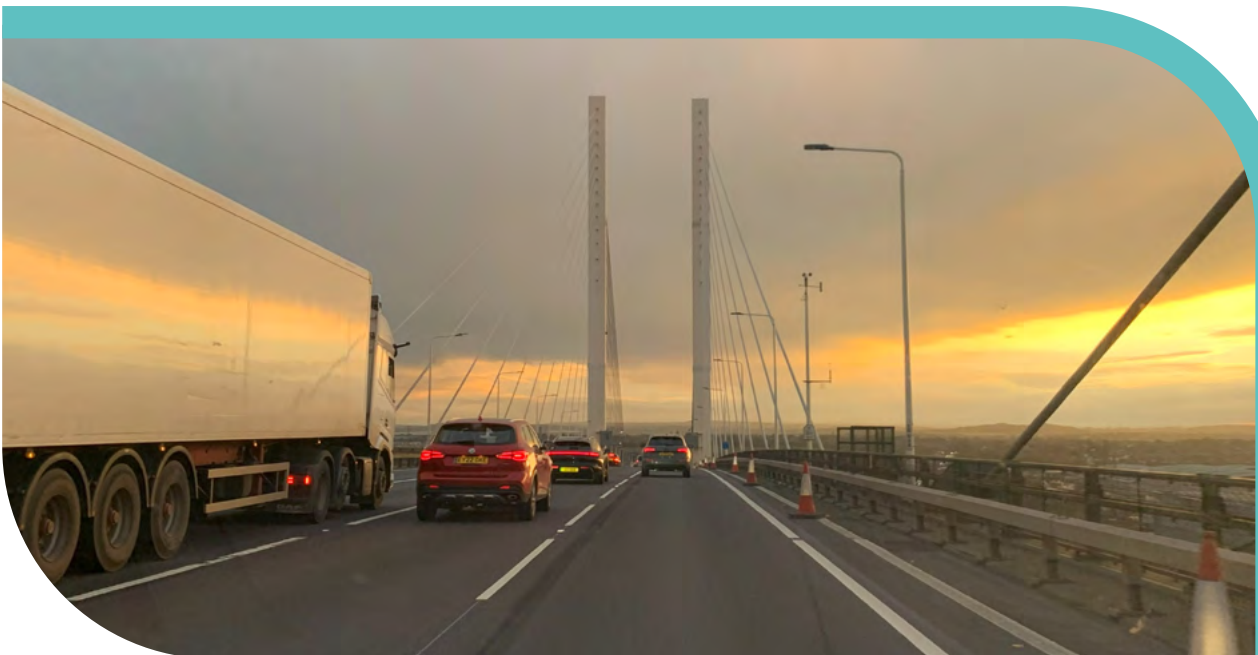


This would be transformative for working people as, aside from HS1 which has no local station north of the Thames to enable local travel, the nearest permanent public transport link across the Thames is some 17 km / 10.5 miles to the west at Woolwich. This existing void creates a huge deterrence for people using public transport to cross the Thames and forces people to drive via the Dartford Crossings, exacerbating the problems there. The Roberts Report also suggests a role for new ferry services and potentially a tram link to serve local travel.

On freight, the Roberts Report shows how little is currently taken by rail compared to the potential capacity as it is not seen as commercially viable due to the unlevel playing field between road and rail. That could be about to change with the new lower track charges for HS1 recommended by the Office of Rail and Road (ORR), plus more responsive charging by the Channel Tunnel operator (Getlink, known more widely as 'Eurotunnel').

These changes will make rail a more attractive proposition, with keener pricing for use of European-gauge rail capacity into London via Barking and Dagenham. For internal freight flows within England, the impact of new large-scale warehousing capacity is stimulating extra demand for high-volume rail freight between regions, which can reduce the costs and pollution effects of large-scale distribution by HGVs while improving speed and reliability.

Costed plans exist for a series of small-scale upgrades on the 'classic' rail lines, to complete loading gauge enlargement for containers and to increase capacity, improve transfer yards and fill in short sections of unelectrified track. Most would cost tens of millions of pounds rather than the billions required by the LTC. Yet even the £470m intervention at Ely to improve wider network capacity, has a Benefit-Cost Ratio (BCR) of nearly 5:1 unlike the LTC which is likely to cost more than it will ever deliver in benefits, i.e. a BCR of less than 1.



It is estimated that it should be possible to move onto rail between 25 – 50% of the approximately 4,000 HGVs every weekday (one-way) using the Channel ports, HGVs that in many instances would use the Dartford Crossings. In total, that could result in 550,000 – 1,100,000 HGVs removed from the road network every year.

Taken together, these cheaper and significantly less disruptive interventions would be more than enough to cater for a sizeable modal shift away from the Dartford Crossings. They would also have a number of advantages, being truly low carbon, fully inclusive (for passenger travel) and more resilient, and hence far better at boosting economic growth.

