

CABINET

8 MARCH 2016

LOWER THAMES CROSSING

Portfolio Holder: Councillor Rodney Chambers OBE, Inward Investment, Strategic Regeneration and Partnerships

Report from: Richard Hicks, Director Regeneration, Community & Culture

Author: Ruth Du-Lieu, Head of Integrated Transport

Summary

The report sets out the proposals by Highways England to establish a Lower Thames Crossing between East Tilbury and Gravesend linking either to the A2 or the M2. The report outlines the likely impact on the strategic road network and recommends the response from Medway Council to the consultation.

1. Budget and Policy Framework

- 1.1 The Council's response to Highways England's consultation is consistent with the Council Plan 2016/2017 – 2020/2021 (Maximise Regeneration and Economic Growth).
- 1.2. The consultation by Highways England ends on 24 March 2016.

2. Background

- 2.1. Highways England (HE) is consulting on proposals for a new road crossing of the River Thames connecting Kent and Essex. The consultation spans 26 January to 24 March 2016. The new crossing is needed to reduce congestion at the existing Dartford Crossing and to unlock economic growth, supporting the development of new homes and jobs in the region.
- 2.2. For the past 50 years, the Dartford Crossing has provided the only road crossing of the Thames east of London. It is a crucial part of the UK's major road network carrying local, national and international traffic.
- 2.3. Congestion and closure of the existing crossing occurs frequently and this, together with a lack of alternative transport links, creates significant disruption

and pollution. This impacts communities and businesses locally, regionally and further afield.

- 2.4. The removal of payment barriers and the introduction of electronic payments have recently improved traffic flow and journey times but do not address the need for increased capacity. Already carrying 50 million vehicles a year and with traffic volumes forecast to increase by 34% by 2041, the free flow improvements will only relieve congestion in the short-term and major improvements are needed to provide a longer time solution.
- 2.5. In addition to reducing delays for drivers, a new crossing is expected to transform the region by providing a vital new connection across the Thames. It would stimulate economic growth by unlocking access to housing and job opportunities, and deliver benefits for generations to come. This would not only benefit the region but the whole of the UK, providing better journeys, enabling growth and building for the future. It is estimated that this project will have a value of around £7billion for the regional economy (GDP) and provide 5000 new jobs.

The building of a second crossing has three objectives:

Scheme Objectives	
Economic	<ul style="list-style-type: none"> • To support sustainable local development and regional economic growth in the medium to long term • To be affordable to government and users • To achieve value for money
Transport	<ul style="list-style-type: none"> • To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north-south capacity • To improve resilience of the Thames crossings and the major road network • To improve safety
Community & Environment	<ul style="list-style-type: none"> • To minimise adverse impacts on health and environment

- 2.6. In June 2013, Highways England consulted on a number of options. Medway Council responded with the following comments:
- Medway Council does not support Option B;
 - It would be helpful to see the effects of free flow charging on the existing Dartford crossings commencing in 2014 before determining whether Options A or C Variant merit further consideration;
 - Medway Council does not support Options D and E being reconsidered on the basis that the Department for Transport has previously ruled out these options on cost (value for money) grounds.
 - Medway Council believes the Variant route should be included in either option A or Option C.
- 2.7. Following this first public consultation, the options were reduced to two locations. These were at the site of the existing crossing and a location further east towards Gravesend. At both locations Highways England developed engineering solutions and assessed them in terms of economic, traffic,

environmental and community impacts. They claim to have also taken into account the significant growth and development plans for the region.

