

## London's Transport Infrastructure

Essex County Council Submission to the National Infrastructure Commission Call for Evidence  
11 May 2016

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1. **Essex County Council (ECC) welcomes the opportunity to contribute to the national debate on transport infrastructure via the inquiry being undertaken by the National Infrastructure Commission. Improvements to transport infrastructure in and around Essex are vital to unlock growth in the London City Region and connecting London businesses and communities to these centres of economic opportunity, international gateways and key labour markets.**
2. **Given the key role that infrastructure in Essex (for example London Stansted airport, the M11, A12, West Anglia Mainline and Southend airport) play in enabling growth in the Capital, we would be delighted to provide further evidence to the Committee in person.**
3. Greater Essex connects businesses across London and the South East to world markets through airports at London Stansted and Southend and major port clusters in South Essex and Haven Gateway. It also provides a labour force of more than 149,000, contributing some over £10bn per year to the capital's economy. However, to sustain this connectivity our infrastructure needs investment.
4. The rail network in Essex that connects commuters to London and beyond is already operating at capacity, on the West Anglia Mainline [WAML] journeys between London and Stansted airport are longer than some of the flights to destinations the airport serves, reducing the attractiveness of this as a place to live, work and travel from and to.
5. Our ports are some of the largest in the Country connecting businesses to London but, without investment in the surrounding road and rail network we risk being left behind as logistic operators choose elsewhere with better, more reliable connectivity.
6. Stansted Airport is the only major airport in the Southeast that has the immediate capacity to grow within its existing permissions. It has capacity to take a further 13 mppa, from 22 mppa to 35 mppa within current planning permissions and has permissions to operate 264,000 Air Traffic Movements (ATMs) per year (243,500 passenger ATMS and 20,500 cargo ATMs) without the need for major further capital investment in the airport. However, improvements to surface access will be required.
7. Southend airport already has the immediate capacity to grow within its existing permissions. It can double from 1 million passengers per annum (mppa) to 2 mppa within current planning permissions and has permissions to operate 53,300 Air Traffic Movements (ATMs) per year without the need for major further capital investment.
8. However, whilst both airports have the capacity to grow within existing permissions and realise wider economic benefits for the London-City region, they are constrained by surface access.

9. Stansted airport is constrained by capacity on the strategic road network particularly the M11 J8, A120, M11 J8 – J9 and A14. It is further constrained by capacity, reliability and journey time of the West Anglia mainline “Stansted Express” service from London Liverpool Street. Southend airport is constrained by the capacity and reliability of the A127.
10. The Dartford Crossing is the only fixed road crossing of the Thames east of Greater London, however it is the busiest estuarial crossing in the United Kingdom, with an average daily use of over 150,000 vehicles.
11. Our response lays out our proposals on improvements to transport infrastructure in the London City-Region for consideration by the Commission and centres on opportunities in the following areas:
  - **West Anglia mainline four-tracking** - along the Lea Valley between at least Tottenham Hale and Broxbourne. However, Essex County Council supports the view of Harlow District Council that a feasibility study is required to explore the option of extending Crossrail 2 and 4-tracking to Harlow Town station. Overall Harlow has an increasingly important economy, with the success of their Enterprise Zone, and the relocation of Public Health England. At the same time the town has major ambitions around housing growth, which will support growth locally and within the London labour market. Harlow Town station also has existing and capacity for further stabling for trains. Four-tracking would provide rail capacity to bring forward the delivery of 6,000 – 12,000 new homes and 2,000 – 5,000 additional jobs to support growth along the Lea Valley and wider London Stansted Cambridge corridor and, to enable a London – Stansted journey time of 30mins.
  - **A120 corridor dualling** – we ask HM Government to consider our specific proposals on dualling the remaining sections of the A120 between Braintree – A12 and Hare Green to Harwich; the ports and logistics sector in this corridor has a turnover of £3bn per annum and employs over 32,000 people. With investment, the economy could grow by £1.3bn.
  - **Capacity improvements to M11 J8** – the junction is already at capacity and improvements would support growth at Stansted airport, unlock opportunities for local housing growth and improve connectivity between London, Stansted and Cambridge.
  - **Creation of M11 J7a** – to provide stronger links between London and Stansted airport and between the capital and the economic opportunities that exist within the Harlow Enterprise Zone.
  - **Upgrading of the M11 north of the airport between J8 – J9** – to provide stronger and more efficient links between Stansted airport, and the economic opportunities between London, Stansted and Cambridge.