The modal shift to rail would help keep the existing road network functioning, reducing road deaths and injuries, cutting pollution and easing pressure on emergency services

Overall it is difficult to see how such a huge investment in a single piece of infrastructure would do anything but harm to the economy.

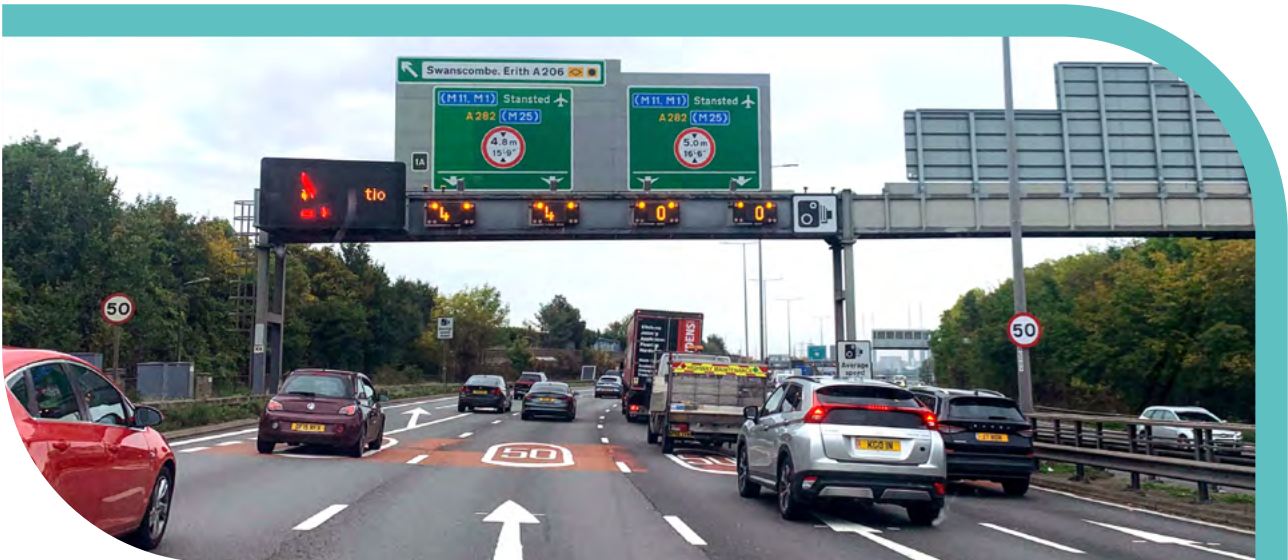
and the NHS. In contrast, the LTC makes all these issues worse, risks bringing the A13 and the M25 north-east quadrant to a standstill and would undermine economic growth.

Since 2009, the LTC has been justified by being good for lorry freight moving between the Midlands and the Channel Ports. However, while it would allow HGVs to bypass the Dartford crossings, their journeys either side of the Thames, on the M25 north east quadrant and the A2, would become significantly slower and more prone to disruption due to the extra traffic the new road will generate on these sections. This is why the only major port supporting LTC is Dover, whilst London Gateway and Port of Tilbury have opposed the current LTC design.

With Maersk's move to London Gateway in Essex, the port is set to become the biggest in the region. While DP World, London Gateway's owner, is leading the way on moving more freight by rail, this move will undoubtedly increase pressure on the A13 and the M25 north east quadrant before the LTC is constructed.

Moreover, road access to Tilbury and London Gateway will be significantly hampered by the construction of the LTC, with National Highways' modelling showing access to the A13 worsening at Orsett Cock junction, set to be at capacity when the LTC opens (modelled before Maersk's surprise move), and then facing extra traffic and delays on the M25. Additionally, any freight coming by road from Harwich and Felixstowe (towards London) will face significantly longer journeys on the A13 and on the M25 and would still be challenged with an excess of demand at the Dartford Crossing.

Overall it is difficult to see how such a huge investment in a single piece of unsustainable infrastructure would do anything but harm to the economy. It will swamp the area with extra traffic, slowing down journeys on the A2/M2, A13 and M25 north east quadrant and cause



serious access issues for the ports north of the Thames. The LTC's traffic modelling was already out of date before the surprise move by Maersk to London Gateway was announced late last year. Now it will be worse than useless.