- 2.8. The option to build another crossing adjacent to the existing crossing at Dartford was discounted prior to the current consultation exercise starting. Highways England's summary business case outlined that this was because the Dartford option (A) offered less economic and transport benefits and did not meet the objectives of the scheme or provide as good value for money. In comparison, the chosen option (C) would unlock significant wider regional economic growth and offered higher transport performance in terms of safety capacity and resilience.
- 2.9. The option being consulted on has three potential route options north of the river in Essex and two south of the river in Kent. The proposal is a new road connection linking the key areas of Ebbsfleet, Swanscombe and Gravesend in the south with Tilbury and the wider areas of Thurrock in the north. In the South there are two options one to the west and one to the east.
- 2.10. The type of crossing proposed is a bored tunnel. This, it is claimed, will generate the least noise and visual impact during both construction and operation and should have the least impact on protected habitats and species by minimising disturbance over much of its length. The tunnel will have separate northbound and southbound tunnels providing a 70mph road. Each bore will have two lanes with additional space to provide extra capacity if required.
- 2.11. The three route options north of the river known as Route 2, 3, and 4 respectively are:
 - from the crossing following a westerly line via the existing A1089 to the M25 between J30 and J29
 - from the crossing following a middle line to the M25 between J30 and J29
 - from the crossing following an easterly line via the existing A127 to the M25 at J29.
- 2.12. There are two alternative options for the link roads south of the river at Location C. These are referred to as the Western Southern Link (WSL) and the Eastern Southern Link (ESL).
- 2.13. A Western Southern Link would connect to a new junction on the A2 to the immediate east of Gravesend. This would be constrained by the High Speed 1 rail line and existing development. The junction would need to be of compact design and as such, some connecting roads would be limited to 30-50mph. This route would have less impact on the Kent Downs Area of Outstanding Natural Beauty than the eastern southern link. A key advantage to Medway is that the existing access from Medway onto the M2 will remain unobstructed.
- 2.14. An Eastern Southern Link would provide a direct connection from the M2 to the M25. This would create a motorway-to-motorway connection providing greater benefits than the Western Southern Link. An Eastern Southern Link would impact Shorne village, would have a greater impact on ancient woodland, the Kent Downs Area of Outstanding Natural Beauty and would

also affect a Site of Special Scientific Interest (Great Crabbles Wood). There would be no access onto the Lower Thames Crossing via the Eastern Southern Link at the closest point which is the M2 junction 1 (known locally as the Three Crutches). This would result in Medway traffic having to access the crossing via the M2, junction 2 at Cuxton or the M2 junction 3 at Bluebell Hill or the A226 via the Wainscott bypass (A289).

- 2.15. In terms of junctions, Highways England are proposing to create junctions with existing roads including the M2/A2, A226, A13 and M25. They are also open to traffic authorities suggesting where they feel additional junctions would be beneficial as part of the Lower Thames Crossing scheme.
- 2.16. The Eastern Southern Link is the preferred option of Highways England as it would provide the most direct route and the greatest improvement to journey times, as it would create a motorway-to-motorway link. However, Highways England has recognised that that this proposal has significant implications for the local community which they would seek to mitigate.
- 2.17. Whilst the Eastern Southern Link provides a motorway to motorway standard connection between the proposed crossing link road and the M2, it precludes direct access to the A2 and A289 for the Medway Towns. Access to Medway's road network would be via the A226's connections to the A289 (at Higham) and the A2 (at Strood), and the M2's connections at the A228 (J2 Strood/Cuxton). The Eastern Southern Link also requires the demolition of property within Medway's authority area at Strood South ward. From the information provided by the Highways England in their consultation documents, this could be in the region of 6 residential properties (appendix C).
- 2.18. Preliminary assessment indicates likely traffic pressure points within the Medway highway network as a result of the redistribution and potential increases in traffic associated with both options for the southern link to the Lower Thames Crossing. Appendices A and B show an initial assessment of the wider likely implications for Medway's highway network in tabular form. Further work is being undertaken to assess the implications of the two proposals. It will be necessary to carry out modelling of the impacts from the Lower Thames Crossing to account for localised traffic schemes, changes to housing and the development of the Local Plan in Medway.
- 2.19. In summary, the Southern Eastern Link, although the preferred option for Highways England would not provide as many benefits to Medway as the Southern Western Link. Highways England is clearly favouring the option which creates a fast direct route for inter-urban long distance traffic. However, the Southern Eastern Link does not enable Medway's traffic to access the M2 from junction 1. This would have a major impact on the strategic road network by effectively cutting off Medway and also by posing an unacceptable risk of overloading the surrounding routes from the M2, M20, A226, A289, A228, A249. This would also increase the risk of congestion to unacceptable levels through Strood, Chatham and Rochester town centres; all of which are already close to exceeding capacity.