- **A127 improvements** – the A127 has significant capacity and reliability issues, as highlighted in the Inner Thames Estuary [ITE] Study on Surface access, and flows which need to be addressed if it is to maintain current jobs and aid the delivery of new jobs and housing growth along the corridor. The A127 carries in excess of 70,000 vehicles per day which exceed those on many urban motorways elsewhere in the UK.

12. We are pleased that the importance of infrastructure is being considered by the Commission. Our evidence shows that there are already examples of ambitious projects based on robust understanding of local needs and that demonstrate joint working across a range of partners.

**Cllr Rodney Bass**  
**Cabinet Member for Infrastructure**

**Cllr Kevin Bentley**  
**Cabinet Member for Economic Growth**

**1. What are the major economic and social challenges facing London and its commuter hinterland over the next two to three decades?**

- 1.1 Covering an area more than twice the size of Greater London, Essex has diverse strengths and is positioned to exploit an equally diverse range of opportunities. The county provides an excellent location for connecting businesses to centres of economic opportunity, including London, and internationally via the London Gateway and Harwich ports, and Stansted and Southend Airports.
- 1.2 Being so well located means that Essex is a significant contributor to growth; currently it supports 677,750 jobs; some 76,750 businesses. In 2013, Essex's businesses generated Gross Value Added (GVA) of £32.5 billion.
- 1.3 The commuting relationship between Essex and London is reciprocal; each year 149,000 Essex residents commute into London which approximates to £10.4bn GVA whilst 38,800 London residents commute to Essex which approximates to £2.7bn GVA per year<sup>1</sup>.
- 1.4 By 2021 we are planning for over 117,745 new jobs; and over 81,310 new homes. Independent projections suggest that Essex will experience substantial demographic growth between 2014 and 2021. Analysis of 2013-based forecasts from the East of England forecasting model for the period 2014-21, suggest that Essex can expect to see growth in:
  - overall population of around 71,000 (4.9%);
  - the working age-population of 13,000 (1.4%); and
  - the number of households of some 33,000 (5.5%).
- 1.5 This amount of growth will exert pressures on our infrastructure, not only transport but education, health and social care and digital connectivity.
- 1.6 Due to the inter-connected relationship between Essex and its neighbouring counties and London growth in these areas will also affect our economy. For example the Upper Lea Valley is forecasted to generate 15,000 jobs and 20,000 new homes by 2021<sup>2</sup> whilst London Riverside is forecast to generate 16,000 jobs and 26,500 new homes.<sup>3</sup>
- 1.7 To keep businesses and commuters moving between Essex, London and beyond and ensure strong economic growth significant infrastructure investment is required:
  - improvements to surface access at Stansted airport – would enable the airport to grow its capacity;
  - the Lower Thames Crossing – would relieve congestion and speed up logistics;
  - a comprehensive solution to the lack of capacity at Junction 30/31 of the M25;
  - corridor improvements on the A12, A120 and M11 (including Junction 7a) – to connect centres of economic opportunity;

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<sup>1</sup> Regeneris (2015) *Greater Essex External Economies Commission – Economic Linkages*

<sup>2</sup> City in the East

<sup>3</sup> City in the East

- capacity improvements and integrated transport initiatives on the Great Eastern Mainline (GEML), West Anglia Mainline (WAML) (including 4 tracking) and opportunities offered by Crossrail 2 – to improve commuting and reduce journey times to London Stansted and London Southend airports and;
- investment in the London Underground Central Line and rolling stock, including station travel planning and interchange enhancements at Epping, Loughton, Buckhurst Hill, Chigwell and Roding Valley Stations – to improve commuting and support the night-time economy.

**2. What are the strategic options for future investment in large-scale transport infrastructure improvements in London - on road, rail and underground - including, but not limited to Crossrail 2?**

- **How should they be prioritised, taking account of their response to London's strategic transport challenges, including their impact on capacity, reliability, journey times and connectivity to jobs?**
- **What might their potential impact be on employment, productivity and housing supply in London and the southeast?**

2.1 We believe that future investment in large-scale transport infrastructure improvements in Essex will support growth in London and across the South East.