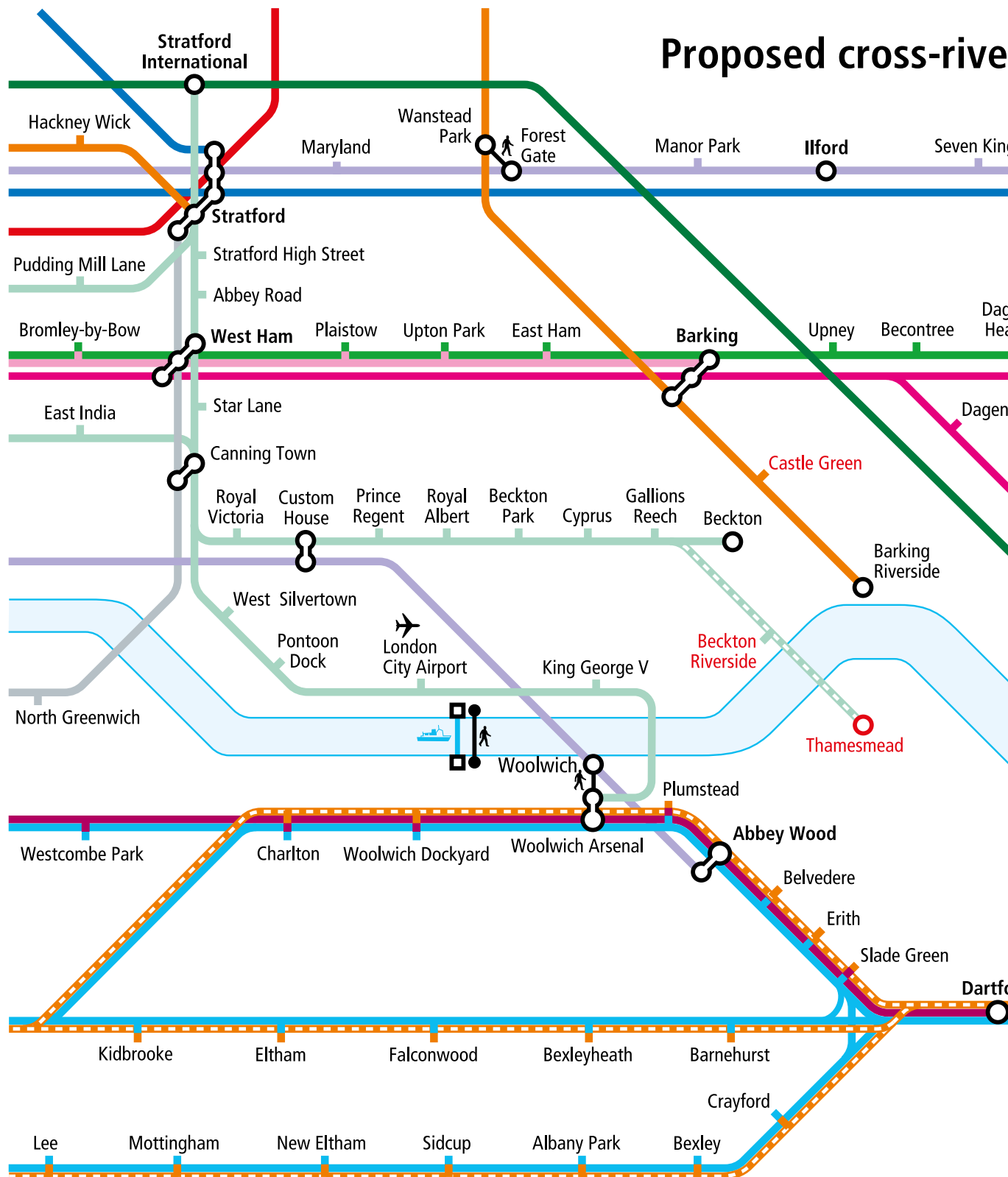
Those cheering the loudest for the LTC are likely not to be British users at all. It is foreign hauliers crossing the Channel into Kent who will benefit most. The LTC provides them with a new express route into the heart of the country (at least until the M25 and other roads grind to a halt). This will allow them to earn more revenue in England, while declaring their profits and paying their taxes back home in Europe. Once again, the hard working UK taxpayer will be subsidising foreign companies to undermine home grown rail freight.

Let's Disrupt the Cosy Consensus and Group Think

No one denies there is an issue with too much traffic at the current Dartford Crossings which are operating above capacity. Congestion leads to long delays when there are incidents that cause lanes to be closed. However, there is huge doubt that what National Highways is proposing will bring anything more than temporary relief at Dartford, leaving it over capacity and still vulnerable to disruption and delays.

That's why Transport Action Network commissioned the Roberts Report to look at a range of alternative solutions that are cheaper, and some potentially quicker to implement. They will also cause less disruption compared to the Lower Thames Crossing, including during its seven year construction.

The report looks at both improvements to public transport focussed on the heavy rail network, due to its ability to carry large numbers of people and the need to offer a high capacity alternative to the Dartford Crossings, plus a renewed emphasis on rail freight. Both of these approaches are explored in addition to more local interventions such as bus, tram and ferry services.



