A Green Future: Thames Gateway Tramlink

Gordon Pratt, Managing Director

www.kenextram.co.uk
In June 2019 the UK became the first major global economy to pass a law that requires ‘net zero’ greenhouse gas (GHG) emissions by 2050.

To achieve this, public transport and active travel will be the natural choice for our daily activities with clean place-based solutions meeting the needs of local people.¹

Thames Gateway Tramlink are very proud to be working on the KenEx Tram proposal. This exciting new project will provide an accessible and sustainable public transport link between North Kent and South Essex, generating significant economic benefits to the area whilst also tackling increasing levels of road congestion.

Furthermore, the project is a key transport component required within the Thames Estuary Metropolitan area to achieve ‘net zero’ GHG.

We are very pleased to have the support of local bus operators and local cycling groups helping us achieve our ambition in addition to local residents and councils.

¹ Decarbonising Transport – Setting the Challenge March 2020

Thames Gateway Tramlink, May 2020
Executive summary

The proposed tramway proposal would create an important strategic link within a key, growing, economic area the equivalent in population and population density of a Metropolitan County and likened to the Midlands Engine, Northern Powerhouse or Oxford-Cambridge Arc.

The area currently suffers high levels of traffic and congestion of local roads hindering the efficient functioning of the local economy.

There is currently minimal provision of cross river public transport leading to lack of access to jobs and restricting other day to day activities.

Currently high levels of local pollution harming the health of local residents and the environment.

The proposed tramway solution provides a sound underlying commercial business case to build on. When the benefits of increased economic activity, improvement of air quality and health are included the project should realise a high benefit to cost ratio as a Government project.

There are light freight opportunities in development which would maximise tramway utilisation and reduce local transport congestion and pollution.

The project supports, and is a positive solution towards, recent Government initiatives.
An important, growing, economic area

The proposed tramway proposal would create an important strategic link within a key, growing, economic area the equivalent in population and population density of a Metropolitan County and likened to the Midlands Engine, Northern Powerhouse or Oxford-Cambridge Arc.”

![KenEx tramway network area](image)

### The Thames Estuary Metropolitan area

<table>
<thead>
<tr>
<th>Local authority</th>
<th>2017 Population '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurrock</td>
<td>172</td>
</tr>
<tr>
<td>Gravesham</td>
<td>106</td>
</tr>
<tr>
<td>Dartford</td>
<td>108</td>
</tr>
<tr>
<td>Havering</td>
<td>256</td>
</tr>
<tr>
<td>Bexley</td>
<td>246</td>
</tr>
<tr>
<td>Medway</td>
<td>278</td>
</tr>
<tr>
<td>Castlepoint</td>
<td>90</td>
</tr>
<tr>
<td>Basildon</td>
<td>185</td>
</tr>
<tr>
<td>Barking &amp; Dagenham</td>
<td>211</td>
</tr>
<tr>
<td>Southend-on-sea</td>
<td>182</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,834</strong></td>
</tr>
</tbody>
</table>
Local road traffic hindering economic activity and growth

The area currently suffers high levels of traffic and congestion of local roads hindering the efficient functioning of the local economy.

In 2016 the Dartford Road Crossing had 53.8 million annual vehicle crossings compared to a design capacity of 49.3 million. Of the 53.8 million vehicles, 10 million were HGVs.

Traffic modelling by Highways England for the Lower Thames Road Crossing shows relief for, principally, the Dartford Crossing, M20 and M2. The modelling also shows increased road usage both on all roads approaching the LTC / Dartford crossing area and also some roads within the area.

Currently there is very little public transport provision across the Thames to mitigate road congestion.

1 Highways England - Lower Thames Crossing supplementary consultation January 2020 – Traffic Modelling Update
Currently minimal provision of cross river public transport leads to lack of access to jobs and restriction of other day to day activities.

There is very little public transport provision across the Thames. The key current cross river options being:

- Hourly X80 commercial bus service operated by Ensignbus ²
- Half hourly ferry operated by Jetstream ³

Both of which suffer operational issues, either traffic congestion or poor weather

Where levels of public transport have been improved, providing better access to jobs, a reduction of levels of deprivation has been seen. For example, this has been the case within the Gravesham Borough Council area.³

The proposed cross river tramway is supported by leaders of both Gravesham Borough Council and Thurrock Council as a sustainable way to significantly improve transport opportunities for people.

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¹ ensignbus.com
² jetstreamtours.com
³ The Index of Multiple Deprivation (IMD2019): Headline findings for Kent
High levels of local pollution

High levels of vehicle pollution harm the health of local residents and the environment.¹

Stanford-le-Hope (Thurrock) currently records some of the highest levels of urban particulate pollution in the UK due to road traffic: ², ³

Annual mean, ug/m³: 20 for PM₁₀ and 13 for PM₂.₅

The proposed Lower Thames Road Crossing is expected to increase these already high particulate levels still further and the Planning Inspectorate considered ⁴ that the proposed LTC project will need to include an assessment of PM₂.₅ within its Environmental Statement to gauge the likely increase in local pollution levels.

This was specifically called for by Gravesham Borough Council and Thurrock Council who will both will need to deal with the effects of higher PM₂.₅ on the local population.