- 2.20. Attention is particularly drawn to the levels of traffic anticipated by Highways England on the A226 and the A228 as 10,000 more traffic movements may be added to the existing 11.6k approx. (A226) and 19.4k approx. (A228). The Southern Westerly Link would allow traffic through all of the existing accesses on the A2 and the Wainscott bypass (A289), these would be affected but would not be obstructed. In particular this would reduce the dependency on Cuxton and Bluebell Hill (A228).
- 2.21. Medway is taking a collaborative approach by working with partners at Kent County Council (KCC), The Kent and Medway Economic Partnership (KMEP), South East Local Enterprise Partnership (SELEP), the Thames Gateway Kent Partnership (TGKP) and the Kent Chamber of Commerce to discuss the issues and risks faced and to reach a shared view as to the best route option for both the local and the national strategic road network of Kent and Medway.
- 2.22. Discussions have started with partners to determine opportunities to lobby Government to promote an indication they have given to address the wider strategic road network as part of their regional route planning. Earlier in the project, Highways England decided to discard the 'C Variant' option which would have seen a widening of the A229 between the M2 and the M20. Highways England felt it had limited economic benefits, high environmental impact, a high cost and would have little benefit in transferring traffic from Dartford onto Location C routes. Both Highways England and Government have made it very clear that the scope of Lower Thames Crossing does not include any changes to the national strategic road network.
- 2.23. KCC's position is subject to consideration by elected Members. Their transport strategy is considered likely to be supportive of a crossing route at location C, as well as mirroring Medway's approach of identifying foreseeable implications for the local and national strategic road network highway network.

3. Advice and analysis

- 3.1. A further crossing has been a long called for, vital addition to the transport infrastructure in the south east, and the proposals for a crossing are to be welcomed. A view will need to be taken as to whether the eastern or western southern link is supported, and whether calls are made for further investment to the supporting transport network, in particular the A229.

4. Risk management

Risk	Description	Action to avoid or mitigate risk	Risk rating
The strategic road network is negatively affected by chosen route	The route & links / junctions created impacts on the congestion in and around Medway increasing journey times and impacting on air quality levels	Support the route least likely to affect the strategic road network	C2
		Call for investment into the wider road network	
Environment adversely affected by chosen route	The route & links / junctions created impacts on the flora and fauna to an unacceptable level	Support the route that has the minimal affects on flora and fauna	B3
Economic regeneration is affected by chosen route	The route & links / junctions created impacts on our plans for economic regeneration	Support the route that has the greatest affect on economic regeneration	A2
Residents do not agree with chosen route	The route & links / junctions created impact the local community to an unacceptable level e.g. demolishing / affecting property	Residents are encouraged to respond to the consultation	A2
		We publicise the analysis and consultation response from Medway	
Changes are made to Option C to mitigate residents concerns in Gravesham	Resistance from residents in Gravesham results in Highways England dismissing the link to the A226 resulting in Medway's strategic road network being isolated	Government is asked to re-consult authorities on alternative options once modelling completed	C2

5. Consultation

- 5.1 The detailed proposals are available at www.lower-thames-crossing.co.uk but in addition an all Member briefing has been arranged for 2 March 2016 at 6.30pm on the analysis of the proposals contained within this report.
- 5.2. The Highways England public consultation exercise is to run for 8 weeks from 26 January 2016 to 24 March 2016. The consultation and analysis is being managed by Ipsos MORI, mainly online although with a number of public events and the option of completing a paper submission. Their objective is to secure c.10,000 responses. There is a dedicated web site www.lower-thames-crossing.co.uk which has detailed information and is taking all the online feedback.
- 5.3. There are a number of public engagement events scheduled which are open to all. An event is being hosted by Highways England at the Corn Exchange on 8 March 2016. This is aimed at residents; businesses etc. who want to have a two way dialogue with Highways England.