Possible new stations are in red

Beam Park (developer proposal) on c2c line

Beckton Riverside and Thamesmead (TfL proposal) DLR extension

Castle Green (TfL proposal) Overground

All other stations in red are possible new stations as suggested by this study

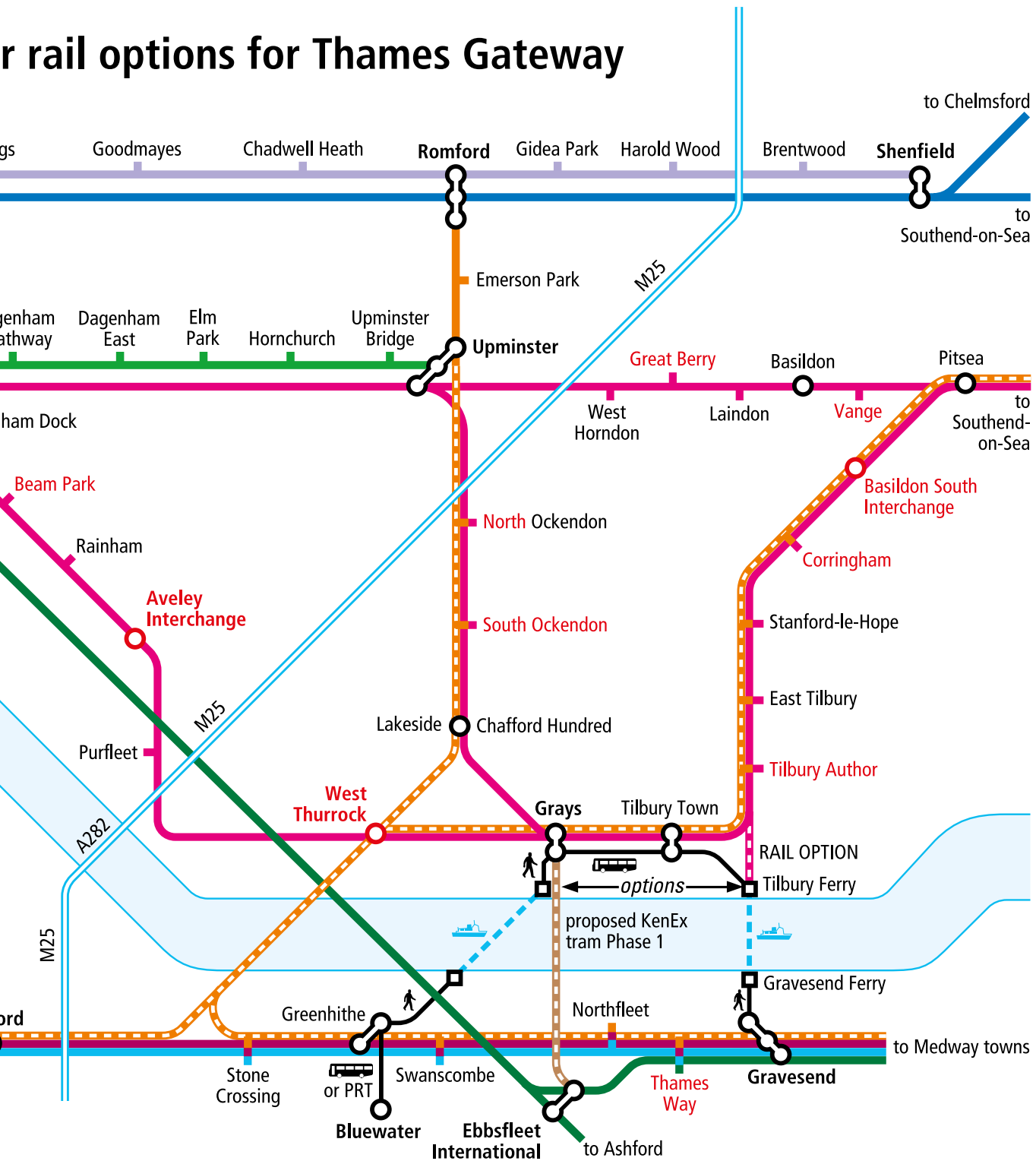
Possible new routes and extensions:

--- DLR extension (TfL proposal)