2.2 Essex County Council has identified four growth corridors where investment could help stimulate and support growth:

- London Stansted Cambridge Corridor (M11 and West Anglia Mainline)
- Haven Gateway (A120)
- Heart of Essex (A12 and Great Eastern Mainline)
- Thames Gateway South Essex (A127, A13 and Essex Thameside Mainline)

*London Stansted Cambridge Corridor (M11 and West Anglia Mainline)*

2.3 The west of Essex is part of the London-Stansted-Cambridge Corridor (LSCC), connecting London, Stansted and Cambridge, via the M11 and the West Anglia Main Line (WAML). The Corridor has enormous growth potential, particularly in Harlow, building on the local strengths in life sciences and other high value sectors for example Public Health England is moving its headquarters to Harlow.

2.4 London Stansted is the only airport in the South East with immediate capacity for significant growth. With a current planning application to support 35m passengers per year (up from 20m currently), there is capacity to increase this to 45m passengers per year by 2030. This could create an **extra 10,000 jobs** and **£4.6bn in additional economic activity**.

2.5 London Stansted airport is already successful in the leisure and tourism but future plans focus on attracting more business customers and increasing the number of long haul flights. The growth of both of these areas could provide a catalyst for growth across the East of

England, attracting inward investment and supporting key sectors such as life sciences (amongst others).

- 2.6 London Stansted is also a key handler of freight, handling 220,000 tonnes last year (the third biggest after Heathrow and the East Midlands) and there is potential with surface access improvements to grow this market as well.
- 2.7 Surface access improvements are critical to growth at Stansted Airport. The Airport will not be able to realise its true potential without investment in the following:
- M11 improvements focusing on junctions 7 and 8
  - A120 improvements, improving connections between the Haven Ports and the Airport
  - Four-tracking of the West Anglia Mainline, which will result in faster journey times from London
- 2.8 The Harlow Enterprise Zone provides a focal point for key sectors of significance to the UK and sub-regional economy including life sciences, advanced manufacturing and ICT with the potential to deliver over 51 hectares of employment land. Delivery has the potential to create over **5,000 jobs** and lever in over **£150 million in private sector investment**.
- 2.9 Improvements to M11 J7 and delivery of M11 J7a are required to realise the site's full potential.
- 2.10 It is hoped that Crossrail 2 will bring the desperately required four-tracking of the West Anglia Mainline to the London Stansted Cambridge Corridor and this should be prioritised.

#### *Haven Gateway (A120)*

- 2.11 The Haven Gateway Growth Corridor includes the districts of Braintree, Colchester and Tendring, and links Harwich International Port in the east to Stansted Airport and the M11 in the west via the A120. It is one of the key international gateways to the UK; home to Harwich International Port, one of the UK's leading multi-purpose freight and passenger ports, and supporting the neighbouring port of Felixstowe.
- 2.12 There is significant potential for growth at Harwich Port. Harwich has the potential to make a significant contribution to the offshore energy sector and is already supporting over 260 turbines, more than any other UK North Sea Port. It is well located at the centre of Europe's offshore wind activity and provides the sheltered conditions to support the growth of the offshore renewable sector. Harwich has recently been designated as a Centre for Offshore Renewable Engineering (CORE). This will provide additional support for businesses looking to invest in manufacturing for the offshore renewable energy industry, helping this sector to grow.
- 2.13 In the longer term, Bathside Bay has the potential to create a deep sea container port with road and rail links to the rest of the country. Around 101h additional land adjacent to Harwich Port is available which could attract **£300 million investment** and create at least **500 direct jobs** and many more indirect employment opportunities.

- 2.14 The **A120** links London Stansted Airport with Harwich International port and the local economies of Braintree and Colchester. Improvements along this route has significant potential to secure employment and housing growth along this corridor. It will connect the local workforce to two key international gateways and drivers of growth for Essex. Without the required improvements to the A120, the region will lose out on £1.3bn in growth and nearly 13,000 new jobs.
- 2.15 ECC is leading on the design and preparatory work for improvements to the A120, however firm commitment from Government to fund the scheme is required to ensure success.