6. Financial implications

- 6.1. It is not anticipated that there are any cost/financial implications.

7. Legal implications

- 7.1. There are no legal implications arising from this report at this stage.

8. Recommendations

- 8.1. The Cabinet is asked to reaffirm their position at the previous consultation in 2013, the most relevant point now being (d) Medway Council believes the Variant route should be included in either Option A or Option C (ref. 8.4).
- 8.2. The Cabinet is asked to support Highways England's choice of Option C (Tilbury to Gravesend) as the option which Highways England has described as having the potential to unlock significant wider regional economic growth and offering higher transport performance in terms of safety capacity and resilience.
- 8.3. The Cabinet is asked to support the Southern Westerly Link (A2) as this benefits Medway's strategic road network to a greater extent than the Southern Easterly Link (M2).
- 8.4. The Cabinet is asked to support a collaborative approach with partners to:
 - (a) press for a funded package of improvements to the A2/M2 and M20 including links between the M2 and M20 notably the A229 (Bluebell Hill) and the A249, A226 and the A289 (ref.8.1).
 - (b) press for the routes from the channel ports to the M25 corridor to be considered holistically and not in isolation of the Lower Thames Crossing.

8.5. The Cabinet is asked to delegate authority for the final response to the consultation on or before the 24 March 2016 to the Director of Regeneration, Community and Culture in consultation with the Portfolio Holder for Inward Investment, Strategic Regeneration and Partnerships.

9. Suggested reasons for decision(s)

9.1 The timescales allowed by Highways England in which to analyse the proposals and respond require an intense piece of work through a collaborative approach between Medway and Kent County Council. This work will need to continue into March 2016 and will include drafting the actual response document based on Cabinet's support for the recommendations.