--- Possible new cross-river rail routes and connections

c2c
 Cent
 Distr
 Dock
 Eliza
 Grea

rail options for Thames Gateway

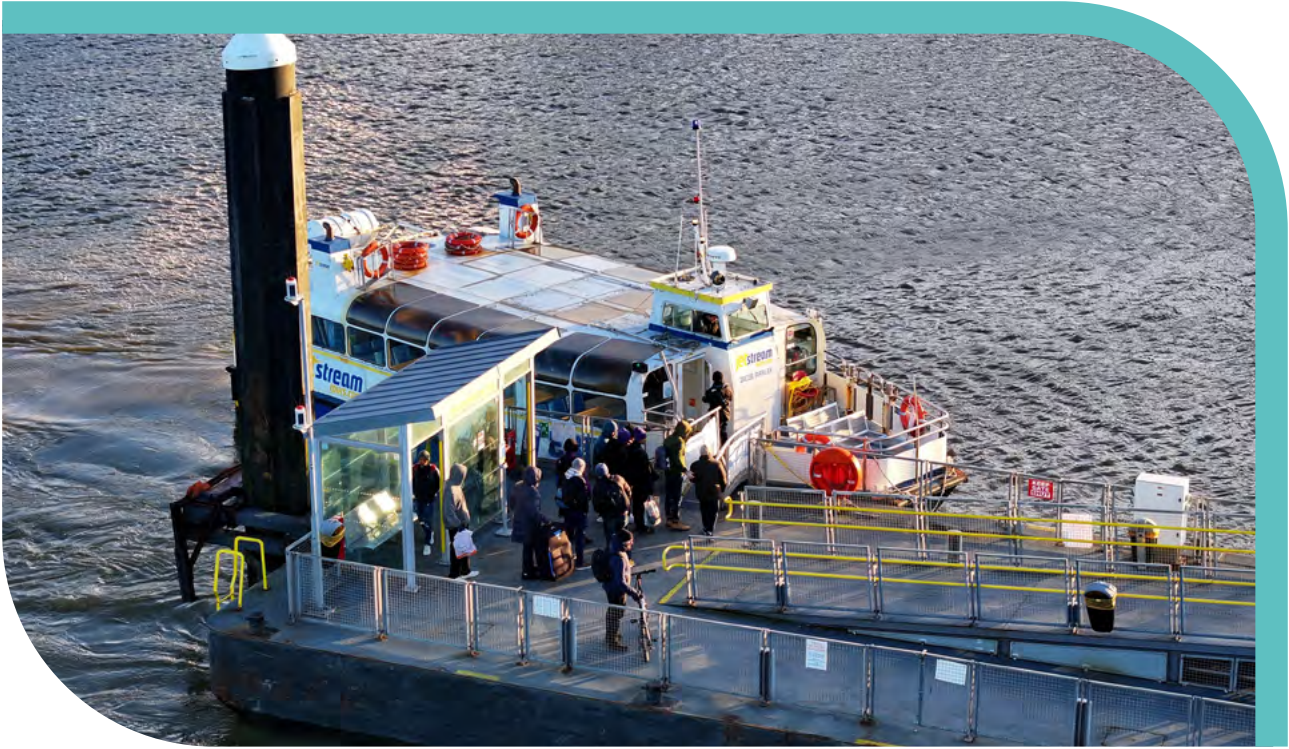


Map Produced by **FWT London** www.fwt-london.co.uk
 Information compiled by JRC Jonathan Roberts Consulting 20.1.2025: www.jrc.org.uk

Central Line
 District Line
 Docklands Light Railway
 Elizabeth Line
 Great Western Main Line

- Hammersmith & City Line
- Jubilee Line
- London Overground
- Southeastern
- Southeastern High Speed (HS1)
- Thameslink

- Bus Link
- Proposed Ferry
- Personal Rapid Transit
- Proposed Tram
- Walking Link



Discontinued Gravesend to Tilbury Ferry - Skyshark Media / Shutterstock.com

Our Diagnosis

The core issue is that the Dartford Crossings of the River Thames are overloaded with too much traffic and no significant public transport alternatives, while rail freight is not used to its full potential due to poor economics or infrastructure constraints.

This impedes cross-river travel and connectivity. It hinders the ability to reach workplaces each side of the river as well as across the river and causes delays for businesses requiring reliable freight flows.

Road congestion, on the Dartford Crossings and on local roads on each riverbank, prevents easy access to higher education colleges, regional health centres, and shopping and leisure facilities.

The Dartford Crossings have three functional layers:

- **Local and sub-regional passenger travel.** The original 1963 Dartford Tunnel was adequate initially for local travel.
- **Regional travel**, around London and the Home Counties, and the Thames Gateway. This required the addition of the Dartford Bridge, with a doubling of cross-river capacity to accommodate the economic and population growth of East and South East London, and the coming of the M25 which stimulated more orbital travel.
- **National and international travel**, with some of the crossing capacity used by car, van and HGV flows to and from the EU via Dover port and the Channel Tunnel.

The combined traffic volume from these three groups is overloading the Dartford Crossings, and this is forecast to get worse. Successive government options have only looked at more road capacity.

The Current Prescription

Until 1999, there hadn't been a high-capacity river crossing by public transport, downstream from Tower Bridge. There was just a local East London Line rail shuttle.

The past two and a half decades have added six new rail crossings (Docklands Light Rail (DLR) x2, Jubilee Line x2, Elizabeth Line, High Speed 1), and one improved rail crossing (East London/Windrush Line). However the nearest fixed public transport crossing west of Dartford is still some 17km / 10.5 miles away at Woolwich, which is little help for local journeys in the wider Dartford area.