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¹ Defra – Government Clean Air Strategy January 2019
² World Health Organisation - Global Ambient Air Quality Database (update 2018)
⁴ The Planning Inspectorate – Scoping Opinion Lower Thames Crossing December 2017
The proposed tramway solution (1)

Having undertaken feasibility assessments with experienced tramway professionals and having had sessions for stakeholder feedback, the current route proposals and future possibilities are shown right.

Thurrock Council in particular has been keen to see future expansion Eastwards towards DP World London Gateway\(^1\) to allow expansion of the port, logistics park and potential freeport.

New residential opportunities will also be created by the tramway in various locations along the proposed routes.

The 1.2km central tunnel section was evaluated by COWI, experts in immersed tunnel engineering. COWI commented: “We consider that the proposal has great merit and is certainly feasible” \(^2\). Costs of the tunnel are estimated at £250 million - £300 million and at that level would be self financing.

\(^1\) londongateway.com/logisticspark/the-logistics-park
\(^2\) cowi.com/tags/tunnels
The proposed tramway solution (2)

The proposed tramway connects with various existing rail services and key bus interchange nodes. It is forecast that the total patronage of the system will be around 16 million passenger journeys per annum with the cross river element being around 10 million passengers per annum. It is felt that these are cautious estimates given the experience of the Croydon Tram.¹

These figures exclude any enhancement to passenger numbers due to the provision of services to the proposed London Resort being planned along the route.¹

The team have been working with New River REIT designing options to include the tramway within an enhanced town centre redevelopment of Grays.²

The team have also been in discussions regarding the proposed Media Village³ at Purfleet to enhance connectivity with other key locations within the “Thames Estuary Production Corridor.”⁴

¹ TfL Croydon Tramlink Impact Study 2002 & TfL Trams for Growth 2016
² londonresort.info
³ nrr.co.uk/portfolio/properties/grays-shopping-centre
⁴ urbancatalys.co.uk/Purfleet-centre-regeneration
⁵ London.gov.uk tepc_vision_207.pdf
The proposed tramway solution (3)

In summary:

30km of core route including 1.2km of immersed tunnel serving:

i) 3 important town centres
ii) 2 Major shopping centres / leisure venues
iii) Media Village
iv) High speed domestic & international rail station
v) District General hospital and various other medical centres
vi) Proposed major leisure Resort
vii) Football ground
viii) Several rail and bus interchanges
ix) Local colleges

The core routing is entirely urban with mix of residential and business. Importantly, the proposal bypasses the congested Dartford road crossing and provides a fast, clean and sustainable means of transport. As a Government project we would expect this to have a very high benefit to cost ratio. Private investors are currently taking the project forward on a commercial basis as a project with strong local support and environmentally sound credentials.
Trams for light freight

Thames Gateway Tramlink have been approached to consider light freight on trams.

This is unsurprising given that the metropolitan area covered by the tramway includes a major international port, numerous logistics hubs, major locations requiring a steady flow of light freight and various rail lines into and out of the area.

TGT are in discussions with national, environmentally sound, light freight distributors who use modern technologies as part of their solution.

“A huge opportunity exists to transform ‘last mile’ ensuring an integrated, clean and sustainable delivery system. Reducing emissions for last mile deliveries, particularly in urban areas as well as potential improvements in logistics efficiency have a key role to play. As we consider the future of the transport system, innovative digitally-enabled solutions, data-sharing and collaborative platforms could transform how our goods are moved, potentially also reducing the negative impact of congestion.”

1 Decarbonising Transport – Setting the Challenge March 2020
Supporting Government Initiatives

**Future Transport Zones**
Thames Gateway Tramlink have the ability and the support of relevant stakeholders throughout the Thames Estuary Metropolitan area (covering a population of around 2 million) to be a key element of a coherent and co-ordinated sustainable transport solution.

For example TGT are in discussions with University of Kent to expend their work on Mobility as a Service (MaaS) and local bus operations regarding integrated cycle provision.

**Clean Air Zones**
As a means of transport free of emissions at point of use, the benefits are clear.

**Transforming Cities**
As a means of providing a step change improvement in connectivity for the local population and enabling significant transport efficiencies to be realised, the tramway has the potential to truly transform the Thames Estuary Metropolitan area.

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1Decarbonising Transport – Setting the Challenge March 2020
The senior team at Thames Gateway Tramlink

Dick Keegan, I Eng, MIIE, FCIT, MAPM (Chair)

Dick Keegan has a vast range of experience of managing railway engineering projects in the UK, Australia and the Middle East. Formerly Director (Projects) of British Rail, projects include Merseyrail, Kings Cross, Illawarra and HS2 Birmingham Interchange.

Simon Johnson, AIWSc
(Business Development & Construction Director)

Simon enables the maximisation of commercial potential through business development, marketing and strategic planning. He has secured profitable Civil Engineering works in the Rail, Utility, DNO, Power, TFL and Technology sectors. Simon is adept at cultivating Civil Engineering and Construction opportunities, ensuring sustainable and profitable growth across a broad range of projects, and secured the ICE Kent and East Sussex Engineering Excellence Prize and Green Apple Environment Gold Certificate for a key regeneration project.

Gordon Pratt, ACA (Managing Director)

Gordon Pratt is leading the sustainable infrastructure opportunity located within the Thames Estuary connecting Kent with Essex.

He has sat on the Board of HS Developers UK, a business working with investors and prospective investors mainly from overseas looking to invest in major UK rail projects and has worked on various rail submissions.

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