Lead officer contact

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Appendices

Appendix A – Southerly Western link analysis

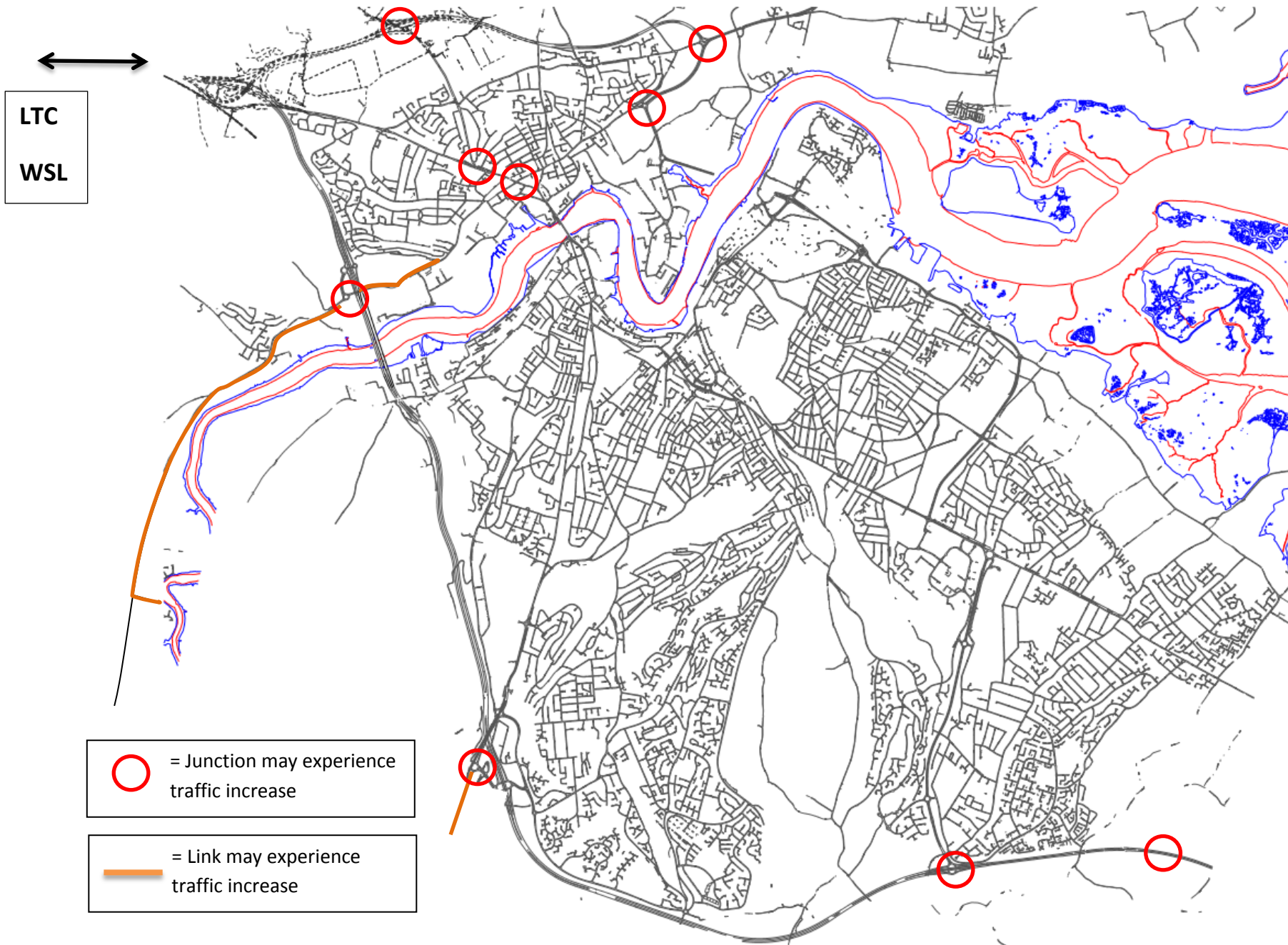
Appendix B – Southerly Eastern link analysis

Appendix C – Properties at risk of being affected by the Eastern Southern Link

Background papers

Highways England Lower Thames Crossing Summary Business Case
https://highwaysengland.citizenspace.com/cip/lower-thames-crossing-consultation/user_uploads/lower-thames-crossing-consultation-summary-business-case.pdf

Junctions and Links affected in Medway by the LTC Proposal (West)



Junctions and Links affected in Medway by the LTC Proposal (West)

Location	Traffic	Environmental			Additional implication to Medway
		Link	Noise	Visual	
WESTERN LTC access on the A2	The interchange prevents the coast bound on slip at the Gravesend East access from operating. As a result east bound traffic from Gravesend would either use Gravesend central access or the new LTC access at A226. This may attract more traffic onto the A226 to approach Medway. A further detraction of this option is that because the line of the M2 is shifted north traffic from LTC are forced into very tight turning radii and slower free flow speed and overall reduced junction capacity.	Shifting the line of the M2 slightly north may blight some properties.	The close proximity of the motorway may bring deterioration of the environment, particularly by Thong Lane area.		The provision of an access on the A226 for the LTC will attract some drivers from Cliffe and Cliffe Woods area away from the A289 and the M2/A2 route. It may result in excessive traffic onto unsuitable rural roads and the increased risk of collisions. Other junctions and links that may be affected are shown in Plan A (for west). The impact is likely to be less with this route as the access to LTC will be much as it is now apart from the new junction onto the A226.
A226 from LTC WEST ACCESS to A289	The proposed interchange appears to have sufficient capacity to accommodate the current traffic levels likely to use it. However the A226 itself will need to carry some 8000 more vehicles per day which may exceeds its current capacity.	The link primarily cuts the Southern Valley Golf Course in half and comes very close to Riverview Park	There may be noise issues for residence of Thong Lane estate because of the closeness of the LTC link.		