HS1, the high-speed railway via Kent and East London, has no local station between Ebbsfleet and Stratford, so isn't practical for local cross-river travel in the Thames Gateway catchment.

Rail freight flows via the Channel Tunnel have been limited because of numerous causes, including:

- High charges by the track operator (HS1) and Tunnel operator ('Getlink'/Eurotunnel)
- Incomplete work to expand the British loading gauge to accommodate trailers and swap-bodies on existing railways in Kent and elsewhere, and
- Bottlenecks and capacity constraints elsewhere on the network such as at Ely.

The last Gateway public ferry, between Tilbury and Gravesend, was closed in 2024 after the local authority did not renew its subsidy. There is a single, low capacity, hourly bus service using the Dartford Crossings, between Lakeside and Bluewater Centres. It does not connect nearby town centres such as Dartford and Purfleet or Grays, so is not a credible high-capacity alternative to car travel. A few bus routes, if provided, would not warrant dedicated bus lanes on the Crossings and through nearby junctions. They would not be high capacity and would therefore not form a credible public transport alternative.

Yet it is the local and sub-regional passenger flows which are most amenable to using a public transport alternative. The National Travel Surveys show the majority of travel is within 5 miles (by all modes), and over 75% within 5-10 miles.

Until now, no-one has studied the impact on public transport usage during the past two decades, of the seven rail crossings – and what those results could mean if applied to the Thames Gateway and Estuary areas.

Disruptive Thinking

The pioneering study contained in the Roberts Report, analyses the recent two decades of railway station patronage in East and South East London, and in the Thames Gateway, in London boroughs and shire districts, and on relevant rail corridors, between 2001 and 2023.

It shows that rail passenger demand in East and South East London has responded strongly to the policy stimuli, marketing initiatives and new cross-river railways. There is now a strategic rail 'grid' east of central London, including cross-river lines.

Annual cross-river rail transport volumes have grown from 9 million two-way in the 1990s (with the East London Line) to nearly 100 million in 2023. This is a stunning result for cross-river travel, where there was previously only minimal evidence of the potential for high volume passenger flows using public transport.

Additionally, the new Silvertown Tunnel, which opens this April, will be tolled and will have public transport priority with 15 buses per hour each way, and another 6 continuing via the Blackwall Tunnel. Elsewhere, the once-essential Thamesmead road bridge has been cancelled, and a further DLR rail crossing is now proposed there instead.

The potential therefore exists to expand the strategic rail 'grid' into the Thames Gateway. There are already good rail networks on both riversides, and when combined with bus feeder and active travel networks to main interchange stations, and TfL-style policies and practices for supply of public transport, a proportional scale of take-up can be expected.

The study estimates that local population densities, and investments targeted towards significant urban areas in the Thames Gateway and in neighbouring Outer London Boroughs, point to rail attracting an annual average of 25-50 originating cross-river journeys per head of population in these areas (that's 50-100 journeys for two-way travel).

Close-by to the Thames, in Dartford, Gravesham and Thurrock urban areas, this gives an annual flow of roundly 10-20 million journeys two-way for a short cross-river link, which is enough to merit a fixed public transport crossing.

An extended proposal is for cross-river rail services reaching either Southend-on-Sea via Tilbury, or as an 'Outer Overground', paralleling the M25 and London's outer urban areas. An estimated 680,000 people would benefit from a through service to Southend-on-Sea, while the population reached rises to 1.4 million (approximately 1.5 million in ten years' time) via main rail interchanges on the 'Outer Overground' route. These include Upminster (towards Barking, Basildon and Southend) and Romford (towards Ilford, Billericay and Chelmsford).

A passenger travel estimate gives 34-75 million rail journeys two-way for the extended proposal, using the smaller rate of only 25 originating rides per head annually for these more distant journeys.

This excludes further cross-river rail volumes arising in South East London boroughs or in Medway. An overall order-of-magnitude for the whole Gateway suggests a potential for 50-100 million cross-river rail journeys two-way, with the right travel stimuli.