*Heart of Essex (A12 and Great Eastern Mainline)*

- 2.16 The Heart of Essex growth corridor runs through the centre of Essex, linking London to the Haven ports, and onwards to Norfolk and Suffolk. The A12 and the Great Eastern Main Line (GEML) rail services link the key urban centres of Brentwood, Chelmsford, Colchester and Maldon to London.
- 2.17 The corridor has strong links with the London labour market, supporting substantial commuter flows to and from the capital. These links will grow and strengthen as Crossrail is completed, when new services will stop at Brentwood and Shenfield, both of which will benefit from planned improvement works to facilitate these new services
- 2.18 Additional investment in rail and road infrastructure is essential for unlocking the full economic potential of the Corridor, and a package of investment is proposed to address bottlenecks on the A12 to support growth.

*Thames Gateway South Essex (A127, A13 and Essex Thameside Mainline)*

- 2.19 The districts of Basildon, Castle Point and Rochford, along with the unitary authorities of Thurrock and Southend, form Thames Gateway South Essex (TGSE); part of Thames Gateway, the largest regeneration opportunity in Europe. Along this corridor the A13 links the key port infrastructure of Tilbury and London Gateway with London, while the A127 corridor connects the capital to the manufacturing hub of Basildon, and to Rochford, Southend, London Southend Airport and surrounding employment areas. Improvements to the road network in this area are vital to securing growth and inward investment.
- 2.20 London Gateway is the UK's first major deep sea container port and Europe's largest logistics park. It will provide access to the largest consumer markets in the UK and internationally. A significant port development for the UK, it occupies a 1,500 acre site and will provide 2,700 metres of quay and six deep water berths. The logistics park could provide nearly 1 million m<sup>2</sup> of accommodation. Together the development has the potential to create more than 12,000 direct, permanent jobs and more than 20,000 indirect jobs. The site is supported by the country's largest Local Development Order, developed by Thurrock Council to give confidence to occupiers to invest.

- 2.21 Port of Tilbury is one of the largest deep water ports on the River Thames and is the UK' leading port for forestry products with excellent links throughout the supply chain including shipping lines, importers, merchants and distributors. Work is currently underway to develop more than 940,000 sq. ft. of new high quality distribution facilities and 17 acres of haulage facilities adjacent to the port of Tilbury. The London Distribution Park development is expected to generate up to 1100 jobs and secure the long term prosperity of the port.
- 2.22 London Southend Airport has been one of Europe's fastest growing airports in recent years with over 1 million passengers in 2014. It has received over £130 million of investment since it opened in 2008, mainly from the private sector. A Joint Area Action Plan (JAAP) sets out detailed proposals for the development of London Southend Airport and the surrounding area. The Airport itself has capacity to support up to 5 million passengers per annum and 2 million by 2030. By 2021 it is expected that the airport will support an additional 2,000 jobs.
- 2.23 There is significant potential for growth, not only at the airport site but in areas surrounding this key hub. The Airport Business Park (ABP) to the North West of the Airport will create a million sqft of high quality employment space and over **6,000 jobs**. The proposals include a site for the Anglia Ruskin Medtech campus, which will create space and support for businesses in the medical technologies sector.
- 2.24 Currently, development is constrained by the limited capacity of the strategic road network, particularly J30/31 of the M25 and the dual carriageway stretch of the A13. The A127 also carries a volume of traffic comparable to a motorway in other parts of the country and has significant capacity issues which need to be addressed, particularly around Basildon, London Southend Airport and the Southend Central Area. Southend Borough Council and Essex County Council have developed a joint "A127 Corridor for Growth" economic plan to identify, plan and coordinate investment decisions and manage the asset.
- 2.25 The **A127** corridor which connects Basildon with Southend is vital to the economic competitiveness of the Thames Gateway South Essex sub-region and indeed to the economy of the County of Essex and beyond. It is located in the heart of the Thames Gateway which has been identified as being of national significance. Thames Gateway South Essex has an ambitious growth agenda to build on existing strengths and make the most of a unique combination of opportunities. Investment to improve capacity and flows along the A127 is therefore required to secure jobs and housing growth.
- 2.26 Bordering London to the west, the **A13 corridor** links the key port infrastructure of Tilbury and London Gateway with the capital. The corridor provides a significant growth opportunity and already benefits from major planned and committed private investments such as London Gateway (£1.5bn), Thames Enterprise Park (£1bn), Lakeside (£1bn), Purfleet (£600m) and Canvey Gateway (£110m). With the right investment, the A13 corridor will deliver 4,150 homes and 11,000 jobs by 2021. However, the road is currently constrained by its capacity. To unlock this growth potential, local authorities will invest £300m, however additional funding is required (in the region of £87 million).