Junctions and Links affected in Medway by the LTC Proposal (West)

<p>A228 from M2 to Halling</p>	<p>Extensive development in Tonbridge and Malling area near to a new bridge over the Medway at Halling, it will attract many more vehicles to take advantage of this crossing and approach the LTC via the M2 (J2)/ Cuxton interchange at Cuxton. It is probable that the road capacity will be exceeded as well as one or two junctions along the route. Improvements will be required. The improvement to A228 will probably extend from Halling to the M2 interchange and from there towards Strood town centre to Darnley Road .</p>				
<p>A229 from Horsted to M2</p>	<p>As yet it is unknown the level of increased traffic which will use this section of the A229 because of the LTC western access. It is very likely there will be an increase but how many of them is attributable to LTC is difficult to estimate until the Medway Transport model is operational.</p>				

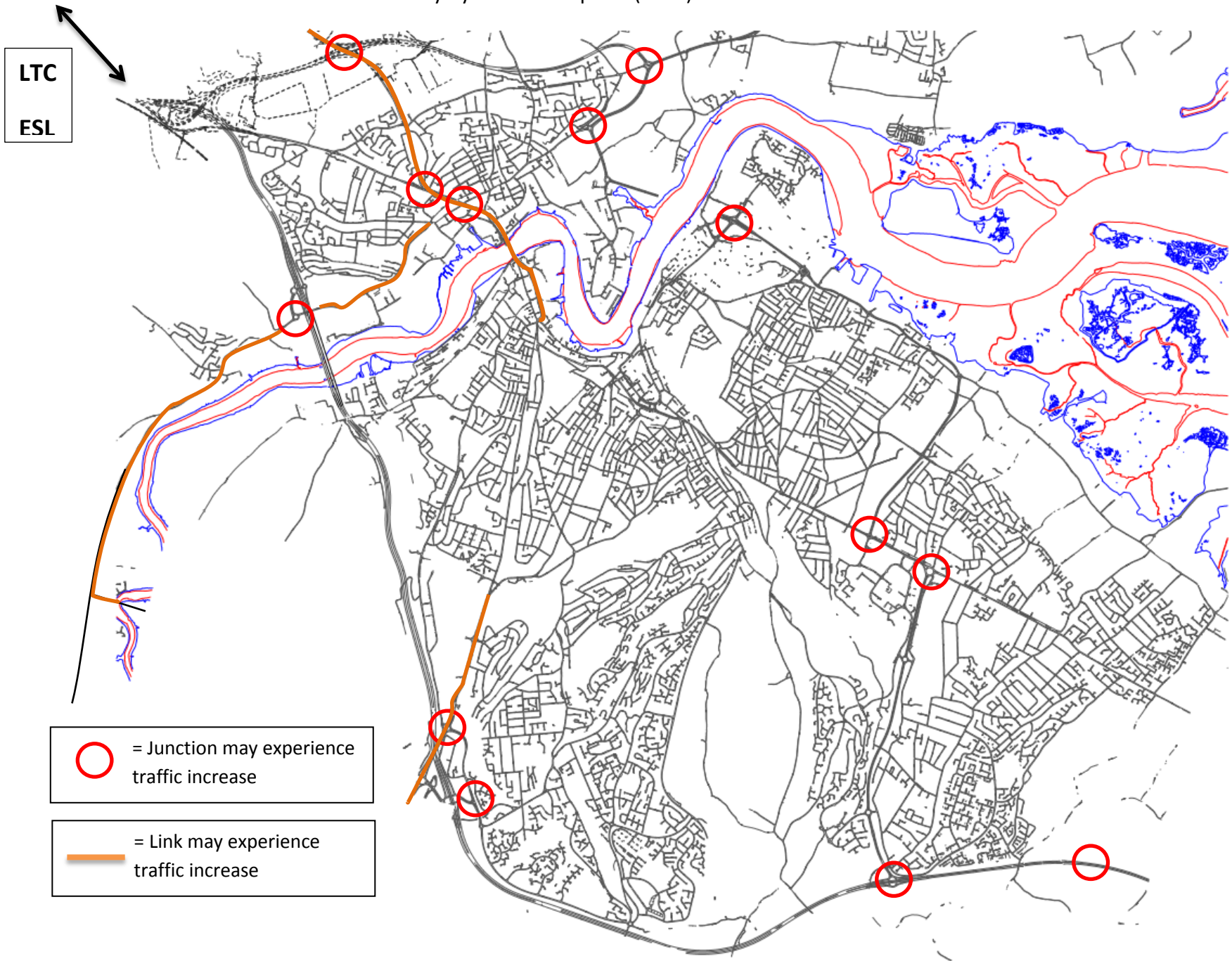
Junctions and Links affected in Medway by the LTC Proposal (West)