Outline costs are of the order of £1.5-£2 billion capital outlay for an

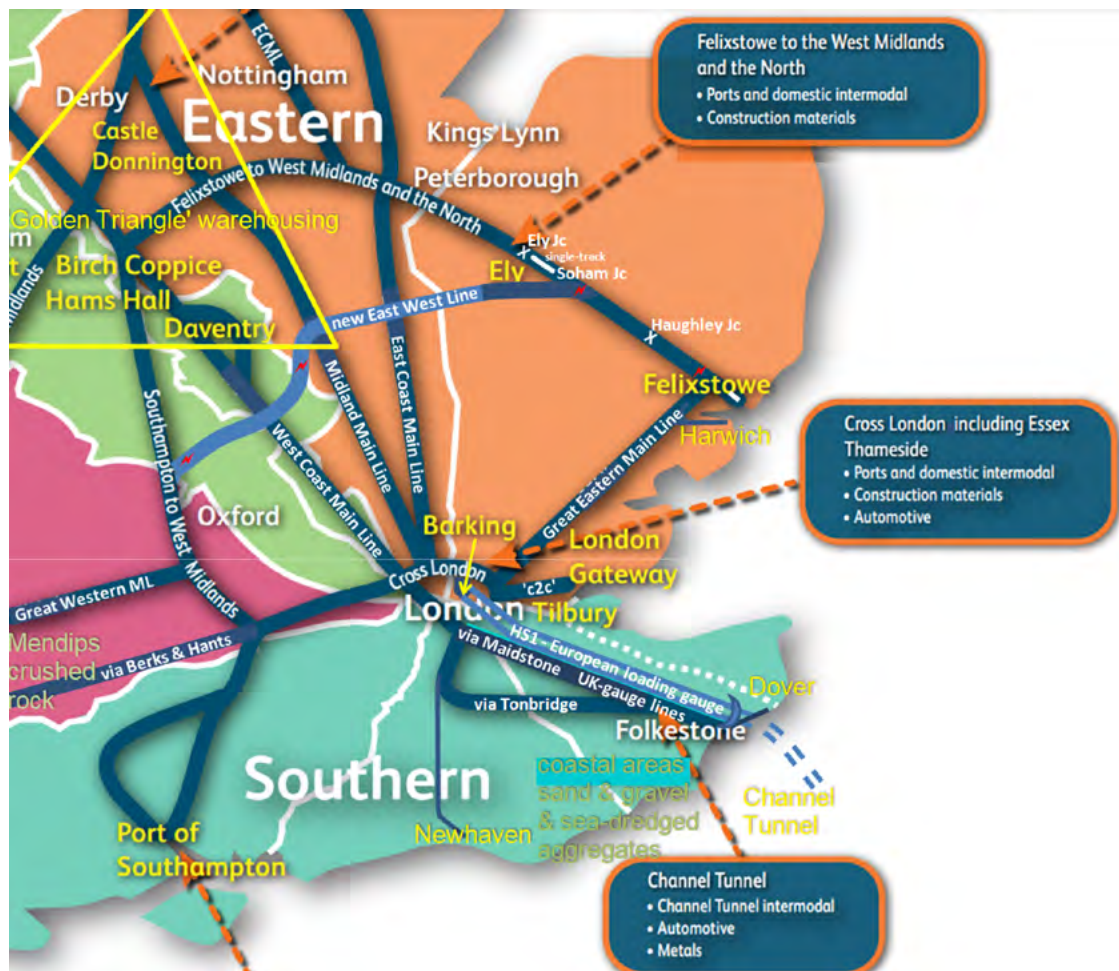
'Outer Overground' scheme benefiting a 1.5 million population and supporting passenger travel worth 500 million to 1 billion journeys over a ten-year period. This represents good value and a business case is worth developing. With new planning powers, it could be possible to deliver this faster, and at lower cost than the LTC.

Innovative Public Transport Working with Rail

The Roberts Report also briefly explores bus, trams and ferry services and concludes that these could all play an important role in more localised flows within and between Dartford, Gravesham and Thurrock.

Unleashing Rail Freight

The Roberts Report's analysis of freight flows in and around the South East and Eastern regions shows the significant volumes involved and the opportunities for shifting a substantial proportion to rail. It estimates that there are around 4,000 large sized trucks per weekday (one-way) coming from the Channel ports, many of which utilise the Dartford Crossings. In fact, it is these flows that are most reliant on Dartford, as freight at the large ports to the north of the Thames, at London Gateway, Tilbury, Harwich and Felixstowe travelling to the Midlands and beyond, does not require a river crossing.





Despite the current paucity of rail freight coming across or under the Channel, there is strong potential to increase this and for rail to play a significant role in moving freight in and around the South East and Eastern regions. It is estimated that 25 – 50% of this number could eventually be moved to rail, in total removing 550,000 – 1,100,000 HGVs from our roads every year.

Targeted interventions will be needed to improve access and viability to enable this, however some can be enacted relatively easily and cheaply, while others require no infrastructure at all. The key is to identify the individual freight flows and routes which require attention, and what the specific opportunities are to improve any particular rail freight offer. This represents a more affordable and self-contained approach than a wholesale upgrade.

In terms of the timescales and costs involved, the following sequence starts from the quickest and easiest to implement, finishing with the more complex and higher cost:

- Increased availability of timed slots during the operating day.
- Changes to pricing and operating methods on each relevant route.
- Review of traction or freight wagon equipment.
- Availability of rail loading and unloading yards, or improvements to those, or new specialist sidings.
- Junction and line upgrades, and new local route electrification.
- Significant new line construction and its potential for electrification (an electrified freight railway using modern locos is generally the cheapest to operate and gives enough power to haul the heaviest loads).