2.27 Furthermore, the potential impact of the Lower Thames River crossing would be significant on transport routes in this corridor, with one of the two short-listed options being to connect the M2 in Kent with the A13 and the M25 between junctions 29 and 30.

2.28 In summary our priorities for investment are:

- **A127 improvements** – the A127 has significant capacity and reliability issues, as highlighted in the Inner Thames Estuary [ITE] Study on Surface access, and flows which need to be addressed if it is to maintain current jobs and aid the delivery of new jobs and housing growth along the corridor. The A127 carries in excess of 70,000 vehicles per day which exceed those on many urban motorways elsewhere in the UK.
- **Lower Thames Crossing** – another crossing is required to ease congestion across the Queen Elizabeth II Bridge and provide resilience in the area.
- **A120 corridor dualling** – we ask HM Government to consider our specific proposals on dualling the remaining sections of the A120 between Braintree – A12 and Hare Green to Harwich; the ports and logistics sector in this corridor has a turnover of £3bn per annum and employs over 32,000 people. With investment, the economy could grow by £1.3bn.
- **A12** – we are working closely with Highways England to design the improvement schemes announced in the 2014 Autumn Statement.
- **Creation of M11 J7a** – to provide stronger links between Stansted airport and the economic opportunities that exist for Growth within the Harlow Enterprise Zone.
- **Capacity improvements to M11 J8** – improvements on this already at capacity junction would support growth to Stansted airport as well as providing opportunities for housing growth locally.
- **Upgrading of the M11 north of the airport between J8 – J9** – to provide stronger and more efficient links between Stansted airport, and the economic opportunities that exist for Growth within the Harlow Enterprise Zone, Cambridge and wider region.
- **West Anglia mainline four-tracking** - along the Lea Valley between Tottenham Hale and Harlow to provide rail capacity to bring forward the delivery of 6,000 – 12,000 new homes and 2,000 – 5,000 additional jobs to support growth along the Lea Valley and wider London Stansted Cambridge corridor and, to enable a London – Stansted journey time of 30mins.

### **3. What opportunities are there to increase the benefits and reduce the costs of the proposed Crossrail 2 scheme?**

3.1 We believe that delivering four-tracking of WAML outside of the Crossrail 2 programme would lead to an increase in benefits as commuters and airport passengers could travel more easily and reliably to and from the capital.

3.2 Further, there is potential to reduce costs by undertaking a scoping study into extending four-tracking and Crossrail 2 services to Harlow Town Station where there are marshalling and servicing facilities for trains already present that TfL could use.

**4. What are the options for the funding, financing and delivery of large-scale transport infrastructure improvements in London, including Crossrail 2?**

- **What is an appropriate local and regional contribution - given the potential distribution of benefits to business, residents, transport users and the wider economy - and how could this be achieved?**
- **What innovative funding mechanisms could be considered to support delivery of key schemes?**

4.1 We have a strong track record in forward funding and part funding large scale infrastructure projects and would be happy to share this knowledge and experience with the Commission.

4.2 As well as leveraging investment from local authorities, businesses, developers and (in the case of rail) operators we see no reason why additional taxation (enabled by Business Rate Legislation) could not be used to part fund significant infrastructure projects such as Crossrail 2 or a new Lower Thames Crossing. This has already been successfully applied for the funding of Crossrail and the London Olympics.

4.3 There is a robust evidence base to support the use of user charging to recoup the construction costs and pay for ongoing maintenance of road and river crossing infrastructure projects. This approach should not be discounted.