<p>A229 south of M2 to the M20, sometimes referred to as C Variant</p>	<p>It is difficult to envisage the present interchange being able to cope with the increased level of traffic directed towards the A229 because of LTC. Similarly it would be inconceivable for the existing A229 and the M20 interchange at Maidstone to remain unchanged. A form of C Variant would be necessary. If the only the improvements detailed in the LTC report were carried out, then all coast bound traffic would stay on the M2 and all London bound traffic from Dover would stay on the M20. The A229 would not be used because the interchanges at each end would be at capacity.</p>	<p>At present the long queues at the M2 and M20 interchanges would strongly suggest that those junctions require improvements. Without any improvements the capacity of the A229 the road in time will restrict the number of vehicles that can use the LTC.</p>			
<p>A278</p>	<p>It is difficult without detailed analysis how much congestion Hoath Way will experience because of the building of the LTC. It is likely the western LTC will have less impact than the eastern LTC because traffic will be more attracted to use the M2.</p>				

Junctions and Links affected in Medway by the LTC Proposal (West)

<p>Farthing Corner M2 interchange</p>	<p>At present this service station acts as an informal motor way intersection. Several approach roads are reaching saturation and may become a collision problem site.</p>				
<p>Impact on Strood</p>	<p>To obtain the impact of the LTC on Medway it would be necessary to develop the Medway traffic model, then incorporate the two LTC options for testing. The present timetable of a suitable Medway model to be available for this exercise would be by January 2017. With the results of such testing, we would be in the position to submit to Department for Transport or Highways England a list of road works or schemes which we may be able to attribute to LTC. One needs to be mindful when submitting for such schemes that there is a need to calculate for the marginal effect and not attribute all the traffic to LTC.</p>				
<p>Impact on Rochester and Chatham present</p>					
<p>Impact on Rochester Corporation St and A2</p>					
<p>Major Developments impacting on LTC accesses</p>					

Junctions and Links affected in Medway by the LTC Proposal (EAST)



Junctions and Links affected in Medway by the LTC Proposal (EAST)

Location	Traffic	Environmental			Additional implication to Medway
		Link	Noise	Visual	
Eastern LTC Access on the M2	No provision is made for Medway traffic to access this inter change. This would mean Medway's LTC bound traffic would divert to already congested adjacent inter changes at A228 Cuxton and A229 Blue Bell Hill. The LTC report does not detail what level of diversion may arise, although it does suggest that there may be an increase of some 8000 additional vehicles may use A226 to access the new interchange with LTC route 3.	It is difficult to be specific at present regarding the marginal increase in traffic for the key links in Medway without a traffic model. The LTC stated some 80,000 vpd would use the crossing in 2025. Based on that assumption possibly some 40,000+ vpd would be directed to the M2 and the A229. Such an increase to the A229 which currently carry 68,000 vpd may well overload it.	Increased noise may effect dwellings in the vicinity of the M2 jtn 1.	Most of the interchange will be on viaduct and result in some structures being 23m above surrounding area.	The LTC report suggested as a result of the new access on the A226, traffic may increase by some 8000 vehicle per day by 2025. Such a large increase in traffic will almost certainly create new demand filter through the minor roads to get to the A226 interchange. In addition the 40,000 more vehicles from the LTC will overload the A229 interchange with the M2. Unless suitable fast link is provided the new traffic will stay on the M2 and proceed down the M2 to rather than use the A229 and M20. Similarly in reverse because of the congestion at the A229 inter section traffic from Dover will stay on the motor way and proceed to Dartford rather than use the LTC.
LTC EAST from A226 access to M2	The proposed inter change appears insufficient to cope with the likely level of traffic to use it particularly if major developments were to go ahead in Grain. Further investigation would be required to assess whether the lack of junction capacity would adversely impact on the future prospects of development at Lodge Hill and Grain	The alignment of this route appears to avoid the rural settlement of Shorne but does effect the wood adjoining the Three Crutches area			The lack of accessibility for A289 traffic to get onto LTC will undoubtedly cause much more traffic to use the A226 link. Not only will the Cliffe Woods traffic but also those from the new development sites of Lodge Hill and Grain also be encouraged to use the A226 and its new access.