A summary map below highlights some of rail freight's potential. This draws attention to:

- Scope for greater use of HS1 with its European loading gauge.
- Works needed to improve the cross-country line from Felixstowe.
- Freight opportunity with the new East-West Line particularly if it is fully electrified.
- Rail freight access to England's 'Golden Triangle' of centralised warehousing.

One of the biggest opportunities to increasing rail freight's share of flows via the Dartford Crossings, is the Office for Rail and Road's instruction for the track charges for freight on HS1 to be cut significantly. This could be a game-changer in moving freight onto rail, relieving pressure on Dartford. Commercial pressures on the Channel Tunnel operator from the strong ferry competition at Dover will also stimulate better pricing for rail freight.

Alongside this, some relatively small interventions costing tens of millions of pounds, rather than hundreds for bigger schemes, or the billions for the Lower Thames Crossing, can be transformative.

Examples include:

- Ripple Lane yard works near Barking, at the London end of HS1 - £20m
- Electrification to London Gateway - £20m (would allow electric trains to operate with their greater hauling capability, and lower cost by avoiding change of traction)
- Dollands Moor to Wembley line re-gauging - £50-£60m (increases options for rail freight to carry larger trailers, containers and swap-bodies around London)
- Haughley junction upgrade - £20m (enables more rail freight out of Felixstowe and Harwich via cross-country, reducing pressure on London lines and the M25)

Other interventions but still an order-of-magnitude less than the LTC are:

- Ely Junction upgrade and Soham-Ely double-tracking - £520m (improves rail freight and passenger capacity and junction upgrade has a BCR of nearly 5:1)

Elsewhere, fully electrifying East-West Rail, as opposed to the current plans for discontinuous electrification, could also have considerable benefits in increasing rail freight paths and resilience, on this new Government-backed rail bypass of London which should open fully in the 2030s between Cambridge, Bedford, Milton Keynes and Oxford.

Crucially from a perspective of economic growth, making rail freight more competitive through our proposed infrastructure interventions will generate business and employment for UK-domiciled businesses, many of them with substantial operations and potential markets well to the north of London.



Aubrey Morandarte from Coventry/London, United Kingdom - Arriva Southern Counties 4306 on Fastrack A, Bluewater.
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Let's Scrap the LTC and Get Britain Moving

The Roberts Report demonstrates that it is possible for around £1.5-£2bn to transform the passenger rail offer in Thames Gateway and that there is the demand to warrant such expenditure. It would provide sufficient passenger volume (up to 50-100 million passengers a year) to make a significant difference to traffic levels using the Dartford Crossings. Equally importantly, it would increase opportunities for those who don't drive (and who would not be helped by the LTC). It would also help boost the economy more significantly and more effectively than the LTC, and at far cheaper cost.

Alongside the heavy rail offer there would need to be investment in improved active travel and bus integration with rail hubs. Also it is recommended that the potential for new ferry services and a tram link are explored, all of which would reduce social exclusion and reduce pressure on the Dartford Crossings.

On rail freight, changes to access charges to HS1 and Channel Tunnel pricing will make through rail freight more economic and help attract more business, reducing the number of HGVs on the road network. These measures combined with a targeted £520m investment in reconstruction of Ely Junction and Soham-Ely double-tracking, and a number of other relatively small infrastructure interventions (cumulatively £110-£120m) would be transformative for rail freight, leading to a significant shift from road to rail. It is estimated this could remove as many as 550,000 – 1,100,000 HGVs per year from the road network, providing further relief to the Dartford Crossings.

With all the measures above combined, it is likely that they would deliver far more benefit and far less cost, be more inclusive, less carbon intensive, increase resilience and be better for the economy. Some of them would also be quicker to implement.

If the UK Government is serious about getting economic growth underway, saving the taxes of working people and breaking out of conventional thinking, our report on alternatives to the LTC shows the way. Getting smarter about how we connect Essex with Kent not only better serves the citizens of those counties but brings benefits across the UK and releases scarce capital expenditure for projects in other parts of the country where transport infrastructure has been neglected.

The publication of a major consultation paper in February on reforming and growing both rail passenger and freight is welcome. However, the government's apparent support for the LTC runs directly counter to all that it aspires to deliver for rail. Approving the LTC is also likely to be a block to Great British Railways being able to deliver on its statutory duty to promote rail freight.

We were inspired to take the approach set out in this report, in part by the decision of the Welsh Labour Government in 2019 to abandon its own hitherto rigid thinking on solutions to congestion on the M4 motorway. It abandoned plans for a new road very late in the day and sought out public and active travel alternatives through an independent commission under the leadership of Lord Terry Burns. We hope, through this report, to jump start a similar approach to sustainable, affordable and growth-inducing alternatives to the LTC.

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