Junctions and Links affected in Medway by the LTC Proposal (EAST)

<p>A228 from M2 to Halling</p>	<p>Regardless which southern route of LTC is adopted the likely effect on the A228 will be similar. Please see western LTC access case.</p>				
<p>A229 from Horsted to M2</p>	<p>As yet it is unknown the level of increased traffic which will use this section of the A229 because of the LTC western access. It is very likely there will be an increase but how many of them is attributable to LTC is difficult to estimate until the Medway Transport model is operational.</p>				
<p>A229 south of M2 to the M20, sometimes referred to as C Variant</p>	<p>It is difficult to envisage the present interchange being able to cope with the increased level of traffic directed towards the A229 because of LTC. Similarly it would be inconceivable for the existing A229 and the M20 interchange at Maidstone to remain unchanged. A form of C Variant would be necessary. If the only the improvements detailed in the LTC report were carried out, then all coast bound traffic would stay on the M2 and all London bound traffic from Dover would stay on the M20. The A229 would not be used because the interchanges at each end would be at capacity.</p>	<p>At present the long queues at the M2 and M20 interchanges would strongly suggest that those junctions require improvements. Without any improvements the capacity of the A229 the road in time will restrict the number of vehicles that can use the LTC.</p>			

Junctions and Links affected in Medway by the LTC Proposal (EAST)

A278	It is difficult without detailed analysis how much congestion Hoath Way will experience because of the building of the LTC. It is likely the western LTC will have less impact than the eastern LTC because traffic will be more attracted to use the M2 .				
Farthing Corner M2 interchange	At present this service station acts as an informal motor way intersection. Several approach roads are reaching saturation and may become a collision problem site.				
Impact on Strood	To obtain the impact of the LTC on Medway it would be necessary to develop the Medway traffic model, then incorporate the two LTC options for testing. The present timetable of a suitable Medway model to be available for this exercise would be by January 2017. With the results of such testing, we would be in the position to submit to Department for Transport or Highways England a list of road works or schemes which we may be able to attribute to LTC. One needs to be mindful when submitting for such schemes that there is a need to calculate for the marginal effect				
Impact on Rochester and Chatham present					
Impact on Rochester Corporation St and A2					

Junctions and Links affected in Medway by the LTC Proposal (EAST)

Major Developments impacting on LTC accesses	and not attribute all the traffic to LTC.				
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LEGEND:
■ Property demolished

NOTES:
 1. The design shown on these drawings is illustrative and may be subject to change in later stages of the scheme development.

ILLUSTRATIVE DESIGN

P01	S5	18-01-16	SAR ISSUE	MEC	MR	GH
Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Appr'd

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Project LOWER THAMES CROSSING

Drawing title Route 3 Demolished Properties Plan

Status	S5	Revision	P01
Scale	As Shown	Date	05-10-15
Drawn By	E Basketter		
Checked By	M Robinson		
Approved By	G Hodge		
Project No.	HA PIN HA540039	Originator	HHJ
Original Size			A1
Drawing number	HML-CD3MLZZZZ-SK-SE-0001		